

NATION OPEN UNIVERSITY OF NIGERIA  
SCHOOL OF EDUCATION  
2024 1 EXAMINATION

Course Code: EDU 823

Course Title: Basic Research Methods in Education

Credit Unit: 2

Time Allowed: 2 Hours

Instruction: Answer question ONE and any other THREE questions

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1. a. A researcher is interested in the level of teaching effectiveness of teachers in a state in Nigeria, and how the level of teaching effectiveness varies with personal characteristics of the teachers. There are 1000, 900 and 800 teachers in the Southern Central and Northern Education Zones respectively in the state. He plans to collect data from 55% of all the teachers in the state schools. Based on this information, answer the following questions:
- i) Formulate a research topic for the study 2 marks
  - ii) Deduce the main and four specific purposes of the study 5 marks
  - iii) Formulate four null hypotheses for the study 4 marks
  - iv) For any two of your null hypotheses, identify independent and dependent variables 4 marks
  - v) State the appropriate statistical analysis techniques that could be used in testing the hypotheses. Justify your choice 2 marks
  - vi) Determine in figures, the population and sample size involved in this study 2 marks
  - vii) Show mathematically what the researcher could do to achieve proportional representativeness from each zone 3 marks
  - viii) What type of research design is appropriate for the study? Justify your answer 3 marks
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2. a. Highlight six steps involved in the educational research process 3 marks
- b. What is an educational problem? Describe any two ways a problem in education can be refined giving a specific example for each form. 4 marks
- c. State and briefly explain any four qualities of a good research problem in education 8 marks
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3. a. What is research design as it applies to educational research? 3 marks
- b. Highlight four importance of a research design in educational research? 4 marks
- c. Distinguish exhaustively between research design where the independent variable can be manipulated and that where it cannot be manipulated. 4 marks
- d. A researcher wanted to find out if students who attend remedial classes in Use of English will perform significantly better than their counterparts who do not. Which design should be used? Describe the plan for data collection with respect to the design. 4 marks
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4. a. Differentiate between the following pair of research concepts
- a. Background to the study and statement of the problem 3 marks
  - b. Purpose of the study and significance of the study 3 marks
  - c. Delimitation of the study and limitation of the study 3 marks
  - d. Abstract and summary of the study 3 marks
  - e. Implications and recommendations 3 marks
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5. a. With specific examples for each, state difference between structured and unstructured questionnaire. State one condition under which you would prefer to use each format 6 marks
- b. Identify and explain four characteristics of a good questionnaire 5 marks
- c. State two advantages and two disadvantages of using observation technique in data collection. 4 marks
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