



THE OPEN UNIVERSITY OF SRI LANKA

FACULTY OF EDUCATION

DEGREE OF MASTER OF EDUCATION

FINAL EXAMINATION – 2023/2024

STP9813 – RESEARCH METHODS IN EDUCATION

DURATION – THREE (03) HOURS

Index No.

Date: 20.08.2024

Time: 9.30 a.m. – 12.30 p.m.

Instructions:

Answer question No.01 and any other three (03) questions.

Write your answer for question No. 01 on this paper only.

Note that one research problem can only be used in one question.

01. Assume that the Ministry of Education calls for research proposals from researchers/educators on the following themes:
- Teachers' digital literacy and digital competencies
 - Improving critical thinking skills of students using gamification.
 - Evaluation of initiative aimed at improving English language learning/Mathematics learning outcomes.
 - Students' digital screen time and their educational achievement.
 - Teachers' readiness towards implementation of authentic assessment techniques.

State the selected them:-

- i. State a specific research problem you have identified in relation to one of the given themes. (05 marks)

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- ii. Briefly explain the significance of studying the selected problem. (04 marks)

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- iii. State the main purpose of studying the problem and formulate **three (03)** research objectives or research questions, or hypotheses related to your research problem. (09 marks)

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- iv. Explain the research design selected for achieving the objectives stated above with justification. [With at least **two (02)** reasons]. (04 marks)

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- v. State the sample and sampling techniques/s you intend to use with justification. (05 marks)

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- vi. Specify the data collection instruments you propose and justify their suitability to attain the objectives of your research study. (06 marks)

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- vii. State the data analysis techniques you intend to use for the data collected in the study. (03 marks)

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- viii. Specify **two (02)** expected limitations and **two (02)** delimitations of your research study. (04 marks)
(TOTAL = 40 marks)

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02. The review of literature is a critical component of any research project, particularly in educational research.
- i. Discuss the importance of a literature review in the context of research and explain with examples how it contributes to the formulation of research objectives or research questions. (05 marks)
 - ii. Explain the **five (05)** basic criteria for selecting sources for a literature review. Provide examples to illustrate each criterion. (06 marks)
 - iii. Describe how to synthesize findings from multiple sources in a literature review and explain the role of thematic analysis in this process. (05 marks)
 - iv. Outline the common challenges faced by a researcher when conducting a literature review and propose strategies to overcome those challenges. (04 marks)
03. Sampling is the process of selecting a subject of individuals, items or observations from a larger population to represent the entire population.
- i. Discuss the importance of sampling in research and explain how it contributes to the validity and reliability of the research. (05 marks)
 - ii. Compare and contrast **two (02)** probability sampling techniques and two (02) non-probability sampling techniques applied in research. Provide examples for each method. (08 marks)
 - iii. Describe the steps involved in determining representative sample size for population for a research study. Include considerations for margin of error and confidence level. (07 marks)
04. Data collection in educational research refers to the systematic process of gathering information and evidence to answer research questions, test hypotheses and evaluate outcomes.
- i. Differentiate the characteristics of quantitative and qualitative data collection tools using suitable examples. (06 marks)
 - ii. Describe the process of developing a valid and reliable survey questionnaire, including the key steps and consideration of each step. (06 marks)

- iii. Explain how a research design and objectives of a research contribute to select appropriate data collection tools. Provide examples to illustrate your explanation. (08 marks)
05. i. Define the “research proposal” and “research report” and explain their purposes in the context of educational research. (06 marks)
- ii. List and compare at least **five (05)** main components of a research proposal and a research report. Provide examples to differentiate each component. (06 marks)
- iii. Identify and discuss **three (03)** ethical issues that will arise when preparing a research proposal and explain at least **two (02)** strategies to overcome each issue. (08 marks)

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