7.9 Observational Techniques: Design, Sampling and Inter-Observer Reliability

AQA 7182 · about 50 minutes · Write-in edition

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions.

1 Define naturalistic observation as a research method in psychology, giving its setting and a key feature that distinguishes it from controlled observation. Context: observing playground behaviour in a school.

(Total for Question 1 is 2 marks)

2 A pilot structured observation used time sampling with 30 second intervals and found very few occurrences of the target behaviour 'helping'. Suggest two modifications to the recording method to improve capture of helping behaviour and explain the expected benefit of each for data quality.

(Total for Question 2 is 4 marks)

3 Define controlled observation in the context of observing parent and infant interactions in a lab playroom, and give one advantage of this design over naturalistic observation.

(Total for Question 3 is 1 mark)

4 Describe one practical step a researcher can take to improve inter-observer reliability when two observers are coding classroom participation independently, before collecting the main data.

(Total for Question 4 is 2 marks)

5 Suggest one reason why a researcher might prefer participant observation over non-participant observation when studying rituals in a local cultural ceremony, and state one disadvantage of participant observation in that cultural context.

(Total for Question 5 is 2 marks)

6 Operationalising aggressive acts in a structured observation of sibling interaction at home. Suggest three mutually exclusive, observable categories that could be used, and explain briefly why mutual exclusivity is important for coding.

(Total for Question 6 is 2 marks)

7 Outline one strength of covert observation when studying anti-social behaviour in a public park, and explain one ethical limitation of covert observation in that setting.

(Total for Question 7 is 2 marks)

8 A researcher plans a structured observation of student interactions in a university common room. Suggest two behavioural categories that are precise and observable for a coding scheme, and state why operationalisation matters in a coding scheme.

(Total for Question 8 is 3 marks)

9 Explain the difference between event sampling and time sampling for a structured observation of playground aggression, and give one advantage of event sampling in that context.

(Total for Question 9 is 2 marks)

10 A researcher plans an overt, non-participant observation of shoppers' queue behaviour in a supermarket. Suggest two sampling strategies to select times and shoppers for observation and explain one advantage of each strategy in this retail context.

(Total for Question 10 is 4 marks)

11 Outline one limitation of using non-participant observation when researching family interactions at a community centre, and explain why it matters for the validity of the findings.

(Total for Question 11 is 2 marks)

12 Evaluate the strengths and limitations of a structured, overt, non-participant observation design for studying social interactions on public transport. Refer to practicalities, reliability, validity and ethics in your answer.

(Total for Question 12 is 12 marks)

13 Two observers independently code 20 ten-minute video segments for instances of a target behaviour. Observer A records counts: 4, 2, 3, 6, 5, 0, 1, 2, 4, 3, 2, 1, 0, 5, 3, 2, 6, 1, 2, 4. Observer B records counts: 5, 2, 2, 6, 4, 1, 1, 3, 4, 2, 2, 1, 0, 5, 2, 2, 5, 1, 1, 4. Calculate the percentage agreement within 1 count between the two observers across the 20 segments. A within-1-count match counts as agreement.

(Total for Question 13 is 3 marks)

Mark scheme · 7.9 Observational Techniques: Design, Sampling and Inter-Observer Reliability

Question 1

observing behaviour in the subject's normal, everyday environment, for example watching children on a school playground oe — **B1**

no systematic manipulation or control of variables by the researcher, natural setting is key oe — **B1**

Answer: Observing behaviour in the subject's normal environment, for example watching a school playground, with no experimental control or manipulation.

Question 2

suggests a change such as switching to event sampling or lengthening observation windows rather than only 30 second snapshots oe — **M1**

explains expected benefit: event sampling records each instance of helping so rare but important acts are less likely to be missed oe — **A1**

second suggestion: reduce interval length or use continuous recording for periods of interest oe — **M1**

explains benefit of second suggestion: more continuous coverage increases likelihood of capturing brief helping acts and improves validity of frequency estimates oe — **A1**

Answer: Switch to event sampling so every instance of helping is recorded, and use continuous recording rather than 30 second snapshots; both approaches increase the chance of capturing rare, brief helping acts and so improve validity.

Question 3

controlled observation: observation conducted in a structured setting where some variables are standardised or manipulated, e.g. a lab playroom oe — **B1**

Answer: Controlled observation is conducted in a structured setting where aspects are standardised, for example a lab playroom; advantage: greater control increases reliability and easier replication.

Question 4

carry out a training session where observers practise coding on the same pilot video or live session and discuss disagreements oe — **M1**

explains how this improves reliability: shared practice and discussion increases consistency of interpretations and use of the coding scheme oe — **A1**

Answer: Run a training session using the same pilot video so observers practise coding and resolve ambiguities; this aligns interpretations and increases agreement when coding the real data.

Question 5

reason for preference: participant observation allows the researcher to gain insider perspective and observe behaviours and meanings not accessible to outsiders oe — **M1**

disadvantage: risk of loss of objectivity or becoming influential in the group, leading to observer bias and reduced reliability oe — **A1**

Answer: Participant observation gives insider access to meanings and private aspects of rituals. Disadvantage: the researcher may lose objectivity or change group behaviour, introducing bias.

Question 6

three suitable mutually exclusive categories given, e.g. 'hitting' (open-hand or closed-fist contact to body), 'pushing' (forceful displacement without hand contact to face), 'verbal threat' (spoken aggressive phrase aimed at sibling) oe — **M1**

explains mutual exclusivity matters: it prevents double counting and ensures each behaviour is coded into only one category, improving reliability and clarity oe — **A1**

Answer: Categories: 'hitting' defined as contact strikes, 'pushing' as forceful displacement, 'verbal threat' as aggressive spoken phrases. Mutual exclusivity prevents double counting so coding is consistent and reliable.

Question 7

strength: reduces demand characteristics and social desirability, so behaviour observed is more natural and valid oe — **M1**

ethical limitation: lack of informed consent and potential invasion of privacy, which may harm participants or breach ethical guidelines oe — **A1**

Answer: Strength: covert observation reduces demand characteristics so behaviour is more natural. Ethical limitation: participants are not informed or consenting so their privacy is invaded and the study may breach ethical standards.

Question 8

first behavioural category given and operationalised precisely, e.g. 'verbal help': any spoken offer of information or assistance lasting at least 2 seconds oe — **M1**

second behavioural category given and operationalised precisely, e.g. 'physical proximity approach': moving to within 1 metre of another person and remaining there for at least 3 seconds oe — **M1**

explains why operationalisation matters: it ensures observers record the same behaviours consistently, increasing reliability and reducing ambiguity oe — **A1**

Answer: E.g. 'verbal help' defined as any spoken offer of information or assistance lasting at least 2 seconds; 'physical proximity approach' defined as moving to within 1 metre and staying for 3 seconds. Operationalisation matters because it makes categories clear so different observers code behaviours consistently.

Question 9

difference: event sampling records each instance of a target behaviour whenever it occurs, while time sampling records whether behaviours occur in predetermined time intervals or at set moments oe — **M1**

advantage of event sampling: useful for rare but important behaviours like aggression because it captures every occurrence, improving validity of frequency estimates oe — **A1**

Answer: Event sampling logs every instance of aggression as it happens, whereas time sampling checks for aggression during set intervals. Event sampling is advantageous for rare behaviours because it captures each occurrence and gives a better estimate of frequency.

Question 10

suggests a time-based sampling strategy, e.g. systematic sampling of time slots such as every hour on the hour over several days oe — **M1**

explains advantage of time sampling: captures behaviour across different busy and quiet periods, improving representativeness over the trading day oe — **A1**

suggests a shopper sampling strategy, e.g. every nth shopper entering the queue or selecting shoppers by alternating positions oe — **M1**

explains advantage of systematic shopper sampling: reduces observer bias in selecting shoppers and gives a more unbiased sample of customers oe — **A1**

Answer: Time sampling: observe at set times, for example every hour, which covers busy and quiet periods so findings represent different trading times. Systematic shopper sampling: record every 5th shopper in the queue, which reduces observer selection bias and yields an unbiased sample.

Question 11

one valid limitation, e.g. an external observer may miss contextual meanings or private interactions; if observation is overt, people may change their behaviour, oe — **M1**

explains why the chosen limitation reduces validity, e.g. missing context leads to misinterpretation or an incomplete record; changed behaviour is less representative of usual family interaction, oe — **A1**

Answer: Observers may miss private or subtle interactions because they are external to the group, reducing validity since key behaviours go unrecorded.

Question 12

Level 4 Knowledge of structured, overt, non-participant observation is detailed and accurate. Evaluation is thorough and balanced, covering practicalities, reliability, validity and ethical issues with clear chains of reasoning. Application to public transport context is integrated and insightful. Arguments are well organised and use appropriate terminology. — **10-12**

Level 3 Knowledge is generally accurate with some detail. Evaluation covers several relevant strengths and limitations with reasonable development. Application to public transport is present but may be less consistent. Answer is mostly clear and organised. — **7-9**

Level 2 Knowledge is basic and may contain minor inaccuracies. Evaluation is limited, with points undeveloped or one sided. Application to the context is superficial. Structure may be loose and terminology limited. — **4-6**

Level 1 Very limited knowledge or understanding. Evaluation is minimal or not relevant. Little or no application to the public transport context. Answer may be fragmented. — **1-3**

Level 0 No creditable content. — **0**

Indicative content:

- AO1: structured observation uses predefined behavioural categories and a standardised recording scheme, allowing systematic data collection and quantification.
- AO1: overt observation means participants are aware they may be observed, and non-participant means the researcher does not engage with those being observed.
- AO2: practical strengths in public transport context include ease of access to many interactions, ability to observe different times and routes, and low cost because no special equipment is required.
- AO2: reliability benefits include operationalised categories and observer training which improve inter-observer reliability and allow replication, and use of time or event sampling to standardise recording.
- AO3: validity limitations include reduced ecological validity if overt presence changes behaviour via demand characteristics, and the Hawthorne effect if passengers alter conduct because they feel observed.
- AO3: structured coding may omit subtle or contextual information, reducing rich qualitative insight and leading to a risk of researcher-imposed categories that miss participants' meanings.
- AO3: ethical issues include obtaining informed consent in a public, moving setting is difficult, so the overt label may be general and not specific, raising questions about meaningful consent and privacy.
- AO3: practical limitations include observers being unable to record simultaneous events across a crowded carriage, and potential safety concerns for observers if noting behaviour requires looking down at recording sheets.
- AO3: mitigations and strengths include piloting the coding scheme, using discreet recording devices where ethically acceptable, ensuring anonymity of recorded data, and debriefing where consent can be obtained later if feasible.
- AO3: overall evaluation weighs quantitative reliability and standardisation against validity and ethical trade offs, concluding structured overt non-participant observation is useful for measuring frequencies and patterns but must be carefully designed to protect ethics and preserve ecological validity.

Question 13

compares each pair and counts agreements where absolute difference ≤1 oe	**M1**
gives the fraction of agreements out of 20 oe	**M1**
final percentage correct to 1 decimal place cao	**A1**

Answer: 100.0%