



KENYATTA UNIVERSITY
CONTINUING EDUCATION PROGRAMME (CEP) 2022/2023
EXAMINATION FOR THE DEGREE OF MASTER OF EDUCATION
EMP 836: QUANTITATIVE RESEARCH METHODS IN EDUCATION

DECEMBER, 2022 SESSION

TIME: 3 HOURS

INSTRUCTIONS: Answer question ONE and any other TWO questions

- Q.1. a) Explain the difference in technique between simple random sampling and stratified sampling. [10 marks]
- b) A researcher plan to evaluate high school students' reaction to a new policy on closed campus situations. He/she locates himself/herself near the office of the dean with questionnaires which he/she administers to every fourth student who visits the dean's office. He/she eventually secures data from 100 students and publishes the findings as the "Reactions of high school students to a new policy for a closed campus".
- i. What do we call this approach to data collection? [2 marks]
- ii. Highlight four limitations of this approach. [8 marks]
- c) An educational researcher is interested in the relationship between students' participation in two after school programs and academic achievement. The researcher states the following hypothesis in the description of the study:
H.I. children who participate in an after school program that emphasizes critical thinking skills will score higher on measures of academic achievement and self-esteem than students who do not participate in the program.
- i. Identify the independent variable(s) and dependent variable(s). [4 marks]
- ii. Identify an appropriate research design that can be used with this hypothesis and giving reasons for your answer. [6 marks]
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- Q.2. a) Describe the thesis report writing process for quantitative research, giving examples. [10 marks]
- b) Critically analyze the steps for literature review in education research project. [10 marks]
- Q.3. a) Discuss any four importance of research ethics for any organization and individuals undertaking educational research. [8 marks]
- b) Explain the following elements of a research proposal.
- i. Problem statement.
 - ii. Study population
 - iii. Theoretical framework
 - iv. Study objectives. [12 marks]
- Q.4. a) Discuss any two methods of measuring:
- i. Reliability of instruments. [5 marks]
 - ii. Validity of instrument. [5 marks]
- b) An arithmetic test is given twice within a few days to a student. The highest possible score is 50. The student receives a score of 35 the first time and a score of 20 the second time.
- i. What would you say the researcher was testing?
 - ii. What was the type of test used and why? [10 marks]
- Q.5. a) Explain three types of correlation research giving a relevant example in each case. [10 marks]
- b) A research report states that Group A was exposed to a new teaching method and Group B was exposed to a traditional method. At the end of a four-month period, each group was given the same achievement test. Group A had a mean score that was higher than the mean score for group B.
- i. Describe the type of design that is relevant for the research and give justification for your answer. [6 marks]
 - ii. Identify the variables and provide reasons for your choice. [4 marks]