Multiple Choice: 45 questions
Directions: Choose all that apply.
Correct responses are marked with an asterisk (*).

1. According to Chapter 2, how many steps are there in the educational research process?
a. Six
b. Seven
*c. Eight
d. Nine
Cognitive domain: Knowledge
Answer location: Overview of the Educational Research Process (Introduction)
Question type: MC

2. The educational research process is
*a. cyclical.
b. linear.
c. divergent.
d. redundant.
Cognitive domain: Knowledge
Answer location: Overview of the Educational Research Process (Introduction)
Question type: MC

3. Which of the following may influence and guide subsequent studies?
*a. Outcomes
*b. Results
c. Research paradigms
d. Research timelines
Cognitive domain: Knowledge
Answer location: Overview of the Educational Research Process (Introduction)
Question type: MC

4. Deciding exactly what to study is the
*a. first step in the educational research process.
b. second step in the educational research process.
c. third step in the educational research process.
d. last step in the educational research process.
Cognitive domain: Comprehension
Answer location: Identifying and Limiting a Research Topic or Problem
Question type: MC

5. Topics for educational research should be of interest to the researcher because
a. he or she has experience in/related to the research topic area.
*b. conducting a research study is a substantial investment.
c. familiar topics are easiest to manage.
d. conducting a research study is not a substantial investment.

Cognitive domain: Comprehension
Answer location: Identifying and Limiting a Research Topic or Problem
Question type: MC

6. There is nothing more important in terms of identifying an initial topic for research than
a. a feasible timeline.
b. a reasonable budget.
c. researcher training.
*d. an existing need.
Cognitive domain: Knowledge
Answer location: Identifying and Limiting a Research Topic or Problem
Question type: MC

7. Prior research on a topic may illustrate which of the following for a new study?
a. A feasible timeline
b. A reasonable budget
c. Researcher training
*d. An existing need
Cognitive domain: Knowledge
Answer location: Identifying and Limiting a Research Topic or Problem
Question type: MC

8. To verify that the research topic is a genuine problem,
a. the researcher must provide a rationale for each step in the research process.
b. the researcher must carefully follow each step in the research process.
*c. the researcher must provide a rationale for the study based on the literature.
d. Both a and c
Cognitive domain: Comprehension
Answer location: Identifying and Limiting a Research Topic or Problem
Question type: MC

9. The identification, specification, and articulation of the research problem emerges from
a. the researcher's expertise.
b. following the steps in the process of conducting educational research.
c. primary sources.
*d. the literature review.
Cognitive domain: Comprehension
Answer location: Identifying and Limiting a Research Topic or Problem
Question type: MC

10. Which of the following can be helpful for conducting an educational research study?
a. Considering the study's manageability and time commitment involved
b. Exposure to and familiarity with various research designs
*c. Both a and b
d. None of the above
Cognitive domain: Knowledge

Answer location: Identifying and Limiting a Research Topic or Problem
Question type: MC

11. Which of the following guides the research study?
*a. Carefully wording the research question(s)
b. Carefully managing the stated timeline
c. Carefully managing the stated outline
d. Carefully following all directions for conducting a research study
Cognitive domain: Comprehension
Answer location: Formally Stating and Refining Research Questions
Question type: MC

12. In a research study, what must match the data collected by the researcher?
a. Time allotted for data collection
*b. The research question
c. Time allotted for data analysis
d. All of the above
Cognitive domain: Comprehension
Answer location: Formally Stating and Refining Research Questions
Question type: MC

13. "Related literature" is important for research studies because
a. this is what the researcher will review.
b. this is what the researcher will cite.
c. this is what the researcher will synthesize.
*d. All of the above.
Cognitive domain: Comprehension
Answer location: Reviewing Existing Literature Related to the Problem
Question type: MC

14. The criteria for judging sources of literature are important because
*a. they serve as an overall guide for the researcher to evaluate good practice.
b. they provide a very detailed guide for the researcher to evaluate relevance.
c. Both a and b
d. None of the above
Cognitive domain: Comprehension
Answer location: Reviewing Existing Literature Related to the Problem
Question type: MC

15. Types of related literature to review include
*a. primary sources.
*b. secondary sources.
c. interpretive sources.
d. All of the above.
Cognitive domain: Knowledge
Answer location: Reviewing Existing Literature Related to the Problem

Question type: MC

16. When compiling and synthesizing literature, it is important to remember that
a. all research topics are similar in most ways.
b. all research topics are similar in many ways.
*c. all research topics are different.
d. None of the above
Cognitive domain: Comprehension
Answer location: Writing a Literature Review
Question type: MC

17. The "magic formula" for writing a literature review includes
a. a sound research design.
b. best practices in educational research.
c. only primary sources of literature.
*d. None of the above.
Cognitive domain: Comprehension
Answer location: Writing a Literature Review
Question type: MC

18. Which of the following is NOT necessary to begin developing a research plan?
a. To specify the research problem
b. To develop research questions
*c. To specify how a study will be conducted
d. None of the above
Cognitive domain: Comprehension
Answer location: Developing a Research Plan
Question type: MC

19. It is important for researchers to know _____ because _____
*a. what data will be collected; the researcher is responsible for all aspects of the study.
*b. how and when data will be collected; the researcher makes these decisions.
c. all the participants in the study; the researcher is responsible for all aspects of the study.
d. None of the above
Cognitive domain: Application
Answer location: Developing a Research Plan
Question type: MC

20. Data collected in the research study
a. are costly for the researcher to purchase.
*b. must match the research questions.
c. typically require transformation.
d. None of the above
Cognitive domain: Comprehension
Answer location: Developing a Research Plan
Question type: MC

21. Researchers collect data through various formats; field notes and policy manuals are
a. interviews and existing documents.
b. existing documents and observations.
*c. observations and existing documents.
d. existing documents and interviews.
Cognitive domain: Comprehension
Answer location: Implementing the Research Plan and Collecting Data
Question type: MC

22. Researchers collect data through various formats; attendance records and journals are
a. interviews and existing documents.
*b. existing documents and observations.
c. observations and existing documents.
d. existing documents and interviews.
Cognitive domain: Comprehension
Answer location: Implementing the Research Plan and Collecting Data
Question type: MC

23. Researchers collect data through various formats; questionnaires and student portfolios are
*a. interviews and existing documents.
b. existing documents and observations.
c. observations and existing documents.
d. existing documents and interviews.
Cognitive domain: Comprehension
Answer location: Implementing the Research Plan and Collecting Data
Question type: MC

24. The first—and arguably the most critical—decision for any educational research study is _____.
a. exactly *when* to begin the study
b. exactly *when* to end the study
*c. exactly *what* to study
d. exactly *how* to select participants
Cognitive domain: Comprehension
Answer location: Identifying and Limiting a Research Topic or Problem
Question type: MC

25. There is likely nothing more important in terms of identifying an initial research topic than an existing _____.
a. hypothesis
*b. need
c. study
d. journal article
Cognitive domain: Comprehension

Answer location: Identifying and Limiting a Research Topic or Problem
Question type: MC

26. The *majority* of evidence that includes the justification and rationale for why a research topic is worthy of being studied will be found in the _____.
*a. body of related research literature
b. conclusion
c. results
d. introduction
Cognitive domain: Comprehension
Answer location: Identifying and Limiting a Research Topic or Problem
Question type: MC

27. The basic goal of nearly all research studies is to
a. find answers to questions.
b. help explain and understand some educational phenomenon.
c. ask questions about students.
*d. Both a and b
Cognitive domain: Comprehension
Answer location: Identifying and Limiting a Research Topic or Problem
Question type: MC

28. Once the research topic or problem has been clearly identified, the next step is to
a. conduct a literature review.
b. identify potential expenses.
c. write a hypothesis or hypotheses.
*d. formally state one or more research questions.
Cognitive domain: Application
Answer location: Formally Stating and Refining Research Question(s)
Question type: MC

29. "_____" can be loosely defined as any existing source of information that sheds light on the topic under investigation.
a. Reproducible literature
*b. Related literature
c. Reiterated literature
d. Recycled literature
Cognitive domain: Knowledge
Answer location: Reviewing Existing Literature Related to the Problem
Question type: MC

30. Review-related literature is a critical part of any research study because it can inform so many aspects, including
a. development of the research questions.
b. determination of research designs and methodologies.
c. the specification of the problem.

*d. All of the above.
Cognitive domain: Comprehension
Answer location: Reviewing Existing Literature Related to the Problem
Question type: MC

31. Which of the following provide the necessary groundwork to begin developing a plan to conduct an educational research study?
*a. Specification of the research problem, development of research questions, and a thorough review of the existing body of literature
b. Specification of the research problem and development of research questions
c. Specification of the research problem and a thorough review of the existing body of literature
d. Determining one's own interests within the field of education
Cognitive domain: Knowledge
Answer location: Developing a Research Plan
Question type: MC

32. Which of the following will help a researcher specify exactly *how* a study will be conducted?
*a. How will the quality of data be ensured?
*b. Will the data be qualitative, quantitative, or both?
c. Do I (the researcher) have an interest in this particular topic?
d. How a study will be conducted cannot be determined prior to conducting the research study.
Cognitive domain: Comprehension
Answer location: Developing a Research Plan
Question type: MC

33. _____ data can be collected through the use of field notes, journals, or even videotaping.
a. Questionnaire
b. Examination
*c. Observational
d. Existing
Cognitive domain: Knowledge
Answer location: Implementing the Research Plan and Collecting Data
Question type: MC

34. _____ can be used to ask individuals about their personal opinions or perspectives on some aspect of the educational process under investigation.
a. Questionnaires
b. Rating scales
c. Surveys
*d. Both a and c
Cognitive domain: Knowledge
Answer location: Implementing the Research Plan and Collecting Data

Question type: MC

35. _____ might include attendance records, minutes of faculty meetings, policy manuals, and student portfolios.
a. Constant data
b. Observations
c. Questionnaires
*d. Existing documents
Cognitive domain: Knowledge
Answer location: Implementing the Research Plan and Collecting Data
Question type: MC

36. In _____ research studies, data analysis typically occurs following the completion of *all* data collection.
a. qualitative
*b. quantitative
c. mixed-methods
d. Both a and b
Cognitive domain: Comprehension
Answer location: Analyzing the Data
Question type: MC

37. _____ analysis of data is a very objective process, and _____ analysis of data is a highly subjective process.
a. Qualitative; quantitative
b. Ethnographic; phenomenological
c. Phenomenological; ethnographic
*d. Quantitative; qualitative
Cognitive domain: Analysis
Answer location: Analyzing the Data
Question type: MC

38. In _____ research studies, data analysis, typically, begins *during* data collection, continues throughout the *remainder* of the process of collecting data, and is completed *following* data collection.
*a. qualitative
b. quantitative
c. mixed-methods
d. Both a and b
Cognitive domain: Comprehension
Answer location: Analyzing the Data
Question type: MC

39. Once the data analysis has been completed, the researcher has the responsibility of formally and succinctly stating the _____, which provides the answers to the originally stated research question(s).

a. results
b. findings
c. conclusions
d. All of the above
Cognitive domain: Knowledge
Answer location: Stating Findings, Conclusions, and Recommendations in a Written Research Report
Question type: MC

40. How the research study will actually be conducted is known as the _____.
a. executive plan
b. research plan
*c. research method
d. executive method
Cognitive domain: Knowledge
Answer location: Chapter 2 Summary
Question type: MC

41. Which of the following is a method of data collection?
a. Article analyses
*b. Observation
c. Counting
d. None of the above
Cognitive domain: Application
Answer location: Chapter 2 Summary
Question type: MC

42. Analysis of data in _____ studies involves both kinds of data analysis and essentially merges the results.
a. immersion
*b. mixed-methods
c. dual
d. engagement
Cognitive domain: Comprehension
Answer location: Chapter 2 Summary
Question type: MC

43. The purpose behind stating conclusions and recommendations is to take the answers to the research questions and contextualize them with respect to _____.
a. opposite fields of study
b. systems of education in their particular state
c. the local community
*d. the broader field of education
Cognitive domain: Analysis
Answer location: Chapter 2 Summary
Question type: MC

44. _____ data analysis involves statistical techniques and is typically accomplished using statistical analysis software.
*a. Quantitative
b. Qualitative
c. Mixed-methods
d. Both a and b
Cognitive domain: Knowledge
Answer location: Chapter 2 Summary
Question type: MC

45. _____ data analysis is an inductive process that must be facilitated in the mind of the researcher.
a. Quantitative
*b. Qualitative
c. Mixed-methods
d. Both a and b
Cognitive domain: Knowledge
Answer location: Chapter 2 Summary
Question type: MC

True/False: 15 questions
Directions: Select the accurate response.
Correct responses are marked with an asterisk (*).

1. Future research always makes a contribution to the body of research in a particular field of study.
a. True
*b. False
Cognitive domain: Comprehension
Answer location: Identifying and Limiting a Research Topic or Problem
Question type: TF

2. If a researcher wishes to examine existing records or documents, he or she may opt to administer a questionnaire to the participants.
a. True
*b. False
Cognitive domain: Application
Answer location: Implementing the Research Plan and Collecting Data
Question type: TF

3. If a researcher wishes to collect interview data, he or she may opt to videotape the participants.
a. True

*b. False
Cognitive domain: Application
Answer location: Implementing the Research Plan and Collecting Data
Question type: TF

4. If a researcher wishes to examine existing documents or records, he or she may analyze surveys from the past year.
a. True
*b. False
Cognitive domain: Application
Answer location: Implementing the Research Plan and Collecting Data
Question type: TF

5. If a researcher wishes to observe participants, he or she may use a checklist for data collection.
*a. True
b. False
Cognitive domain: Application
Answer location: Implementing the Research Plan and Collecting Data
Question type: TF

6. If a researcher wishes to collect interview data, he or she may use a checklist for data collection.
a. True
*b. False
Cognitive domain: Application
Answer location: Implementing the Research Plan and Collecting Data
Question type: TF

7. Surveys, checklists, interviews, and questionnaires are different types of observational data.
a. True
*b. False
Cognitive domain: Application
Answer location: Implementing the Research Plan and Collecting Data
Question type: TF

8. Existing documents consist of student portfolios, minutes of faculty meetings, and researcher journals.
a. True
*b. False
Cognitive domain: Application
Answer location: Implementing the Research Plan and Collecting Data
Question type: TF

9. Aspects of one study (e.g., conclusions, methods, literature review, etc.) should never influence and guide subsequent studies.
a. True
* b. False
Cognitive domain: Comprehension
Answer location: Introduction
Question type: TF

10. Personal interest is a huge factor in deciding on an initial topic for educational research.
* a. True
b. False
Cognitive domain: Comprehension
Answer location: Identifying and Limiting a Research Topic or Problem
Question type: TF

11. A key factor in identifying a topic for a research study is verifying whether the potential topic is, in fact, a genuine problem.
*a. True
b. False
Cognitive domain: Comprehension
Answer location: Identifying and Limiting a Research Topic or Problem
Question type: TF

12. Researchers have a responsibility to provide a rationale for why a particular topic or problem is worthy of being studied.
*a. True
b. False
Cognitive domain: Comprehension
Answer location: Educational Research—What It Is and What It Is Not
Question type: TF

13. The literature review should have little influence on the identification, specification, and articulation of the research problem.
a. True
*b. False
Cognitive domain: Comprehension
Answer location: Identifying and Limiting a Research Topic or Problem
Question type: TF

14. Compiling and synthesizing literature related to a given topic is a straightforward process.
True
* b. False
Cognitive domain: Comprehension
Answer location: Writing a Literature Review
Question type: TF

15. Qualitative analyses are NOT conducted via a computerized (i.e., "nonhuman") process.
*a. True
b. False
Cognitive domain: Comprehension
Answer location: Analyzing the Data
Question type: TF

Short Answer: 7 questions

1. Explain the rationale for ordering the steps in the educational research process.
Each step in the educational research process must logically flow from one to the next, with each subsequent step building on the previous one and all that precede. For example, good research questions are necessary for knowing what literature to review; developing a research plan is the next logical step, which is based on the research questions and insight gleaned from the literature review. Next, researchers will implement the plan by collecting and analyzing data. Finally, the researcher offers conclusions and makes recommendations based on data analysis. If these steps are utilized out of context, the results and recommendations will vary and could be less accurate/informed than when the steps are utilized cumulatively in order.
Cognitive domain: Comprehension
Answer location: Identifying and Limiting a Research Topic or Problem
Question type: SA

2. Summarize the process of quantitative data analysis.
Quantitative data are analyzed after all data have been collected; researchers must then organize the data and analyze each type appropriately through the use of various types of software (e.g., SPSS, Excel, StatCrunch, etc.). Because the process utilizes data in the form of numbers, it is an objective process that should yield identical results regardless of the person conducting analyses. However, data interpretation will differ among researchers, as different individuals have different experiences, knowledge, and understanding of the topic under study as well as the factors that affected the results.
Cognitive domain: Application
Answer location: Analyzing the Data
Question type: SA

3. Summarize the process of qualitative data analysis.
Data analysis often begins during qualitative data collection, continues until the study ends, and data are then analyzed holistically; often, additional data are collected that were unplanned yet are necessary to fully address the research question(s). Data analysis occurs through polyangulation, which is categorization based on logical analysis; this primarily requires the human mind, although various types of software are available for coding assistance. Because the process utilizes data in the form of words, it is a subjective process that yields results affected by the person conducting analyses.
Cognitive domain: Application

Answer location: Analyzing the Data
Question type: SA

4. Summarize the process of mixed-methods data analysis.
In essence, the analysis of data in mixed-methods research studies capitalizes on the best of both quantitative and qualitative data analysis. While the techniques for mixed-methods analysis are identical to those in purely quantitative or qualitative studies, the researcher must also merge all data collected to form comprehensive results. "By engaging in this process, the researcher gains a better understanding of how qualitative data and subsequent analyses can inform quantitative data analyses, and vice versa."
Cognitive domain: Application
Answer location: Analyzing the Data
Question type: SA

5. Explain why "carefully wording a research question" is a critical aspect of conducting educational research.
Carefully wording a research question is a critical aspect of conducting educational research because the research question is what guides the remainder of the study.
Cognitive domain: Analysis
Answer location: Educational Research—What It Is and What It Is Not
Question type: SA

6. The text states, "Care must be taken to ensure that the [research] question is actually answerable by data the researcher is able to collect." Explain why this is important.
Failure to do so may result in the collection of inaccurate data, or perhaps data that do not parallel or align with the research question. In cases such as these, unfortunately, you do not find out about the misalignment until the end of the study—when it is too late to restate your research question.
Cognitive domain: Analysis
Answer location: Formally Stating and Refining Research Question(s)
Question type: SA

7. The text states, "Care must be taken to evaluate the existing literature against several criteria." Provide at least two of these criteria.
(Answers will vary)
The criteria include, but are not limited to, the following: the objectivity of the published research (and/or the extent to which an author has clearly identified and explained any potential bias), the specification of limitations inherent in the study, whether the research constitutes a *primary* (i.e., written by the individual who actually conducted the research) or *secondary* (i.e., someone's interpretation of another's research) source, whether the research is *empirical* or opinion based, and whether it has been subject to a process of peer review.
Cognitive domain: Knowledge
Answer location: Reviewing Existing Literature Related to the Problem
Question type: SA

Essay: 5 questions

1. Discuss the reason(s) why stating findings, conclusions, and recommendations in a written report is not a simple process.
Each research study is unique, and although all studies contain the same general components, those components possess very unique characteristics that do not apply to all studies. Additionally, each study contains a distinctive population. Furthermore, there are multiple ways to measure any one variable, and the combination of measurements utilized in any one study is entirely unique (with the exception of replication studies). For these reasons, findings in each study differ from findings in other studies even if the variables/research question(s) are the same. Thus, considering the concluding remarks and making recommendations for future studies will always vary, as these are based on findings that differ across research studies.
Cognitive domain: Analysis
Answer location: Stating Findings, Conclusions, and Recommendations in a Written Report
Question type: ESS

2. Outline the researcher's role in stating findings, conclusions, and recommendations in a written report.
The researcher's role in stating findings, conclusions, and recommendations in a written report is central to completing the study's mission. First, the researcher presents the study's results in the form of data and explains what they mean to the reader. Next, the researcher adds contextual information pertaining to the study and further explains the results in light of these considerations. Finally, the researcher makes recommendations regarding areas of concern or ideas for future research studies. These result in conclusions and recommendations that are based on the study's findings and have been thoughtfully interpreted by the one individual most knowledgeable about the study—the researcher.
Cognitive domain: Comprehension
Answer location: Stating Findings, Conclusions, and Recommendations in a Written Report
Question type: ESS

3. Explain the importance of following the steps of the educational research process in order.
The educational research process is a reiterative one; this means that it is cyclical in nature, with each step building on all that precede it. If we complete steps out of context, the results will be less valid and accurate than when we follow the steps in order. For example, data analysis cannot take place before data collection or before stating the research question. If we did that, our results would be spurious and entirely invalid. As another example, consider the literature review. If we conducted that before stating the research question, we may in fact read literature that is entirely irrelevant. Not only does following the steps in order contribute to a more accurate and stronger set of results, but it also saves time that might otherwise be wasted on fruitless endeavors (e.g., reading literature that is unrelated to the study). Therefore, the steps of the educational research process operate in such a way that each progressive step actually needs those before it.

Cognitive domain: Comprehension
Answer location: Stating Findings, Conclusions, and Recommendations in a Written Report
Question type: ESS

4. The text states, "Care must be taken to evaluate the existing literature against several criteria." Discuss these criteria.
The criteria include, but are not limited to, the following: (a) the objectivity of the published research (and/or the extent to which an author has clearly identified and explained any potential bias), (b) the specification of limitations inherent in the study, (c) whether the research constitutes a *primary* (i.e., written by the individual who actually conducted the research) or *secondary* (i.e., someone's interpretation of another's research) source, (d) whether the research is *empirical* or opinion based, and (e) whether it has been subjected to a process of peer review.
Cognitive domain: Analysis
Answer location: Reviewing Existing Literature Related to the Problem
Question type: ESS

5. The analysis of data is discussed in this chapter. The analysis of one type of data results in an objective process, and the analysis of the other type of data results in a subjective process. This question has three parts: (1) identify each type of data, (2) determine whether it is analyzed objectively or subjectively, and (3) explain why.
The analysis of quantitative data is a highly objective process. The analysis of qualitative data is a subjective process. Because the analysis of quantitative data is done through the use of some statistical analysis software program (e.g., SPSS, Excel, StatCrunch, etc.), the subjectivity and potential bias of the researcher do not affect the results. In other words, regardless of who analyzes the data, the results will be identical. The analysis of qualitative data is, by definition and design, a highly subjective process. Qualitative analyses are not conducted via a computerized process. They are conducted exclusively by the human mind. The researcher must read, reread, organize, condense, and synthesize all the qualitative data in an attempt to identify themes, categories, or patterns that emerge from those data. It is not uncommon—in fact, it is quite typical—for multiple researchers to arrive at very different results and conclusions after analyzing even a small set of qualitative data.
Cognitive domain: Analysis
Answer location: Analyzing the Data
Question type: ESS