

UNIVERSITY OF ESWATINI
FACULTY OF HEALTH SCIENCES
FINAL EXAMINATION NOVEMBER 2018
TITLE OF COURSE: RESEARCH METHODS
COURSE CODE: MWF 601

TIME ALLOWED: THREE (3) HOURS

PAGES: 08 INCLUDING COVER PAGE

MARKS: 100

INSTRUCTIONS:

1. ASSURE THAT YOU ARE WRITING THE EXAM FOR THE COURSE IN WHICH YOU ARE ENROLLED.
2. THERE ARE FOUR (4) QUESTIONS IN THIS EXAM. ANSWER ALL FOUR (4) QUESTIONS.
3. START EACH QUESTION ON A NEW PAGE.
4. WRITE LEGIBLY

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QUESTION 1

- A. Discuss the potential threats to the study's internal validity. (10)
- B. Explain how you will prevent each of the threats from occurring. (10)
- C. Discuss the role of the Human Subjects Review Board (5)

(TOTAL = 25 MARKS)

QUESTION 2

- A. Select and describe any five (5) barriers to implementation of evidence based practice. (10)
- B. Argue how each of the above barriers to implementation of evidence based practice may be overcome. (10)
- C. As a researcher, identify your ideal worldview / paradigm. (2)
- D. Identify any three (3) Advantages of your worldview / paradigm. (3)

(TOTAL = 25 MARKS)

QUESTION 3

- A. Differentiate between "quantitative" and qualitative research designs. (8)
- B. Relate the strengths and weaknesses of each the quantitative research designs. (9)
- C. For each of the quantitative designs develop a research question. (8)

(TOTAL = 25 MARKS)

QUESTION 4

INSTRUCTIONS: For each of the following question or statements select the most appropriate response. In your answer book write the letter that corresponds with the correct response, e.g. 1. A

1. The first step in evidence based practice efforts is:
 - A. Appraising evidence
 - B. Asking a well worded clinical question
 - C. Finding evidence
 - D. Attending professional conferences

2. Evidence base has how many levels?
 - A. 5-levels
 - B. 6-levels
 - C. 7-levels
 - D. 3-levels

3. How many years is it necessary to go back in literature for an evidence-based project?
 - A. 3-years is sufficient
 - B. 10-years is expected
 - C. All literature is to be included
 - D. 5-years are preferred

4. Which level of evidence is most often placed at the top of the hierarchy of evidence for practice designs?
 - A. Meta-analysis of multiple randomized controlled trials
 - B. Results from a single well controlled experimental study
 - C. A consensus of opinion from a group of experts on the topic
 - D. Case control studies

5. The model which depicts five (5) major stages of knowledge in a relative sequence as research evidence is moved through several cycles, combined with other knowledge and integrated into practice is the:
- A. AEC Star Model of knowledge
 - B. ACE Star Model of knowledge
 - C. AEE Star Model of knowledge
 - D. ACC Star Model of knowledge
6. What is the way of looking at natural phenomena that encompasses a set of philosophical assumptions that guides one's approach to inquiry?
- A. Paradigm
 - B. Approach
 - C. Objectives
 - D. Assumptions
7. Interviewing all members of a given population is called:
- A. a sample
 - B. a Gallup poll
 - C. a census
 - D. a Nielsen audit
8. Which **ONE** of the following is the benefit of using simple random sampling?
- A. We can calculate the accuracy of the results
 - B. The results are always representative
 - C. Interviewers can choose respondents freely
 - D. Informants can refuse to participate
9. Which **ONE** of the following methods is generally used in qualitative sampling?
- A. Random digit dialling
 - B. Quota
 - C. Stratified sampling
 - D. Simple random

10. Declaration of Helsinki (1964/1975) is related to:
- A. Qualitative research
 - B. Genetics research
 - C. Ethical standards in research
 - D. Statistical methods in research
11. "*Above all, do no harm*". This principle encompassed in the ethical dimension of:
- A. Human dignity
 - B. Justice
 - C. Beneficence
 - D. Anonymity
12. When the researcher is not allowed control of the treatment variable and cannot achieve randomization because of ethical considerations, institutional policies or other situational factors, the researcher chooses:
- A. True experimental studies
 - B. Quasi experimental studies
 - C. Exploratory studies
 - D. Qualitative studies
13. Three factors are important regarding the rights of the participants include all except:
- A. Confidentiality
 - B. Anonymity
 - C. Voluntary participation
 - D. Jurisprudence
14. When Type 1 error does occur?
- A. A null hypothesis is rejected but should not be rejected
 - B. A null hypothesis is not rejected but should be rejected?
 - C. A test statistics is incorrect
 - D. Assumptions have been violated

15. When Type II error does occur?
- A. A null hypothesis is rejected but should not be rejected
 - B. A null hypothesis is not rejected but should be rejected?
 - C. A test statistics is incorrect
 - D. Assumptions have been violated
16. In research how do you reduce both types of error from occurring?
- A. It can't be reduced
 - B. Increase sample size
 - C. Redo the tests
 - D. Tamper with the data
17. Quantitative and qualitative research approaches are particularly useful in nursing because they:
- A. Are easy to implement
 - B. Require few resources
 - C. Are both process oriented
 - D. Balance each other by generating different types of nursing knowledge
18. What category of research is suggested by the following research question "does telephone follow-up by nurses improve patients' adherence with their medication regimens?"
- A. Applied research
 - B. Basic research
 - C. Descriptive research
 - D. Phenomenological research
19. A researcher designs a study that uses a random sampling method to decrease the likelihood of bias in a sample. This strategy was used to implement:
- A. Manipulation
 - B. Control
 - C. Data collection
 - D. Experimental research

20. Which of the following definitions best describes rigor in quantitative research?
- A. Time frame in which the research takes place
 - B. Degree of aggressiveness used in acquiring the data
 - C. Amount of control and precision exerted by the methodology
 - D. Process used to synthesize findings to form conclusions from a study
21. Before implementing a large, multisite research study, a researcher conducts a smaller study of the planned study to identify any problematic areas. This smaller study is known as a(n):
- A. Abstract
 - B. Exploratory design
 - C. Pilot study
 - D. Pre-test study
22. In a research proposal, the researcher notes that written permission has been obtained from three (3) local hospitals to access patients for the proposed study. This is an example of what aspect of the study?
- A. Reliability
 - B. Methodology
 - C. Ethics
 - D. Feasibility
23. Identify the independent variable in the following hypothesis "cancer patients who receive music therapy complain less frequently of pain and require less pain medication than cancer patients not receiving music therapy".
- A. Relaxation therapy
 - B. Complaints of pain
 - C. Pain medication use
 - D. Music therapy

24. Hypothesis: “structured preoperative support is more effective in reducing surgical patients’ perception of pain and request for analgesics that structured post operative support”. Question: “perception of pain” is the:
- A. Independent variable
 - B. Dependent variable
 - C. Attribute variable
 - D. Extraneous variable
25. A researcher is interested in studying stress and coping in caregivers of elderly stroke victims. The researcher designs a study where data collection takes place in the caregiver's home. This would be an example of which type of research setting?
- A. Natural, field
 - B. Highly controlled, field
 - C. Partially controlled, laboratory
 - D. Highly controlled, laboratory

(TOTAL = 25 MARKS)