CONFERENCE VERSION – 12/02/19

CONFIDENTIAL

GCE A LEVEL MARKING SCHEME

SUMMER 2019

A LEVEL
PSYCHOLOGY - UNIT 4
1290U40-1

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INTRODUCTION

This marking scheme was used by WJEC for the 2019 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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WJEC GCE A LEVEL PSYCHOLOGY

UNIT 4

SUMMER 2019 MARK SCHEME

SECTION A: PERSONAL INVESTIGATION

You should answer **all** the questions in this section with reference to the investigations carried out in your study of psychology.

INVESTIGATION ONE:
Experiment on the Chameleon effect.

1. (a) (i) State the alternative/experimental hypothesis for your experiment. [3]

Marks	**AO1**
Exemplar hypothesis: • Participants will mimic the body language of a same sex confederate more than an opposite sex confederate. • Any appropriate hypothesis.	
3	• Full alternative/experimental hypothesis stated with both variables clearly operationalised.
2	• Full alternative/experimental hypothesis stated with only one variable clearly operationalised.
1	• Basic alternative/experimental hypothesis stated but neither variables are clearly operationalised.
0	• Inappropriate answer given. • No response attempted.

(ii) Identify the independent variable (IV) from your alternative/experimental hypothesis. [1]

Marks	**AO1**
1	• The independent variable appropriately identified.
0	• Inappropriate answer given. • No response attempted.

(iii) Identify the dependent variable (DV) from your alternative/experimental hypothesis. [1]

Marks	**AO1**
1	• The dependent variable appropriately identified.
0	• Inappropriate answer given. • No response attempted.

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(b) Discuss the ethical issues you faced when planning your experiment. Explain how you ensured the participants were treated ethically. [10]

Marks	AO2
Credit **could** be given for: • Consent – deception required for the aims of the investigation. • Debrief – any post research information or intervention. • Choice of participants – avoiding vulnerable individuals. • Ensuring well-being and avoiding both physical and psychological harm. • Reference to BPS guidelines. • Any other appropriate explanation of an ethical issue.	
9-10	• Thorough discussion and explanation of ethical issues. • Application of the material used is well-judged. • There is depth and range to material included. • Effective use of terminology.
6-8	• Reasonable discussion and explanation of ethical issues. • Application of the material used is appropriate. • There is depth and range to material used but not in equal measure. • Good use of terminology.
3-5	• Basic discussion and explanation of ethical issues. • Application of the material used may be inappropriate or incorrect in places. • There is depth or range only in material used. • There is some use of appropriate terminology.
1-2	• Superficial discussion and explanation of ethical issues. • There may only be one issue explained briefly. • Application of the material is superficial. • Answer does not move beyond description of ethics. • There is little use of appropriate terminology. • Answer lacks clarity.
0	• Inappropriate answer given. • No response attempted.

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(c) Discuss how you assessed reliability in your experiment. [4]

Marks	AO3
Credit could be given for: • Inter-rater reliability • Test-retest reliability • Split-half reliability • Internal reliability • Sampling method • Procedure • Collection of data • Experimental design • Any other appropriate suggestion	
3-4	• Reasonable discussion of how reliability was assessed. • Answer is logical. • Appropriate use of terminology.
1-2	• Basic discussion of how reliability was assessed. • Minimal use of appropriate terminology.
0	• Inappropriate answer given. • No response attempted.

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INVESTIGATION TWO:
Questionnaire on relationships.

2. (a) State **one** finding from your investigation. [2]

Marks	AO1
2	• Finding stated clearly and is appropriate to the investigation. • Aim of the investigation is clear.
1	• Finding is appropriate to the investigation. • Aim of the investigation is unclear.
0	• Inappropriate answer given. • No response attempted.

(b) State the sampling method you used and explain how you collected your participants. [3]

Marks	AO1
Credit could be given for: • Opportunity sampling – using those available in a named location. • Random sampling – placing the names of all those able to participate in a randomizer computer programme to generate the required number. • Stratified sampling – ensuring that there is a representation of all characteristics in proportion to percentages in the population. • Self-selected sampling – participants responding to experimenter's request/advert to participate. • Any other appropriate sampling method.	
3	• Sampling method stated. • Full explanation.
2	• Sampling method stated and brief explanation. **OR** • Sampling method fully explained but not stated/incorrectly stated.
1	• Sampling method stated **OR** • Brief explanation only.
0	• Inappropriate answer given. • No response attempted.

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(c) Suggest **two** ways you could improve your investigation. [3+3]

Marks	AO3
Credit could be given for: • Sampling method • Content of questionnaire (e.g. clear wording, language.) • Number of questions • Collecting different types of data (e.g. open questions, closed questions) • Rewording of instructions given to the participants to reduce demand characteristics and improve reliability • Carry out at a different time/location • Any other appropriate suggestion.	
3	• Thorough analysis of why these suggestions would improve the investigation. • The answer is logical. • Good use of appropriate terminology.
2	• Reasonable analysis of why the suggestion(s) would improve the investigation. • Some appropriate terminology used.
1	• Basic analysis of why these suggestion(s) would improve the investigation. • General statement of how the suggestion would improve the investigation.
0	• Inappropriate answer given. • No response attempted.

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SECTION B: APPLICATION OF RESEARCH METHODS TO NOVEL SCENARIOS

*Answer **all** questions*

3. A psychologist investigated the number of words correctly recalled by an individual recovering from a brain injury. The individual was selected using an opportunity sample of patients admitted to a local hospital with a brain injury. Using a case study, the researcher recorded the number of words the individual could correctly remember from a list of ten words presented one month after the brain injury and again six months after the brain injury. The psychologist recorded the results in the table below.

Table with the words correctly recalled one month after brain injury and six months after brain injury.

Words correctly recalled one month after brain injury.	Words correctly recalled six months after brain injury.
Dog Ball Door	Dog Pencil Ball Hospital Door Cardigan Desk Apple

(a) Suggest and explain **three** changes that could be made to improve this research.

In your answer you could include:

- Choice of sample.
- Research method.
- Any other appropriate improvement. [2+2+2]

Marks	AO3
Credit could be given for: Alternative sampling method. Change of research method. Changes to any other aspect of the research. • Any other appropriate suggestion.	
2	• An appropriate improvement is stated and explained.
1	• Appropriate improvement stated. **OR** • Appropriate explanation given of improvement.
0	• Inappropriate answer given. • No response attempted.

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(b) Suggest another task that could be completed by the individual recovering from a brain injury and explain how this would increase the validity of the results. [4]

Marks	AO3
Credit could be given for: • A list of different words/ content to ensure validity. • Numbers instead of words. • 3months / 12 months after brain injury. • Any other appropriate suggestion.	
3-4	• Appropriate suggestion stated and fully explained in relation to the validity of the results.
1-2	• Appropriate suggestion stated and briefly explained in relation to the validity of the results.
0	• Inappropriate answer given. • No response attempted.

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4. It has been argued by academics that males are more aggressive than females. Research on human aggression, however, can lead to many ethical issues.

(a) (i) Suggest and explain a way to investigate the above argument. [4]

Marks	AO2
Credit could be given for: • The operationalisation of aggression. • A schedule of behaviour. • Reference to comparing male and females. • Application to argument. Exemplar answer: The aggressive behaviours of male and female primates were compared while they were in captivity. Aggression was operationalised and a schedule of aggressive behaviour was produced. Only the most extreme aggressive behaviours were analysed. • Any other appropriate suggestion.	
3-4	• Appropriate suggestion stated and fully explained in relation to the research. • Clear application to the argument.
1-2	• Appropriate suggestion stated and briefly explained in relation to the research. • Application to the argument.
0	• Inappropriate answer given. • No response attempted.

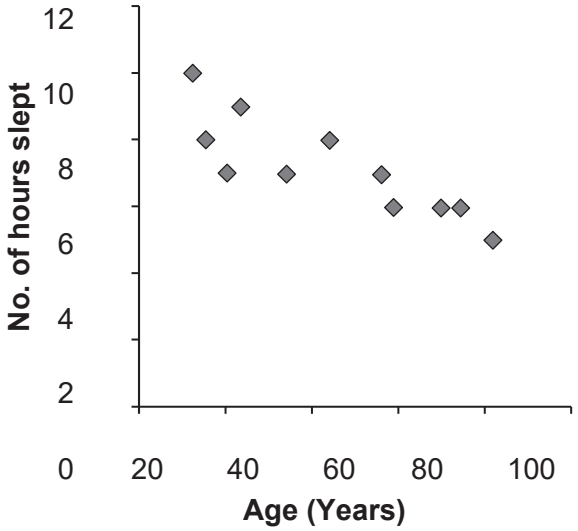
(ii) With reference to your suggestion from (a) (i), explain **two** ways you could ensure that the research is ethical. [3+3]

Marks	AO2
Credit could be given for: • Reference to operationalising aggression. • Appropriate ethical issues explained. • Application to previous suggestion. • Any other appropriate suggestion.	
3	• Thorough explanation of one way to ensure that the research is ethical. • Clear application to the argument.
2	• Reasonable explanation of one way to ensure that the research is ethical. • Application to argument.
1	• Basic explanation of one way to ensure that the research is ethical. • Application to argument.
0	• Inappropriate answer given. • No response attempted.

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5. A psychologist conducted a correlation between age and the amount of sleep. The psychologist asked an opportunity sample of friends and family members to estimate the amount of sleep they had during the previous night, to the nearest hour. The psychologist also noted their age in years. The data was plotted on the scatter diagram below.

Scatter diagram to demonstrate the correlation between age and the amount of sleep.



(a) Justify the psychologist's use of a scatter diagram to display these results.

[2]

Marks	AO2
Credit could be given for: • Ability to identify a relationship between co-variables. • Assess the strength of the relationship between co-variables. • A visual representation of the relationship between co-variables. • Any other appropriate suggestion.	
2	• Reason justified clearly and coherently. • Application to scenario.
1	• A reason noted with no relation to the scenario.
0	• Inappropriate answer given. • No response attempted.

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(b) (i) Give **one** reason why a Wilcoxon matched pairs signed ranks test would be an incorrect choice of test to analyse the data in this piece of research. [1]

Marks	AO2
Credit could be given for: • Correlational data. • Not independent groups design. • Wilcoxon uses matched pairs. • Any other appropriate suggestion.	
1	• Appropriate reason given.
0	• Inappropriate answer given. • No response attempted.

(ii) State which test would be more appropriate for this data. [1]

Marks	AO2
Credit could be given for: • Spearman's Rank Order Correlation Coefficient. • Pearson's (parametric equivalent). NB Spearman's would be accepted. • Any other appropriate suggestion.	
1	• Appropriate reason given.
0	• Inappropriate answer given. • No response attempted.

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(c) Identify an extraneous variable that could affect this piece of research. [2]

Marks	AO2
Extraneous variable: Variables in a study that are not being measured or manipulated by the researcher but affect the results (DV) of ALL participants' behaviour equally. Credit could be given for: • Results based on an estimation. • Sample of friends and family. • Demand characteristics. • Any other appropriate suggestion.	
2	• Appropriate confounding variable identified. • Application to scenario.
1	• An appropriate confounding variable identified. • No application to scenario.
0	• Inappropriate answer given. • No response attempted.

(d) Identify and explain **one** issue of validity that could affect this study. Suggest a way to improve this. [4]

Marks	AO2
Credit could be given for: • Content validity – the measure of sleep. • Social desirability. • Ecological validity. • Ways to improve the validity. • Any other appropriate suggestion. One mark = Issue of validity stated. One mark = Issue of validity explained. One mark = Way of improving research suggested. One mark = Clear application to the research.	

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