

A LEVEL

Examiners' report

PSYCHOLOGY

H567

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Contents

Introduction4

Paper 1 series overview5

Section A overview7

 Question 17

 Question 27

 Question 38

 Question 48

 Question 59

 Question 69

 Question 710

 Question 810

 Question 911

 Question 1011

 Question 1112

 Question 1212

 Question 1312

 Question 1413

 Question 1513

 Question 1613

 Question 1714

 Question 1814

 Question 1914

 Question 2015

Section B overview16

 Question 2116

 Question 22*17

 Question 23 (a)20

 Question 23 (b)21

 Question 24 (a)21

 Question 24 (b)22

 Question 2523

Section C overview24

 Question 26 (a)24

 Question 26 (b)25

Question 2725

Question 28 (a)26

Question 28 (b)27

Question 2928

Question 30 (a)29

Question 30 (b)30

Question 30 (c)31

Question 3131

Question 3232

Introduction

Our examiners' reports are produced to offer constructive feedback on candidates' performance in the examinations. They provide useful guidance for future candidates.

The reports will include a general commentary on candidates' performance, identify technical aspects examined in the questions and highlight good performance and where performance could be improved. A selection of candidate answers is also provided. The reports will also explain aspects which caused difficulty and why the difficulties arose, whether through a lack of knowledge, poor examination technique, or any other identifiable and explainable reason.

Where overall performance on a question/question part was considered good, with no particular areas to highlight, these questions have not been included in the report.

A full copy of the question paper and the mark scheme can be downloaded from OCR.

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Paper 1 series overview

Overall, the standard of responses was good. There was a wide range of responses, suggesting the paper differentiated appropriately. Higher achieving candidates wrote more extended and detailed responses that were clearly focused on the question and made good use of appropriate terminology. Most candidates did contextualise their responses to the research proposal outlined in Sections B and C, although this could sometimes be inconsistent. Some candidates found it difficult to use terminology appropriately with some confusion when using some terminology such as validity and reliability.

Candidates should have practice in the design and implementation of their own practical activities (including an analysis of the data collected and the conclusions reached from this). This should reinforce their knowledge and understanding of research methods in general, as well as some of the specific terms and concepts they could be assessed on. This would help candidates to comment on how conducting their own research has helped in the planning of novel research presented in this examination. Research methods can be reinforced through the core studies so that the candidates are prepared for identifying the research methods used in the core studies that they have learned. It would also be a good idea to produce a glossary, commencing early in the course to facilitate understanding of the many terms and concepts (which candidates will not have encountered previous to studying psychology).

In general, the use of examples to illustrate points, convey understanding better and help elaboration should be encouraged. Finally, it is important to realise that a comprehensive understanding of inferential statistics and how they are interpreted is required and a realisation that there may be the need to perform some calculations in response to some questions. The majority of candidates could perform basic calculations such as mean scores but some were unable to calculate inferential statistics.

Assessment for learning



Practice in the design and implementation of their own practical activities (including an analysis of the data collected and the conclusions reached from this).

Research methods reinforced through core studies so that the candidates are prepared for identifying the research methods used in the core studies that they have learned.

Glossary of terms and concepts including strengths and weaknesses of methods, design, sampling techniques, types of data and descriptive statistics.

Presenting model responses/peer marking to help candidates to extend their responses with the use of examples to illustrate points.

Candidates who did well on this paper generally:	Candidates who did less well on this paper generally:
<ul style="list-style-type: none"> • contextualised their responses • had a good understanding of methods, sampling techniques, designs, types of data and descriptive statistics and were able to provide strengths and/or weaknesses for these in their responses • wrote extended responses appropriate to the number of marks each question was worth • had a good understanding of how to calculate Mann-Whitney, use critical values table and write a significance statement using results of calculations • had a good understanding of terminology. 	<ul style="list-style-type: none"> • showed inconsistency in contextualising responses • had some understanding of methods, sampling techniques, designs, types of data and descriptive statistics although this was inconsistent • wrote less extended responses sometimes not appropriate to the number of marks each question was worth • frequently lacked understanding how to calculate Mann-Whitney, how to use critical values table and how to write a significance statement using results of calculations • had some understanding of terminology but some confusion present, for example, incorrect usage of types of validity such as face validity and concurrent validity.

Section A overview

There was good knowledge and understanding shown of the core studies, mathematical calculations, descriptive and inferential statistics, types of observations, sampling techniques and designs of experiments as well as types of validity. In this section, candidates should cover and revise the whole of the syllabus for research methods as there were some gaps in knowledge that were evident on specific multiple choice questions outlined below.

Question 1

- 1 Which of these is an ethical consideration acknowledged by the BPS (British Psychological Society)?
- A compassion
 - B competence
 - C complacency
 - D compliance

Your answer

[1]

The majority of candidates responded well to this question. Incorrect responses were varied.

Question 2

- 2 A group of 220 people answer a question about whether they prefer the colour blue or the colour red. 160 people state that they prefer the colour blue and 60 people state that they prefer the colour red. Which of the following shows these findings expressed as a ratio in its simplest form?
- A 8:3
 - B 9:5
 - C 16:5
 - D 40:15

Your answer

[1]

The majority of candidates responded well to this question. Incorrect responses were varied.

Question 3

3 Which of these descriptive statistics involves a comparison to 100 as a reference?

- A mean
- B median
- C mode
- D percentage

Your answer

[1]

The majority of candidates responded well to this question. Incorrect responses were varied.

Question 4

4 Which inferential statistical test at some stage involves a calculation based on the number of rows of data and the number of columns of data?

- A Chi-square
- B Mann-Whitney U test
- C Spearman's Rho
- D Wilcoxon Signed Ranks test

Your answer

[1]

The majority of candidates responded well to this question. Incorrect responses were varied.

Question 5

- 5 Which of these would be the appropriate inferential test to use to analyse the data in a study investigating the difference in reaction times to two types of stimuli (a light versus a bell) that obtains data from the same people in each condition?
- A Chi Square
 - B Mann-Whitney U test
 - C Spearman's Rho
 - D Wilcoxon Signed Ranks test

Your answer

[1]

The majority of candidates responded well to this question. Some candidates chose option B incorrectly.

Question 6

- 6 In research, which of the following best describes what 'primary data' is?
- A data that has **not** been collected by the researcher(s)
 - B data that is obtained directly from the sample by the researcher(s)
 - C data that is obtained first in the research
 - D data that is the most important to use

Your answer

[1]

The majority of candidates responded well to this question. Incorrect responses were varied.

Question 7

7 If the null hypothesis is incorrectly rejected, what type of error is said to have been made?

- A a type 1 error
- B a type 2 error
- C both a type 1 and a type 2 error
- D neither a type 1 nor a type 2 error

Your answer

[1]

The majority of candidates responded well to this question. Some candidates chose option B incorrectly.

Question 8

8 What type of observation is done in a way that the participants will be unaware that they are being watched?

- A controlled
- B covert
- C overt
- D unstructured

Your answer

[1]

The majority of candidates responded well to this question. Some candidates chose option C incorrectly.

Question 9

9 Which of these best describes what the variance informs us of?

- A dispersion around the mean
- B dispersion around the median
- C dispersion around the mode
- D dispersion around the range

Your answer

[1]

The majority of candidates responded well to this question. Incorrect responses were varied.

Question 10

10 In Milgram's (1963) study of obedience, 14 of the 40 participants were disobedient. What is this expressed as a percentage?

- A 5.6%
- B 14%
- C 35%
- D 65%

Your answer

[1]

The majority of candidates responded well to this question. Some candidates chose option D incorrectly.

Question 11

11 Which of the following was used in Experiment 2 of Loftus and Palmer's (1974) study into eyewitness memory?

- A both independent and repeated measures design
- B independent measures design
- C matched participants design
- D repeated measures design

Your answer

[1]

The majority of candidates responded well to this question. Some candidates chose option D incorrectly.

Question 12

12 What is 5% expressed as a fraction?

- A $\frac{1}{2}$
- B $\frac{1}{20}$
- C $\frac{1}{5}$
- D $\frac{1}{50}$

Your answer

[1]

The majority of candidates responded well to this question. Some candidates chose option C incorrectly.

Question 13

13 If this data (48, 24, 39, 50, 32, 39) was ranked, what rank would be assigned to 39?

- A 2.5
- B 3.5
- C 4
- D 4.5

Your answer

[1]

The majority of candidates responded well to this question. Some candidates chose option C incorrectly.

Question 14

14 In which of these distribution curves is the mean, median and mode all the same value?

- A bimodal
- B negatively skewed
- C normal
- D positively skewed

Your answer

[1]

The majority of candidates responded well to this question. Incorrect responses were varied.

Question 15

15 For which of these inferential statistical tests can the sample size in each condition be different?

- A Binomial Sign test
- B Mann-Whitney U test
- C Wilcoxon Signed Ranks test
- D none of them (sample sizes always have to be equal in each condition)

Your answer

[1]

The majority of candidates responded well to this question. Some candidates chose option C or D incorrectly.

Question 16

16 What is 25.8961 written to **two** decimal places?

- A 25
- B 25.88
- C 25.89
- D 25.90

Your answer

[1]

The majority of candidates responded well to this question. Some candidates chose option C incorrectly.

Question 17

17 Which of these is **not** a laboratory experimental design?

- A alternative measures
- B independent measures
- C matched participants
- D repeated measures

Your answer

[1]

The majority of candidates responded well to this question. Incorrect responses were varied.

Question 18

18 Which of these is **not** a sampling technique that can be used to obtain participants for research?

- A creative
- B opportunity
- C random
- D self-selected

Your answer

[1]

The majority of candidates responded well to this question. Incorrect responses were varied.

Question 19

19 Which type of validity refers to the agreement between two measures or assessments taken at the same time?

- A concurrent
- B construct
- C criterion
- D face

Your answer

[1]

The majority of candidates responded well to this question. Incorrect responses were varied.

Question 20

20 Which measure of central tendency looks for the most frequently occurring response in the data?

- A** mean
- B** median
- C** mode
- D** none of them

Your answer

[1]

The majority of candidates responded well to this question. Some candidates chose option B incorrectly.

Section B overview

There was good understanding shown of the experimental research including sampling techniques, operationalising a dependent variables, ethical consideration and control of an extraneous variable. Also good understanding shown of strength and weakness of independent measures design, as well as open questions shown by many candidates. To improve, candidates should practise operationalising variables when writing hypotheses, fully explain each required feature in the extended writing question and be able to evaluate the laboratory experimental method used in Question 22. Many of the responses were appropriately contextualised but not in all cases.

Question 21

A clean smell?

The aroma of freshly baked bread, the smell of newly ground coffee and the scent of a nice fragrance. We associate different smells with different people and situations, and our sense of smell can even influence how we behave. Sometimes this can be immediate and direct, such as making us feel hungry, but it can also be more indirect. For example, the smell of lemons is often associated with cleanliness. To study this further, psychologists want to use the experimental method to investigate if people leave less litter in a room filled with the smell of lemons compared to one that smells of nothing.

21 Write a one-tailed alternative hypothesis for this study.

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..... **[3]**

Good responses provided a one-tailed hypothesis with clearly operationalised both variables (e.g. independent variable: smell of lemons/no smell and dependent variable which specified how the amount of litter would be measured e.g. number of items of litter/weight of litter). The vast majority of responses operationalised the independent variable but it was common for responses to not operationalise the dependent variable and state 'amount of litter'. The majority of candidates provided either a two-tailed, correlational or null hypothesis which resulted in no marks being given.

Exemplar 1

Write a one-tailed alternative hypothesis for this study.

People will leave ^{a lower number of} ~~more~~ objects of litter in a room that smells of lemon (due to a lemon-scented air freshener) than in a room that smells of nothing.

Exemplar 1 is an example of a full mark response with both variables clearly operationalised.

Question 22*

22* Explain how you would conduct a study using the laboratory experimental method to investigate if there is a difference in the amount of litter left in a room filled with the smell of lemons compared to a room that has no smell. Justify your decisions as part of your explanation. You must refer to:

- the sampling technique used to obtain participants for the study
- how you would operationalise the dependent variable to obtain quantitative data
- details of how one ethical consideration would be addressed
- the control of one extraneous variable.

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

[15]

Responses varied a lot to this extended question, with the majority of candidates finding it difficult to gain the higher band marks. The best responses were characterised by taking each of the four required features in turn and writing a separate paragraph relating to each one: first, demonstrating understanding of what was involved and how to address it for the research presented; next by justifying the decisions made regarding how to address it and finally, drawing on the candidates own experiences of conducting research themselves and how they learned from this how to conduct the research presented.

All of this needed to be discussed in context to obtain marks in the highest band. It should also be noted that the candidates own experiences of conducting practical activities (especially the one using the same research method, which here was the laboratory experimental method) should be evident in their response to each required feature in terms of how this has helped inform their decision making for the planning of the current proposed research.

There was also much variation in how candidates demonstrated knowledge and understanding of each of the individual required features (RFs). The best responses were characterised by first defining what the RF was/referred to (e.g. for RF1, defining the sampling method) before going on to describe exactly how the RF would be addressed in the proposed research. Often candidates did not provide enough detail. For example, in relation to RF1 just identifying the method without clearly describing how they would implement this sampling method in this research. For example, many responses did not clarify how they would end up with their final sample e.g. not stating that the first 20 volunteers were used. Some responses confused different sampling techniques, for example naming opportunity sample but then describing self-selected sampling. There were some very clear justifications in context, however, some did not use acceptable strengths of the sampling technique. For example, stating that opportunity sampling method would give a representative sample.

There was great variation in the response to RF2. Better responses gave a clear outline of how the dependent variable of 'amount of litter' would be operationalised. Such as 'counting the pieces of litter left in the room on a tally chart' or 'weighing the amount of litter left in the room in grams'. Sometimes the operationalisation of dependent variable lacked when and where the collection of data would occur or where the litter came from which sometimes limited the response to the 'reasonable' rather than 'good' band for this RF. Common justifications for this RF included making comparisons, use of bar charts and doing statistical analysis. Some responses gave weaknesses of their dependent variable which did not gain marks. Some justifications were contextualised but this was inconsistent in the responses.

Candidates used a wide variety of ethical considerations in their response to RF3. Popular responses including debriefing which told the aim of the study and revealed any deceptions used as to the nature of the study, confidentiality and allowing the participants to withdraw their data. Giving informed consent was another successful response. Clear justifications contextualised the response and often referred to respect for participants or the necessity to follow the BPS guidelines. Weaker responses to this RF did not address the assessment request to address one ethical issue and often attempted to address many ethical issues. This led to less detail being given to each ethical issue raised in the response as well as difficulty in justifying any one ethical issue in detail. Some responses were in context, but this was less consistent compared to RF1 and RF2. The ethical consideration of confidentiality sometimes stated exactly how the researcher would keep the data from the participant confidential, such as using numbers in place of participants' names. However, many responses that had confidentiality as the ethical issue, often just stated they would keep it anonymous with no further explanation as to how they would do this. Some of the justifications were very brief, sometimes just stating it made the study 'more ethical'.

There was a wide variety of suggestions given in responses to RF4. The best responses often detailed control of situational variables with a recognition that keeping the lemon smell/no smell in the rooms consistent for each participant was important. Popular ideas including opening windows and not allowing participants to wear any form of perfume during the study. Other ideas that often achieved well standardised the environment by having the layout of the rooms, location of the bins and time spent in rooms standardised among participants. There were also some good responses about participant variables with a recognition that anyone who had problems with smell or was allergic to lemons should be excluded from the study. Weaker responses often just identified the extraneous variable to be controlled or gave a very brief outline of how to control. Some responses were contextualised while others were not. Justifications were often linked to increased validity and/or reliability and some were able to give a clear explanation of why the control would lead to this improvement in the study. Better responses had specific evaluation points included. Weaker candidates justified by suggesting this would improve validity and/or reliability with no further elaboration.

Links to own practical work were usually explicit with the responses outlining what they did in their study. Some candidates linked their own practical work to the choice of the RF while others just simply described what they did in their study. Many were able to further justify their choice of RF through their choices made in their own practical work.

Exemplar 2

In my study on ~~clean~~ smells and its affect on littering behaviour I would operationalise the DV by counting the pieces of litter left in the room after each participant had been inside the condition they were assigned to. In doing so this would provide me with quantitative data and an advantage of obtaining quantitative data includes the fact data can be easily compared and analysed between both ^{the clean/lemon} ~~conditions~~ a room condition and the room that doesn't smell. In my own study on Investigating whether learning material in the form of words affects recall compared to learning material in the form of equivalent pictures I also collected quantitative data which meant I could apply stat tests to my findings and establish whether my results were significant at a certain significance level. This would be beneficial to consider when operationalising the DV in my study on smells and its affect on littering behaviour.

Exemplar 2 is an example of a candidate who has addressed RF2 reasonably and in context and provided some reasonable justification but in context and makes explicit reference to their practical work. This candidate achieved a mark in the reasonable band overall as the RFs were one good in context, two reasonable in context and one basic in context. The justifications for their response were mixed with some good and some reasonable and mainly in context.

Question 23 (a)

23 An independent measures design could have been used in this study.

(a) Outline **one** strength of using an independent measures design in this study.

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..... **[3]**

Common responses for this question often included reference to demand characteristics and order effects. Full mark responses focused either on reduced demand characteristics as participants only experience one condition of the independent variable in this case lemon scent or no smell or no order effects. These were clearly explained within the context of the study. They clearly showed how the issue chosen was a strength of the design.

Weaker responses were often due to lack of explanation or missing context in the response. Common errors involved identifying demand characteristics as a problem but then describing order effects or vice versa. As the question states outline one strength they would only be given marks for identifying the first strength given in the response. Candidates who used the response to identify sampling issues as a strength did not gain any marks.

Question 23 (b)

(b) Outline **one** weakness of using an independent measures design in this study.

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..... [3]

Responses that gained marks included reference to individual differences (participant variables) or requiring a larger sample. Full mark responses often described issues with individual differences (participant variables) due to having different participants in each condition and some may be generally tidier than others or have different attitudes towards littering. Good responses that used the need for more participants were able to explain this being due to the extra time required to recruit twice as many participants as in the repeated measures design. Some were then able to extend this weakness by explaining the effect spending more time on recruiting participants could have on the study e.g. having less time to spend on designing the study itself.

The majority of candidates did not explain why their point was a weakness and/or the response lacked context.

Question 24 (a)

24 (a) Suggest **one** open question you could use to obtain some additional information in this study.

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..... [2]

The vast majority of responses were good with a clear open question that was in the context of this study. Some candidates did not contextualise their response or provided a closed question by putting answer categories into the question.

Question 24 (b)

(b) Evaluate the use of this open question in this study.

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..... [3]

The majority of responses focused on the use of an open question providing more of an insight or depth into the attitudes towards littering and the reasons why they littered: is this because of the independent variable or other factors. Some candidates referred to the subjective nature of the qualitative data, but did not always make it clear what was subjective e.g. the comparison between responses could have been subjectively interpreted. Some responses evaluated the question they used in Question 24(a) such as it being a leading question which gained marks. Better responses were able to explain these specific evaluation points made about the question they have suggested. Some responses discussed evaluation generically of the self-report method such as social desirability rather than evaluation of an open question which did not gain marks. Many responses were contextualised but this was not consistent.

Section C overview

A good understanding was shown by the majority of candidates of ranking of data, inferential and descriptive statistics, bar charts, evaluation of the lack of qualitative data in a study, factors effecting the reliability of a study and conclusions that can be drawn from a bar chart as well as from statistical analysis. Many of the responses were in context of the study on ratings of friendliness of shop assistants wearing or not wearing a name badge. Weaker responses tended to be brief. This section of the examination had the most questions that were not attempted by candidates.

Question 26 (a)

A friendly name?

Research suggests many things can influence how friendly a person is thought to be. Personality is an obvious one and sense of humour is another. However, there are also less obvious things, such as just knowing a person's name. A psychologist investigated this using an independent measures design experiment. They compared the ratings of friendliness given to shop assistants who wore a name badge to those who did not. Some of the data collected is presented in the table below.

Ratings of friendliness (0 to 20) given to shop assistants who were wearing a name badge compared to shop assistants who were not (0 = 'not friendly at all' to 20 = 'extremely friendly')			
Wearing name badge		Not wearing name badge	
Rating	Rank	Rating	Rank
18	17	13	11
14	12	2	1
10	8	6	5
17	15	4	3
16	14	8	7
18	17	18	17
5	4	7	6
11	9	15	13
20	20	12	10
19	19	3	2

26 (a) Explain what ranking the data means.

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..... [2]

The majority of candidates showed knowledge of ranking that involves putting the data in numerical order from lowest to highest. Better responses showed knowledge of how to rank (i.e. lowest number is rank of 1 etc.)

Question 26 (b)

(b) Explain why there are three ranks of 17.

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..... [2]

The majority of candidates identified that there were three ratings of 18 and therefore would need to have the same ranking. Many responses also explained that ranks 16, 17, 18 were assigned and the median/mean/middle value found. Some candidates did not gain the second mark due to not explaining how this was calculated (the mean/median of the rank positions).

Question 27

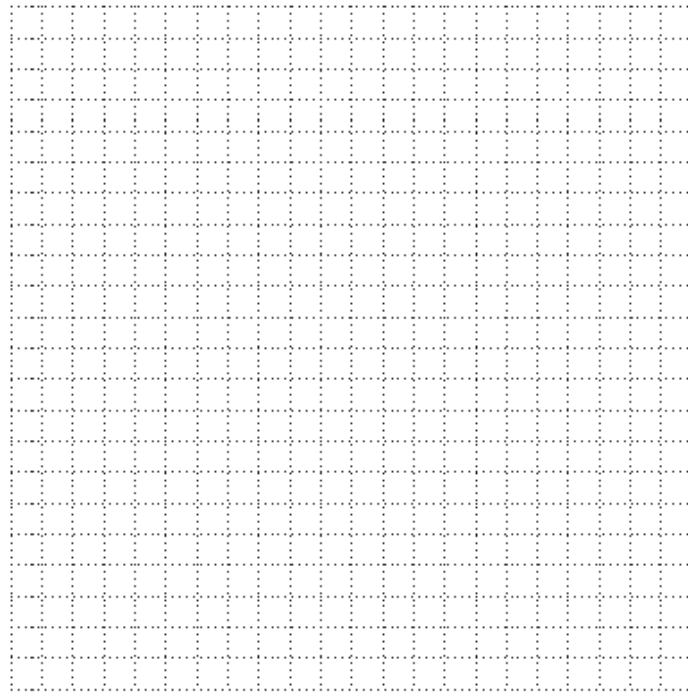
27 Calculate the mean rating of friendliness in each condition. Show your workings.

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..... [3]

The majority of candidates were correct and most achieved full marks by including the correct workings and correct mean scores for both conditions. Some responses went beyond what was needed and also calculated the mean of both conditions together which was not a requirement of the question. A minority of responses incorrectly worked out the mean of the ranks rather than the ratings of friendliness which did not gain marks. There were a very small number of responses that made an error in their calculation and presented the incorrect mean score for one of the conditions.

Question 28 (a)

28 (a) Draw a fully labelled bar chart showing the mean rating of friendliness in each condition in this study.



[4]

The majority of candidates plotted the data accurately and labelled the X axis correctly. Some responses did not get the mark for the title as either it was missing or did not include both conditions of the independent variable in the title or not mentioning mean rating of friendliness. Some responses did not get the mark for plotting the data as it was either incorrect or the bars of the bar chart were placed together. The majority of candidates achieved the mark for the Y axis although a few did just state 'mean' or 'mean rating' which did not achieve the mark for the Y axis.

Question 28 (b)

(b) Outline **one** conclusion that can be reached from the information in this bar chart.

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..... [4]

The majority of candidates were able to make a brief statement about what the results show (i.e. that shop assistants wearing a name badge are perceived as more friendly than those who don't) but many struggled to elaborate beyond the findings. Better responses tended to say that knowing someone's name means you feel you know them more personally or you feel more comfortable to speak with the shop assistant.

Assessment for learning



It would be helpful to candidates to practise differentiating between a finding and a conclusion. This could be practised through the core studies where the results of the study (the findings) can be given and then the conclusions outlined (what can be inferred from the results).

Exemplar 3

The mean rating of friendliness out of 20 is much greater for the person wearing a badge in comparison to the person not wearing a badge (14.8 in comparison to 8.8). This suggests that people are more likely to form a friendly connection when they know a persons name because when they talk it feels more personal like they know each other. Know more information about them so perceive as more friendly. [4]

Exemplar 3 shows a response that received full marks. The response outlines the difference in the findings but then makes inferences about these differences and outlines why participants may have found a shop assistant wearing a name badge to be more friendly.

Question 29

29 Explain why it may have been better to use the median to calculate the measure of central tendency in this study rather than the mean.

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..... **[2]**

The majority of candidates were able to achieve 1 mark by correctly identifying that outlier/extreme scores would affect the mean but not the median. Better responses then identified the extreme score in the data (5 or 18). However, many responses did not achieve this second mark for not giving examples of these extreme scores within the data set (5 or 18). It was common for responses to identify an incorrect extreme score such a one of the rankings of friendliness rather than the ratings of friendliness. A common error in responses that did not gain marks was to state that the median is better due to the large range of data.

Question 30 (b)

(b) The table below shows critical values at the 5% level of probability for the Mann-Whitney U test. Using the table, state the critical value **and** explain how you found this.

N_a	N_b															
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	2	3	5	6	7	8	9	11	12	13	14	15	17	18	19	20
6		5	6	8	10	11	13	14	16	17	19	21	22	24	25	27
7			8	10	12	14	16	18	20	22	24	26	28	30	32	34
8				13	15	17	19	22	24	26	29	31	34	36	38	41
9					17	20	23	26	28	31	34	37	39	42	45	48
10						23	26	29	33	36	39	42	45	48	52	55
11							30	33	37	40	44	47	51	55	58	62
12								37	41	45	49	53	57	61	65	69
13									45	50	54	59	63	67	72	76
14										55	59	64	67	74	78	83
15											64	70	75	80	85	90
16												75	81	86	92	98
17													87	93	99	105
18														99	106	112
19															113	119
20																127

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 [2]

Candidates demonstrated good understanding of critical value tables and were able to identify 23 as the critical value and explain how this was found (by using the number of participants, 10, in each condition). A common error was reading from 5 (for the 5% level of probability) and then either 20 (total participants) or 10 (participants in each condition) instead of 10 and 10.

Question 30 (c)

(c) Write the significance statement for the analysis performed on this data.

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..... [2]

The vast majority of candidates presented a written statement rather than a mathematical one and correctly compared the critical and calculated value and stated there was a significant difference. Some candidates did not make a comparison between the calculated and critical value so could not achieve full marks for this question. The most common errors were from earlier mistakes being carried forward e.g. incorrect U value, and incorrect critical value that led to an incorrect significance statement in the response. A few candidates did have the correct response in Question 30 (a) and Question 30 (b) but then concluded that the results were not significant which was incorrect.

Question 31

31 No qualitative data was collected in this study. Explain why this is a weakness of this study.

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..... [3]

The majority of candidates focused on the difficulty of not being able to find out why shop assistants with badges were rated more friendly. Better responses explained why this was a problem such as lack of detail/depth when only quantitative data is collected and the effect this could have on the validity or usefulness of the results.

Some candidates focused on the issue of not being able to rule out other extraneous variables, such as whether the shop assistant was smiling or their general behaviour towards participants and this was often done well. Weaker responses often did not explain why this extra insight is a benefit of qualitative data or a weakness of excluding it in this study.

Question 32

32 Identify and explain **two** factors that could have affected the reliability of the data collected in this study.

1

.....

.....

2


.....

..... [6]

Most responses were able to identify at least one factor that could have affected the reliability of the data collected in this study. Common creditworthy responses focused on the rating scale being subjective (with different participants interpreting the scale differently), the shop assistants not acting in a consistent way, or following a standardised procedure, participant variables and the environment of the shop. However, the explanations were not always well developed with quite a bit of confusion between validity and reliability.

Weaker responses were often brief with just a statement that the factor would affect either replicability or consistency of ratings without any explanations. Some responses would discuss issues that related to validity, and wouldn't explain why it related to consistency in sufficient detail (e.g. demand characteristics, socially desirable responses). There were a significant number of responses that explained issues which were not creditworthy e.g. generalisability, or confuse the stem and suggest that the shop assistants were rating how friendly the customers were. Many of the responses were an attempt in context and not properly developed to get full marks.

Misconception

 Many responses for this question were confused between reliability and validity.

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