GCE AS MARKING SCHEME

SUMMER 2023

AS
PSYCHOLOGY – UNIT 2
2290U20-1

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INTRODUCTION

This marking scheme was used by WJEC for the 2023 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.

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GCE PSYCHOLOGY – UNIT 2

SUMMER 2023 MARK SCHEME

Question	AO1	AO2	AO3	TOTAL
1	10		10	20
2	4			4
3	3		4	7
4	2			2
5		3		3
6		6		6
7			2	2
8	2	15	2	19
9	3	14		17
TOTAL	**24**	**38**	**18**	**80**

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SECTION A –Contemporary Debate

1. ‘Using conditioning techniques to control the behaviour of children is unethical and has negative social and economic implications.’

Discuss the extent to which psychological research and/or theories agree or disagree with this statement. [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 **will** be given for:

- Named research into conditioning techniques (must be contextualised) e.g. The impact of the 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 of conditioning techniques for 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 (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 content.

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

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Credit **will** be given for:

- Evaluative statements and comparisons about the use of conditioning to control children's behaviour that are contextualised (linked to the statement).
- Contextualised 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 (positive or negative) – use in schools as a teaching tool (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 offender's institutions).
- Economic implications – Levitt *et. al.* (2010) do financial rewards for grades 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.

- Any other appropriate content.

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

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SECTION B – Principles of Research

2. Using an example from psychology, explain the ethical issue of 'risk of stress, anxiety, humiliation or pain'. [4]

Exemplar answer:
A 'risk of stress, anxiety, humiliation and pain' refers to when psychologists attempt to avoid any harm coming to their participants when they design and conduct their research. BPS guidelines suggest that a participant should not experience any greater harm than they would in day-to-day life. For example, Milgram's obedience research clearly leads to the distress of participants as one had a fit and a number showed signs of nervous laughter as they believed that they had potentially killed Mr Wallace. This level of stress, anxiety and potential humiliation (when they find out that the shocks are not real) would not be considered acceptable by today's guidelines.

- Any other appropriate content.

Marks	AO1
4	• Clear and detailed explanation with a detailed example.
3	• A clear and detailed explanation with a basic example. **OR** • A basic explanation with a detailed example.
2	• Clear and detailed explanation with no example. **OR** • A basic explanation with a basic example.
1	• Basic explanation with no example. **OR** • A basic example with no explanation.
0	• Inappropriate answer given. • No response attempted.

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3. (i) Outline the main features of self-reports. [3]

Credit **will** be given for:

- A method which involves a participant reporting on their own thoughts and feelings.
- An empirical inquiry about a person or group's perceptions of an event or belief.
- A methodology which *may* utilise open and/or closed questions to allow the respondent to reply in their own words.
- Potential methodologies used to collect self-reports can include interviews and/or questionnaires.
- Any other appropriate content.

Marks	AO1
3	• Thorough outline of self-reports. • Appropriate use of terminology.
2	• Reasonable outline of self-reports. • Some terminology is evident.
1	• Superficial outline of self-reports. • May be list like.
0	• Inappropriate answer given. • No response attempted.

(ii) Explain **one** advantage and **one** disadvantage of self-reports. [2+2]

Credit **will** be given for:

Advantages:

- Findings potentially provide a valid insight into the perceptions of an individual or small group.
- Researcher bias is less likely to have an influence on results when open questioning is used, and participants respond in their own words.

Disadvantages:

- Findings tend to lack reliability as they only provide a 'snap shot' of perception at any one given time.
- Responses can be hard to analyse and quantify.
- Results may be prone to social desirability bias or demand characteristics.
- Ethical issues may arise if the topics studied are socially sensitive.
- Any other appropriate content.

Marks	AO3
2	• A clear and detailed advantage/disadvantage is given and fully explained.
1	• An advantage/disadvantage is given but is not fully explained.
0	• Inappropriate answer given. • No response attempted.

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4. Define the term 'interval data'. [2]

Exemplar answer: Interval data is a level of measurement that has equal numerical intervals (increments) between scores e.g. temperature. The interval between 1 and 2 degrees is the same as between 21 and 22 degrees. • Any other appropriate content.	
Marks	**AO1**
2	• Clear and detailed definition given.
1	• Basic definition.
0	• Inappropriate answer given. • No response attempted.

5. Explain why Milgram (1963) might have claimed that his '*Behavioral study of Obedience*' gained valid consent. [3]

Exemplar answer: • Milgram used a volunteer sample (prior general consent is gained), who were told they may be deceived, making the consent valid. • Milgram completed a full debrief, gaining valid consent retrospectively. • Milgram gained presumptive consent. For example, he asked a group of non-participants, who knew the true aims of the research, if they would be willing to participate and they said yes. He therefore assumed his real participants would also consent, had they known the aims of the research in advance. • Any other appropriate content.	
Marks	**AO2**
3	• A clear and detailed explanation of why Milgram might have claimed he had valid consent and is fully contextualised.
2	• An appropriate explanation of why Milgram might have claimed he had valid consent is evident and is partially contextualised.
1	• A brief explanation of why Milgram might have claimed he had valid consent is evident.
0	• Inappropriate answer given. • No response attempted.

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6. With reference to Kohlberg's (1968) research '*The child as a moral philosopher*', discuss how the choices he made impacted upon external validity. [6]

Credit **will** be given for:

- Choice of sample – impact of Kohlberg's choice to use an all-male sample, impact of his cross-cultural methodology etc. Comments on whether these factors enhance or detriment external validity.
- Choice of methodology – impact of Kohlberg's use of interviews and the longitudinal nature of the study on external validity.
- Choice of apparatus – did Kohlberg's moral dilemmas accurately reflect real life moral decisions children would make? Was he accurately assessing morality? If not, what are the impacts on external validity?
- Specific validity issues within the research – impact of potential researcher bias, demand characteristics etc. on external validity.
- Any other appropriate content.

Marks	AO2
5-6	• Discussion and level of accuracy is thorough. • Depth and range are displayed. • Effective use of appropriate terminology. • Discussion is fully contextualised.
3-4	• Discussion and level of accuracy is reasonable. • Depth and range is displayed, but not in equal measure. • Good use of appropriate terminology. • Discussion is contextualised, in a limited way.
1-2	• Discussion and level of accuracy is superficial. • Very little appropriate terminology is used. • Discussion is superficially contextualised or has no contextualisation.
0	• Inappropriate answer given. • No response attempted.

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7. Outline **one** strength of a semi-structured interview. [2]

Credit **will** be given for: • Semi-structured nature allows for follow-up questions that provide additional depth, detail and insight. • Topics may arise from questioning that allow new avenues of exploration, which the researcher may not have initially anticipated. • Participant responses tend to be more valid in an interview than nonface-to-face methodologies. • Any other appropriate content.	
Marks	**AO3**
2	• An appropriate strength is briefly outlined.
1	• An appropriate strength is identified, but not briefly outlined.
0	• Inappropriate answer given. • No response attempted.

8. A psychologist decided to conduct a questionnaire to find out students' perceptions of how much their peers study for an exam. She suspected that this perception would affect how much they themselves revised. She used a random sample of 20 A level students.

(a) Design **one** question that the psychologist could have included to measure the students' perceptions of how much their peers study for an exam. [2]

Exemplar answer: • How frequently/often do you think that other students study for an exam? • How many hours do you think that other students study for an exam? • Do you think you have studied more or less than your peers for an exam? • Any other appropriate content.	
Marks	**AO2**
2	• An appropriate question has been designed and fully contextualised.
1	• An appropriate question has been designed but not fully contextualised.
0	• Inappropriate answer given. • No response attempted.

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(b) Give **one** advantage and **one** disadvantage of using a questionnaire to study student perceptions. [2+2]

Credit **will** be given for:

Advantages:

- Questionnaires are standardised, which creates a reliable source of information about student perceptions. For example, each student is asked identical questions about their perception of how often peers study for an exam.
- Questionnaires can be more easily distributed and allow access to a larger sample than other methods of questioning such as interviews. This mean they will be able to gather a broader picture of student perceptions on studying which can be more easily generalised.
- NOTE: a comparison to an alternative method is required if the candidate is claiming that questionnaires are quick/easy/cheap etc. To state that they are 'quick' or 'cheap' alone is not creditworthy.

Disadvantages:

- Questionnaires are prone to demand characteristics/social desirability bias. Thus, the findings about the students' perceptions of their peers' studies may not be valid.
- Poorly designed questionnaires may contain leading questions, or questions open to interpretation by the students. Because the students can't ask questions for clarification, their responses may not be a valid reflection of their perceptions of their peers' studies.

- Any other appropriate content.

Marks	AO2
2	• An appropriate advantage/disadvantage is given and is contextualised.
1	• An appropriate advantage/disadvantage is given but is not contextualised.
0	• Inappropriate answer given. • No response attempted.

(c) (i) Define what is meant by the term 'random sampling'. [2]

Exemplar answer:
A sampling technique where all potential participants have an equal chance of being selected from the sampling frame e.g. Names are pulled out of a hat, or a computer is used to randomly select the number of required participants.

- Any other appropriate content.

Marks	AO1
2	• Clear and detailed definition.
1	• Basic definition.
0	• Inappropriate answer given. • No response attempted.

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(ii) Explain how the psychologist might have collected her random sample of 20 participants in this research. [3]

Exemplar answer:
The psychologist would have drawn up a sampling frame of A level students who are about to sit the same exam, perhaps from a college register. She would then have taken the names of all those students and placed them in a hat, or on to a random name generator. She would then randomly select (by picking them out of the hat or using the generator) the first 20 students to complete her questionnaire.

- Any other appropriate content.

Marks	AO2
3	• An accurate explanation of how the sample might have been collected is given. • The explanation is contextualised.
2	• An accurate explanation of how the sample might have been collected is given but is not contextualised. **OR** • A partial explanation of how the sample might have been collected is given and contextualised.
1	• A partial explanation of how the sample might have been collected is given, but not contextualised.
0	• Inappropriate answer given. • No response attempted.

(d) State a possible directional alternative (experimental) hypothesis for this research. [2]

Exemplar answer:

Students who perceive their peers to study frequently for an exam (as measured by a questionnaire), will spend more time studying for an exam themselves (in hours).

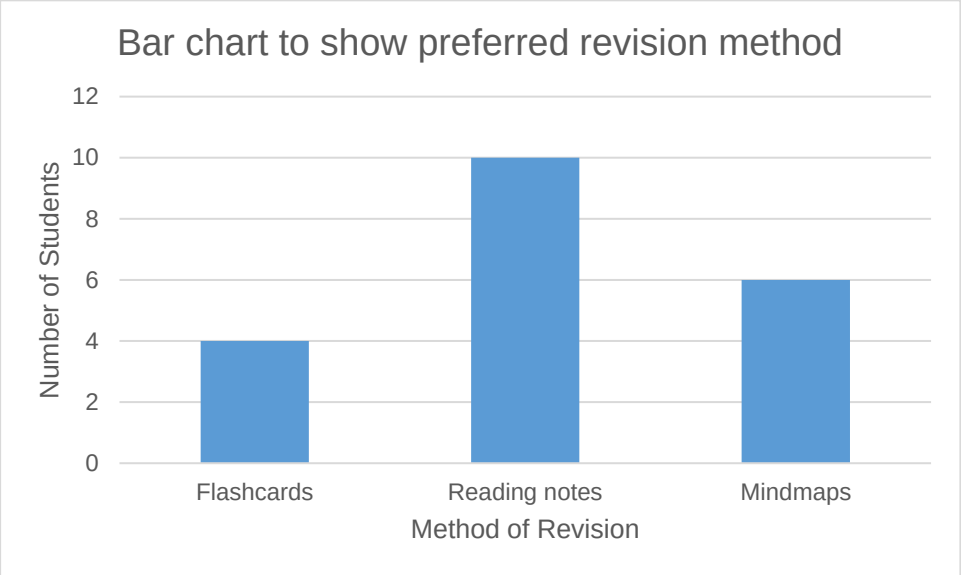
- Any other appropriate content.

Marks	AO2
2	• An appropriate directional hypothesis is stated and fully contextualised.
1	• An appropriate directional hypothesis is stated, but not fully contextualised.
0	• Inappropriate answer given. • No response attempted.

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(e) Another question that was asked in the questionnaire was: 'What is your preferred method of revision?'. The results are shown in the bar chart below.

Using the data from the bar chart, create a frequency table showing these results. [4]



A frequency table is a chart/table which shows the rate of occurrence (frequency) for a number of measured values/categories.

Exemplar answer:

Frequency table to show preferred revision method

	Method of revision		
	Flashcards	Reading notes	Mindmaps
Number of students	4	10	6

AO2

1 mark for:
- Chart title (can be in cell one – top left – or above table).
- Accurate inclusion of data.

Up to 2 marks given for:
- Correct labelling of rows (students) and columns (categories of revision). (2 marks)
- Correct labelling of either rows or columns. (1 mark)

0 marks for:
- Inappropriate answer given.
- No response attempted.

- Any other appropriate content.

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(f) Identify and briefly explain **one** way that this study could have been improved. [2]

Credit **will** be given for:

- Changes to data collection/methodology – use of more valid methods than a questionnaire, e.g. interviews, might give a truer representation of students' perceptions.
- Changes to participants/sampling – the psychologists could have used a stratified sample to improve the variety of students selected for her questionnaire.
- Any other appropriate content.

Marks	AO3
2	• There is a brief explanation of how the research could be improved, that is contextualised.
1	• There is a superficial explanation of how the research could be improved, that is not contextualised.
0	• Inappropriate answer given • No response attempted

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9. A psychology teacher wanted to know how to improve the concentration span of his students. He didn't know whether 15 minutes of jogging or 15 minutes of relaxation, at the beginning of a lesson would be more beneficial. To find out he got half of his students to jog on the spot for 15 minutes and the other half to participate in a 15 minute guided yoga session. The whole class then completed a concentration test.

Table to show concentration test scores for participants who jogged on the spot.

Participant Number	Score on concentration test
1	68
2	76
3	65
4	83
5	79
6	82
7	102
8	43
9	94
10	78

(a) (i) Using the data in the table above, calculate the range of concentration test scores for the students who jogged on the spot. Show your workings. [2]

Exemplar answer:

- Highest concentration test score = 102 Lowest concentration test score = 43

  102 – 43 = 59 (optional + 1 = 60).

- Any other appropriate content.

Marks	AO2
2	• The correct range is given and workings to calculate the range are accurate.
1	• The correct range is given, but no workings are shown. • Workings to calculate the range are correct (e.g. highest concentration score minus the lowest), but the final range is inaccurate.
0	• Inappropriate answer given • No response attempted

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(ii) The range of concentration test scores for the participants who completed 15 minutes of yoga was 89.

Give **one** disadvantage of using the range to compare the effects of the different activities in this research. [2]

Exemplar answer:
Using the range as a measure is invalid because it is easily skewed by anomalies and hence does not paint a true picture of ALL students' concentration. For example, there could have been just one student in either group (jogging or yoga) that had much higher or lower IQ scores. The range does not reflect this anomaly.

- Any other appropriate content.

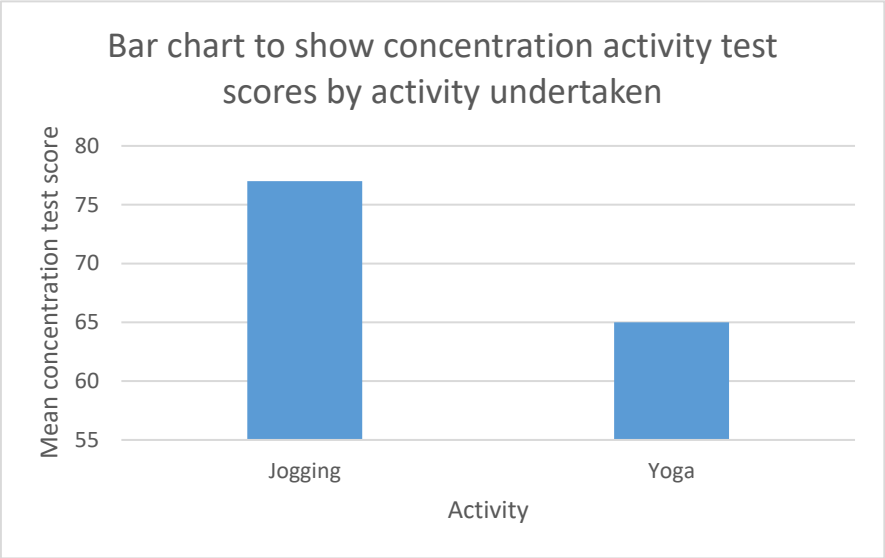
Marks	AO2
2	• An appropriate disadvantage is given and fully contextualised.
1	• An appropriate disadvantage is given, but not fully contextualised.
0	• Inappropriate answer given • No response attempted

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(iii) In addition to the range, the teacher also calculated the mean for each group. The mean concentration test score for the jogging group was 77, whereas the mean concentration test score for the yoga group was 65.

Using this data, draw and label a bar chart on the graph paper below. [5]

Exemplar answer:



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)

0 marks for:

- Inappropriate answer given.
- No response attempted.

- Any other appropriate content.

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(b) The psychology teacher used a stratified sample of his own students. Describe how a stratified sample is selected. [3]

Credit **will** be given for:

- The target group is selected from a sampling frame. It is divided into representative subgroups, e.g. by sex.
- Participants are selected randomly from each subgroup e.g. picked by a random number generator or picked out of a hat.
- Each subgroup is in direct proportion to the target population.
- Any other appropriate content.

Marks	AO1
3	• Thorough description of stratified sampling. • Appropriate use of terminology.
2	• Basic description of stratified sampling. • Some terminology is evident.
1	• Superficial description of stratified sampling. • May be list like.
0	• Inappropriate answer given. • No response attempted.

(c) Identify and explain the experimental design used in this research. [2]

Exemplar answer:
An independent groups design has been used, where different students are selected by the teacher for each condition. For example, the students in the jogging group did not participate in a guided yoga session before completing the concentration test and vice versa.

- Any other appropriate content.

Marks	AO2
2	• An appropriate experimental design is identified and explained in context.
1	• An appropriate experimental design is identified but is not explained in context.
0	• Inappropriate answer given. • No response attempted.

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(d) Identify and explain how **one** confounding variable could have affected performance on the concentration test. [3]

Exemplar answers:

- Students' experience of concentration tests – SOME participants could be more practiced in concentration tests, which would mean they could score more highly. For example, perhaps one student has a brain training game on their phone which gives them an unfair advantage.
- Fitness of a student in the jogging group – One of the participants may be extremely fit/unfit. This will affect how much concentration they can put into the test, as some students will recover more quickly than others.
- Outside influences – SOME participants may not have eaten breakfast, may be tired, may be too hot, may have personal circumstances affecting their concentration etc. affecting their performance on the test. If the study was repeated on a different day, you may get different results.

NOTE: Confounding variables are those that affect SOME participants behaviours but not others, having negative consequences for validity/reliability of results.

- Any other appropriate content.

Marks	AO2
3	• An appropriate confounding variable is identified and fully explained in context.
2	• An appropriate confounding variable is identified and briefly explained in context.
1	• An appropriate confounding variable is identified but is not explained in context.
0	• Inappropriate answer given. • No response attempted.

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