# GCE AS MARKING SCHEME

**SUMMER 2017**

**AS (NEW)**
**PSYCHOLOGY - UNIT 2**
**2290U20-1**

## INTRODUCTION

This marking scheme was used by WJEC for the 2017 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

# GCE AS PSYCHOLOGY

## Unit 2

| Question | AO1 | AO2 | AO3 | TOTAL |
|---|---|---|---|---|
| **1** | 10 | | 10 | 20 |
| **2** | 2 | | | 2 |
| **3** | | 6 | | 6 |
| **4** | | 3 | | 3 |
| **5** | 2 | 6 | | 8 |
| **6** | 8 | 9 | 8 | 25 |
| **7** | 2 | 14 | | 16 |
| **8** | | | | |
| **TOTAL** | **24** | **38** | **18** | **80** |

**GCE AS PSYCHOLOGY - UNIT 2**

**SUMMER 2017 MARK SCHEME**

## SECTION A
## Contemporary Debate

**1.** Discuss the use of conditioning techniques to control the behaviour of children, including ethical **and** social implications. **[20]**

This debate is linked to the behaviourist approach. However, the materials used in the responses may be taken from any approach and perspective within psychology. Some reference could also be made to economic, social and political evidence (as long as it is explicitly linked to the psychological issue), as well as the consideration of social and cultural diversity.

Credit **could** be given for the discussion of:

- Named research into conditioning techniques (must be contextualised) e.g. Use of positive and negative reinforcements as parenting tools (Gill, 1998), operant conditioning (McAllister, 1969) and classical conditioning (Le Francois, 2000) in schools, therapeutic uses with psychological disorders such as autism (applied behaviour analysis, Lovaas (1987)) or use of token economies for children with ADHD (Robinson et al., 1981).
- Consideration of other approaches within the debate e.g. the psychodynamic view that childhood experience influences adult personality, and Gray's theory of reinforcement sensitivity (including behavioural inhibition and activation systems).
- Discussion of alternative techniques to control the behaviour of children e.g. imitation (Bandura) and emotion coaching.
- Any other appropriate material.

| Marks | AO1 |
|---|---|
| 10 | • Exemplars used are well chosen to support the points made.<br>• Level of accuracy is thorough.<br>• There is depth and range to material included.<br>• Effective use of terminology throughout. |
| 7-9 | • Exemplars used are appropriate.<br>• Level of accuracy is reasonable.<br>• There is depth and range to material used, but not in equal measure.<br>• Good use of terminology. |
| 4-6 | • Exemplars may not always be appropriate.<br>• Level of accuracy is basic.<br>• There is depth or range only in material used.<br>• There is some use of appropriate terminology. |
| 1-3 | • Exemplars are limited and not always made relevant.<br>• Level of accuracy is superficial.<br>• Very little use of appropriate terminology. |
| 0 | • Inappropriate answer given.<br>• No response attempted. |

**Criteria for AO3 content of this question is on the next page**

Credit **could** be given for discussion of :

- Ethical implications of using conditioning to control children's behaviour – protection from harm (Morris' (2014) work into emotional harm of the 'naughty step'), deception, working with vulnerable individuals (benefits of praise vs. a society motivated by extrinsic reward), consent etc.
- Social implications using conditioning to control children's behaviour – use in schools as a teaching tools (harm to development of children – Lepper (1973) or as guidelines for parenting etc.
- Influence of the evidence on political decisions (e.g. changes in the law regarding punishment of children in schools or other settings e.g. in young offenders institutions).
- Economic implications – Levitt et al (2010) do financial rewards for grade ultimately make a better educated society and thus economy?
- Appropriateness of the historical evidence applied to modern society – is early research into conditioning on animals relevant?
- Evaluation of the research (must be contextualised) e.g. validity issues with lab experiments and the use of animals as test subjects.
- Evaluative statements and comparisons about the use of conditioning to control children's behaviour.

- Any other appropriate analysis.

| Marks | AO3 |
|---|---|
| 10 | • A thorough discussion is made of both sides of the debate.<br>• Evaluative comments are evidently relevant to the context.<br>• Structure is logical throughout.<br>• An appropriate conclusion is reached based on evidence presented. |
| 7-9 | • A reasonable discussion is made of both sides of the debate.<br>• Evaluative comments show some relevance to the context.<br>• Structure is mostly logical.<br>• A reasonable conclusion is reached based on evidence presented. |
| 4-6 | • A basic discussion of both sides of the debate.<br>**OR**<br>• A reasonable discussion of only one side of the debate.<br>• Evaluative comments are generic and not appropriately contextualised.<br>• Structure is reasonable.<br>• A basic conclusion is reached. |
| 1-3 | • A superficial discussion is made of the debate.<br>• Evaluative comments are superficial.<br>• Answer lacks structure.<br>• No conclusion. |
| 0 | • Inappropriate answer given.<br>• No response attempted. |

## SECTION B
## Principles of Research

**2.** Define what is meant by the term 'operationalisation of variables'. **[2]**

| Exemplar answer:<br>Operationalisation of variables refers to when the researcher quantifies the measurement of the dependent and/or independent variable, e.g. happiness is measured on a scale from 1 to 10. | |
|---|---|
| **Marks** | **AO1** |
| 2 | • Clear and detailed definition. |
| 1 | • Basic definition. |
| 0 | • Inaccurate definition.<br>• No response is given. |

**3.** Milgram's (1963) '*Behavioral study of Obedience'* used a volunteer (self-selected) sample.

(a) Describe **one** advantage and **one** disadvantage of the use of self-selected sampling in Milgram's study. **[4]**

**Advantages:**
- Potentially less time consuming/more cost effective than techniques such as stratified sampling as a sampling frame does not have to be designed in advance, e.g. Milgram only had to place an advert in the New Haven newspaper and wait for participants to volunteer.
- Potential for a less biased sample than using opportunity sampling (increased population validity) as the researcher does not actively choose participants e.g. Milgram did not select the 40 participants himself as they all replied to an advertisement.

**Disadvantages:**
- Population validity is jeopardised by placement of the advertisement e.g. a newspaper in one local area (New Haven) is likely to contain culture bias and affect obedience.
- People who volunteer tend to have more outgoing personalities making results harder to generalise, e.g. Milgram's 40 males are likely to all have been outgoing and perhaps more/less likely to obey.
- Any other appropriate advantages/disadvantages

| **Marks** | **AO2** |
|---|---|
| 4 | • A clear and detailed advantage **AND** disadvantage is given and fully contextualised. |
| 3 | • A clear advantage **AND** disadvantage are given, but only one of these is fully contextualised. |
| 2 | • An advantage **AND** disadvantage are given, but neither are contextualised.<br>• An advantage **OR** disadvantage is given which is fully contextualised. |
| 1 | • An advantage **OR** disadvantage is given, but it is not contextualised. |
| 0 | • Inappropriate answer given.<br>• No response attempted. |

(b) Explain how **one** other sampling technique could have been used by Milgram to select his participants. **[2]**

| Exemplar answers:<br>• Milgram could have used opportunity sampling of his own students at Yale University to select his participants.<br>• Milgram could have used quota sampling to select his participants so that he could gain a variation of subgroups to take part in his test of obedience.<br>• Milgram could have used systematic sampling, where he selected males from every nth household in the New Haven area to participate in his study.<br><br>• Any other appropriate response (all techniques are acceptable, so long as they are explained in context). | |
|---|---|
| **Marks** | **AO2** |
| 2 | • An appropriate sampling method is explained and contextualised. |
| 1 | • An appropriate sampling method is explained but not contextualised. |
| 0 | • An inappropriate sampling method is explained.<br>• No response is given. |

**4.** Suggest **one** reason that Kohlberg (1968) may have chosen only to sample boys from early adolescence onwards, rather than girls, in his research *'The child as a moral philosopher'*. **[3]**

| Exemplar answers:<br>• Males were chosen as there is less variation in hormones that might affect results, compared to females from adolescence onwards, e.g. females' menstrual cycles create imbalances in hormones at different parts of their cycle which could affect morals.<br>• Choosing only one gender to study removes some of individual/gender differences that might arise if he had chosen to study both sexes, e.g. it may be assumed that boys have been raised in similar ways to other boys, but that differences in socialisation of males and females could create differences in morals. | |
|---|---|
| **Marks** | **AO2** |
| 3 | • A clear and detailed suggestion of the choice of sampling is fully contextualised. |
| 2 | • An appropriate suggestion of the choice of sampling is evident but not fully contextualised. |
| 1 | • A brief suggestion of the choice of sampling is evident, but this is not contextualised. |
| 0 | • An inappropriate explanation is given.<br>• No response is given. |

**5.** As part of his research, *'The child as a moral philosopher'*, Kohlberg (1968) had to consider 'culture bound moral concepts.'

(a) Define the term 'researcher bias'. **[2]**

Exemplar answer:
Researcher bias refers to when the results of the study are jeopardised based on a decision the researcher has made about the design of the experiment, e.g. only to include a specific subgroup of society, or when the researcher inadvertently influences the responses of the participants, e.g. they use a leading tone of voice in their interviews.

| Marks | AO1 |
|---|---|
| 2 | • Clear and detailed definition. |
| 1 | • Basic definition. |
| 0 | • Inaccurate definition.<br>• No response is given. |

(b) Explain how researcher bias might impact the validity of a study, with reference to Kohlberg's research. **[6]**

Credit **could** be given for description of:
- Research methodology – impacts of the researcher in terms of apparatus chosen to measure morality.
- Alpha/Beta Bias – Kohlberg's own cultural values impact on his perception of the participants responses where he overestimates/underestimates differences in morality.
- Causation of social desirability bias – the researcher might influence the responses of the boys he is studying, not only by design, but through procedure e.g. some ppts are given more encouragement than others etc.

- Any other appropriate responses.

| Marks | AO2 |
|---|---|
| 5-6 | • Thorough and accurate description of how researcher bias might impact the validity of a study.<br>• Depth and range but not in equal measure.<br>• There are clear references to Kohlberg's research. |
| 3-4 | • Reasonable description of how researcher bias might impact the validity of a study.<br>• Depth or range.<br>• There are limited references to Kohlberg's research. |
| 1-2 | • Superficial description of how researcher bias might impact the validity of a study.<br>• References to Kolhberg's research may be inaccurate, muddled and/or incoherent. |
| 0 | • Inappropriate answer is given.<br>• No response is given. |

**6.** A group of psychologists were interested in whether females are better at assembling flat-pack furniture than males. The psychologists used systematic sampling to select 10 females and 10 males who were shopping at a local DIY store. The flat-packs were assembled in the participants' own homes as part of a quasi-experiment.

(a) Identify **one** difference between an experiment and a quasi-experiment. **[1]**

Exemplar answers:
- The participants are not randomly allocated in a quasi-experiment, but they are in an experiment.
- There will be a control group in an experiment, but not necessarily in a quasi-experiment.
- The IV is manipulated in an experiment, but this could be naturally occurring in a quasi-experiment.
- Any other appropriate response.

| Marks | AO1 |
|---|---|
| 1 | • An appropriate difference is identified. |
| 0 | • An inappropriate difference is given.<br>• No response is given. |

(b) Briefly explain **one** disadvantage of an independent groups design. **[2]**

Exemplar:
- No control over participant variables - Differences between the groups could be caused by a variable other than gender, e.g. I.Q. invalidating the results.
- Any other appropriate disadvantage.

| Marks | AO3 |
|---|---|
| 2 | • An appropriate disadvantage is briefly explained. |
| 1 | • An appropriate disadvantage is identified, but not briefly explained. |
| 0 | • An inappropriate/incorrect disadvantage is given.<br>• No answer is given. |

(c) Evaluate research which is conducted in the field. **[6]**

| Credit **could** be given for:<br>• Advantages of research conducted in the field e.g. higher levels of external validity, reduced chances of demand characteristics/social desirability etc.<br>• Disadvantages of research conducted in the field e.g. lower levels of reliability and internal validity, harder to control confounding/extraneous variables etc.<br>• Comparisons to other locations for research, e.g. the relative merits/problems of research that is conducted in the field compared to in a laboratory or online locations.<br>• Any other appropriate evaluation. | |
|---|---|
| **Marks** | **AO3** |
| 5-6 | • Evaluation of research conducted in the field will be thorough.<br>• There is depth and range to the material included. |
| 3-4 | • Evaluation of research conducted in the field will be reasonable.<br>• There is depth and range to the material but not in equal measure. |
| 1-2 | • Evaluation of research conducted in the field is basic.<br>• Depth or range. |
| 0 | • Inappropriate answer is given.<br>• No response is given. |

Results from the above research were placed into a frequency table.

| Female Participants | | Male Participants | |
|---|---|---|---|
| Participant number | Time taken to complete the flat-packed furniture (in minutes) | Participant Number | Time taken to complete the flat-packed furniture (in minutes) |
| 1 | 105 | 1 | 83 |
| 2 | 92 | 2 | 72 |
| 3 | 78 | 3 | 100 |
| 4 | 87 | 4 | 63 |
| 5 | 62 | 5 | 68 |
| 6 | 110 | 6 | 79 |
| 7 | 98 | 7 | 84 |
| 8 | 200 | 8 | 96 |
| 9 | 85 | 9 | 101 |
| 10 | 73 | 10 | 94 |

(d) (i) Using data from the table above, calculate the mean time taken to complete the flat-packed furniture for males **and** for females. Show your workings. **[2+2]**

| |
|---|
| • Total time for females (990) ÷ Total number of females (10) = 99 minutes<br>• Total time for males (840) ÷ Total number of males (10) = 84 minutes |

| **Marks (per calculation)** | **AO2** |
|---|---|
| 2 | • An accurate mean is given AND workings to calculate the mean are accurate. |
| 1 | • An accurate mean is given, but workings to calculate the mean are inaccurate.<br>**OR**<br>• The mean is inaccurate, but the workings are correct. |
| 0 | • Inappropriate answer and calculations given.<br>• No response is given. |

(ii) Draw **one** conclusion from your calculations in part (d) (i). **[3]**

| |
|---|
| Exemplar answers:<br>• Males were quicker at completing flat-packed furniture than females by an average of 15 minutes.<br>• Females took 15 minutes longer, on average, than males to complete flat-pack furniture. |

| **Marks** | **AO2** |
|---|---|
| 3 | An appropriate and accurate conclusion is stated fully with a link to the calculations in part (d) (i). |
| 2 | An appropriate and accurate conclusion is stated with a weak link to the calculations in part (d) (i)<br>**OR**<br>An inferential conclusion is stated which has been clearly linked to the calculations in part (d) (i). |
| 1 | An appropriate and accurate conclusion is stated but there is no link to the calculations in part (d) (i). |
| 0 | An inappropriate or inaccurate conclusion is stated **OR** No response is given. |

(iii) Outline **one** disadvantage of using the mean as a measure of central tendency to analyse this data. **[2]**

| Exemplar:<br>• Anomalous results can skew the mean score e.g. participant number 8 in the female category skewed the overall mean for women as she had an abnormally high score of 200 minutes!<br><br>• Any other appropriate disadvantage. | |
|---|---|
| **Marks** | **AO2** |
| 2 | • An appropriate disadvantage is outlined and contextualised. |
| 1 | • An appropriate disadvantage is outlined but not contextualised. |
| 0 | • An inappropriate/incorrect disadvantage is given.<br>• No answer is given. |

A psychologist recorded qualitative data whilst observing the participants. Using content analysis, they found that the women were more likely to use the instructions than the men and they were more likely to struggle with the larger sized pieces.

(e) Outline what is meant by qualitative data. **[3]**

| Answers **could** include:<br>• Descriptive data in the form of words, feeling and emotions.<br>• In-depth and detailed data.<br>• Data that is not numerical.<br>• Data that is produced by methodologies such as a case study or observation.<br><br>• Any other appropriate feature. | |
|---|---|
| **Marks** | **AO1** |
| **3** | • Thorough outline of qualitative data is given.<br>• Appropriate use of terminology. |
| **2** | • Basic outline of qualitative data is given.<br>• Some terminology is evident. |
| **1** | • Superficial outline of qualitative data is given.<br>• May be list like. |
| **0** | • Inaccurate outline is given<br>• No response is given. |

(f) Describe, using examples, the main features of content analysis. **[4]**

| Answers **could** include:<br>• A method used to assess qualitative data or data from secondary sources e.g. newspaper articles.<br>• Can be used to convert qualitative data into quantitative data through coding systems e.g. interview responses into numerical form.<br>• Can be used to condense qualitative data into behavioural categories.<br>• Any other appropriate refinements. | |
|---|---|
| **Marks** | **AO1** |
| 3-4 | • There is a clear and detailed explanation of the main features of content analysis.<br>• For full marks the features of content analysis should be illustrated with examples. |
| 1-2 | • Some explanation of the main features of content analysis.<br>• Weak examples may be evident, **OR** attempts to give examples may be incoherent/muddled. |
| 0 | • Inappropriate answer given.<br>• No response attempted. |

**7.** A psychologist wanted to find out whether internet search engines make us feel more knowledgeable. To test this, participants were first given a film quiz, without the use of an internet search engine, and asked to rate their knowledge of films on a scale. The same participants were then given a different film quiz, where they were allowed to use an internet search engine. They then re-rated their knowledge of films.

(a) State an alternative (or experimental) hypothesis for the above study. **[2]**

| Exemplars:<br>• Participants will feel more knowledgeable after completing a film quiz if they are allowed to use an internet search engine than when they were not allowed to use the internet.<br>• Internet search engines make us feel more knowledgeable after completing a film quiz.<br>• Any other appropriate hypothesis (including the reverse of the above statements). | |
|---|---|
| **Marks** | **AO2** |
| 2 | • An appropriate hypothesis is outlined and fully contextualised. |
| 1 | • An appropriate hypothesis is outlined but not fully contextualised. |
| 0 | • An inappropriate/incorrect hypothesis is given.<br>• No answer is given. |

(b) Identify and briefly explain why the hypothesis you stated in part (a) was directional or non-directional. **[2]**

| Marks | AO2 |
|---|---|
| 2 | • An appropriate answer is identified, briefly explained and contextualised to part (a). |
| 1 | • An appropriate answer is identified but not explained. |
| 0 | • An inappropriate/incorrect explanation is given.<br>• No answer is given. |

(c) Describe **one** issue of reliability in this study and outline **one** way of dealing with the issue you have described. **[4]**

| **Exemplar issues:** | **Exemplar solutions:** |
|---|---|
| • Poor research design, e.g. did both quizzes have an equal level of difficulty or was the second test easier (making the participants feel more knowledgeable in film quizzes)? Was the procedure standardised?<br>• The measuring tool on knowledge of film quizzes may have been inconsistent as it was a scale – what one person perceived to be 5, clever may mean something different to another participant.<br>• Experimental design - ppts may feel more/less knowledgeable about film quizzes on the second test due to fatigue or practice as it was a repeated measure design.<br>• Any other relevant issues. | • Split half testing could be used to ensure the level of difficulty for each test was equal.<br>• Standardisation/operationalisation of the points on the scale could also be used to create consistency of judgements. A test re-test method could also be utilised.<br>• Counterbalancing could be used between the two conditions to reduce the impact of fatigue and practice. |

| Marks | AO2 |
|---|---|
| 4 | • The issue of reliability and a relevant solution have been fully described, both aspects are explicitly linked to the context. |
| 3 | • The issue of reliability and a relevant solution have been fully described, but only one aspect is explicitly linked to the context. |
| 2 | • The issue of reliability and a relevant solution have been described, but neither is explicitly linked to the context.<br>**OR**<br>• The issue of reliability has been described and linked to the context explicitly, but there is no appropriate solution. |
| 1 | • An appropriate issue of reliability has been described, but is not linked to the context. |
| 0 | • The issue of reliability is merely named and not described.<br>• An inappropriate answer is given.<br>• No answer is given. |

(d) Briefly explain **one** difference between nominal data and ordinal data. **[2]**

| Exemplar answer:<br>• Nominal data is just categorised data/groups, whereas ordinal data is more sophisticated because it is ordered or ranked. For example, groups like males and females are nominal categories, whereas ordinal data could be 1st 2nd and 3rd places in a race.<br><br>• Any other appropriate response. | |
|---|---|
| **Marks** | **AO1** |
| 2 | • An appropriate difference is briefly explained. |
| 1 | • An appropriate difference is identified. |
| 0 | • An inappropriate difference is given.<br>• No response is given. |

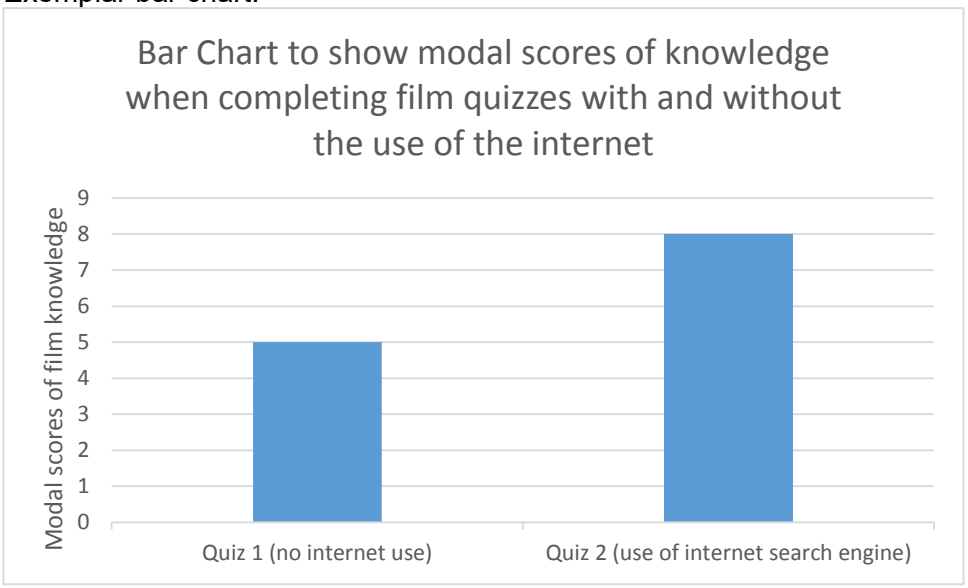
(e) Scores for knowledge of films were recorded on a scale of 1-10. Identify the level of measurement for the knowledge of films scale. **[1]**

| Exemplar answers:<br>• Ordinal data.<br>• Any other appropriate response. | |
|---|---|
| **Marks** | **AO2** |
| 1 | • Ordinal data is identified. |
| 0 | • An inappropriate level of measurement is given.<br>• No response is given. |

(f) The modal score was calculated and recorded in the table below. Using the data, draw and label a bar chart to show the results of this study. **[5]**

| Modal score for knowledge of films in Quiz 1 (no internet use) | Modal Score for knowledge of films in Quiz 2 (use of an internet search engine) |
|---|---|
| 5 | 8 |

Exemplar bar chart:




AO2

1 mark given for each of the following:
- Title of bar chart
- Correct labelling of axes
- Suitable Scale

Up to 2 marks given for:
Accurate plotting of data (2 marks)
Mostly accurate plotting of data (1 mark)