CAMBRIDGE
International Education

Cambridge International AS & A Level

PSYCHOLOGY **9990/21**

Paper 2 Research Methods **May/June 2024**

MARK SCHEME

Maximum Mark: 60

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the May/June 2024 series for most Cambridge IGCSE, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

© Cambridge University Press & Assessment 2024

PUBLISHED

Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptions for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

© Cambridge University Press & Assessment 2024

GENERIC MARKING PRINCIPLE 5: Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).
GENERIC MARKING PRINCIPLE 6: Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

© Cambridge University Press & Assessment 2024

PUBLISHED

Social Science-Specific Marking Principles
(for point-based marking)

1 Components using point-based marking:

- Point marking is often used to reward knowledge, understanding and application of skills. We give credit where the candidate's answer shows relevant knowledge, understanding and application of skills in answering the question. We do not give credit where the answer shows confusion.

From this it follows that we:

a DO credit answers which are worded differently from the mark scheme if they clearly convey the same meaning (unless the mark scheme requires a specific term)
b DO credit alternative answers/examples which are not written in the mark scheme if they are correct
c DO credit answers where candidates give more than one correct answer in one prompt/numbered/scaffolded space where extended writing is required rather than list-type answers. For example, questions that require *n* reasons (e.g. State two reasons …).
d DO NOT credit answers simply for using a 'key term' unless that is all that is required. (Check for evidence it is understood and not used wrongly.)
e DO NOT credit answers which are obviously self-contradicting or trying to cover all possibilities
f DO NOT give further credit for what is effectively repetition of a correct point already credited unless the language itself is being tested. This applies equally to 'mirror statements' (i.e. polluted/not polluted).
g DO NOT require spellings to be correct, unless this is part of the test. However spellings of syllabus terms must allow for clear and unambiguous separation from other syllabus terms with which they may be confused (e.g. Corrasion/Corrosion)

2 Presentation of mark scheme:

- Slashes (/) or the word 'or' separate alternative ways of making the same point.
- Semi colons (;) bullet points (•) or figures in brackets (1) separate different points.
- Content in the answer column in brackets is for examiner information/context to clarify the marking but is not required to earn the mark (except Accounting syllabuses where they indicate negative numbers).

3 Annotation:

- For point marking, ticks can be used to indicate correct answers and crosses can be used to indicate wrong answers. There is no direct relationship between ticks and marks. Ticks have no defined meaning for levels of response marking.
- For levels of response marking, the level awarded should be annotated on the script.
- Other annotations will be used by examiners as agreed during standardisation, and the meaning will be understood by all examiners who marked that paper.

© Cambridge University Press & Assessment 2024

Guide to marking annotations

BOD	benefit of doubt	✓	correct point [use **one tick per mark** except in last question part (a)]	✗	incorrect point	✓a ✓b	use for each point of description of a **required feature** in part (a) of last Q
NBOD	no benefit of doubt	GM	indicates a point is a Generic Mark	CONT	continued (use 'link' icon)	✓c ✓d	
A	'something is missing'	?	unclear point	NAQ	not answering question		
REP	repetition (of stem / within response)	~~~	use wiggly underline / highlighter to bring attention to a key part	✓a ~~~	underline letter-tick when required feature is in enough ***detail***	L1 L2 L3 L4 L5	use to show Level 1, 2, 3, 4 or 5 in part (a) of last Q
SEEN	acknowledge blank pages						

Important marking guidelines for reference

NR or zero	**Award No Response (NR):** • if there is nothing written at all in the answer space • if there is any comment un elated to the question being asked (e.g. 'can't do', 'don't know') • if there is any sort of mark which isn't an attempt at the question (e.g. a dash, a question mark). • Note: you can press the # or / key to enter NR **Award Zero (0):** • if there is any attempt that earns no credit, eg the candidate copying all or some of the question, or any working that does not earn any marks, whether crossed out or not.
Crossed out work	Please note that if a candidate crosses out a question and does not re-attempt the same question, you must attempt to mark the crossed out work.
Annotate every question	Please place a marking icon on **every question** and to indicate each mark awarded (**number of ticks = number of marks** on all questions except part (a) of the last question). However, you do **not** need to put 'seen' on NR spaces.

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
1(a)	**Identify the sampling technique used in the study by Milgram (obedience).** Volunteer sampling = 1 [**definitive**] Self-selecting sampling = 1	**1**	Do **not** accept general description: 'the Ps were selected / sampled by replying to an advert' = 0
1(b)	**Outline how the sample was obtained in this study.** advertisement; (**description**) in newspaper; (detail) in New Haven; (detail) aged 20–50; (detail) asking for men / a range of occupations; (detail) by direct mail; (**description** / detail) Payment / Incentive; (detail) Asking for people for a study on memory / learning / punishment; (detail)	**2**	Description of sampling = 1 (**definitive**: advert / direct mail) Detail = 1 (can award this mark independently of the description mark, but **max 1**) **Accept**: 'white and blue collar workers'

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
2	**Explain what is meant by the ethical guideline of 'species' in relation to animals in psychological research.** use the species that will suffer the **least**; (explanation) e.g. sentient animals will suffer more; (detail) use a species that will fulfil the aim of the research; (explanation or detail) e.g. one like us that was social / had colour vision / is clever; (detail) use mice as they suffer **less** than chimps; (detail) Use species that are not endangered = 1 (max) (explanation only) Bred in captivity = 0 = NAQ [this is about the particular individuals not the species] Humanely treated = 0	**2**	explanation = 1 detail = 1 Just saying 'Species should be protected from harm' is NAQ

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
3	**Dement and Kleitman (sleep and dreams) asked participants to record their dream narratives. The words in each narrative were counted.**		
3(a)	**Identify the type of data provided by counting the words in the narratives. Justify your answer.** Quantitative; because it was the **number** of words/was **numerical**/ **how many**…; (justification)	**2**	type of data (quantitative) = 1 [**definitive**] justification = 1 (does **not** have to be linked) **Ignore** discrete / categorical = 0 = incorrect **Accept** ordinal/interval/ratio
3(b)	**Explain <u>one</u> strength of collecting this type of data in this study.** can be analysed / compared; (explanation) can use statistics/graphs; (explanation) e.g. compare number of words in REM and nREM; (link) objective / does not need interpretation / free of bias; (explanation) dream 'detail' less reliable to estimate; (link) numerical is reliable; (explanation) researchers are unlikely to make mistakes counting words; (link)s	**2**	explanation = 1 link = 1 factual / accurate = 0 measurable = 0 needs 'because' or 'than'

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
4	**Glyn is conducting an experiment with an independent measures design. He is testing the effect of background noise on social learning (learning by imitation). Glyn shows each participant how to build a tower from blocks. Each participant then builds this tower, with either singing or silence in the background.**		
4(a)	**Explain what is meant by an 'independent measures design', including an example from Glyn's study.** Different **participants / people / groups** in each level of the IV / condition; (explanation) Because participants do not do both conditions; (explanation) **BOD** i.e. either singing **or** silence (but not both); (example) There are two conditions Silence and Singing; (example) **Participants** perform in **either** kind of background / sound condition / in singing **or** silence (but not both); (explanation + example)	**2**	Explanation = 1 Do **NOT** allow 'different **conditions**' HERE [could be repeated measures] must be **participants / people / groups'** Example = 1 [can use 'different conditions' here] [Do **not** award independently of 1st mark] Just saying 'Not repeated measures' = 0
4(b)	**Explain what is meant by a 'control condition', including an example from Glyn's study.** Level of the IV / condition in an experiment from which the IV itself is absent; (explanation) The silence condition; (example)	**2**	Explanation = 1 Example = 1 [this mark can be awarded separately] Do **not** accept 'placebo' / 'placebo condition' Do **not** accept 'to compare' alone, this could just be two experimental conditions)

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
4(c)	**Suggest how Glyn could measure social learning (learning by imitation) in his study.** By observation = 1 (basic suggestion) Being able to build the tower/ to imitate Glyn's tower = 1 (basic suggestion) Whether the tower is **the same** as Glyn's = 2 (detailed suggestion) Whether the tower falls down = 2 (detailed suggestion) Timing them = 1 (basic suggestion) Timing how long it takes to build the tower = 2 (detailed suggestion) Count the blocks used = 1 (basic suggestion) How many blocks are accurate / the same as Glyn's = 2 (detailed suggestion) Sing (the same as Glyn) / how loud the singing is = 0 How well they imitated Glyn = 0 [REP] Needs to elaborate on 'how well' 'accuracy' in this context (of imitation) is fine – just not elsewhere in place of terms like 'valid' or 'reliable'. Whether the tower is **like** Glyn's = 1	**2**	Basic suggestion = 1 mark Detailed suggestion = 2 marks (must have link for 2 marks) Note: a basic linked suggestion is **not** enough for 2 marks

© Cambridge University Press & Assessment 2024

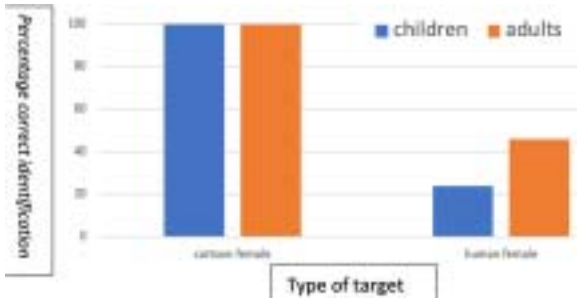
Question	Answer	Marks	Guidance
5	**In the study by Pozzulo et al. (line-ups), children were interviewed.**		
5(a)	**Explain why it was necessary to gain consent from both the children and the children's parents / guardians.** Consent is **agreeing** to participate; (explanation) Having enough **information** to decide for their child; (explanation / parent) Parental consent as **children may not understand;** (parent) Children are not fully able to give **informed** consent / children may not understand enough; Child consent necessary as they have feelings too; Allow any advantage of gaining consent applicable to adults / children	**3**	Explanation of informed consent = 1 Why from parents = 1 Why from children = 1
5(b)	**To test correct identification of the cartoon characters, many 'foils' were needed that were similar to the target cartoons.** **Explain <u>one</u> way in which the foils needed to be similar to the targets.** *Similarities from the paper:* • facial structure • hair length (allow 'style') • hair colour • clothes • colours / black and white *Also:* • sex (also accept 'gender')	**1**	Explanation = 1 (Only need to **identify** similarity) **Accept** 'same size' Do **not** accept 'race' / 'ethnic group' (Latino / Latina form a pan-ethnicity)

© Cambridge University Press & Assessment 2024

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Guidance</th></tr>
<tr><td>5(c)</td><td>Fig. 5.1 shows some of the data from this study. Use this graph to produce a table of the data.

You <u>must</u> write full headings on your table.

Fig. 5.1 Results from the study by Pozzulo et al. for the correct identification of target individuals in a line-up.



1 mark per correct point about table.

Accurate figures from graph (100, 100, 24 [22–26], 46 [44–48]) = 1
Type of target (OWTTE) = 1
Cartoon female and human female = 1
Child and adult participants = 1
Percentage correct identification (of the individual in a line-up) = 1 (just once)</td><td>4</td><td>It is incorrect to put ‘%’ after each figure but ignore this.

<table>
<tr><td></td><td></td><td colspan="2">(age of participants)</td></tr>
<tr><td></td><td></td><td>children</td><td>adults</td></tr>
<tr><td rowspan="2">Percent correct identification (of female target in a line-up)</td><td>Cartoon (female)</td><td>100</td><td>100</td></tr>
<tr><td>Human (female)</td><td>24 (22-26)</td><td>46 (44-48)</td></tr>
</table>

Note: this table could be correctly drawn in several different ways.</td></tr>
</table>

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
6	**Describe participant observation and non-participant observation, using any example(s).** In either P or NP observation Ps may or may not be aware of being observed / it can be covert or overt; (detail– once) *participant observation:* researcher watches as **part of the ongoing activity**; (definition) appears to be like the participants **in social role**; (definition) The participants can see the observer **= 0** (This is overt obs) Interaction can give greater insight into reasons for behaviours observed; (detail) **Piliavin** et al. the observers appeared to be passengers; (core study example) Note **Piliavin** et al.'s **victims/models** were **NOT** observing (so not eg. of participant observer) Note **Milgram** stooge/learner was **not** an observer (so not eg. of participant observer) If an observer joins in with children's games to record their behaviour; (own example) **Saavedra & Silverman**: observed boy performing in vivo button tasks; (core study)	**6**	1 mark for each definition / point of detail, up to a max of 2 for each term / concept. 1 mark for each example, max 2 for each term / concept. Examples can include examples from any studies (core, other, candidate's own studies). Max 4 if no examples or if only about one term / concept. Only 1 example needed to access 6 marks.

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
6	*non-participant observation:* observer **not involved** in situation being studied; (definition) uses camera / one-way mirror / **distanced** from social group; (definition) (often inobtrusive) so fewer demand characteristics; (detail) Observer is objective as not involved in emotions of the social situation of Ps; (detail) Bandura et al./Milgram used a **one-way mirror**; (definition only) Bandura et al. observed **from another room**; (definition only) Milgram, observed from where **he couldn't be seen**; (definition only) Bandura et al. did a non-participant observation of children; (example: core study) 1 **Bandura** et al. observed the children **from another room**; (core study+detail) 2 **Bandura** et al. used a **one-way mirror** to observe the children; (core study+detail) 2 Milgram, did a non-participant observation of Ps shocking learners; (example: core) 1 **Milgram**, saw teachers shocking from where **he couldn't be seen**; (core st+detail) 2 **Milgram**, observations of obedience used **one-way mirror**; (core study+detail) 2		

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
6	The participants cannot see the observer **= 0** (this is covert observation) Hassett – NP Fagen – NP (because the researchers were not engaging in an elephantine way) Andrade – **not** an observation		

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
7	**Ranya is collecting data about study habits after school. She is asking students in her school two questions:** **1 How long do you spend studying per week after school?** **2 Which subject do you prefer to study after school: arts, languages, maths, or science?**		
7(a)	**Ranya will use two different measures of central tendency on her data, the mode and the mean.** **Explain which measure of central tendency would be <u>most</u> appropriate for each of Ranya's questions.** **Q1**: mean **because** the data is on a scale/continuous data; (accept: interval/ratio data) **Q2**: mode **because** it is categorical/discrete data; (accept 'frequency data') Do **not** accept 'qualitative' for **Q2** (mean) Do **not** accept 'words' for **Q2** (mode) Do **not** accept 'qualitative'/'words' for **Q2** (mode) **Q1** To find the average number of hours they spend studying a week = 0 = NAQ **Q2** To find the subject most of them prefer = 0 = NAQ **Q2** To find the **frequency** of the subject most of them prefer = 1 = (indirect correct response)	**2**	Explanation = 1 [x2] Note: the mark is for the explanation. **No** mark for correct choice i.e. 'mean' / 'mode'
7(b)(i)	**Explain how Ranya would calculate the range of hours spent studying per week after school.** Take smallest number (of hours study) from largest (number of hours study) + 1;	**1**	Explanation (with or without link) = 1 Accept answers whether or not they add 1. Find / compare the largest and smallest scores = 1

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
7(b)(ii)	**Ranya's colleague says she should use the standard deviation instead of the range for the data from Question 1.** **Explain why the standard deviation would provide more information than the range.** The standard deviation shows the spread around the mean (explanation); whereas the range **only** looks at the end points; (detail: comparison) ORA SD judges how far the scores are from the mean = 1 The SD indicates how much the results are clustered or spread out (explanation); whereas the range just gives / uses the extreme values; (detail: comparison) ORA So the range gives less information because it only uses 2 scores / endpoints / outliers; So the range can be misleading because it can be swung by a single outliers; The standard deviation shows the variation around the mean (explanation); Ranya would know how much variation there is in students' study time; (linked detail) The SD uses the whole data set / all the values (explanation); whereas the range only uses the ends/only uses two numbers; (detail: comparison) ORA	**2**	Explanation = 1 Detail (generic or linked) = 1 Accept spread / differences from mean/variation/dispersion but **not** 'deviation' [REP]

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
7(c)	**Ranya will use a non-directional (two-tailed) hypothesis about study habits.** **Explain which hypothesis Rayna will use:** **X. Students who prefer maths will spend more time studying.** Y. **There will be a difference in the time spent studying by students who prefer maths and students who do not prefer maths.** Y **because** it **only / simply / just** says that there will be a difference (in time); BOD Y Does not say (a direction of – *ignore*) which group will spend more time studying; BOD Y **because** it does not say the **which way** the difference will go; Y **because** it says maths students will spend **a different** amount of time than the other / non-maths / arts, language and science students; Y **because** it doesn't say whether maths students will spend **more or less** time than the other / non-maths / arts, language and science students (a directional one would); Y **because** it does not indicate how the IV will affect the DV, only that it will.	**1**	Answer Y, but mark is for *explaining*, i.e. **because** = 1 (generic or linked) All attempts to justify hypothesis **X = 0** Saying X does **not** indicate a direction = 0 = **REP** Y because it says that there will be a difference (in time) = 0 (also applies to directional hypotheses)

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
8	**Simon is conducting a study about children learning to read. He is comparing how well they understand a story when reading from a book which has pages with images that are either:** • **coloured shapes** • **pictures that are not related to the text** • **pictures that are related to the text.**		
8(a)	**Identify the independent variable (IV) in Simon's study.** Illustrations on the pages / the types of image / the three conditions / pictures that are related or not related to the text or coloured shapes;	**1**	Identification of IV = 1
8(b)	**Identify the dependent variable (DV) in Simon's study.** (The children's) **understanding** (of the story / the book); The story / the book = 0 If a candidate operationalises the DV = 0 = NAQ [the Q asks for identification from the stem]	**1**	Identification of DV = 1 [definitive]
8(c)	**All the pictures and shapes are brightly coloured.** **Explain <u>one</u> reason why this is important.** It is a control (for the shapes); (identification) So that cause and effect can be established / differences in the DV are due to the IV / are not due to extraneous variables; (generic detail) e.g. for attention; (explanation) which could be better for coloured illustrations than black-and-white ones; (detail) If the shapes were more brightly coloured than the illustrations the children might be distracted; (detail) So that differences in understanding are due to the pictures / relevance not the colours; (effect)	**3**	Identification of 'control' = 1 Explanation of why this is important = 1 Detail / effect on results = 1 Note: although the 'identification' mark is clear, the 'explanation' and 'detail' marks are interchangeable. The response doesn't have to be linked to the stem, but it is unlikely that it wouldn't be for 3 marks.

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
9	**Heng is conducting a study to investigate the job satisfaction of male and female employees at a factory.** **She has identified two problems with uncontrolled variables. One is a situational variable and the other is a participant variable:** **Variable X: female employees have more responsibilities at home** **Variable Y: the factory promotes male employees faster than females.**		
9(a)	**Explain which <u>one</u> of these problems is a participant variable.** *Female employees have more responsibilities at home / variable X* is a participant variable **because** responsibilities at home relate to each **individual** woman / **internal** factors / **personal** factors; (explanation)	**1**	Identification X should be correct, but **NO** mark for this 1 mark for explanation because amount of responsibility at home is unique to women = 0 because amount of responsibility at home is **unique to each** woman (as an individual) = 1 because women have (more) responsibilities at home = 0 = REP
9(b)	**Explain which <u>one</u> of these problems is a situational variable.** *Faster promotion for male employees / variable Y* is a situational variable **because** this is **external** / **environmental** / **setting** (because it depends on the factory); (explanation)	**1**	Identification of Y should correct, but **NO** mark for this 1 mark for explanation Because men are promoted faster = 0 = REP Anything just about the 'factory' = 0

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
9(c)(i)	**Suggest how Heng could limit the problem of <u>one</u> of these uncontrolled variables.** (*participant) Female responsibilities:* Limit the effect by pairing male and females with equal family / home / parental responsibilities; (suggestion) To be sure any difference is due to gender; (detail) *(situational) male promotion:* Remove all individuals seeking/receiving promotion from the sample; (suggestion) e.g. by giving out a questionnaire to find out who to exclude (and removing them); (detail) To be sure any difference is due to gender; (detail)	**2**	**No** mark for identifying the problem (i.e. situational / participant var) 1 mark for suggestion (mitigation or elimination) 1 mark for detail
9(c)(ii)	**Trying to limit a problem in a study can create further issues. Suggest <u>one</u> issue that your answer to part (c)(i) could create for Heng.** (*participant) Female responsibilities:* lack of generalisability; (suggestion) If males and females are paired, this ignores the majority of females with extra responsibilities; (detail) *(situational) male promotion:* Validity may be reduced; (suggestion) Because promotion may cause satisfaction; (detail)	**2**	Suggestion of issue created = 1 (accept reasonable arguments **except** cost and time) detail = 1

© Cambridge University Press & Assessment 2024

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Guidance</th></tr>
<tr><td>10</td><td colspan="3">Mary is conducting a case study on a boy diagnosed with an autistic spectrum disorder. He produces many detailed doodles and Mary wants to learn about him and his doodling.</td></tr>
<tr><td>10(a)</td><td>Describe how Mary could conduct a case study of doodling in a boy diagnosed with an autistic spectrum disorder.

Do <u>not</u> describe sampling technique or ethical issues / guidelines in your answer.

The four required features for this case study are:

(a) details about the participant / unit (ASD / male, age, how found, other info e.g. diagnosis, parents, teachers, P background)

(b) content of information collected: (e.g. depth / detail: e.g. types of doodles, frequency, e.g. associate with emotions / being with friends/being outdoors, examples of rating scales etc etc.)

(c) two or more techniques for data collection (observation, interview him, interview, use rating scales parents/teachers – at least two)

(d) analysis / interpretation / triangulation: (description of how data used: qualitative and/or quantitative; triangulation – making sure the sources agree to be confident in the conclusion. Note: this is not about reliability)</td><td>10</td><td>To mark Q10a, create four ‘imaginary columns’ down one margin, using one column for each of the four required features. Tick each feature (tick-a, tick-b, tick-c, tick-d) when it appears, then underline the letter ( ) for detail.

Use L1, L2, L3, L4, L5 at the end of the response to indicate the level.

Use the table below to mark candidate responses to this question.
<table>
<tr><th>Level</th><th>The response:</th></tr>
<tr><td>Level 5
9–10 marks</td><td>• has all the required features, all with <u>detail</u>, with mostly appropriate terminology.
AND
• clearly applies knowledge of methodology involved in planning this investigation.</td></tr>
<tr><td>Level 4
7–8 marks</td><td>• has all the required features, but only some of these with <u>detail</u>, with some appropriate terminology.
AND
• applies knowledge of methodology involved in planning this investigation.</td></tr>
</table></td></tr>
</table>

© Cambridge University Press & Assessment 2024

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Guidance</th></tr>
<tr><td>10(a)</td><td></td><td></td><td>
<table>
<tr><td>Level 3
5–6 marks</td><td>• has some of the required features with <u>detail</u> / all of the required features with <u>no</u> <u>detail</u>, and some appropriate terminology.
AND
• applies a basic knowledge of methodology involved in planning this investigation.</td></tr>
<tr><td>Level 2
3–4 marks</td><td>• has at least two of the required features, with little appropriate terminology.
AND
• attempts to use knowledge of methodology involved in planning this investigation.</td></tr>
<tr><td>Level 1
1–2 marks</td><td>• has one of the required features and uses little appropriate terminology.
AND
• makes a limited attempt to use knowledge of methodology involved in planning this investigation, e.g. may not use the method required by the question.</td></tr>
<tr><td>0 marks</td><td>No creditable response.</td></tr>
</table>
Other appropriate responses should also be credited.
</td></tr>
</table>

© Cambridge University Press & Assessment 2024

Question	Answer	Marks	Guidance
10(b)(i)	**Explain how <u>one</u> feature of the procedure you described in part (a) helps to make the study valid.** **Do <u>not</u> refer to sampling or ethics in your answer.** Part of procedure may relate to: • operationalisation • situational / participant variables factors • controls • design / counterbalancing Accept other practical influences on validity.	**2**	Identification of helpful part for validity = 1 **explanation** (generic or linked) = 1
10(b)(ii)	**Suggest <u>one</u> way to improve the reliability of the procedure you described in part (a). Justify your answer.** **Do <u>not</u> refer to sampling or ethics in your answer.** Part of procedure may relate to: • standardisation • consistency within and between raters (reliability). Accept other practical influences on reliability.	**2**	Suggestion for improvement of reliability = 1 (linked to (b)(i)) **Justification** = 1 (linked or generic)

© Cambridge University Press & Assessment 2024