"Investing in Africa's future"

COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES

SHS 204: RESEARCH METHODS AND ETHICS

END OF SECOND SEMESTER FINAL EXAMINATIONS

APRIL/MAY 2019

LECTURER: Mrs Chituku S

DURATION: 3 HRS

INSTRUCTIONS

Answer **ALL** questions Section A

Answer any **three** questions Section B

All questions carry equal marks (20).

DO NOT repeat material.

Section A Indicate in front of the statement whether it is true (T) or false (F)

1. Hypotheses

i. Is a trial explanation that can be empirically tested.

ii. Once tested and supported, any hypothesis can be used as an assumption on which other hypotheses are constructed.

iii. If refuted must be discarded or changed and retested.

iv. Can be called data collection

2. Theory

i. Is a set of related hypotheses that act together to provide a better

ii. Can be described as complete research explanation than any single hypothesis.

iii. only scientific if the hypotheses that make them up can be empirically tested.

iv. Is not to be considered in research

3. Induction

i. is the generation of hypotheses and/or theories from empirical evidence.

ii. 4. Induction takes specific data and makes generalizations from them.

iii. These generalizations take the form of hypotheses and theories.

iv. Only refers to in sampling

4. Deduction

i. is the testing of hypotheses and/or theories with empirical evidence.

ii. Deduction takes generalizations and collects evidence to see if they are supported under a variety of circumstances

iii. is defined as in sampling

iv. destroys research design

5. Validity

i. is when the researcher actually measure what you say you are measuring.

ii.Usually collects data through surveys, experiments, content analyses or structured interviews.

6. Reliability

i. The results of a research project have been repeated and the same findings result each time.

ii.

7. Quantitative Data
i. data collected in the form of
numbers or categories that can be labeled with
numbers.
ii. Quantitative data is analyzed using descriptive
and inferential statistical methods. The results
are frequently presented in tables.
The collection of quantitative data lends itself
to certain kinds of research designs.

iii. Detaches the researcher from the study.
iv. Analyzes numeric results using descriptive, and
inferential statistics.

8. Quantitative Research
i. Focuses on variables that can be measured or labeled
with numbers
ii. Studies many cases or participants.
iii. Produces nomothetic (generalizations) results.
iv. Attempts to stay independent of the context and

9. Qualitative Data
i. data is collected in the form of
descriptions.
ii. Qualitative data is summarized in written
descriptions of the contents of interviews,
content analyses, observations or participant
observation.

iii. The results are presented in essay
format sometimes including quoted examples.
iv. The collection of qualitative data lends itself
to certain kinds of research design

10. Qualitative Research
i. Focuses on interactive processes, events, ideas and
emotions.

ii. It involves the researcher intimately in the study being conducted.
iii. Is used to produce case studies of societies, groups or individuals.
iv. Provides the only way to collect truly emic data.

11. Steps in the Scientific Research Process include
i. *Selecting a topic or population to study*
ii. *Reviewing the literature*
iii. *Focusing the question*
iv. *Matching topic to population*

12. Reasons for conducting research
• To develop knowledge for professions.
• To develop effective policies.
• To solve practical problems.
• To make informed decisions.
• To increase the knowledge base of larger society

13. The following are study designs
i. Case report
ii. Case series
iii. Case controlled study
iv. Cross sectional and cohort

14. A Case report
i. Description of one interesting and unusual case
ii. This is anecdotal and may form the basis for further study
iii. This may be the only way to report on something very rare

iv. is a Cohort

15. Case series
i. defined as a description of several cases in which no attempt is made to answer specific hypotheses or compare results with another group of cases.

ii. Produces idiographic (descriptions of individual things or people) results.

iii. Usually collects evidence through unstructured interviewing, observation or participant observation or content analysis

iv.is a retrospective comparison

17. Simple random sampling
    i. Elements are selected at random
    ii. Each element has the same probability of being selected.
    iii. Replacing each sampled element before selecting subsequent elements is called sampling with replacement.
    iv. Is commonly used in quantitative research type
18. Systemic random sampling
    i. A modified form of the simple random sampling
    ii. Elements chosen at regular intervals
    iii. Reduces sampling errors
    iv. Is a probability sampling method
19. Following are the advantages of stratified sampling method
    i. Reduces the potential for selection bias
    ii. The sample is highly representative
    iii. Allows for generalisations (i.e., statistical inferences)
    iv. High external validity
20. Indicate true or false concerning Cluster sampling
    i. Selection of groups of study units rather than individuals study units
    ii. Population is divided into non-overlapping clusters or areas
    iii. Each cluster is a miniature of the population
    iv. A subset of the clusters is selected randomly for the sample
21. In purposive sampling:
    i. The researcher handpicks the cases to be included in his sample on the basis of his judgment of their typically
    ii. The researcher builds up a sample that is satisfactory to his specific needs
    iii. Elements are selected for a purpose.
    iv. Names are put in a box and are hand picked

Section B

Question 1

State purposes of literature review. (5)

Identify five sources of information during literature review (5)

Write notes on the following:

i. Correlational study design (5)
ii. Cohort study design (5)

Question 2

Give an account of the research process. (20)

Question 3

Describe:

a. Focus group discussion (10)
b. Questionnaire (10)

Question 4

What are the advantages of using an interview method in data collection (5)

Describe descriptive research design (5)

Outline ethical considerations in research (10)