

Key Answers for the First-Year Master's Class Exam in MOR

Question 1: Answer the following multiple-choice questions. (10 pts)

1. Which of the following statements about probability sampling is true?
 - a. Probability sampling guarantees that no sampling error will occur.
 - b. Probability sampling only applies to experimental research designs.
 - c. a+ b
 - d. none
2. What is the first step when collecting documents for analysis?
 - a. Analyse the content for themes and patterns.
 - b. Identify and locate documents that can answer research questions.
 - c. Scan documents into digital formats for storage.
 - d. Assign pseudonyms to protect participants' identities.
3. Which of the following is a limitation of using documents as data?
 - a. They often lack personal reflections and insights.
 - b. They may be incomplete, inauthentic, or difficult to access.
 - c. They cannot be analysed for recurring themes or patterns.
 - d. They are unsuitable for addressing research questions in qualitative studies.
4. Which of the following is an example of an instrument used to measure attitudes?
 - a. Standardised achievement tests.
 - b. Behavioural checklists.
 - c. Likert-scale surveys.
 - d. Census data.
 - e. None
5. Which of the following statements about operational definitions is/are correct?
 - a. Operational definitions are only used in qualitative research.
 - b. An operational definition explains why the variable is important in the study.
 - c. Operational definitions can be changed at any time during the study.
 - d. Operational definitions clarify how variables are manipulated in a study.
 - e. Operational definitions provide precise procedures for measuring variables.
6. Which of the following are the main purposes of conducting a pilot study?
 - a. To generate preliminary data for hypothesis testing and final analysis.
 - b. To evaluate the reliability and validity of instruments and measurements.
 - c. To increase sample size for generalisability of findings.
 - d. To eliminate the need for further ethical approvals before the main study.
 - e. To test the feasibility of the research design and procedures before the main study.
7. What is the role of a participant observer in qualitative research?
 - a. To observe without interacting with participants.
 - b. To actively participate in the setting while observing.
 - c. To control participants' actions during the observation.
 - d. To remain completely invisible to the participants.

8. Which of the following is not a characteristic of reflective field notes?
- They capture researchers' personal insights and emerging themes.
 - They focus on interpretations rather than objective descriptions.
 - They record participants' exact words and behaviours without interpretation.
 - They help researchers track patterns or ideas for later analysis.

Question 2: Carefully read the scenario below, then answer the follow-up questions. (10 pts)

Scenario:

A researcher is interested in exploring university students' experiences and challenges with online learning platforms during the transition to remote education. The researcher aims to investigate:

- How students perceive their engagement and participation in online classes.
- What barriers they encounter when accessing course materials and communicating with instructors.
- How students adapt their learning strategies to succeed in an online environment.

Tasks:

1. Research Design: (2 pts)

Propose an appropriate research design for this study. Justify your choice by explaining how it aligns with the study's aims.

Research Design: Qualitative **Case Study**. It enables an in-depth exploration of students' experiences and challenges with online learning platforms, targeting the exploration of subjective experiences, identification of context-specific barriers, and understanding adaptation strategies. The focus on engagement and participation benefits from open-ended inquiries that uncover subjective perceptions.

1. Sampling Strategy: (2 pts)

Identify and justify the most suitable sampling technique(s) to recruit participants who can provide rich and diverse insights. Explain how many participants or sites might be appropriate.

Sampling Technique: purposive sampling involves intentionally selecting participants who have relevant experiences with online learning platforms during the transition to remote education. It ensures the recruitment of individuals who can provide rich, meaningful, and contextually relevant insights aligned with the study's aims. (Other techniques can also fit with justification).

Participants: A smaller group ensures the collection of detailed, rich qualitative data while keeping the study manageable.

Sites: 2–3 universities: If the study spans multiple institutions, this number provides a balance between depth and diversity of perspectives while remaining feasible for analysis.

2. Data Collection Methods: (3 pts)

Propose a data collection method to gather meaningful and in-depth data. Discuss two (2) strengths and (2) limitations of the proposed method.

Semi-structured interviews (also focus groups) are a flexible and effective method for gathering in-depth and meaningful data about university students' experiences, challenges, and adaptations during the transition to remote education. This method allows the researcher to address specific research questions while providing participants with the freedom to express their perspectives in detail.

Strengths: flexibility to explore insights + rich and contextual data.

Limitations: time-consuming + potential for researcher bias.

3. Ethical Considerations: (3 pts)

Highlight three ethical issues specific to this research context and propose strategies to address them.

1. Informed consent: Students must clearly understand the purpose, procedures, and implications of the research to provide fully informed consent. They might feel pressured to participate if the invitation comes through their university. Thus, the researcher needs to provide a detailed participant information sheet explaining the study's aims, voluntary nature, data confidentiality, and the right to withdraw at any time without penalties.
2. Confidentiality and anonymity: Participants might disclose sensitive or personal information about their challenges with online learning or their interactions with instructors. If such data is identifiable, it could lead to embarrassment or strained relationships. Thus, the researcher has to assign pseudonyms to participants and de-identify all data during transcription and reporting.
3. Emotional distress: Discussing challenges with online learning, such as difficulties in engagement, communication, or adapting strategies, may evoke stress or discomfort, especially if students have faced significant struggles during the transition to remote education. Thus, the researcher has to frame questions sensitively and allow participants to skip questions or end the interview at any time if they feel uncomfortable.