

***ACKNOWLEDGEMENT***

ALMIGHTY GOD

MR. NKRUMAH(tutor in charge)

ALL STUDENTS (ST. VINCOE)

**RESEARCH METHOD IN EDUCATION**

**EBS 339J**

**Self-Assessment Questions and Answers**

**For each item, select the best or correct option.**

1. The purpose of educational research is to

(a) Collect data on educational phenomena

(b) Determine educational phenomena

(c) State educational phenomena

**(d) Understand and explain educational phenomena**

2. Educational research can be defined as

(a) A way of generating solutions to educational problems

**(b) A systematic method of gathering and interpreting information regarding** educational phenomena

(c) Different methods applied to educational issues

(d) Empirical methods of data generation and analysis in education

3. A student who goes to the library to obtain information to answer a question posed by his/her teacher in class. The student can be described as doing research in a scholarly sense.

(a) True

**(b) False**

4. The following statements are characteristics of research **except**

(a) Research begins with an issue

(b) Research demands a plan

(c) Research requires clear statement of problem

**(d) Research is vertical**

5. Data collection is a necessary condition for research.

**(a) True**

(b) False

6 To solve a research problem, a researcher must formulate only research questions.

(a) True

**(b) False**

7. Which way of knowing is likely to provide you with the most valid knowledge?

(a) Authority

(b) Personal experience

**(c) The scientific method**

8. A weakness of personal experience as a source of knowledge is that it is not objective.

**(a) True**

(b) False

9. Tradition as a source of knowledge has the advantage of engaging and accepting new knowledge.

(a) True

**(b) False**

10. The method of knowing which involves observing specific instances and then generalizing from the instances is known as

(a) Deduction

**(b) Induction**

(c) Syllogism

11. The following are characteristics of the scientific method,

Except

(a) Subjectivity

(b) Precision

**(c) Verification**

12. in using the scientific method to generate new knowledge a Researcher must complete one stage before moving on to another.

(a) True

**(b) False**

13. The conclusion of a study is final.

(a) True

**(b) False**

14. Research is important because it

(a) Determines everything that we do.

(b) Fills the void in our knowledge.

**(c) Guides our value system.**

15. Repeating a previously conducted research using new participants does not usually add to knowledge.

(a) True

**(b) False**

16. Research, on the whole, tends to push back our horizon of ignorance.

**(a) True**

(b) False

17. As a teacher how can research help you to improve your practice?

(a) By establishing questions to be answered

(b) By helping students know what they are taught

**(c) By indicating what works**

18. How will you make use of research to determine the effectiveness of certain methods of doing things in the classroom?

(a) Asking people about the methods

(b) Effective teaching

**(c) Review of research on the methods**

19. Educational policies formulated based on research are likely to be better than those formulated without considering relevant research results.

**(a) True**

(b) False

20. Once an educational policy is formulated, there will be no need to change it.

(a) True

**(b) False**

21. Research will help you to acquire the following skills except

(a) conceptualizing.

(b) organizing

**(c) reading**

(d) writing

 22. The type of educational research that helps in understanding and explaining phenomenon is

(a) an evaluation research

(b) applied research

**(c) Basic research**

(23. A research to test the effectiveness of a theory within a specific context can be described as

**(a) Applied research**

(b) Basic research

(c) research and development

24. A study in which a researcher manipulates a factor to determine its effect on another factor can be described as

(a) action research

**(b) Experimental research**

(c) Non-experimental research

25. Which type of research emphasizes measurement of variables and their relationship?

(a) Applied research

**(b) Quantitative research**

(c) Qualitative research

26. A piece of research that is aimed at obtaining the perspectives of participants through verbal narratives is qualitative research.

**(a) True**

(b) False

27. Which of the following types of research can be under taken by a classroom teacher to solve his/her problems?

(a) Action research

(b) Applied research

**(c) Basic Research**

28. Suppose you want to investigate the effect of using a new technique to teach mathematics on mathematics achievement. Your research can be described as

(a) Basic, experimental and qualitative

**(b) applied, experimental and quantitative**

(c) Action, non-experimental and quantitative

 29. An example of a continuous variable is

**(a) Height**

(b) Method of instruction

(c) Nationality

30. Which of the following variables can serve as dependent variable?

(a) Type of reinforcement

**(b) Attitude**

(c) Method of instruction

31. A variable that can be described in terms of kind only can be said to be

(a) continuous.

**(b) Categorical.**

(c) Extraneous.

32. A variable that can take only two forms is known as a

(a) continuous variable.

**(b) Dichotomous variable.**

(c) Extraneous variable.

**Use the problem statement below to answer items 5 and 6.**

“The purpose of this study was to examine the impact of systematic cooperative learning and test-taking strategies on one component of academic performance, the recall of text material”.

33. Which type of research was done?

**(a) Applied research**

(b) Basic research

(c) Research and development

34. What is the dependent variable in the study?

(a) Cooperative learning

**(b) Recall of text material**

(c) Test taking strategies

35. What is/are the independent variable in the study?

(a) Cooperative learning

**(b) Cooperative learning and test taking strategies**

(c) Performance.

36. A research proposal is a plan of how a study is to be conducted.

**(a) True**

(b) False

37. Without preparing a research plan, a researcher is not likely to proceed systematically in conducting a study.

**(a) True**

(b) False

38. A research proposal should indicate the results of the study.

(a) True

**(b) False**

39. The introduction section of a proposal should clearly indicate the following, except

**(a) Design to be used.**

(b) Problem to be investigated.

(c) research questions.

40. Which type of research will warrant the formulation of research hypotheses?

(a) Qualitative research

**(b) Quantitative research**

(c) Both quantitative and qualitative research

41. In writing a research proposal, the researcher must indicate the research instrument he/she will use as well as how valid the instrument is.

(a) True

**(b) False**

42. A research problem statement should indicate the following, except the

**(a) Expected results.**

(b) Target group.

(c) variables of interest.

43. The data analysis section of a proposal must indicate how each hypothesis is to be tested.

**(a) True**

(b) False

44. The problem which motivates the researcher to undertake his/herstudy is known as the research problem.

**(a) True**

(b) False

45. A problem is anything that a person finds unsatisfactory or a state of affairs that needs to be changed.

**(a) True**

(b) False

46. There are established rules that govern a final selection of a research problem that every researcher must know.

(a) True

**(b) False**

47. The research problem must be ambiguous and complex so that readers would spend time to understand, as a way of making it researchable.

(a) True

**(b) False**

48. The significance of a topic implies, it must be capable of adding new information to the present state of knowledge.

**(a) True**

(b) False

49. Each of the following is a criteria for a good research problem except that the problem

a) is clear and concise

b) Indicates the type of research

**c) Indicates the expected results**

d) Indicates the variables

50. A common source for research problem is

**a) The researcher’s own experience**

b) The available literature

c) Opinions from experts

d) Theory

51. A teacher encounters a problem in the classroom that leads to investigation or a research into such a problem. What source of a problem is this?

**a) Experience**

b) Opinion

c) Theory

d) Ideas from external source

52. Research problems that are obtained as a result of reading journals, especially those that report the results of studies in their area of interest, is from what source?

**a) Literature**

b) Replication

c) Textbooks

d) Development agencies

53. Research questions are stated in a declarative form.

a) True

**b) False**

54. The research problem must be ambiguous and complex so that readers would spend time to understand, as a way of making it researchable.

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a) True

**b) False**

61. Stating a research problem as a research question has the advantage of simplicity and direction over the statement form.

**a) True**

b) False

62. A statement of predicted outcomes of the study is called the

(a) null hypothesis.

**(b) Research hypothesis.**

(c) Research problem.

(d) statistical hypothesis.

63. The null hypothesis states that there is

(a) a statistical difference between the groups.

(b) no chance for a difference between the groups.

**(c) No difference between the groups.**

(d) A small chance of a difference between the groups.

64. It is essential that the research hypothesis is

**(a) Testable.**

(b) Stated in question form.

(c) follows from the research problem.

(d) states that there is a positive relationship between two or more variables.

65. The type of hypothesis that is formed from a generalization based on observation is known as

(a) deductive hypothesis.

(b) declarative hypothesis.

(c) null hypothesis.

**(d) Inductive hypothesis.**

66. The type of hypothesis which states the nature of the expected relationship or differences is a

**(a) Directional hypothesis.**

(b) Non-directional hypothesis.

67. “There is a relationship between the number of years of schooling and the salary one receives” is an example of

**(a) Directional hypothesis.**

(b) Non-directional hypothesis.

68. Hypothesis can be in any form except in the form of a question.

**(a) True**

(b) False

69. Which of the following documents can be described as a secondary source?

**a) A review of a book in a journal**

b) A report written by an investigator

c) An article published in a refereed journal

70. The purpose of review of literature is to identify previously used methods of investigation to avoid past mistakes

**a) True**

b) False

71. The review of literature is useful for

 **a) Determining the direction of the study.**

 b) Introducing the methodology to be used in the study.

 c) resolving contradictory findings.

72. Opinion of experts in a field of study is NOT of interest to the researcher in reviewing related literature.

a) True

**b) False**

73. The review of related literature provides a basis for the formulation of hypothesis and / or research questions.

**a) True**

b) False

74. A scholarly textbook is a secondary source.

a) True

b) False

75. A high quality review of literature will summarise, critique and relate the problem.

**a) True**

b) False

76. A review of literature should cover both theoretical and empirical issues related to the research problem under consideration.

**a) True**

b) False

77. The most effective way to organize a review of literature is …….

a) to begin with the most recent studies.

b) to structure paragraphs chronologically.

**c) By themes and sub-themes.**

d) to start with the primary sources.

78. The original articles and reports in which researchers communicate directly to the researcher the methods and results of their study are.

a) secondary sources.

**b) Primary sources.**

c) Authority.

79. Primary sources tend to be distorted through being summarized or reported in another form.

a) True

**b) False**

80. the most common approach to organizing the review of literature is to group together studies that investigate similar topics or subtopics.

**a) True**

b) False

81. Publications in which authors describe the work of others are referred to as

a) Primary sources

**b) Secondary sources**

c) Educational Index

82. The review should omit studies that conflict with personal values.

a) True

**b) False**

83. Which part of the review of literature offers a brief description of the nature of the research problem and the statement of the research questions?

a) Conclusion

b) Methodology

c) The body

**d) Introduction**

84. The summary of the review presents a composite picture of what is known or thought to date.

**a) True**

b) False

85. Which part of the literature report must include ‘what the literature suggests are appropriate course of action to take to try to solve the problem’?

a) Summary

**b) Conclusion**

c) Introduction

d) Reference

86. The section that acknowledge the source of opinions, points of view and generalization is known as

a) Summary

b) Conclusion

c) Introduction

**d) Reference**

87. What type of conclusions is warranted from descriptive studies?

a. Relationship

b. Causal

c. Causal comparative

**d. Current characteristics**

88. A plan or blueprint which specifies how data relating to a given problem should be collected and analyzed is known as

**a. research design.**

b. hypothesis.

c. descriptive design.

d. proposal.

89. A researcher decides to look at the perception of JSS teachers in the

Ho Municipality towards the practice of continuous assessment.

What type of design is this?

a. Research design

**b. Descriptive design**

c. Causal comparative

d. Case study

90. Which of the following is NOT a step involved in a descriptive research?

a. Definition of the problem

b. Selection of method of data collection

c. Interpretation of results

**d. The cost involved in undertaking research.**

91. Research is mainly a fact-finding and drawing of conclusion.

a. True

**b. False**

 92. The sampling frame is most similar to the

**a. population**

b. sample

c. respondents

d. elements

93. We use the results obtained from a sample to

**a. generalize to the population**

b. stratify to the sample

c. select convenience sample

d. identify the subjects used in the study.

94. Probability sampling is to systematic sampling as non-probability sampling is to

a. stratified sampling

b. proportional sampling

c. disproportional sampling

**d. purposive sampling**

95. Systematic sampling is preferred when

a. stratified sampling is not possible

b. certain subjects need to be selected because of their position or special knowledge

c. it is not possible to number all members of the population

**d. there is periodicity in a list of the population**

96. A researcher decides to select a sample by taking simple random samples from three subgroups that have been identified from the population. What type of sampling was used?

a. Proportional

**b. Cluster**

c. Convenience

d. Stratified

97. Each of the following about the subjects of study should be indicated in a research except

a. return rate of surveys

b. method of sampling

c. clear description of samples

**d. names of subjects**

98…………………………….

99…………………………….

100. The stage in the research process whereby a researcher gathers any relevant information for the solution of the research problem under study is known as

**a. data collection.**

b. questionnaire.

c. instrument development.

d. descriptive research.

102. Observers will vary in the degree to which they

a. are trained for conducting the study.

**b. are involved with participants in the setting.**

c. interact with the participants.

d. are influenced by experimental bias.

103. Which of the following describes an observer who is a member of the group being observed but maintains some distance as a researcher?

a. Compete participant

b. Complete observer

c. Observer participant

**d. Participant observer**

104. It is advisable to record an interview of a subject with the tape recorder carefully hidden by the interviewer

a. True

**b. False**

105. Which data collection technique would be most appropriate when one is dealing with young children in a study?

 a. Questionnaire

b. Observation

 **c. Interview**

106. Which of the following is NOT a purpose for which interviews and questionnaires are used?

a. Finding out what a person things and believes.

b. Finding out what a person likes and dislikes.

**c. Finding out how a person behaves.**

d. Finding out what experiences a person has had.

107. Which of the following is not a shortcoming of a questionnaire or interview? The respondent may

**a. not know anything about the interviewer.**

b. not know the information requested.

c. try to show himself or herself in a good light.

d. try to help by telling you what you want.

108. Research projects in which an attempt is made to discover or clarify relationships among variables involves correlation research.

**a) True**

b) False

109. A correlation study describes the degree to which two or more variables are related by the use of ………….

**a) The correlation co-efficient**

b) co-efficient alpha

c) a cause-and-effect relationship

110. In correlation research, the relationship that is established between variables implies that one is the cause of the other.

a) True

**b) False**

**Use the statement below to answer questions 4 & 5.**

A researcher conducted a study and concluded that students who obtain aggregates 8 – 12 in the SSSCE obtain a GPA of 3.00 – 4.00 at the first year in the University.

111. The predictor variable in the statement is

a) University GPA

**b) SSSCE grades**

c) Correlation coefficient

112. The criterion variable is

**a) University GPA**

b) SSSCE grades

c) Correlation coefficient

113. When planning a correlation study, the researcher must first

a) select a sample

b) design a very good questionnaire or interview guide

**c) select a problem**

114. The basic design used in correlational research involves collecting data on

a) only one variables

b) only two variables

**c) Two or more variables**

115. Case study typically involves the observation of individual units

**a) True**

b) False

116. In a case study evidence should be built up from a single source so that conclusions drawn could be reliable.

a) True

**b) False**

117. Which of the following is NOT a skill needed by a case study investigator?

**a) The investigator should not be flexible**

b) He/she must have a grasp of the issues he/she is studying

c) Lack of bias

d) Needs to be a good listener and observer.

118. A means of reducing the chance of having the individual tell what the investigator wishes to hear is to minimize direct questions and use non-direct probes.

**a) True**

b) False

119. Case studies provide very strong evidence for scientific investigation.

a) True

**b) False**

120. In this type of study, the researcher manipulates at least one independent variable, controls other relevant variables and observes what happens to the response of subjects. The study is …

a) Causal comparative study

b) es post facto study

**c) Experimental study**

d) Internal validity

121. In direct manipulation of independent variables, the investigator has a direct control of when subjects receive the independent variable but has no control of how much of it each subject receives.

a) True

 **b) False**

122. In an experiment, the researcher seeks to keep constant for all subjects, all variables, conditions, events and procedures except the

**a) Independent variable**

 b) Dependent variable

 c) Extraneous variable

d) Environmental variables

123. Selection of subjects in an experimental design is usually undertaken by means of ……..

a) Convenient sampling

b) Non-probability sampling

b) Quota sampling

**d) Probability sampling**

124. When a researcher employs a specific design to control for extraneous variables, the …… of the design is strengthened.

a) External validity

 **b) Internal validity**

 c) Experimental validity

 d) Generalizability

125. Control of extraneous variables is achieved by

a) making sure none of the extraneous variables and plausible

**b) Random assignment**

c) Making groups homogeneous on the extraneous variables

d) using experimental design

126. In the single-group pretest-posttest design, the most significant threat to internal validity is usually ……………

a) selection

b) statistical regression

**c) History**

d) Experiment bias

127. A ‘true’ experimental design is distinguished by ……………

a) stronger internal validity

b) strong external validity

c) researcher control over most extraneous variables

**d) Random assignment of subjects**

128. Establishing the reliability or consistency of test scores over items and over time, thus showing that the test measures something consistently is a means of controlling the biases introduce by ……

a) statistical regression

b) selection

c) mortality

**d) Instrumentation**

129. The processes of change that take place within the subjects of an experiment refers to …………

a) mortality

 **b) Maturation**

c) Instrumentation

d) History

130. Examining research data with the view to correcting mistakes in it is termed

(a) Coding

**(b) Editing**

(c) Scoring

131. What is the purpose of editing research data?

(a) To introduce errors in the data collected

**(b) To eliminate errors in the data collected**

(c) To increase the number of respondents

132. Scoring of data refers to assigning numbers to variables consistently.

**(a) True**

(b) False

133. Coding of qualitative data is the same as coding quantitative data

(a) True

**(b) False**

134. The types of coding that involves more of text is quantitative

(a) True

**(b) False**

135. It is necessary to prepare data before proceeding to analyze it.

(a) True

**(b) False**

136. Preparation of data contributes to conclusion validity of a study.

**(a) True**

(b) False

137. The role of descriptive statistic in research is to provide the researcher with

a. the computations of data

b. the meaning of his/her observations

**c. a summary of the pieces of information collected**

138. Which of the following is a measure of central tendency?

**a. Mode**

b. Range

c. Standard deviation

139. It is appropriate to use the mean to describe the numbers on the jerseys of football players

a. True

**b. False**

140. Which of the following measures of central tendency is appropriate for describing observations that are measured on the interval scale but not skewed?

**a. Mean**

b. Median

c. Mode

141. When is it appropriate to use the median to describe data?

a. When the data is categorical

**b. When the data is measure using the ordinal scale**

c. When the data is measured using the nominal scale

142. The mean is the best measure of central tendency.

a. True

**b. False**

143. Which of the following measures of spread is dependent on the two extreme scores in the distribution?

a) Inter quartile Range

**b. Range**

c. Standard deviation

144. The standard deviation of the scores 10, 10, 10, 10, 10, 10 is

a. positive 1

b less than negative 1

**c zero**

145. Suppose you had two distributions A and B. Suppose further that you computed the standard deviation of the two distributions and obtained a value of 5 for distribution A and 10 for distribution B. Which of the two distributions is more uniformly distributed?

a. Distribution A

b Distribution B

c Both are equally distributed

146. Which type of statistics makes use of the assumption of normality?

a. Non-parametric

**b Parametric**

c Variability

147. If in a study you “measure” some categorical variables which of the three statistics will be appropriate?

**a Chi-square test**

b Pearson correlation coefficient

c t – test

148. A hypothesis testing concerning the degree of relationship between two variables will involve the use of the Pearson correlation coefficient.

**a. True**

b. False

149. Which of the following is a research hypothesis?

**a. A difference exists between the control group at experimental group in their** **performance in science**

b. There is no difference between the performance of the experimental and control group in science.

c. What is the difference between the experimental and control group in performance in math?

150. In a one – tailed test, the alpha level (∝) is divided into both tails of the distribution

a. True

**b. False**

151. A two – tailed test is more likely to reject the null hypothesis, if

it is false, than a one-tailed test

a. True

**b. False**

152. Suppose you analyze data using X2. Which of the following degrees of freedom will be applicable?

**a. k –1**

b n – 1

c n – 2

153. Suppose you analyze data using the t independent test and the test is one-tailed. Suppose further that you obtain a t statistic greater than the critical value. What will be your decision?

a. Accept the null hypothesis

b Fail to reject the null hypothesis

**c Reject the null hypothesis**

154. It is important to plan a project report writing because it will help the researcher to:

(a) Discover very important findings.

**(b) Complete the writing on time.**

(c) Test good hypothesis.

155. A research report should be written after the study is completed.

(a) True

**(b) False**

156. A research report should be written using technical terms that the researcher alone understands.

(a) True

**(b) False**

157. Which of the following sections of a project report is likely to be written in the past tense?

(a) The Introduction

(b) The Literature Review

**(c) The Methodology**

158. A project report can be divided into three major sections.

**(a) True**

(b) False

159. In the presentation of the preliminary section of a project report, the orders of the materials are

(a) The title page, the abstract and acknowledgements

(b) The title page, the acknowledgements and the abstract

**(c) The title page, the declaration and the abstract**

160. The preliminary pages of a project report should be numbered USING Arabic numerals.

(a) True

**(b) False**

161. A brief summary of study is the

**(a) Abstract**

(b) Literature review

(c) Problem statement

162. Which is the appropriate order of the following sub-headings in the first chapter of a project report?

(a) Background to the study, Research Questions, significance of the study.

(b) Background to the study, Problem Statement, Definition of Terms.

**(c) Background to the study, Problem Statement, Research Questions.**

163. The problem statement is more important than the background to the study.

(a) True

**(b) False**

164. Delimitation of a study refers to the

**(a) Confines of the study**

(b) Geographical area of the study

(c) Limitations of the study

165. It is appropriate to define all terms used in a study.

(a) True

**(b) False**

166. The review chapter can be said to be in three sections namely, introduction, main body and summary.

**(a) True**

(b) False

167. One major reason why the method employed to carry out a study must be described in detail is to

(a) Ensure reliability of the study

(b) Ensure validity of the study

**(c) Make sure that others can repeat the study**

168. Which section of the methodology chapter describes the validity or reliability of the measures?

(a) Data analysis

**(b) Instrumentation**

(c) Sampling Procedures

169. The results of a study should not be necessarily presented in the order of the research questions/hypotheses.

(a) True

**(b) False**

170. As a researcher presents the findings one after the other, the implications must go with them.

(a) True

**(b) False**

171. You can use tables in presenting the following results in the section of a report except

**(a) Raw quantitative data**

(b) Summary of quantitative data

(c) Summary of text information

172. Tables in a research report should be numbered using Roman numerals.

(a) True

**(b) False**

173. When preparing a table, all column lines should not be allowed to appear.

**(a) True**

(b) False

174. A figure and a table can depict the same information.

(a) True

**(b) False**

175. The section of a research report that presents inferences derived from the findings is known as

**(a) Conclusion**

(b) Results

(c) Summary

176. Which of these two concepts is broader: bibliography and references?

**(a) Bibliography**

(b) References

177. The list of references should be arranged alphabetically using the first name of the author(s).

(a) True

**(b) False**

178. Which of the following must be placed in the appendix?

(a) Introductory letter

(b) Questionnaire

(c) Raw data

**(d) All of the above**

**WISH Y’ALL A SUCCESSFUL EXAMS**

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