



GCE A LEVEL MARKING SCHEME

SUMMER 2019

**A LEVEL
PSYCHOLOGY - COMPONENT 2
A290U20-1**

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.

GCE A LEVEL PSYCHOLOGY - COMPONENT 2**SUMMER 2019 MARK SCHEME**

Question	AO1	AO2	AO3	TOTAL
1	3			3
2	5			5
3	6		4	10
4	6			6
5			6	6
6			10	10
7		8	5	13
8		12	5	17
9		19		19
10		11		11
TOTAL	20	50	30	100

SECTION A – Principles of Research

Answer all questions

1. Identify the measures of central tendency from the calculations presented below.

[1+1+1]

- (i) 3, 3, 3, 4, 5, 6, 7, 7, 9, 10.
 $5+6 = 11$
 $11/2 = 5.5$

Marks	AO1
1	<ul style="list-style-type: none"> • Median
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

- (ii) $3+3+3+4+5+6+7+7+9+10 = 57$
 $57/10 = 5.7$

Marks	AO1
1	<ul style="list-style-type: none"> • Mean
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

- (iii) 3, 3, 3, 4, 5, 6, 7, 7, 9, 10.

Marks	AO1
1	<ul style="list-style-type: none"> • Mode
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

2. Describe the format for reporting psychological investigations.

[5]

Credit **could** be given for:

- Investigations normally being published in a journal (print and/or on-line)
- Identification and description of typical content of various key elements in a psychological investigation such as Title; Abstract; Introduction; Methods/Procedures; Results; Discussion/Conclusions; References.
- Abstract: brief summary of the research.
- Introduction: brief summary of relevant literature.
- Methodology: design chosen.
- Procedure: steps that were taken by the researcher.
- Findings/result: data gathered and analysed.
- Discussion: of results and conclusion.

- Any other appropriate description.

Marks	AO1
5	<ul style="list-style-type: none"> • Thorough description of the format for reporting psychological investigations.
3-4	<ul style="list-style-type: none"> • Reasonable description of the format for reporting psychological investigations.
1-2	<ul style="list-style-type: none"> • Basic description of the format for reporting psychological investigations.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

3. (a) Explain the steps you would follow to calculate a standard deviation. [6]

$$\sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$$

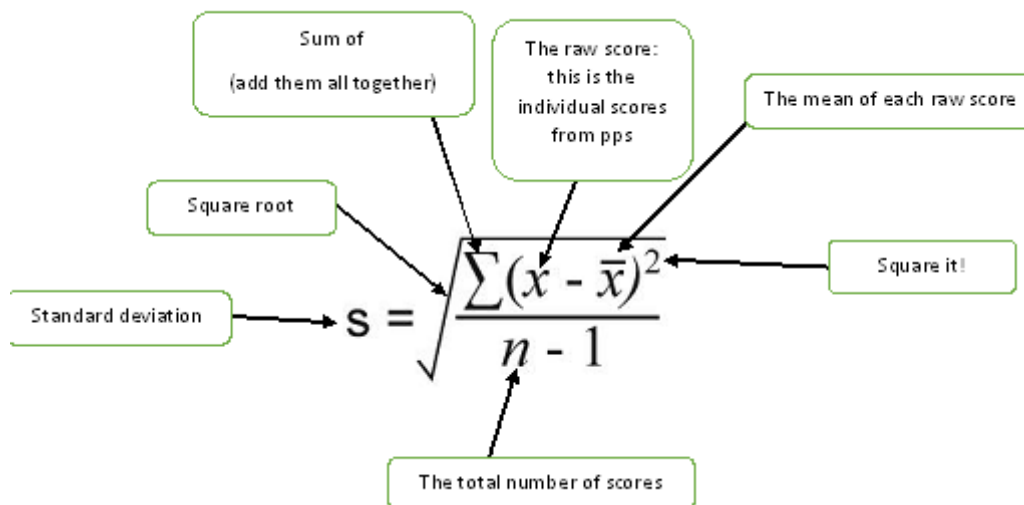
Credit could be given for:

- Descriptions of stages used in calculations – 1 mark per step
- Actual calculations of a worked example.

Exemplar answers:

I would calculate the standard deviation by completing the following steps:

1. Calculate the mean of the data set.
2. Take the mean away from each score in the data set.
3. Square each difference.
4. Add together each of the squared differences
5. Divide this by N – 1 (the number of scores in your data set - 1).
6. Find the square root of this value and this is the standard deviation. [6 marks]



Any other appropriate content.

- (b) Explain **one** strength and **one** weakness of using standard deviations in psychology. [2+2]

Credit could be given for:

Strength:

- More precise and informative measure of dispersion than the range.
- Highlights if the mean is an appropriate measure of central tendency.
- Used in further statistical analysis, such as computing skewness.
- Less affected by anomalous results than range scores.

Weakness:

- Can only be used if the data set is normally distributed and not skewed.
- More difficult to calculate than the range score.
- Can only be used when data collected is ordinal level or above.
- Can only be used where an IV is plotted against frequency.
- Any other appropriate strength or weakness.

Marks	AO3
2	<ul style="list-style-type: none"> • Appropriate strength/weakness. • Fully explained.
1	<ul style="list-style-type: none"> • Appropriate strength/weakness. • Partially explained.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

4. Describe the following methodologies:

(a) Non-participant observations. [2]

Credit could be given for:	
<ul style="list-style-type: none"> • A research method where the researcher watches and records participants' behaviour without interfering in any way (from a distance). • Any other appropriate content. 	
Marks	AO1
2	<ul style="list-style-type: none"> • Thorough definition.
1	<ul style="list-style-type: none"> • Basic definition.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

(b) Case studies. [2]

Credit could be given for:	
<ul style="list-style-type: none"> • A method which involves an in-depth investigation of a phenomenon, which uses a descriptive analysis of a person, group or event. It is a holistic study through one or more methodologies that is usually longitudinal. • Any other appropriate content. 	
Marks	AO1
2	<ul style="list-style-type: none"> • Thorough definition.
1	<ul style="list-style-type: none"> • Basic definition.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

(c) Structured interviews. [2]

Credit could be given for:	
<ul style="list-style-type: none"> • A research method that includes standardised questions (like in a questionnaire), which are known as an interview schedule, and are usually asked face to face. • Any other appropriate content. 	
Marks	AO1
2	<ul style="list-style-type: none"> • Thorough definition.
1	<ul style="list-style-type: none"> • Basic definition.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

5. Explain the strengths of longitudinal studies and the weaknesses of cross-sectional studies. [3+3]

Credit could be given for:

Strengths of longitudinal:

- Longitudinal studies control for 'participant variables', as the same person is tested on a number of occasions and compared and therefore acts as their own control.
- Cohort variables are not a problem.
- Reduces recall bias as participants are being researched as their life occurs, rather than research which may ask them to think back to experiences they may have had a long time ago.
- Helps us understand the order in which events may occur.
- Helps us establish links between early life circumstances and later outcomes.

Weaknesses of cross-sectional:

- Different people are in the different groups/conditions, so any difference detected may be due to participant variables other than age.
- Cohort variables may exist, such as individuals born during the same time period may share important historical experiences.
- Recall bias can occur if the study asks participants about experiences they may have had a long time ago.
- Difficult to indicate causal relationships (cause and effect).
- Any other appropriate content.

Marks	AO3
3	<ul style="list-style-type: none"> • Reasonable discussion of strengths/weaknesses. • Structure is logical.
2	<ul style="list-style-type: none"> • Basic discussion of strengths/weaknesses. • Structure is reasonable.
1	<ul style="list-style-type: none"> • Superficial discussion of strengths/weaknesses • Answer lacks structure.
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

6. (a) Explain ethical issues that may arise in Social Psychological research, such as Milgram's (1963) research '*Behavioural Study of Obedience*'. [5]

Credit could be given for:	
<ul style="list-style-type: none"> • Deception: to avoid demand characteristics and to see actual behaviour. Examples such as Milgram telling his subjects that the research was about memory and punishment when really it was about obedience. • Exposing participants to stress: to examine changes in the behaviour that people may experience or demonstrate when undergoing a stressful situation. Examples such as Darley & Latane's research when participants were exposed to smoke filling the room to investigate the conditions under which people get help. • Any other appropriate content. 	
Marks	AO3
5	<ul style="list-style-type: none"> • Thorough explanation of ethical issues. • Comments are evidently relevant to the context of Social Psychological research.
4	<ul style="list-style-type: none"> • Reasonable explanation of ethical issues. • Comments show some relevance to the context of Social Psychological research.
3	<ul style="list-style-type: none"> • Basic explanation of ethical issues. • Comments are generic and not appropriately contextualised to Social Psychological research. <p>OR</p> <ul style="list-style-type: none"> • Thorough explanation of only one ethical issue. • Comments are evidently relevant to the context of Social Psychological research.
2	<ul style="list-style-type: none"> • Superficial explanation of ethical issues. • Comments are generic and not appropriately contextualised to Social Psychological research. <p>OR</p> <ul style="list-style-type: none"> • Reasonable explanation of only one ethical issue. • Comments are generic and not appropriately contextualised to Social Psychological research.
1	<ul style="list-style-type: none"> • Ethical issues identified but not explained or contextualised. <p>OR</p> <ul style="list-style-type: none"> • Basic explanation of only one ethical issue. • Comments are generic and not appropriately contextualised to Social Psychological research.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

- (b) Explain the ethical issues that may arise in Developmental Psychological research, such as Kohlberg's (1968) research '*The child as a moral philosopher*'. [5]

Credit could be given for:

- Risk of stress, anxiety, humiliation or pain: Procedures may elicit high levels of anxiety in individual participants and may cause many negative feelings e.g. some of Kohlberg's younger participants (age 10) being exposed to emotionally challenging hypothetical moral dilemmas. This is especially worrying within infant, children or elderly populations as they may have greater difficulties in understanding the nature of the research and any 'debrief' that would be offered.
- Lack of valid consent: Infant and small child participants, or indeed very elderly participants, may not understand the aim or procedures involved in the research. Even with consent from the next of kin, is this appropriate ethical behaviour. Examples such as infants used in Gibson & Walk's Visual Cliff or Langer & Rodin's Nursing Home studies.
- Any other appropriate content.

Marks	AO3
5	<ul style="list-style-type: none"> • Thorough explanation of ethical issues. • Comments are evidently relevant to the context of Developmental Psychological research.
4	<ul style="list-style-type: none"> • Reasonable explanation of ethical issues. • Comments show some relevance to the context of Developmental Psychological research.
3	<ul style="list-style-type: none"> • Basic explanation of ethical issues. • Comments are generic and not appropriately contextualised to Developmental Psychological research. <p>OR</p> <ul style="list-style-type: none"> • Thorough explanation of only one ethical issue. • Comments are evidently relevant to the context of Developmental Psychological research.
2	<ul style="list-style-type: none"> • Superficial explanation of ethical issues. <p>OR</p> <ul style="list-style-type: none"> • Reasonable explanation of only one ethical issue. • Comments are generic and not appropriately contextualised to Developmental Psychological research.
1	<ul style="list-style-type: none"> • Ethical issue identified but not contextualised.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

SECTION B - Personal Investigations

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

INVESTIGATION ONE: An experiment on the Chameleon effect.

7. (a) Identify the location of research used in your experiment on the Chameleon effect and explain why this location was the most appropriate for your research. [1+3]

Credit could be given for:	
Identification:	
<ul style="list-style-type: none"> • Laboratory. • Field. • Online (unlikely but still an acceptable possibility). • Contextualised location where conducting research would be feasible e.g. classroom. • Any other appropriate content. 	
Marks	AO2
1	<ul style="list-style-type: none"> • Appropriate location of research identified.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.
Justification:	
<ul style="list-style-type: none"> • Strengths of identified location. • Weaknesses of alternative locations. • Any other appropriate content. 	
N.B. Explanation must be relevant to the location identified; if not, credit awarded identification of location and not to explanation (so a maximum mark of 1 only).	
Marks	AO2
3	<ul style="list-style-type: none"> • Thorough explanation given in relation to a strength of location used and/or weakness of other locations. • Clear application to the purpose of their investigation.
2	<ul style="list-style-type: none"> • Reasonable explanation given in relation to the strength of location used and/or weakness of other locations. • Some application to the purpose of their investigation.
1	<ul style="list-style-type: none"> • Basic explanation given in relation to a strength of location used or a weakness of other locations only. • No application to the purpose of their investigation (i.e. a generic reason).
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

(b) (i) Explain how you operationalised your independent variable. [2]

Credit could be given for:	
Explanation of a plausible independent variable.	
Exemplar answers: The independent variable I chose was time, specifically I wanted to compare evidence of the chameleon effect when participants had spent 5 minutes talking with the confederate and when they had spent 15 minutes talking with the confederate. [2 marks]	
The IV was time; 5 mins compared to 15 minutes. [1 mark]	
<ul style="list-style-type: none"> Any other appropriate content. 	
Marks	AO2
2	<ul style="list-style-type: none"> Appropriate explanation of an independent variable with links to the research.
1	<ul style="list-style-type: none"> Basic explanation of an independent variable linked to this research.
0	<ul style="list-style-type: none"> Inappropriate answer given. No response attempted.

(b) (ii) Explain how you operationalised your dependent variable. [2]

Credit could be given for:	
Explanation of a plausible dependent variable.	
Exemplar answers: The dependent variable I chose was the number of matching mannerisms. I compared the body posture for 5 themes: head position, smile, arms and hands, legs and feet. For every position that was the same the participant scored a point. [2 marks]	
The DV was a body posture score. [1 mark]	
<ul style="list-style-type: none"> Any other appropriate content. 	
Marks	AO2
2	<ul style="list-style-type: none"> Appropriate explanation of a dependent variable with links to the research.
1	<ul style="list-style-type: none"> Basic explanation of a dependent variable linked to this research.
0	<ul style="list-style-type: none"> Inappropriate answer given. No response attempted.

- (c) A psychologist wants to replicate your research. Suggest improvements that they could make. [5]

Credit could be given for:

Ways to improve:

- Reliability issues could be improved with techniques such as standardisation; operationalising and removing items that do not perform consistently.
- Validity issues could be improved by increasing control/conducting research in the laboratory not the field; increasing the realism of the task.
- Any other appropriate content.

Marks	AO3
5	<ul style="list-style-type: none"> • Thorough explanation of more than one improvement.
4	<ul style="list-style-type: none"> • Reasonable explanation of more than one improvement.
3	<ul style="list-style-type: none"> • Basic explanation of more than one improvement. OR <ul style="list-style-type: none"> • Thorough explanation of one improvement.
2	<ul style="list-style-type: none"> • Superficial explanation of more than one improvement. OR <ul style="list-style-type: none"> • Reasonable explanation of one improvement.
1	<ul style="list-style-type: none"> • More than one improvement identified. OR <ul style="list-style-type: none"> • Basic explanation of one improvement
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

INVESTIGATION TWO: A questionnaire on relationships.

8. (a) (i) Describe the sampling technique used in your research. [2]

Credit could be given for:	
<ul style="list-style-type: none"> • Opportunity sampling. • Systematic sampling. • Quota sampling. • Stratified sampling. • Self-selected sampling. • Snowball sampling. 	
Other sampling techniques not included in the specification are creditable if described appropriately and linked to this research.	
<ul style="list-style-type: none"> • Any other appropriate content. 	
N.B. The question specifies sampling technique, so description of sample characteristics without any description of technique would be considered inappropriate.	
Marks	AO2
2	<ul style="list-style-type: none"> • Appropriate description of a sampling technique with a link to the research.
1	<ul style="list-style-type: none"> • Appropriate description of a sampling technique not linked to this research. OR • Identification of a sampling technique that has been linked to this research.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

- (ii) Explain **one** advantage and **one** disadvantage of using this sampling technique in your research. [2+2]

Credit could be given for:	
Explanation of advantage and disadvantage will depend on the answer given in 8 (a) (i).	
Exemplar answers: (Opportunity given in part i) – I gave my questionnaire to the students in the common room at my college as this was quicker and easier than selecting 16-18-year olds using another method such as stratified sampling. [2 marks]	
I used this sampling technique as it was quicker and easier than other sampling techniques. [1 mark]	
<ul style="list-style-type: none"> • Any other appropriate advantage or disadvantage. 	
Marks	AO2
2	<ul style="list-style-type: none"> • Appropriate advantage/disadvantage linked to this research.
1	<ul style="list-style-type: none"> • Appropriate advantage/disadvantage, however it is not linked to this research.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

- (b) Explain how you chose to display and analyse the data from your research. You should include your justification for choosing the graphical representations and descriptive statistics that you used to display the data collected from your questionnaire. [6]

Credit could be given for:	
<p>Graphical representations:</p> <ul style="list-style-type: none"> • Frequency table. • Line graph. • Histogram. • Bar chart. • Pie charts. <p>• Any other appropriate content.</p>	<p>Descriptive statistics:</p> <ul style="list-style-type: none"> • Mean. • Median. • Mode. • Range. • Standard deviation. <p>• Any other appropriate content.</p>
<p>Justification will depend on the graphical representations and descriptive statistics chosen.</p> <p>Exemplar answers:</p> <p>On my questionnaire there were some closed questions that gave the participant four options to choose from, I chose to display the answers from individual questions using pie charts. These allowed me to show exactly the proportions of my sample that chose each of the four options offered in the question in percentage terms. With the question 'How many boyfriends or girlfriends have you had?' I calculated the mean, median and modal scores, but think that the modal score of 2 was most appropriate as the mean and median scores were scores that no one in the data set reported and were a nonsense value (the mean score was 2.3). [6 marks]</p> <p>I displayed my data in a bar chart and worked out the mean score. [1 mark]</p> <p>N.B. If candidates have completed questionnaires that have collected qualitative data, justification for their choice of devices such as theme analysis would also be acceptable.</p> <p>N.B. If candidate identifies techniques and describes the results they obtained with them without justification for their choices, there should be a maximum of 2 marks.</p>	
Marks	AO2
5-6	<ul style="list-style-type: none"> • Justification for chosen graphical representations and analysis of data is appropriate and thoroughly detailed. • Application to the research with is clearly evident.
3-4	<ul style="list-style-type: none"> • Justification for chosen graphical representations and analysis of data is appropriate and reasonably detailed. • Application to the research is reasonably evident. <p>OR</p> <ul style="list-style-type: none"> • Justification for chosen graphical representations and analysis of data is appropriate and thoroughly detailed. • Application to the research with is clearly evident.

1-2	<ul style="list-style-type: none">• Justification for chosen graphical representations and analysis of data is superficially detailed.• Chosen graphical representations and analysis of data are identified.• Application to the research is limited and/or omitted. OR <ul style="list-style-type: none">• Justification for chosen graphical representations or analysis of data is appropriate and reasonably detailed.• Application to the research is reasonably evident
0	<ul style="list-style-type: none">• Inappropriate answer given.• No response attempted.

- (c) Apart from weaknesses of your chosen sampling technique, explain **one** other weakness of your research and explain how this weakness could be improved. [2+3]

Credit could be given for:	
Weaknesses:	
<ul style="list-style-type: none"> Reliability issues such as participants completing the questionnaire under different conditions; some participants not taking the questionnaire seriously; not all questions really being relevant to relationships. Validity issues relating to the nature of the task, ecological validity. Any other appropriate content 	
Marks	AO3
2	<ul style="list-style-type: none"> Explanation of weakness is appropriate and linked.
1	<ul style="list-style-type: none"> Explanation of weakness is appropriate but not linked.
0	<ul style="list-style-type: none"> Inappropriate answer given. No response attempted.
Ways to improve:	
<ul style="list-style-type: none"> Reliability issues could be improved with techniques such as standardisation; operationalising and removing items that do not perform consistently. Validity issues could be improved by increasing control/conducting research in the laboratory not the field; increasing the realism of the task. Any other appropriate content 	
N.B. The weakness and the way to improve need to be linked. If the method described would not improve the weakness then credit the weakness description, but not the way to improve.	
3	<ul style="list-style-type: none"> Explanation of how the weakness can be improved is thorough and linked.
2	<ul style="list-style-type: none"> Explanation of how the weakness can be improved is reasonable and linked. OR Explanation of how the weakness can be improved is thorough but not linked.
1	<ul style="list-style-type: none"> Explanation of how the weakness can be improved is basic and linked. OR Explanation of how the weakness can be improved is reasonable but not linked.
0	<ul style="list-style-type: none"> Inappropriate answer given. No response attempted.

SECTION C – Application of research methods to a novel scenario

Answer all questions

9. A psychologist is concerned about the impact that playing violent computer games is having on the development of school children; specifically, the concern that school children are becoming too aggressive. He decided to investigate the issue using a quasi-experiment and a matched pairs experimental design. The IV was whether the participant regularly plays on violent computer games or not. The psychologist then assessed the aggression level by identifying the number of incidents recorded by the children's schools which indicated aggression (such as fighting, bullying etc.). One of the findings that he reported was the range scores of both conditions.

	Participants who regularly play on violent computer games	Participants who do not regularly play on violent computer games
Range score	6	3

- (a) Explain why the researcher may have chosen to use a quasi-experiment in this research. [2]

Credit could be given for:

- The researcher is behaving ethically by not exposing participants to possible harm.
- The researcher is researching a naturally occurring IV.
- The researcher has not randomly allocated participants to the experimental or control conditions.
- Any other appropriate content.

Marks	AO2
2	<ul style="list-style-type: none"> • Appropriate explanation with a link to the research.
1	<ul style="list-style-type: none"> • Appropriate explanation not linked to this research. OR <ul style="list-style-type: none"> • Brief identification of an appropriate explanation that has been linked to this research.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

- (b) State an appropriate directional hypothesis for this research. [2]

Exemplar answers:

School children who regularly play on violent computer games will have a higher number of incidents recorded by the children's schools which indicate aggression than school children who do not regularly play violent games. [2 marks]

School children who do not play violent computer games will have a lower number of incidents recorded by the children's schools which indicate aggression than school children who do play violent computer games. [2 marks]

The aggression levels of participants who play violent games is higher than those who don't. [1 mark]

- Any other appropriate content.

N.B. No credit for non-directional, null or correlational hypotheses.

Marks	AO2
2	<ul style="list-style-type: none"> • Appropriate directional hypothesis, with clearly operationalised IV and DV.
1	<ul style="list-style-type: none"> • Appropriate, yet basic directional hypothesis, possibly with only the IV or DV clearly operationalised.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

- (c) Give **two** advantages of using a matched pairs design in this research. [2+2]

Credit could be given for:

Advantages, such as:

- No order effects as participants only take part in one condition.
- Less chance of demand characteristics as participants only take part in one condition.
- May be less participant variables as the researcher has matched participants for abilities or characteristics which may affect performance.
- Any other appropriate advantage.

Exemplar answer:

No order effects as the school children were either in the regularly played or not regularly playing violent computer games. [2 marks]

Marks	AO2
2	<ul style="list-style-type: none"> • Appropriate advantage linked to this research.
1	<ul style="list-style-type: none"> • Appropriate advantage, however it is not linked to this research.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

- (d) Explain **one** factor that the researcher may have used to match the participants in this research. [2]

Credit could be given for:

Factors, such as:

- Age.
- Gender.
- Academic Achievement.
- Any additional learning needs.

- Any other appropriate content.

Exemplar answers:

The schoolchildren could be matched for age as otherwise the number of aggressive behaviours might just be because they are young and immature. [2 marks]

The psychologist may have matched for school performance. [1 mark]

Marks	AO2
2	<ul style="list-style-type: none"> • Appropriate explanation with a link to the research.
1	<ul style="list-style-type: none"> • Appropriate explanation not linked to this research. <p>OR</p> <ul style="list-style-type: none"> • Identification of an appropriate factor that has been linked to this research.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

- (e) Identify **one** ethical issue and explain why it may have been an issue in this research. [1+2]

Credit could be given for:	
Ethical issues, such as:	
<ul style="list-style-type: none"> • Valid consent. • Confidentiality. • Risk to the participant's values, beliefs, relationships, status or privacy. • Any other appropriate content. 	
Marks	AO2
1	<ul style="list-style-type: none"> • Appropriate ethical issue identified.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

Credit could be given for:	
<ul style="list-style-type: none"> • Valid consent – may not be obtained as the participants are school children and so may not fully understand the implications of the research aims and procedures. • Confidentiality – the school children may become labelled as aggressive if individuals' results are published or shared with the school. • Risk to the participant's values, beliefs, relationships, status or privacy – The privacy of the school children is being invaded as their school records are being examined and it is unclear if the researchers got consent for this. • Any other appropriate content. 	
Marks	AO2
2	<ul style="list-style-type: none"> • Appropriate explanation with a link to the research.
1	<ul style="list-style-type: none"> • Appropriate explanation not linked to this research. OR <ul style="list-style-type: none"> • Brief explanation that has been linked to this research.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

- (f) (i) Draw **one** conclusion from the range scores in this research. [2]

Credit could be given for:	
Exemplar answers:	
The group of school children that played on violent computer games had a range score (6) that was twice that of the school children who did not play violent computer games (3). [2 marks]	
The range score for the children who played on violent computer games was higher than the range score for the children who didn't play on violent computer games. [2 marks]	
Children who play on violent games have a wider dispersion of aggressive incidents than those that don't. [1 mark]	
The range of one condition was twice the score of the other. [1 mark]	
Children who play violent computer games are more aggressive than children that don't play on violent computer games. [0 marks]	
<ul style="list-style-type: none"> Any other interpretation. 	
Marks	AO2
2	<ul style="list-style-type: none"> Appropriate conclusion with a link to the research.
1	<ul style="list-style-type: none"> Appropriate but basic conclusion linked to this research.
0	<ul style="list-style-type: none"> Inappropriate answer given. No response attempted.

- (ii) Explain **one** weakness of using the range scores in this research. [2]

Credit could be given for:	
Exemplar answers:	
As the range score is quite crude, the range scores of the group who play on violent computer games may have been affected by just one anomalous result. [2 marks]	
The range is affected by anomalous results. [1 mark]	
<ul style="list-style-type: none"> Any other appropriate strength or weakness. 	
Marks	AO2
2	<ul style="list-style-type: none"> Appropriate weakness linked to this research.
1	<ul style="list-style-type: none"> Appropriate weakness, however it is not linked to this research.
0	<ul style="list-style-type: none"> Inappropriate answer given. No response attempted.

- (g) Explain why a peer reviewer might consider researcher bias to be an issue in this research. [2]

Credit could be given for:

Exemplar answers:

Researcher bias is when researchers record the response they expect from the participants in different conditions. As the psychologist already believed that there was concern over the impact that playing violent computer games is having on the development his assessment of the aggressive acts in the school records may be subjective. [2 marks]

The psychologist is collecting the data about aggressive incidents from the school records himself. [1 mark]

The psychologist's beliefs might affect his judgement. [1 mark]

- Any other appropriate content.

Marks	AO2
2	<ul style="list-style-type: none"> • Appropriate explanation with a link to the research.
1	<ul style="list-style-type: none"> • Appropriate explanation not linked to this research. <p>OR</p> <ul style="list-style-type: none"> • Brief identification of an appropriate explanation that has been linked to this research.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

10. A librarian is concerned about the low numbers of college students borrowing books from the college library. To investigate his concerns he wanted to plot the number of occasions where a book had been borrowed from the college library in the last five years onto a graph.

Year	2014	2015	2016	2017	2018
No. of occasions where a book had been borrowed from the College Library (to the nearest hundred)	15,600	15,200	14,800	14,700	13,800

- (a) (i) Identify **one** appropriate graphical representation that could be used to display the data in this research. [1]

Credit could be given for:

- Line graph.
- Histograms.
- Bar charts.
- Pie Charts.
- Any other appropriate graphical representation.

Marks	AO2
1	<ul style="list-style-type: none"> • Appropriate method identified.
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.

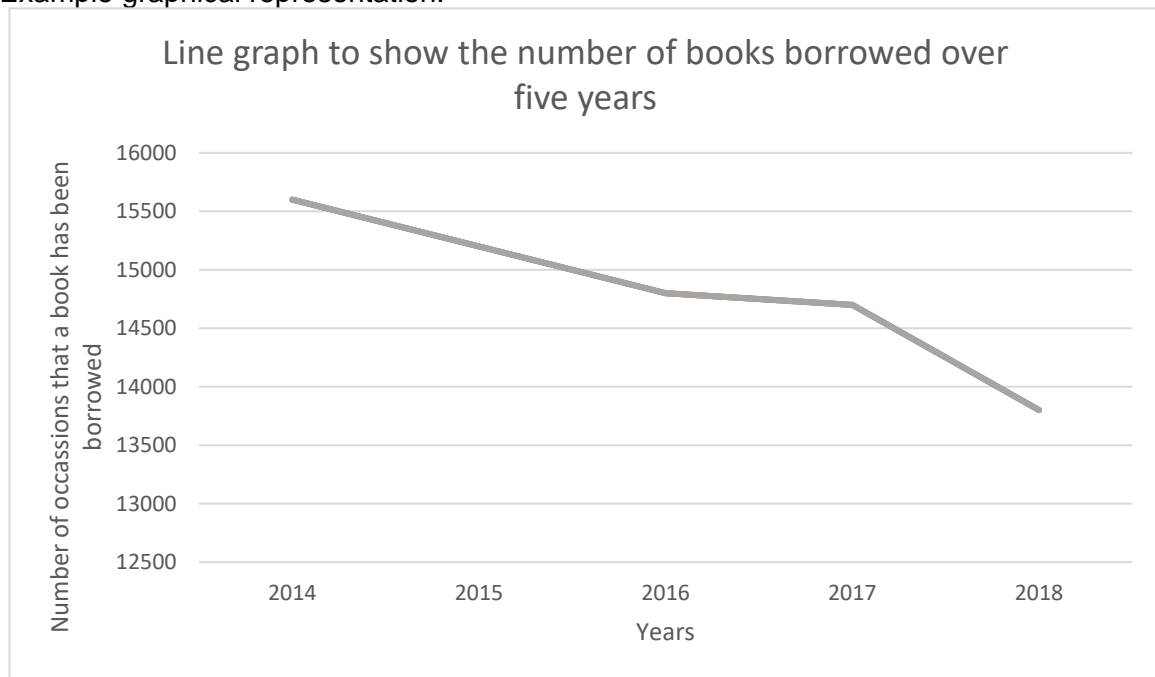
- (ii) Using the graphical representation that you identified in (a) (i) display the data in this research. [4]

Credit could be given for:

Features (1 mark per feature, up to a maximum of 4 marks) for graphical representations not including pie charts:

- Appropriate title for graphical representation.
- Appropriate label and scale of x-axis.
- Appropriate label and scale of y-axis.
- Appropriate and accurate plotting that reflects the graphical representation identified in 10 (a) (i).

Example graphical representation:



Four Features (Title, logical depiction, labelled segments, percentages) so 4 marks.

N.B. If the candidate uses a pie chart, the following features would receive credit:

- Appropriate title (1 mark).
- Key or labels of segments (1 mark).
- Appropriate proportions for each segment (2 marks).

- (b) The librarian also wants to collect some qualitative data about why the college students are borrowing fewer books from the college library. As you study research methods in A Level Psychology, he asks you to do this. Identify and justify your choices of methodology and sampling technique in this research.

[6]

Credit could be given for:

Methodology:

- Semi-structured interviews
- Unstructured interviews
- Questionnaires (with open questions)
- Focus Groups

Sampling:

- Random sampling
- Opportunity sampling
- Systematic sampling
- Stratified sampling
- Quota sampling
- Self-selected sampling
- Snowball sampling
- Any other content.

Marks	AO3
5-6	<ul style="list-style-type: none"> • Both methodology and sampling technique are identified. • Both methodology and sampling technique are thoroughly justified in terms of their strengths and/or the weaknesses of alternatives. •
3-4	<ul style="list-style-type: none"> • Both methodology and sampling techniques are identified • Both methodology and sampling techniques are reasonably justified in terms of their strengths and/or the weaknesses of alternatives. • Clear links to this research. <p>OR</p> <ul style="list-style-type: none"> • Either the methodology or sampling technique is identified. • Either the methodology or sampling techniques is thoroughly justified in terms of their strengths and/or the weaknesses of alternatives. •
1-2	<ul style="list-style-type: none"> • Both methodology and sampling techniques are identified • The methodology and sampling techniques are superficially justified in terms of their strengths and/or the weaknesses of alternatives. <p>OR</p> <ul style="list-style-type: none"> • Either the methodology or sampling technique is identified • Either the methodology or sampling techniques is reasonably justified in terms of their strengths and/or the weaknesses of alternatives. •
0	<ul style="list-style-type: none"> • Inappropriate answer given. • No response attempted.