GCE

Psychology

Unit **H167/01**: Research methods

Advanced Subsidiary GCE

Mark Scheme for June 2017

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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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These are the annotations, (including abbreviations), including those used in scoris, which are used when marking

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

Section A: Multiple choice

Question	Answer
1	D
2(a)	B
2(b)	C
3	D
4	C
5	A
6(a)	B
6(b)	C
6(c)	C
7	B
8	C
9	D
10	C
11	C
12	A

Section B: Research design and response

Write an appropriate research aim for the study. [2]				
Question	**Answer**		**Marks**	**Guidance**
13	Something like ... *The aim was to investigate how if / how much couples mimic (copy) each other's behaviour*		**Max 2**	Context = couples, romance/relationship related, bar
	Clearly written aim		**2**	1 mark e.g.
	Clear aim, but not in context	**OR** attempt in context	**1**	*To see how well people's behaviour indicates they are getting on with each other.*
	The candidate has not provided any creditworthy information		**0**	Or *To find out how much a people mimic each others behaviour*

Describe one strength of using the observation method in this study. [3]				
Question		**Answer**	**Marks**	**Guidance**
14	**(a)**	Likely answers: more natural behaviour of couples recorded; ecological validity high etc	**Max 3**	Context = couples, mimic/mimicking, romance/relationship related, bar
		Clear description of strength of the observation method in context	**3**	
		Attempt to describe strength of observation method in context **OR** Clear description of strength of observation method but not in context	**2**	
		Brief and/or weak attempt to describe strength of observation method (whether in context or not)	**1**	
		The candidate has not provided any creditworthy information	**0**	

Describe one weakness of using the observation method in this study. [3]				
Question		**Answer**	**Marks**	**Guidance**
14	**(b)**	Likely answers: observer bias; social desirability effect if couples realize they are being observed; practical problems recording behaviours (e.g. view obscured at times) etc	**Max 3**	Context = couples, mimic/mimicking, romance/relationship related, bar Accept reference to ethical issues as a weakness
		Clear description of weakness of the observation method in context	**3**	
		Attempt to describe weakness of observation method in context **OR** Clear description of weakness of observation method but not in context	**2**	
		Brief and/or weak attempt to describe weakness of observation method (whether in context or not)	**1**	
		The candidate has not provided any creditworthy information	**0**	

Question			Answer		Marks	Guidance
15	(a)		Likely answers: greater period of time overall can be studied (could increase validity); likely to be more representative		Max 3	Context = couples, mimic/mimicking, romance/relationship related, bar
			Clear description of strength of time sampling in context		3	Strength must be specific to the use of time sampling, not the observation method in general
			Attempt to describe strength of time sampling in context	OR Clear description of strength of time sampling but not in context	2	
			Brief and/or weak attempt to describe strength of time sampling (whether in context or not)		1	
			The candidate has not provided any creditworthy information		0	

Describe one weakness of using time sampling in this study. [3]

Question			Answer		Marks	Guidance
15	(b)		Likely answers: behaviours missed at times when observation recording not occurring		Max 3	Context = couples, mimic/mimicking, romance/relationship related, bar
			Clear description of weakness of time sampling in context		3	Weakness must be specific to the use of time sampling, not the observation method in general
			Attempt to describe weakness of time sampling in context	OR Clear description of weakness of time sampling but not in context	2	
			Brief and/or weak attempt to describe weakness of time sampling (whether in context or not)		1	
			The candidate has not provided any creditworthy information		0	

Explain the difference between a naturalistic observation and a controlled observation. [2]				
Question			**Answer**	**Marks**	**Guidance**
16			A naturalistic observation takes place in a real life setting whereas a controlled observation is conducted in a setting specifically created / arranged / set-up for the study	**Max 2**	Reference to variables is not necessarily incorrect but there must be a clear enough distinction about how the environment is manipulated in some way to convey understanding of how it differs from a naturalistic observation.
			Difference clearly explained	**2**	
			Attempt to explain difference	**1**	
			The candidate has not provided any creditworthy information	**0**	

Explain how you would conduct a study using the naturalistic observation method to investigate the extent to which couples mimic each other's behaviour whilst having a drink in a bar. Justify your decisions as part of your explanation. You must refer to:

-the use of behavioural categories (5 to 7)
    -time sampling
    -protection of participants
 	
You should use your own experience of carrying out an experiment to inform your response.

Question					Marks	Guidance
17					Max 12	-Context = bar/drink, couples Also accept (appropriate) behavioural categories as context? -For RF1 check there are at least 5 behavioural categories presented (otherwise counts as 'limited response')

Level of response	Details of required features (RFs) included	Justification of decisions made	Reference to own practical work
Good 10-12 marks	-**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	-**Appropriate justification** of all decisions and *some* is contextualized -Well developed line of reasoning that is clear and logically structured	-**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
Reasonable 7-9 marks	-**All 3** required features addressed -Reasonably accurate and detailed knowledge and understanding of each feature -At least **two** applications of required features in context	-**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	-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.
	If two required features are addressed in detail and justified in context and explicit links made to own practical work award 8 marks		
Limited 4-6 marks	-**Two** of the required features addressed -**Limited application** of required features **OR** all required features referred to but in a limited way	-**Attempt** to justify decision(s) but weak -Evidence of some structure, but weak	
	If one required feature addressed in detail and justified in context and explicit links made to own practical work award 4 marks		
Basic 1-3 marks	-**One** of the required features addressed -**Weak application** of required features **OR** more than one of the required features referred to but in a very brief and/or basic way	-**None**, or if present very weak	

What does inter-rater reliability refer to in this study? [3]					
Question			**Answer**	**Marks**	**Guidance**
18			Likely answers: the ability of two or more observers to look out for and record the behaviour of couples (mimicking each other's behaviour) in the same way.	**Max 3**	-Context = bar/drink, couples Also accept (appropriate) behavioural categories as context?
			Clear explanation of what inter-rater reliability refers to in context	**3**	-Inter-rater reliability is not simply about being able to replicate the study/findings
			Attempt to explain what inter-rater reliability refers to in context	**OR** Clear explanation of what inter-rater reliability refers to but not in context	**2**	
			Brief and/or weak attempt to explain what inter-rater reliability refers to (whether in context or not)	**1**	-Reference to clarity about what the behavioural categories are and how to interpret them is creditworthy to demonstrate understanding of what inter-rater reliability refers to
			The candidate has not provided any creditworthy information	**0**	-Cap at 1 mark if simply describing a way to check inter-rater reliability

Suggest one open question that could have been used if the researcher had used the self-report method instead of the observation method in this study. [2]				
Question		**Answer**	**Marks**	**Guidance**
19	**(a)**	For example ... *Are you aware that you sometimes copy the behaviour of your partner?*	**Max 2**	-Context = bar/drink, couples Also accept (appropriate) behavioural categories as context?
		Appropriate open question clearly suggested in context	**2**	
		Attempt to suggest open question in context	**OR** clearly suggested open question but not in context	**1**	
		The candidate has not provided any creditworthy information	**0**	

Suggest one closed question that could have been used if the researcher had used the self-report method instead of the observation method in this study. [2]				
Question		**Answer**	**Marks**	**Guidance**
19	**(b)**	For example ... *Do you sometimes reach for your drink at the same time as your partner? yes / no / not that I'm aware of*	**Max 2**	-Context = bar/drink, couples Also accept (appropriate) behavioural categories as context?
		Appropriate closed question clearly suggested in context	**2**	-Accept rating scales as closed question responses
		Attempt to suggest closed question in context	**OR** clearly suggested closed question but not in context	**1**	
		The candidate has not provided any creditworthy information	**0**	-The fixed response options must be included to qualify as a closed question. For example "Do you ever mimic your partner's behaviour?" ☐yes ☐no. Do not credit where they are not (e.g. Just saying ... "Do you ever mimic your partner's behaviour?"

PMT

Section C: Data analysis and interpretation

What is the ratio of people who like it when practical jokes are played on them to those that do not? Present your answer in its simplest form and show your workings. [2]

Question	Answer		Marks	Guidance
20	= 3:2 Examples of workings ... 120:80, 60:40, 3:2 or simply stating divide each side by 40		Max 2	Zero if answer not simplified
	Correct answer with some appropriate workings clearly shown		2	
	Correct answer but no workings (or incorrect workings)	**OR** some appropriate workings shown but no final answer stated	1	
	The candidate has not provided any creditworthy information		0	

Identify the appropriate inferential statistical test to use in this study to analyse the data obtained from the question asking about whether people laugh with their mouth open or not. Give reasons for your answer. [3]

Question	Answer		Marks	Guidance
21	Chi square Reason: test of difference in males and females laughing with mouth open or not; independent measures (males v females) nominal data (laugh with mouth open or not)		Max 3	-Context = laughing / laughter / funny / jokes -No credit for just providing reasons (e.g. saying 'nominal data') without actually identifying the inferential test -No credit if incorrect test identified regardless of reasons provided
	Inferential statistical test correctly identified with reasons (with at least one reason in context)		3	
	Test correctly identified and reasons given but not in context	**OR** test correctly identified with one reason in context	2	
	Test correctly identified only (even if reasons incorrect)		1	
	The candidate has not provided any creditworthy information		0	

Draw a bar fully labelled bar chart to display the data from the question asking people about which category of jokes they find the funniest. [4]

Question			Answer		Marks	Guidance
22	(a)				Max 4	-*A title is not necessary, but can add clarity to otherwise unclear labels on axes -Labels on axes must be clear. For example just putting 'category' instead of something like 'category of joke' is unclear (*but remember this can be clarified by a title if provided) -Cap at 3 marks if data presented as a histogram (i.e. no gap between bars) rather than a bar chart
			AO2 marks	1 mark is awarded for correctly presenting by value each bar representing all 6 categories of jokes people find funny 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 (total values) on the y axis (or x axis if the bar chart is presented the other way around)		
			All AO2 features included		4	
			3 AO2 features included		3	
			2 AO2 features included		2	
			1 AO2 feature included		1	
			The candidate has not provided any creditworthy information		0	

Calculate the percentage of people who reported 'sex' as the category of jokes they found the funniest. Show your workings and present your finding to 2 significant figures. [3]

Question			Answer		Marks	Guidance
22	(b)		= 31 50/160 x 100 = 31.25 (presented to two significant figures this is 31)		Max 3	
			Correct answer with full workings shown		3	
			Correct answer with workings shown for calculation of percentage but answer not presented to two significant figures	**OR** Correct answer but workings do not show percentage before conversion to 2 significant figures	2	
			Correct answer shown with no workings		1	
			The candidate has not provided any creditworthy information		0	

What level of data is collected in this study? Justify your answer. [2]					
Question			**Answer**	**Marks**	**Guidance**
23	**(a)**		The level of data collected is nominal as it is just frequency counts relating to what people find funny	**Max 2**	-Context = laughing / laughter / funny / jokes
			Level of data correctly identified with appropriate justification in context	**2**	
			Level of data correctly identified but not justified	**OR** Level of data correctly identified and justified, but not in context	**1**
			The candidate has not provided any creditworthy information	**0**	

Evaluate the use of this level of data in this study. [3]					
Question			**Answer**	**Marks**	**Guidance**
23	**(b)**		Nominal data is easy to collect, analyse and display, but does not provide information about strength of opinion relating to why people find the things that they do funny or not	**Max 3**	-Context = laughing / laughter / funny / jokes
			Clear evaluation of the use of nominal data in context	**3**	
			Attempt to evaluate the use of nominal data in context	**OR** Clear evaluation of the use of nominal data but not in context	**2**
			Attempt to evaluate the use of nominal data (whether in context or not)	**1**	
			The candidate has not provided any creditworthy information	**0**	

Outline two conclusions from the data collected in this study. [3]

Question			Answer		Marks	Guidance
24			Examples ... -People generally find it funny when others play practical jokes on them, suggesting they do not mind being made fun of -More males laugh with their mouth open, perhaps because females are more self-conscious of how they will look if their mouth was open when laughing		Max 4	-Context = laughing / laughter / funny / jokes -Must be a conclusion (i.e. involved some interpretation of the data) rather than just a finding -Cap at 1 mark max if *only* findings are outlined (whether one or two findings). If a finding and a conclusion are presented then only the conclusion receives credit (nothing is awarded for the finding)
			2 marks for each conclusion ...			
			Conclusion clearly outlined in context		2	
			Conclusion clearly outlined but not in context	**OR** attempt to outline conclusion in context	1	
			The candidate has not provided any creditworthy information		0	

Suggest two ways that social desirability may have influenced the data collected in this study. [4]

Question			Answer		Marks	Guidance
25			For example ... -People may have been too self conscious and embarrassed to disclose things about what they find funny, such as jokes about sex Etc etc		Max 4	-Context = laughing / laughter / funny / jokes
			2 marks for each way social desirability may have influenced the data			
			Clear suggestion of a way social desirability may have influenced the data in context		2	
			Clear suggestion of a way social desirability may have influenced the data but not in context	**OR** attempt to suggest a way social desirability may have influenced the data in context	1	
			The candidate has not provided any creditworthy information		0	

The End

OCR (Oxford Cambridge and RSA Examinations)
1 Hills Road
Cambridge
CB1 2EU

OCR Customer Contact Centre

Education and Learning
Telephone: 01223 553998
Facsimile: 01223 552627
Email: general.qualifications@ocr.org.uk

www.ocr.org.uk

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