GCE

Psychology

H167/01: Research methods

Advanced Subsidiary GCE

Mark Scheme for June 2019

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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Annotation	Meaning
?	Unclear
AE	Attempts evaluation
BOD	Benefit of doubt
CONT	Context
✗	Cross
EVAL	Evaluation
—	Extendable horizontal line
~~	Extendable horizontal wavy line
IRRL	Significant amount of material which doesn't answer the question
NAQ	Not answered question
RES	Good use of resources
✓	Tick
✓+	Development of point
^	Omission mark

Mark Scheme

Section A: Multiple choice

Ques	Answer
1	C
2	A
3	D
4	A
5	A
6	C
7	A
8	B
9	C
10	B
11	B
12	A
13	B
14	B
15	C

Section B: Research design and response

Explain how you would use the self-report method to investigate morality.
You must refer to: [12]

-the use of a structured interview
-one question that uses a semantic differential scale
-one question that would produce nominal data

You should use your own experience of practical activities to inform your response.

Question			Answer		Marks	Guidance
16					**Max 12**	-Context = morality, morals, good/bad, right/wrong

<table>
<tr><th>Level of response</th><th>Details of required features (RFs) included</th><th>Justification of decisions made</th><th>Reference to own practical work</th></tr>
<tr><td>Good
10-12 marks</td><td>-All 3 required features addressed
-Accurate and detailed knowledge and understanding of each feature in context
-Good evidence of application of required features in context</td><td>-Appropriate justification of all decisions and some is contextualized
-Well developed line of reasoning that is clear and logically structured</td><td rowspan="6">-Explicit reference to own practical work and clear links between own work and the planned research for each required feature. e.g. specific mention of aim or procedural features

-For top band (good) 10 marks if just one RF linked, 11 marks if two and 12 if all three

-If there is no explicit clear link between own practical work and any of the 3 required features caps the mark at 9 maximum.

NB: Likert Scale not creditworthy</td></tr>
<tr><td rowspan="2">Reasonable
7-9 marks</td><td>-All 3 required features addressed
-Reasonably accurate and detailed knowledge and understanding of each feature
-At least two applications of required features in context</td><td>-Some appropriate justification of decision related to all three required features (7 marks if only two required features justified)
-There was a line of reasoning evident with some structure</td></tr>
<tr><td colspan="2">If two required features are addressed in detail and justified in context and explicit links made to own practical work award 8 marks</td></tr>
<tr><td rowspan="3">Limited
4-6 marks</td><td>-Two of the required features addressed
-Limited application of required features</td><td rowspan="2">-Attempt to justify decision(s) but weak
-Evidence of some structure, but weak</td></tr>
<tr><td>OR all required features referred to but in a limited way</td></tr>
<tr><td colspan="2">If one required feature addressed in detail and justified in context and explicit links made to own practical work award 4 marks</td></tr>
<tr><td rowspan="2">Basic
1-3 marks</td><td>-One of the required features addressed
-Weak application of required features</td><td rowspan="2">-None, or if present very weak</td></tr>
<tr><td>OR more than one of the required features referred to but in a very brief and/or basic way</td></tr>
</table>

Write an appropriate research aim for the study. [2]					
Question			**Answer**	**Marks**	**Guidance**
17			Something like ... *The aim was to investigate moral reasoning* **OR** *The aim was to find out what kind of things may influence how people decide what is right or wrong* Etc etc	**Max 2**	-Context = morality, morals, good/bad, right/wrong
			Clearly written aim	**2**	
			Attempt to write aim	**1**	
			The candidate has not provided any creditworthy information	**0**	

Identify an appropriate sample for this study. [1]					
Question			**Answer**	**Marks**	**Guidance**
18	**(a)**		Likely responses: 'young children'; primary school children	**Max 1**	-Context = morality, morals, good/bad, right/wrong -Accept age ranges provided -Sample size is not required but can be creditworthy as part of the response -Sample size alone (e.g. just saying '20 people') is not creditworthy -Must refer to children/childhood in some way. EG- sample may consist of parents/ teacher of young children being used to interview the children
			Appropriate sample identified	**1**	
			The candidate has not provided any creditworthy information	**0**	

Justify the choice of sample you have identified. [3]					
Question			**Answer**	**Marks**	**Guidance**
18	**(b)**		Likely answer: 'Young children' as the research is aimed at investigating morality in young children and needs to obtain the thoughts and ideas of such a group.	**Max 3**	-Context = morality, morals, good/bad, right/wrong -Must refer to children/childhood in some way. eg- justification may consist of parents/ teacher of young children being used to interview the children.
			Clear justification of choice of sample in context	**3**	
			Clear justification of choice of sample but not in context	**2**	
			Attempt to justify choice of sample (whether in context or not)	**1**	
			The candidate has not provided any creditworthy information	**0**	

Outline one strength of the use of open questions in this study. [3]					
Question			**Answer**	**Marks**	**Guidance**
19	**(a)**		Likely answers: can provide more detail about the reasons why children have the morals that they do; allows for greater elaboration about influences on morality	**Max 3**	-Context = morality, morals, good/bad, right/wrong Qualitative on its own = 1 mark
			Clear outline of strength in context	**3**	
			Attempt to outline strength in context **OR** Clear outline strength but not in context	**2**	
			Brief and/or weak attempt to outline strength (whether in context or not)	**1**	
			The candidate has not provided any creditworthy information	**0**	

Outline one weaknesses of the use of open questions in this study. [3]					
Question			**Answer**	**Marks**	**Guidance**
19	**(b)**		Likely answers: can be more difficult to interpret and analyse responses about morality	**Max 3**	-Context = morality, morals, good/bad, right/wrong Difficulties in making comparisons as a weakness is creditworthy.
			Clear outline of weakness in context	**3**	
			Attempt to outline weakness in context **OR** Clear outline weakness but not in context	**2**	
			Brief and/or weak attempt to outline weakness (whether in context or not)	**1**	
			The candidate has not provided any creditworthy information	**0**	

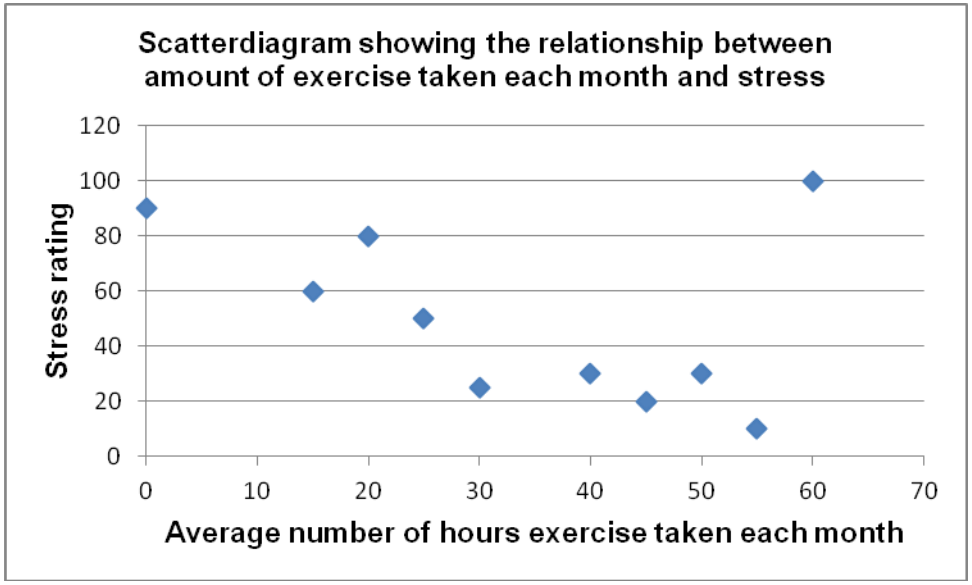
Outline two ways that you would address the ethical consideration of 'respect' in the design of this self-report study. [6]					
Question			**Answer**	**Marks**	**Guidance**
20			Under the new (2015) BPS guidelines the ethical consideration of 'respect' covers: general respect, informed consent, withdrawal, privacy and confidentiality. Likely answers could include: obtaining parental consent for children under the age of 16; only using children aged 16+ and asking them about their thoughts about morality when they were younger; allowing children to stop participating if they asked to do so, showed any signs of distress; not recording actual names linked to the data collected about morality; only using fictitious accounts in any scenarios used when questioning children about morality Etc	**Max 6**	-Context = morality, morals, good/bad, right/wrong -Responses must relate to the ('new' 2015) BPS guidelines covering 'respect' general respect (respect people's individuality and not show prejudice etc)– i.e.: Informed consent; consent, withdrawal; privacy, confidentiality (anonymity) are all creditworthy.
			3 marks for each ethical issue addressed		
			Clear outline of how to address ethical issue of 'respect' in context	**3**	
			Attempted outline of how to address ethical issue of 'respect' in context **OR** clear outline of how to address ethical issue of 'respect' but not in context	**2**	
			Brief and/or weak outline of how to address ethical issue of 'respect' (whether in context or not)	**1**	
			The candidate has not provided any creditworthy information	**0**	

Outline one strength of the use of an interview rather than a written questionnaire in this study. [3]					
Question			**Answer**	**Marks**	**Guidance**
21			Likely answers: can see participant's response; can seek clarification / elaboration on points made; can explain questions better. In comparison to a questionnaire.	**Max 3**	-Context = morality, morals, good/bad, right/wrong participants are more likely to be honest is creditworthy.
			Clear outline of strength in context with explicit reference to a questionnaire.	**3**	
			Attempt to outline strength in context **OR** Clear outline of strength but not in context	**2**	
			Brief and/or weak attempt to outline strength (whether in context or not)	**1**	
			The candidate has not provided any creditworthy information	**0**	

Identify one thing that may lower the generalisability of the findings from this study. [2]					
Question			**Answer**	**Marks**	**Guidance**
22			Likely answers: biased sample (e.g. in terms of its size or diversity or gender or age ranges etc); nature of the questions asked (e.g. if too restricted / limiting – enquiring about only one specific aspect of morality etc)	**Max 2**	-Context = morality, morals, good/bad, right/wrong
			Clear identification of something that could lower generalisability in context	**2**	
			Clear identification of something that could lower generalisability, but not in context **OR** attempt to identify something that could lower generalisability in context or not	**1**	
			The candidate has not provided any creditworthy information	**0**	

Section C: Data analysis and interpretation

Outline two conclusions that can be made from the data collected in this study. [6]					
Question			**Answer**	**Marks**	**Guidance**
23			Conclusions could include: there was a big variety in the number of hours of exercise taken each month, ranging from 0 to 60 hours suggesting that some people either don't have the time or don't value taking exercise; Ratings of stress varied a lot, from 10 to 100 suggesting that stress affects people in many different ways and some people are able to cope with stress better than others perhaps; the relationship between stress and exercise is mixed, as some people who take a lot of exercise (e.g. person 'j') seem to have a lot of stress in their life, whereas for others (e.g. person 'a') taking a lot of exercise is associated with lower levels of stress. So perhaps there is no significant relationship between exercise and stress, so if there is a benefit this does not apply everyone. Accept any other appropriate conclusions here.	**6**	-Context = stress and exercise etc -Clear (explicit) interpretation of findings (not simply stating a finding) is required for top band -explicit reference to cause-and-effect is not creditworthy
			3 marks for each conclusion		
			Clear, detailed response in context	**3**	
			Clear, detailed response but not in context **OR** attempt in context	**2**	
			Brief and/or weak attempt to outline a conclusion (whether in context or not) **OR** simply stating a finding	**1**	
			The candidate has not provided any creditworthy information	**0**	

Draw a fully labelled scatterdiagram displaying the data from this study. [4]					
Question			**Answer**	**Marks**	**Guidance**
24				**Max 4**	-*A title is not essential, but can add clarity to otherwise unclear labels on axes -Labels on axes must be clear. For example just putting 'exercise' is unclear (*but remember this can be clarified by a title if provided) co-variables exercise or stress can be on x or y axis.
			1 mark is awarded for correctly plotting the data 1 mark is awarded for clear labelling of the x axis 1 mark is awarded for clear labelling of the y axis 1 mark is awarded for units of measurement on both axes		
			All features included	**4**	
			3 features included	**3**	
			2 features included	**2**	
			1 feature included	**1**	
			The candidate has not provided any creditworthy information	**0**	

Outline two things that could have affected the validity of the data collected in this study. [6]					
Question			**Answer**	**Marks**	**Guidance**
25			Possible things include: participants not wanting to disclose how much/little exercise they engage in (social desirability); participants not wanting to disclose how much stress they experience for fear of embarrassment; problems using a quantitative scale to convey stress experienced (can only report the amount, not type of stress experienced) etc etc.	**Max 6**	-Context = stress and exercise etc -Accept as creditworthy the acknowledgement that it would not be valid to try to establish cause-and-effect from the data collected in a correlation study -Accept sample size as something that could affect validity. -accept extraneous variables -subjective interpretation -individual differences
			For each thing 3 marks max …		
			Clear outline in context	**3**	
			Attempted outline in context **OR** Clear outline, but not in context	**2**	
			Brief and/or weak outline (whether in context or not)	**1**	
			The candidate has not provided any creditworthy information	**0**	

Explain why the Spearman's Rho would be the appropriate non-parametric inferential statistical test to use to analyse the data from this study. [3]					
Question			**Answer**	**Marks**	**Guidance**
26			Reasons: -test of correlation/relationship (and the study investigated the relationship between exercise and stress) - at least ordinal data collected (number of hours exercised and ratings of stress)	**Max 3**	-Context = stress and exercise etc
			Two appropriate reasons provided, both in context	**3**	
			Two appropriate reasons provided, but only one, or neither in context	**2**	
			One appropriate reason provided (whether in context or not)	**1**	
			The candidate has not provided any creditworthy information	**0**	

After carrying out a Spearman's Rho inferential statistical test the calculated value obtained was r_s = -0.37.
Explain what this means. [3]

Question			Answer	Marks	Guidance
27			This means that there was a weak, negative correlation between the amount of exercise taken each month and the amount of stress experienced.	**Max 3**	-Context = stress and exercise etc -Any reference to 'difference' as opposed to correlation or relationship between exercise and stress is not creditworthy.
			Reference to both the strength (weak) and direction (negative) of the correlation in context	**3**	
			Reference to both the strength (weak) and direction (negative) of the correlation, but not in context **OR** Reference to either the strength (weak) OR direction (negative) in context	**2**	
			Reference to either the strength (weak) or direction (negative) of the correlation, but neither in context.	**1**	
			The candidate has not provided any creditworthy information	**0**	

The standard deviation was calculated for the number of hours exercised each month and found to be 18.275666882497.
(a) What is this written to two significant figures? [1]

Question			Answer	Marks	Guidance
28	(a)		18	**Max 1**	
			Correct answer written to two significant figures	**1**	
			The candidate has not provided any creditworthy information	**0**	

Explain what this informs us about the number of hours exercised each month by participants in this study. [2]					
Question			**Answer**	**Marks**	**Guidance**
28	**(b)**		This informs us that the amount of exercise taken by each participant each month varies quite a lot, with some individuals engaging in a lot more exercise than others.	**Max 2**	Explanation must be focused on standard deviation.
			Clear explanation in context	**2**	
			Clear explanation but not in context **OR** attempted explanation in context or not	**1**	
			The candidate has not provided any creditworthy information	**0**	

OCR (Oxford Cambridge and RSA Examinations)
The Triangle Building
Shaftesbury Road
Cambridge
CB2 8EA

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