



GCE AS MARKING SCHEME

SUMMER 2016

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

INTRODUCTION

This marking scheme was used by WJEC for the 2016 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 PSYCHOLOGY

Unit 2

Question	AO1	AO2	AO3	TOTAL
1	10		10	20
2	3			3
3	3			3
4	6	2		8
5	2			2
6		25		25
7		11	8	19
TOTAL	24	38	18	80

GCE PSYCHOLOGY - UNIT 2

Summer 2016 Mark Scheme

SECTION A – Contemporary Debate

1. 'Eye-witness reports of children are less reliable than those of adults.'

Discuss the reliability of eye-witness testimony with reference to the above context.

[20]

This debate is linked to the cognitive 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:

- Evidence relating to the reliability of EWT in adults and children e.g. Goodman et al (2001), Cassel and Bjorklund (1995), Yuille (1988), and Loftus and Palmer (1974) etc.
- Named research into factors that affect the reliability of EWT e.g. age of the witness (Coxon and Valentine, 1997), the role of emotion (abuse vs non-abuse cases (Goodman, 2001)), reconstructive memory (Bartlett, 1932), leading questions/post-event misinformation (Loftus and Zanni (1975), and Yuille and Cutshall (1987)) attributional biases and weapon focus.
- Consideration of cultural and social diversity e.g. racial stereotyping (Allport and Postman, 1945), and the impact of the media.
- Ceci (1972).
- Any other appropriate material

Marks	AO1
10	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Exemplars are limited and not always made relevant.• Level of accuracy is superficial.• Very little use of appropriate terminology.
0	<ul style="list-style-type: none">• Inappropriate answer given.• No response attempted.

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

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

- Evaluative statements and comparisons about the accuracy of EWT between adults and children.
- Ethical implications of allowing children to be witnesses – protection from harm, consent etc.
- Ethical implications of unreliable EWT – Miscarriage of justice (e.g. Ronald Cotton – The Innocence Project).
- Influence of the evidence on political decisions (e.g. changes in the law to protect child witnesses).
- Appropriateness of the historical evidence applied to modern society – is early research into EWT relevant? Have newer techniques improved the reliability of EWT in the case of strategies such as the Cognitive Interview?
- Evaluation of the research (must be contextualised) e.g. validity issues with lab experiments reflecting real eye witness accounts.
- Evaluative statements and comparisons about the accuracy of EWT between adults and children.

Marks	AO3
10	<ul style="list-style-type: none"> • A thorough discussion is made of both sides of the debate. • Evaluative comments are evidently relevant to the context. • Depth and range of material • Structure is logical throughout. • An appropriate conclusion is reached based on evidence presented.
7-9	<ul style="list-style-type: none"> • A reasonable discussion is made of both sides of the debate. • Evaluative comments show some relevance to the context. • Depth and range of material, but not in equal measure. • Structure is mostly logical. • A reasonable conclusion is reached based on evidence presented.
4-6	<ul style="list-style-type: none"> • A basic discussion of both sides of the debate <p>OR</p> <ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • A superficial discussion is made of the debate. • Evaluative comments are superficial. • Answer lacks structure. • No conclusion.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

SECTION B – Principles of Research

2. Outline the main features of a case study. [3]

<p>Answers could include:</p> <ul style="list-style-type: none"> • Longitudinal study. • In-depth investigation of a phenomenon. • Descriptive, exploratory or explanatory analysis of a person, group or event. • Holistic study by one or more methodologies. • Empirical inquiry that investigates a phenomenon within its real-life context. <p>• Any other appropriate feature</p>	
Marks	AO1
3	<ul style="list-style-type: none"> • Thorough description of a case study given. • Appropriate use of terminology.
2	<ul style="list-style-type: none"> • Basic description of a case study. • Some terminology is evident.
1	<ul style="list-style-type: none"> • Superficial description. • May be list like.
0	<ul style="list-style-type: none"> • Inaccurate definition is given • No response is given.

3. Identify the three moral levels that Kohlberg used to assess his participants in his research 'The child as a moral philosopher' (1968). [3]

<p>Exemplar answer: The preconventional level is the first of three levels of moral thinking; the second level is conventional, and the third post conventional (also accept autonomous for the third level).</p>	
Marks	AO1
3	<ul style="list-style-type: none"> • All three moral levels are identified correctly.
2	<ul style="list-style-type: none"> • Two out of the 3 moral levels are correctly identified.
1	<ul style="list-style-type: none"> • One moral level is correctly identified.
0	<ul style="list-style-type: none"> • Inappropriate answer is given. • No response is given.

4. (a) With reference to Milgram's (1963) Behavioral study of Obedience, describe the main features of research conducted in a laboratory environment. [6]

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

- Controlled conditions – Milgram's use of a lab to observe participants at Yale University, any details about the set-up of the two rooms.
- Standardised procedures (allowing for replication) – Milgram's use of standardised prompts, equipment, responses from the 'learner' at the various shock levels etc.
- Control of variables and recording of data – rigged lots for teacher and learner, how the responses of the 'teacher' were recorded i.e. behavioural measures.
- Any other appropriate responses.

Marks	AO1
5-6	<ul style="list-style-type: none"> • Description and level of accuracy is thorough. • Depth and range are displayed. • Effective use of appropriate terminology. • Links to Milgram's research will be explicitly related to the question stem.
3-4	<ul style="list-style-type: none"> • Description and level of accuracy is reasonable. • Depth and range is displayed, but not in equal measure. • Good use of appropriate terminology. • Links to Milgram's research are limited.
1-2	<ul style="list-style-type: none"> • Description and level of accuracy is basic. • Links to Milgram's research may not be well related to the question stem. • Very little appropriate terminology is used.
0	<ul style="list-style-type: none"> • Inappropriate answer is given. • No response is given.

Below are some of the findings from Milgram's (1963) '*Behavioral study of Obedience*'.

Generator Label	Voltage	Number of participants who stopped at this voltage
Intense Shock	255	0
	270	0
	285	0
	300	5
Extreme Intensity Shock	315	4
	330	2
	345	1
Danger: Severe Shock	375	4
	390	2
	405	1
	420	1
XXX	435	0
	450	26

- (b) Using the data in the above table, calculate the range of volts issued by participants. Show your workings. [2]

- Highest voltage issued = 450 Lowest voltage issued = 255 $450 - 255 = 195$ volts + 1. The range of volts issued by subjects in Milgram's research was 196 volts.
- The following is also an acceptable answer: Highest voltage issued = 450 Lowest voltage issued = 255 $450 - 255 = 195$ volts. The range of volts issued by subjects in Milgram's research was 195 volts.

Marks	AO2
2	<ul style="list-style-type: none"> • The correct range of volts is given and workings to calculate the range are accurate.
1	<ul style="list-style-type: none"> • The correct range is given, but no workings are shown. • Workings to calculate the range are correct, but the final range or voltages used are inaccurate.
0	<ul style="list-style-type: none"> • Inappropriate answer and calculations given. • No response is given.

5. What is meant by the term 'co-variables'? [2]

Exemplar answer: Co-variables indicate two or more quantities being measured in a correlation by the researcher that may or may not vary with each other.	
Marks	AO1
2	<ul style="list-style-type: none"> • Clear and detailed definition given.
1	<ul style="list-style-type: none"> • Basic definition.
0	<ul style="list-style-type: none"> • Inaccurate definition is given. • No response is given.

6. Research was carried out into whether students who smile more at their teachers are predicted higher grades than those who smile less. The smiling behaviour of students was rated by a teaching assistant who was present during three lessons. The ratings were then compared to the students' predicted grades.

- (a) Write an appropriate null hypothesis for the above research. [2]

Exemplar answer: <ul style="list-style-type: none"> • There will be no difference in predicted grades for those who smile more at their teachers than those who smile less. 	
Marks	AO2
2	<ul style="list-style-type: none"> • Appropriate null hypothesis given with both conditions clearly identified.
1	<ul style="list-style-type: none"> • Appropriate null hypothesis given with only one condition clearly identified.
0	<ul style="list-style-type: none"> • An inappropriate null hypothesis is given. • No response is given.

- (b) The teaching assistant used time sampling to rate the smiling behaviour. Describe how the teaching assistant could have used this technique. [3]

Exemplar answer: <ul style="list-style-type: none"> • Time sampling – where the classroom assistant records the smiling behaviour of the students at specific time intervals across the lesson, e.g. every 15 minutes, and then creates an average smiling score for each participant being observed. 	
Marks	AO2
3	<ul style="list-style-type: none"> • A thorough explanation of how the sampling technique could be used that is fully contextualised.
2	<ul style="list-style-type: none"> • A reasonable explanation of how the sampling technique could be used that is not fully contextualised.
1	<ul style="list-style-type: none"> • A basic explanation of how the sampling technique could be used, but this is not contextualised.
0	<ul style="list-style-type: none"> • An inappropriate explanation is given • No response is given.

- (c) Explain **one** advantage and **one** disadvantage of the teaching assistant conducting research in the field. [4]

This question is focused on applying knowledge and understanding of scientific processes, techniques and procedures in a theoretical context, when handling qualitative data.

Advantages:

- Research conducted in the classroom is likely to be higher in external validity than research conducted in a lab
- Reduced chance of demand characteristics and social desirability bias from the students compared to a lab (especially as part of covert observation)

Disadvantages:

- Research is likely to be less reliable than research conducted in a lab – procedures are not always standardised and extraneous/confounding variables in the classroom are more difficult to control
- Lower levels of internal validity than research conducted in a lab – open to researcher bias from the teaching assistant and interpretation of behaviours
- Potential ethical issues – consent from the students, deception etc.
- Any other appropriate advantages/disadvantages

Marks	AO2
4	<ul style="list-style-type: none"> • A clear and detailed advantage AND disadvantage is given and fully contextualised.
3	<ul style="list-style-type: none"> • A clear advantage AND disadvantage are given, but only one of these is fully contextualised.
2	<ul style="list-style-type: none"> • An advantage AND disadvantage are given, but they are not fully explained. • An advantage OR disadvantage is given which is fully contextualised.
1	<ul style="list-style-type: none"> • An advantage OR disadvantage is given, but it is not fully contextualised.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

The teaching assistant recorded the average smile behaviours alongside the teacher's predicted grades. Results are shown in the table below:

Participant No.	1	2	3	4	5	6	7	8	9	10
Smile behaviour rating	3	4	2	0	2	1	4	5	2	3
Predicted grade	C	B	D	D	C	E	B	A	A	C

(Smile behaviour rating: 0 = no smiling to 5 = smiling all the time)

- (d) Identify and explain how **one** confounding variable could have affected a student's smile behaviour rating. [2]

This question is focused on applying knowledge and understanding of scientific ideas in a theoretical context when handling quantitative data.

Exemplar answers:

- Student's home life– it could be that a participant smiled less because of death of bereavement or circumstances beyond the norm (such as an argument with parents/friends), which means their rating was invalid.
- Type of lesson – as the research included ratings across the three lessons this may mean that some students' smiling behaviour may be a misrepresentation. For example, they don't like the lesson in which they are observed but they do enjoy others so might smile more.
- Mood of the teaching assistant – not all observations were carried out at the same time, hence the mood of the teaching assistant recording the information could have negative impacts on the validity of smile ratings, where a bad mood results in poor ratings and vice versa.

- Any other appropriate confounding variable

NOTE: Confounding variables are those that affect some participants but not others, having negative consequences for validity

Marks	AO2
2	<ul style="list-style-type: none"> • An appropriate confounding variable is identified and explained in context.
1	<ul style="list-style-type: none"> • An appropriate confounding variable is identified, but is not explained in context.
0	<ul style="list-style-type: none"> • An inappropriate/incorrect confounding variable is given. • No answer is given.

- (e) Identify the level of measurement for the 'smile behaviour rating'. [1]

- Ordinal data

Marks	AO2
1	<ul style="list-style-type: none"> • An appropriate level of measurement is identified.
0	<ul style="list-style-type: none"> • An inappropriate level of measurement is given. • No response is given.

- (f) (i) Identify a measure of central tendency that could be used to summarise the grades of the students and explain why this measure is appropriate. [3]

Exemplar answers:

- Mode - the most common/frequent grade in a set can be calculated to give an overall picture of the grades, where anomalies will not affect the results. This could then be compared to a mean smile behaviour score to gain an overall picture of how smiling behaviour affects predicted grades.
- Median – the middle score in a set of data, such as the grades above, could be calculated to give the central grade in the data set. This could then be compared to the mean or median smile behaviour score to draw conclusions about the impact of smiles on predicted grades.
- Any other relevantly justified answer (e.g. mean if the grade is transformed into a mark)

Marks	AO2
3	<ul style="list-style-type: none"> • An appropriate measure of central tendency is identified and fully explained in context.
2	<ul style="list-style-type: none"> • An appropriate measure of central tendency is identified, but it lacks full justification, or is not used in context.
1	<ul style="list-style-type: none"> • An appropriate measure of central tendency is identified, but it is not justified or used in context.
0	<ul style="list-style-type: none"> • An inappropriate/incorrect answer is given. • No answer is given.

- (ii) Calculate the measure of central tendency you identified in (f)(i). Show your workings. [2]

Exemplar answers:

- Mode – A = 2, B = 2, C = 3, D = 2 and E = 1 (tally chart or list of grades in order might also be used). Grade C is selected as the modal grade.
- Median – grades are likely to be placed in order A A B B C C C D D E where the mid-point (between the first 2 C grades) is likely to be indicated. Grade C is selected as the median grade.
- Any other relevantly calculated answer (e.g. mean)

Marks	AO2
2	<ul style="list-style-type: none"> • An appropriate measure of central tendency is calculated, workings are shown.
1	<ul style="list-style-type: none"> • An appropriate measure of central tendency is calculated, workings are not shown. • Workings are shown, but final measure of central tendency is not given.
0	<ul style="list-style-type: none"> • A different measure of central tendency than that identified in part f(i) has been calculated. • An inappropriate/incorrect answer/workings. • No answer is given.

- (g) Consider **two** ethical issues that might have arisen in the above research, and **one** way of dealing with **each** of the ethical issues you identified. [8]

Answers could include:

Issues:

- Lack of fully informed consent – the students are under the age of 18 and therefore parental permission must be sought. If this has not occurred consent issues arise
- Deception – it is likely the students are unaware they are being observed and their predicted grades are being compared to their smiling behaviour.
- Protection from psychological harm – once the students see the results they might be embarrassed or be caused stress that their smile score has been related to how much they smile (particularly true for a small sample size, were it could be easy for the students to work out who is who).

Ways to deal with issues:

- Debriefing – making the students/their parents aware of the study once it has occurred.
- Consent by proxy – consent from another senior adult in the school, e.g. the head teacher.
- Right to withdraw results of students/their parents who do not consent.
- Confidentiality – giving the students participant numbers and ensuring data is not misused.

- Any other relevant ethical issues and resolutions

For each ethical issue:

1 mark for stating appropriate ethical issue

1 mark for linking the ethical issue to the novel scenario

1 mark for stating an appropriate way of dealing with the ethical issue identified

1 mark for linking the appropriate way of dealing with the ethical issue to the novel scenario

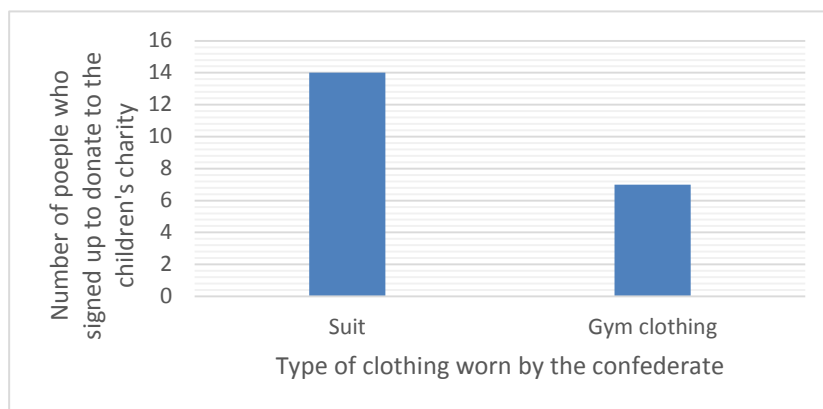
7. A male confederate was in a shopping centre for three hours on two different Monday mornings. On the first Monday he wore a suit and on the second he wore gym clothing. Each Monday he asked passers-by if they would be willing to sign up to the same children's charity. The research used an opportunity sample.

Results are shown in the table below:

Type of clothing worn by the confederate	Number of people who signed up to the children's charity
Suit	14
Gym clothing	7

- (a) Using data from the table above, draw a bar chart to show the results of this research [4]

Exemplar bar chart:



1 mark given for:

- Correct labelling of axes
- Suitable Scale

Accurate plotting of data (2 marks)

Mostly accurate plotting of data (1 mark)

Marks	AO2
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(b) Identify the independent variable in the above research. [1]

Exemplar answer:	
<ul style="list-style-type: none"> IV – Type of clothing worn by the confederate. 	
Marks	AO2
1	<ul style="list-style-type: none"> The IV is correctly identified.
0	<ul style="list-style-type: none"> An inappropriate answer is given. No response is given.

(c) Identify and explain the experimental design that has been used in the above research. [2]

Exemplar answer:	
<p>An independent groups design has been used, where different participants are used in the two conditions. For example the participants on the first Monday, when the confederate wore a suit, were different to those participants who took part on the second Monday, when the confederate wore gym clothing.</p>	
Marks	AO2
2	<ul style="list-style-type: none"> An appropriate experimental design is identified and explained in context.
1	<ul style="list-style-type: none"> An appropriate experimental design is identified, but is not explained in context.
0	<ul style="list-style-type: none"> An inappropriate/incorrect experimental design is given. No answer is given.

- (d) Describe **one** issue of validity in this research, and explain **one** way to deal with this issue. [4]

Exemplar validity issues:

- Population validity issues – opportunity sampling is likely to have bias, culture bias (only one shopping centre).
- Internal validity issues – poor research design, measurement of variables e.g. did all those that signed up actually donate to charity or cancel in the ‘cooling off’ period?
- Extraneous or confounding variables - other factors that could have affected sign up rates on the day or in that time period e.g. national disaster/charity campaign occurred between week one and week 2 and people had already given to charity by the second week so it was not clothing that affects sign up rates, OR the facial expressions of the confederate etc.
- Any other relevant issues.

Marks	AO2
4	<ul style="list-style-type: none"> • The issue of validity and a relevant solution have been fully described, both aspects are explicitly linked to the novel scenario.
3	<ul style="list-style-type: none"> • The issue of validity and a relevant solution have been fully described, but only one aspect is explicitly linked to the novel scenario.
2	<ul style="list-style-type: none"> • The issue of validity and a relevant solution have been described, but neither is explicitly linked to the novel scenario. • The issue of validity has been described and linked to the novel scenario explicitly, but there is no appropriate solution.
1	<ul style="list-style-type: none"> • An appropriate issue of validity has been described, but is not linked to the novel scenario explicitly.
0	<ul style="list-style-type: none"> • The issue of validity is merely named and not described • An inappropriate answer is given. • No answer is given.

(e) Explain **one** advantage and **one** disadvantage of opportunity sampling. [4]

- Advantages:
- Quicker than other sampling types, such as volunteer, as you take the participants who are available at the time at your own convenience, without needing to know details about them beforehand (like with stratified sampling) – less time consuming than xxx sampling technique.
- NB: comparison to other techniques is necessary to allow ‘quick’ and/or ‘easy’
- Cost effective, as money does not need to be spent on advertising (as in volunteer samples) or on creating a specialised sampling frame.
- Disadvantages:
- Open to researcher bias – might only select ‘helpful looking’ participants
 - Likely to include sample bias, such as culture, as they have been (in this case) selected from one narrow area (a local shopping centre).
- Any other appropriate advantages/disadvantages.

Marks	AO3
4	<ul style="list-style-type: none"> • A clear and detailed advantage and disadvantage is given and fully explained.
3	<ul style="list-style-type: none"> • A clear advantage and disadvantage are given, but only one of these is fully explained.
2	<ul style="list-style-type: none"> • An advantage and disadvantage are given, but they are not fully explained. • An advantage OR disadvantage is given which is fully explained.
1	<ul style="list-style-type: none"> • An advantage OR disadvantage is given, but it is not fully explained.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

- (ii) Explain how the research above could be refined to use a different sampling technique. [4]

Exemplar answers:

- Changes to Data collection - The confederate could be asked to approach only every nth person in the shopping centre.
- Changes to procedures/setting - Confederates could be asked to canvas every nth house on a street/within a certain postcode to gain donations (wearing the different clothing types).
- Any other appropriate refinements.

Marks	AO3
4	<ul style="list-style-type: none"> • There is a thorough explanation of how the sampling technique could be refined, that explicitly links to the novel scenario.
3	<ul style="list-style-type: none"> • There is a reasonable explanation of how the sampling technique could be refined, that links to the novel scenario.
2	<ul style="list-style-type: none"> • There is a basic explanation of how the sampling technique could be refined. • Weak links to the novel scenario may be evident, OR attempts to make links may be incoherent/ muddled.
1	<ul style="list-style-type: none"> • There is a superficial explanation of how the sampling technique could be refined.
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted