

GCSE

Psychology

Unit **B543**: Research in Psychology

General Certificate of Secondary Education

Mark Scheme for June 2017

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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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Annotations

Annotation	Meaning
	Blank Page – this annotation must be used on all blank pages within an answer booklet (structured or unstructured) and on each page of an additional object where there is no candidate response.
	Correct response
	Incorrect response
	Unclear
	Banded down
	Benefit of doubt
	No benefit of doubt
	Expansion of a point
	Irrelevant
	Effective evaluation
	Knowledge and understanding

MARK SCHEME

Question		Answer	Marks	Guidance
1		1 mark for 'to investigate whether there are gender differences in obeying instructions / obedience	1	Allow similar response but the answer must refer to gender differences. Do not credit statement of results or hypothesis
2		1 mark for recognising that a null hypothesis predicts no difference/ no correlation	1	Contradictory responses are awarded zero Allow examples of a null hypothesis e.g. there will be no gender difference in obedience.
3		A target population is all the people the psychologist wants to study. 1 mark for identifying the target population as anyone in the school at the time of the observation	1	Allow staff and students at the / her school.
4	(a)	1 mark for identification of covert (observation) in the first box and non-participant (observation) in the second box	2	
4	(b)	1 mark for any identifying any disadvantage pertaining to either type of observation (covert / non-participant) carried out in the source 1 further mark for an elaborated response explaining why this would be a disadvantage in this study . For example, 'one disadvantage of non-participant observations is that the researcher may miss something [1] as she is watching from a distance and so the data recorded may not be accurate' [1] or 'one disadvantage of covert observations is that it is unethical (and therefore have not consented to take part in the study) [1], as participants are unaware they are being observed' [1] or 'one disadvantage of the observation used in the study is it is unethical as there is no consent [1], because the participants did not know they were being observed' [1].	2	For full marks, it should be clear which type of observation the candidate is referring to either by name or description. If the disadvantage given is of a type of observation not used in the study (participant or overt observation) and the candidate makes it clear they are referring to this observation, one mark can still be awarded.

Question	Answer	Marks	Guidance
5	<p>1 mark for recognising this is a control / to achieve standardisation. 1 mark for an elaborated response explaining why this was necessary in this study</p> <p>For example, 'keeping the procedure the same is a control [1] because if the location of the box changed during the observation, it could affect the results' [1]</p> <p>Or, 'keeping the procedure the same is called standardisation [1], this is so that changes in the procedure don't affect how the participants behave' [1], 'she kept the box in the same place to keep the observation standardised [1] which means she controls for extraneous variables which may affect the findings [1].</p>	2	<p>Credit reference to fairness / participants having equal chance Credit extraneous variables</p> <p>No explicit context is required.</p>
6	1 mark for recognising that the data is quantitative because it is numerical/numbers/counted/amount.	1	
7	(a) 1 mark for 41	1	
7	(b) 1 mark for any appropriate graph	1	<p>Most likely answers will include bar graph or pie chart. Scattergraph and line graphs are not creditworthy.</p>
7	<p>(c) Marks can be awarded in one of two ways: 1 mark for each finding from the investigation in the source</p> <p>For example, 'one finding is that people are generally obedient [1] and that males are more disobedient than females' [1]</p> <p>Or,</p>	2	<p>The description must refer to gender / sex differences to achieve full marks.</p> <p>Using the data as part of the answer can be credited as part of elaboration.</p> <p>Contradictory responses can only achieve one mark. E.g. More males disobey, less males obey.</p>

Question	Answer	Marks	Guidance
	<p>1 mark for stating a finding and, 1 mark for an elaborated response</p> <p>For example, 'one conclusion is that males are generally more disobedient than females [1] because 41/52 males disobeyed and looked in the box compared to 18/76 females' [1]</p>		<p>Citing data alone without explanation can only achieve one mark.</p>
8	<p>1 mark for showing an understanding of (low) ecological validity as a concept</p> <p>1 mark for placing this in context of the investigation</p> <p>For example, 'low ecological validity means that the findings are not true to life [1], in this study obedience was measured in an artificial way, it's not an everyday thing to come across a box with the instruction 'Do not peek inside' written on it!' [1].</p>	2	<p>Do not credit location as low in ecological validity. It is the nature of the task that lacks ecological validity.</p> <p>Do not credit population validity.</p>
9	<p>1 mark for recognising the observer effect as people behaving differently if they know they are being observed</p> <p>1 mark for placing this in context of the observation method (covert) in this investigation illustrating why it is not likely to occur in this study</p> <p>For example, 'observer effect may affect studies when participants see the psychologist watching them and this could make them behave differently [1]. Because the participants did not know that they were being observed (covert), it is not likely to have affected this observation [1].</p>	2	<p>Do not credit observer bias.</p> <p>Do not credit 'non-participant' or 'watching from a distance' as the reason that observer effect has not occurred. It is the covert part of the observation that prevents observer effects.</p>
10	<p>1 mark for ticking the first box identifying 'more than one person agrees on what they are observing' as the correct definition of inter-rater reliability</p>	1	

Question		Answer	Marks	Guidance
11		<p>1 mark for giving one comparative feature of an experiment 1 mark for giving one comparative feature of a correlation</p> <p>For example, 'experiments test cause and effect [1] whereas correlations look for relationships between variables.' [1]</p> <p>For example, 'experiments have a IV and a DV [1], correlations have co-variables [1]</p>	2	<p>When candidates give one feature, then the opposite, award a max of 1 mark. For example, 'experiments test cause and effect and correlations do not'. Where candidates give a feature of one method where the difference is implicit 1 mark can be awarded</p> <p>If candidates identify the appropriate feature but fail to identify whether they are referring to experiments or correlations, a max of 1 mark can be awarded. For example, 'one tests for cause and effect and the other doesn't'.</p> <p>Responses referring to the way data is represented can also be credited. For example, 'data from correlations are placed on a scattergraph [1] whereas data from experiments are presented in bar charts or line graphs' [1].</p> <p>Credit patterns/trends/association as feature of a correlation.</p>
12	(a)	1 mark for recognising gender bias as one gender being favoured over another or superior to another, or viewing things from the perspective of one gender.	1	As this question requires a definition, do not credit examples e.g. using an all male sample/ biased to towards one gender.'
12	(b)	<p>1 mark for identifying how gender bias may affect psychological research as a possible source of gender bias. 1 mark for an elaborated response explaining the effect the bias may have on the findings.</p> <p>For example, 'if a researcher is female, she may interpret the behaviour of female participants differently [1] this would lead to inaccurate results' [1]</p>	2	For full marks there must be a link to gender. General statements that could apply to other types of bias without the context cannot achieve 2 marks.

Question			Answer	Marks	Guidance
			For example 'If we generalised findings from a study which only used one gender, this may not be a true representation of both genders [1] so the results may not be valid for both males and females [1]'		
12	(c)		1 mark for identifying any other type of bias that may occur in psychological research For example, the most likely answers will refer to cultural or experimenter bias.	1	Credit other types of bias such as age, observer, interviewer, researcher.
13	(a)		1 mark for recognising that alternate hypotheses predict a difference <i>1 mark for the accurate identification of both variables i.e.</i> For example, 'people who watch comedies will [1] be happier than those who watch horror films' [1] or, 'there will be a difference in how happy or sad [1] people are depending on the types [1] of television programmes they watch'.	2	A response that is an aim/question/null hypothesis is capped at 1 mark if both variables are present and the correct way around. NB: hypotheses can be phrased in either the present or future tense, but not the past tense. For 2 marks the IV and the DV must be the correct way around in an alternate hypothesis. IV – TV programmes DV – Mood If the IV and the DV are the wrong way around in alternate hypothesis – 1 mark. e.g. people who are happy will watch more comedy programmes – 1 mark. e.g. the type of TV programme will be effected by your mood. – 1 marks e.g. comedy programmes improve people's mood – 2 marks. If a null hypothesis is given (and the variables are the wrong way round) 1 mark can still be achieved as the

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				<p>variables have been identified.</p> <p>Correlational hypotheses are capped at one mark if both variables are present.</p> <p>No credit can be awarded for the variables if they are explicitly the wrong way around – ‘There will be no/a difference in the types of TV programmes they watched based on their mood.’</p>
	(b)	(i)	1	<p>Representative subset should be recognisable by stating the number or stating a specific group.</p> <p>Do not credit males/females unless they are an identifiable group.</p> <p>2 features of the sample are required. e.g. 5 people from my family, 40 males, 25 people from my office, 10 students, students from Cambridge, a group of students from a school/university.</p>
	(b)	(ii)	2	<p>If the candidate names one sampling method but describes a different one, 1 mark can be awarded. For example, ‘I would use random sampling by choosing whoever is available at the time’ [1].</p> <p><u>Naming</u> – 1 mark – e.g. volunteer sample.</p> <p><u>Naming and description (no context)</u> – 2 marks e.g. random sampling by picking names out of a hat.</p> <p><u>Description and context (no naming)</u> – 2 marks. e.g. Put an advert in the newspaper asking for people who like watching TV to respond. (2 marks)</p>

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					Context can also relate to the sample identified in 13 (b) (i) The focus of the question is how the sample is obtained, not why, so justifications such as it being representative is not creditworthy.
	(c)	(i)	1 mark for any appropriate question.	1	Scales or measurements are not needed for the mark to be awarded. Questions can be open or closed. Any question relating to mood and/or TV is relevant.
	(c)	(ii)	1 mark for identifying the type of question given in (i) 1 mark for explaining the purpose of using this type of question For example, I would ask closed questions [1] because then I could more easily analyse the data' [1], or 'I would ask open questions [1] because then I could access the participant's thoughts and feelings' [1].	2	The focus is about the type of questions, justifications on question content are therefore not creditworthy.
	(d)		1 mark for an attempt to describe how the investigation would be done. For example, 'I would use a structured interview and ask all the participants the same questions' 2 marks for describing a reasonable feasible procedure For example, 'I would use a structured interview and ask all the participants the same questions. I would carry out the interviews individually using the same classroom each time' 3 marks for describing, in some detail within the time constraints, a feasible procedure. For example, 'I would use a structured interview and ask all the participants the same questions. I would carry out the interviews individually using the same classroom each time. I would gain informed consent from all the participants by telling them what the aim of the study was so they understood what their answers were being used for'.	3	NB: Refer back to 13(c) and to 13(d) before marking this question to check for repetition. The question is on how not why so justifications are not creditworthy. Due to the nature of the paper and for the potential of repetition throughout section B do not double credit the following: - No marks can be awarded for examples of questions already given in 13(c) (i) Although if new ones are described these can be credited accordingly. - No marks can be awarded for descriptions of sample, sampling method as these are credited in

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			<p>(b) (i) and (ii).</p> <ul style="list-style-type: none"> - <i>No marks can be awarded for analysis of data if this is credited in 13 (f).</i> <p>Credit any feasible features of the interview not already asked for in other questions (1 mark per feature). For example:</p> <ul style="list-style-type: none"> - Target population - Location of the interviews - Piloting the interviews - Type of interview (structured / unstructured) - Details of ethical guidelines followed - How data would be recorded e.g. taking notes. - Timing - Number of questions/ examples of questions or scales (or scale response) not included in 13 c. - Features of increasing reliability/validity e.g. more than one analysing responses, recording data on tape recorder so that information is not missed. - Controls e.g. carrying out the interview individually. <p>If the answer reads like a list, marks are capped at 2.</p> <p>Answers must go beyond the mere identification of a feature to be creditworthy. For example, simply identifying an ethical issue is insufficient for credit, candidates must show how they would achieve it.</p> <p>Only credit features that are appropriate for an interview, i.e. do not credit an experiment.</p>

Question	Answer	Marks	Guidance
(e)	<p>1 mark for identifying an appropriate weakness of using the interview method</p> <p>1 mark for placing the weakness in context of their investigation</p> <p>For example, 'people may lie or exaggerate their answers [1] so they may say the TV programme makes them feel happy when really they do not' 1].</p>	2	<p>NB: refer back to 13(d) when marking this response to check for context. If the candidate contradicts the nature of their investigation, marks are capped at 1 for identifying a generic weakness of interviews. For example, if the candidate says they rely on people being able to communicate their thoughts and feelings when they have used closed questions throughout.</p> <p>Context can come from the aim or the type of interview (excluding types of question) used previously.</p> <p>Credit interviewer bias or interviewer effect.</p>
(f)	<p>1 mark for identifying a method of analysis suitable for this investigation</p> <p>1 mark for an elaborated response illustrating how that analysis could be achieved and/or its purpose/outcome.</p> <p>1 mark for <i>What is being done with data</i> For example, 'I would analyse the data by calculating the mean score for mood when watching the types of television programme [1]. I would draw a bar chart [1]</p> <p>1 mark for <i>Why the analysis is being done</i> This would tell me if there was a difference in results [1]. So that I can draw comparisons between TV programmes [1]</p> <p>1 mark for <i>How is this being done</i> Placing mood on the X axis and TV programme on the Y axis [1] Finding the most common [1] Calculating the percentage [1]</p> <p>What I would calculate the mean [1] How by adding up all</p>	2	<p>The method of analysis should correspond with the questions types referred to throughout. For example, if open questions have been referred to, calculating means may not be a feasible method of analysis without first converting the data to quantitative.</p> <p>If a table alone or a tally chart is included it would not receive marks, however if some analysis is done e.g. 'adding scores together', 'a table of mean scores', 'a table of percentages' this can achieve one mark.</p> <p>A chart/graph alone can be credited, however graphs that contradict the nature of the investigation i.e. scatter graph would not receive credit.</p>

Question	Answer	Marks	Guidance
	the scores and dividing by the number of scores [1] What I would draw a bar chart [1] Why to see if there is a difference between mood scores.[1]		

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