

APRIL 2023  
EPS 352SW  
RESEARCH METHODS IN EDUCATION  
30 MINUTES

MATHEMATICS / SCIENCE	
Candidate	
IE / MA	
Signature	



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UNIVERSITY OF CAPE COAST  
COLLEGE OF EDUCATION STUDIES  
SCHOOL OF EDUCATIONAL DEVELOPMENT AND OUTREACH  
INSTITUTE OF EDUCATION

FIVE-SEMESTER BACHELOR OF EDUCATION (SANDWICH) PROGRAMME  
LEVEL 350, FIRST SEMESTER QUIZ, APRIL 2023

2<sup>ND</sup> APRIL 2023

RESEARCH METHODS IN EDUCATION

7:30 AM - 8:00 AM

Answer ALL questions.  
[20 MARKS]

For items 1 to 15, each stem is followed by four options lettered A to D. Read each item carefully and circle the letter of the correct or best option.

1. Which of the following ways of knowing is most likely to provide you with the most valid knowledge?  
A. Authority  
B. Personal experience  
C. Scientific method  
D. Tradition
2. Which of the following types of research can be done by a researcher whose investigation is focused on improving the understanding of a particular phenomenon, study or law of nature?  
A. Action  
B. Applied  
C. Basic  
D. Evaluation
3. An example of a research variable that is measured on the *ratio* scale is .....  
A. colour of cars.  
B. gender.  
C. number of tables.  
D. subjects studied.
4. Which one of the following sources of knowing will help a seven-year-old know that playing with a sharp blade edge can injure his hand?  
A. Authority  
B. Media  
C. Personal experience  
D. Tradition

5. Which of the following is a form of research typically conducted by teachers, counsellors, and other professionals to answer questions they have and to specifically help them solve local problems?
- A. Action
  - B. Basic
  - C. Orientational
  - D. Predictive
6. Which form of reasoning is the process of drawing a specific conclusion from a set of premises?
- A. Deductive reasoning
  - B. Inductive reasoning
  - C. Probabilistic
  - D. Rationalism
7. To make use of the scientific method of knowing, which of the following steps is the first step to start a research?
- A. Design an experiment
  - B. Make observation
  - C. Propose hypothesis
  - D. Test hypothesis
8. A variable that is presumed to cause a change in another variable is called a/an ..... variable.
- A. categorical
  - B. dependent
  - C. independent
  - D. intervening
9. Which of the following **best** describes literature review in research? A .....
- A. critical analysis of the existing research on a particular topic.
  - B. detailed description of the methods used in a research study.
  - C. list of all the books and articles used in a research study .
  - D. summary of the key findings of a research study.
10. Which of the following is **not** a step in conducting a literature review?
- A. Collecting and analysing data
  - B. Identifying relevant sources
  - C. Reading and summarizing sources
  - D. Synthesizing and writing a review
11. What is the purpose of using keywords when searching for sources in a literature review? To .....
- A. broaden the search results to include more sources.
  - B. eliminate irrelevant sources from the search results.
  - C. identify the author of the source and reference them appropriately.
  - D. narrow down the search results to only relevant sources.
12. What is the importance of citing sources in a literature review?
- A. To avoid plagiarism
  - B. To give credit to the authors of the sources
  - C. To provide evidence for the arguments made in the review
  - D. All of the above



13. Which of the following characteristics of research can be described as **parsimonious**?
- A. Explanations are never proven but may be improved
  - B. Explanations are simple and most likely true
  - C. Theories should account for broad phenomena
  - D. Theories that are disproven are refined or abandoned

Use the problem statement below to answer items 14 and 15.

"The purpose of this study is to examine whether smoking is a prominent cause of lung cancer among nine male and five female teenagers admitted at the specialist clinic."

14. What is the dependent variable in the study?
- A. Lung cancer
  - B. Smoking
  - C. Specialist clinic
  - D. Teenagers
15. What is/are the independent variable in the study?
- A. Lung cancer
  - B. Smoking
  - C. Specialist clinic
  - D. Teenagers

Items 16 and 17 are statements followed by True and False options. Read each statement carefully and indicate whether it is True or False by circling the letter of the correct option.

16. A problem is researchable when researchers are able to investigate issues through the collection and analysis of data.
- A. False
  - B. True
17. Desirable replication in research is *less likely* to increase the extent to which the research findings can be generalized.
- A. False
  - B. True

For items 18 to 20, identify whether the research hypotheses are *directional* or *non-directional*.

18. "Students who eat breakfast will perform *better* in a math exam than students who do not eat breakfast." ..... Directional
19. Attending physiotherapy sessions does *not* affect athletes' on-field performance. .... Non-directional
20. "Individuals who eat *more* fruits tend to have higher immunity, lesser cholesterol, and high metabolism." ..... Directional