

Test Bank

Chapter 2: Overview of the Educational Research Process

Multiple Choice

1. How many steps are there in the educational research process?

- A. six
- B. seven
- C. eight
- D. nine

Ans: C

Learning Objective: 2-1: Summarize various activities that must be conducted during each step of the educational research process.

Cognitive Domain: Knowledge

Answer Location: Chapter Introduction

Difficulty Level: Easy

2. The educational research process is _____.

- A. cyclical
- B. linear
- C. divergent
- D. redundant

Ans: A

Learning Objective: 2-1: Summarize various activities that must be conducted during each step of the educational research process.

Cognitive Domain: Knowledge

Answer Location: Chapter Introduction

Difficulty Level: Medium

3. Which is true of the educational research process?

- A. The outcomes of one study rarely, if ever, impact other studies.
- B. It is linear.
- C. It is rarely cyclical.
- D. The conclusions of one study can impact the literature review of another.

Ans: D

Learning Objective: 2-1: Summarize various activities that must be conducted during each step of the educational research process.

Cognitive Domain: Application

Answer Location: Chapter Introduction

Difficulty Level: Medium

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

Ans: A

Learning Objective: 2-1: Summarize various activities that must be conducted during each step of the educational research process.

Cognitive Domain: Comprehension

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Easy

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

Ans: B

Learning Objective: 2-2: Evaluate why specification of a research problem is so critical

Cognitive Domain: Comprehension

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Medium

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

Ans: D

Learning Objective: 2-2: Evaluate why specification of a research problem is so critical

Cognitive Domain: Knowledge

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Medium

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

Ans: D

Learning Objective: 2-2: Evaluate why specification of a research problem is so critical |

2-4: List various reasons for conducting a review of related research

Cognitive Domain: Knowledge

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Medium

8. How many research questions should you have?

- A. one or more
- B. only one
- C. more than one
- D. at least two

Ans: A

Learning Objective: 2-3: Describe the importance of carefully stating the research question

Cognitive Domain: Comprehension

Answer Location: Formally Stating and Refining Research Question(s)

Difficulty Level: Medium

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

Ans: D

Learning Objective: 2-2: Evaluate why specification of a research problem is so critical

Cognitive Domain: Comprehension

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Medium

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. knowledge of one research design
- C. colleagues who can assist you
- D. time off from other commitments

Ans: A

Learning Objective: 2-1: Summarize various activities that must be conducted during each step of the educational research process.

Cognitive Domain: Knowledge

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Easy

11. Which of the following is one of the criteria used to evaluate existing literature?

- A. the subjectivity of the published research
- B. if has been subjected to personal review
- C. if it is a secondary or tertiary source
- D. if it is empirical or opinion-based

Ans: D

Learning Objective: 2-4: List various reasons for conducting a review of related research.

Cognitive Domain: Comprehension

Answer Location: Reviewing Existing Literature Related to the Problem

Difficulty Level: Medium

12. What are the three broad categories of data collection suggested by Fraenkel and Wallen (2003)?

- A. observation, interviews, and polling
- B. observation, interviews, and existing documents
- C. existing documents, polling, and review
- D. interviews, polling, and review

Ans: B

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Comprehension

Answer Location: Implementing the Research Plan and Collecting Data

Difficulty Level: Medium

13. Which of the following is true regarding data analysis?

- A. It does not differ by methodology.
- B. It occurs at different points in the process.
- C. It occurs after data have been collected.
- D. It is always objective.

Ans: B

Learning Objective: 2-7: Describe how and when data analysis occurs in qualitative and quantitative research.

Cognitive Domain: Application

Answer Location: Analyzing the Data

Difficulty Level: Hard

14. Quantitative data analysis is _____, whereas qualitative data analysis is highly _____.

- A. objective; subjective
- B. controlled; free
- C. subjective; objective
- D. free; controlled

Ans: A

Learning Objective: 2-7: Describe how and when data analysis occurs in qualitative and quantitative research.

Cognitive Domain: Comprehension

Answer Location: Analyzing the Data

Difficulty Level: Medium

15. Types of related literature to review include _____.

- A. primary and secondary sources
- B. primary and final sources
- C. initial and final sources
- D. initial and secondary sources

Ans: A

Learning Objective: 2-4: List various reasons for conducting a review of related research.

Cognitive Domain: Knowledge

Answer Location: Reviewing Existing Literature Related to the Problem

Difficulty Level: Easy

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. research topics generally overlap despite their differences

Ans: C

Learning Objective: 2-4: List various reasons for conducting a review of related research.

Cognitive Domain: Comprehension

Answer Location: Writing a Literature Review

Difficulty Level: Medium

17. Which of the following is necessary to begin developing a research plan?

- A. to determine the most easily studied topic
- B. to develop research questions
- C. to specify how a study will be conducted
- D. to determine a journal for publication

Ans: B

Learning Objective: 2-5: Identify various issues that must be addressed when developing a research plan.

Cognitive Domain: Comprehension

Answer Location: Developing a Research Plan

Difficulty Level: Easy

18. What is Step 4 in the educational research process?

- A. writing a literature review
- B. formally stating and refining research question(s)
- C. developing a research plan
- D. stating the findings as determined through data analyses

Ans: A

Learning Objective: 2-1: Summarize various activities that must be conducted during each step of the educational research process.

Cognitive Domain: Application

Answer Location: The Educational Research Process--A Brief Example

Difficulty Level: Hard

19. Which of the following is true about data collected in the research study?

- A. Data are costly for the researcher to purchase.
- B. They must match the research questions.
- C. They typically require transformation.

D. Data must be made available to the public.

Ans: B

Learning Objective: 2-5: Identify various issues that must be addressed when developing a research plan.

Cognitive Domain: Comprehension

Answer Location: Developing a Research Plan

Difficulty Level: Medium

20. 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

Ans: C

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Comprehension

Answer Location: Implementing the Research Plan and Collecting Data

Difficulty Level: Medium

21. 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

Ans: B

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Comprehension

Answer Location: Implementing the Research Plan and Collecting Data

Difficulty Level: Medium

22. 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

Ans: A

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Comprehension

Answer Location: Implementing the Research Plan and Collecting Data

Difficulty Level: Medium

23. 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

Ans: C

Learning Objective: 2-1: Summarize various activities that must be conducted during each step of the educational research process.

Cognitive Domain: Comprehension

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Easy

24. 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

Ans: B

Learning Objective: 2-2: Evaluate why specification of a research problem is so critical.

Cognitive Domain: Comprehension

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Easy

25. 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

Ans: A

Learning Objective: 2-4: List various reasons for conducting a review of related research.

Cognitive Domain: Comprehension

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Medium

26. The basic goal of nearly all research studies is to _____.

- A. find answers to questions
- B. be published
- C. ask questions about students
- D. convince others

Ans: A

Learning Objective: 2-2: Evaluate why specification of a research problem is so critical.

Cognitive Domain: Comprehension

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Easy

27. 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

Ans: D

Learning Objective: 2-1: Summarize various activities that must be conducted during each step of the educational research process.

Cognitive Domain: Application

Answer Location: Formally Stating and Refining Research Question(s)

Difficulty Level: Medium

28. “_____” 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

Ans: B

Learning Objective: 2-4: List various reasons for conducting a review of related research.

Cognitive Domain: Knowledge

Answer Location: Reviewing Existing Literature Related to the Problem

Difficulty Level: Medium

29. Which type of data analysis capitalizes on the “best of both worlds?”

- A. qualitative
- B. quantitative
- C. polyangulation
- D. mixed methods

Ans: D

Learning Objective: 2-7: Describe how and when data analysis occurs in qualitative and quantitative research.

Cognitive Domain: Comprehension

Answer Location: Analyzing the Data

Difficulty Level: Medium

30. Which of the following provides 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

Ans: A

Learning Objective: 2-1: Summarize various activities that must be conducted during each step of the educational research process.

Cognitive Domain: Knowledge

Answer Location: Developing a Research Plan

Difficulty Level: Medium

31. 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. Where can this be published?
- 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.

Ans: A

Learning Objective: 2-1: Summarize various activities that must be conducted during each step of the educational research process.

Cognitive Domain: Comprehension

Answer Location: Developing a Research Plan

Difficulty Level: Easy

32. _____ data can be collected through the use of field notes, journals, or even videotaping.

- A. Questionnaire
- B. Examination
- C. Observational
- D. Existing

Ans: C

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Knowledge

Answer Location: Implementing the Research Plan and Collecting Data

Difficulty Level: Medium

33. Often, collection of _____ requires the least amount of time.

- A. surveys
- B. observation
- C. interviews
- D. existing data

Ans: D

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Application

Answer Location: Implementing the Research Plan and Collecting Data

Difficulty Level: Hard

34. _____ might include attendance records, minutes of faculty meetings, policy manuals, and student portfolios.

- A. Constant data
- B. Observations
- C. Questionnaires
- D. Existing documents

Ans: D

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Knowledge

Answer Location: Implementing the Research Plan and Collecting Data

Difficulty Level: Easy

35. In _____ research studies, data analysis typically occurs following the completion of *all* data collection.

- A. qualitative
- B. quantitative
- C. mixed-methods
- D. interview

Ans: B

Learning Objective: 2-7: Describe how and when data analysis occurs in qualitative and quantitative research.

Cognitive Domain: Comprehension

Answer Location: Analyzing the Data

Difficulty Level: Medium

36. _____ 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

Ans: D

Learning Objective: 2-7: Describe how and when data analysis occurs in qualitative and quantitative research.

Cognitive Domain: Analysis

Answer Location: Analyzing the Data

Difficulty Level: Hard

37. 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. survey-based

Ans: A

Learning Objective: 2-7: Describe how and when data analysis occurs in qualitative and quantitative research.

Cognitive Domain: Comprehension

Answer Location: Analyzing the Data

Difficulty Level: Medium

38. Which section of an educational research reports do readers sometimes “skip ahead” and read?

- A. data analysis
- B. final conclusions
- C. research questions
- D. literature review

Ans: D

Learning Objective: 2-8: Describe the importance of results, conclusions, and recommendations in a research study.

Cognitive Domain: Application

Answer Location: Stating Findings, Conclusions, and Recommendations in a Written Research Report

Difficulty Level: Hard

39. How the research study will actually be conducted is known as the _____.

- A. executive plan
- B. research plan
- C. research method
- D. executive method

Ans: C

Learning Objective: 2-5: Identify various issues that must be addressed when developing a research plan.

Cognitive Domain: Knowledge

Answer Location: Summary

Difficulty Level: Medium

40. Which of the following is a method of data collection?

- A. article analyses
- B. observation
- C. counting
- D. personal review

Ans: B

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Application

Answer Location: Summary

Difficulty Level: Easy

41. 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

Ans: B

Learning Objective: 2-7: Describe how and when data analysis occurs in qualitative and quantitative research.

Cognitive Domain: Comprehension

Answer Location: Summary

Difficulty Level: Medium

42. 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

Ans: D

Learning Objective: 2-8: Describe the importance of results, conclusions, and recommendations in a research study.

Cognitive Domain: Analysis

Answer Location: Summary

Difficulty Level: Medium

43. _____ data analysis involves statistical techniques and is typically accomplished using statistical analysis software.

- A. Quantitative
- B. Qualitative
- C. Mixed-methods
- D. Interview

Ans: A

Learning Objective: 2-7: Describe how and when data analysis occurs in qualitative and quantitative research.

Cognitive Domain: Knowledge

Answer Location: Summary

Difficulty Level: Easy

44. _____ data analysis is an inductive process that must be facilitated in the mind of the researcher.

- A. Quantitative
- B. Qualitative

C. Mixed-methods

D. Experimental

Ans: B

Learning Objective: 2-7: Describe how and when data analysis occurs in qualitative and quantitative research.

Cognitive Domain: Knowledge

Answer Location: Summary

Difficulty Level: Easy

True/False

1. Future research should likely make a contribution to the body of research in a particular field of study.

Ans: T

Learning Objective: 2-1: Summarize various activities that must be conducted during each step of the educational research process.

Cognitive Domain: Comprehension

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Easy

2. If a researcher wishes to examine existing records or documents, he or she may opt to administer a questionnaire to the participants.

Ans: F

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Comprehension

Answer Location: Implementing the Research Plan and Collecting Data

Difficulty Level: Medium

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

Ans: T

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Knowledge

Answer Location: Implementing the Research Plan and Collecting Data

Difficulty Level: Easy

4. Interview data must be collected orally and in-person.

Ans: F

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Comprehension

Answer Location: Implementing the Research Plan and Collecting Data

Difficulty Level: Medium

5. There can be overlap between categories of data collection.

Ans: T

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Knowledge

Answer Location: Implementing the Research Plan and Collecting Data

Difficulty Level: Easy

6. If a researcher wishes to collect interview data, he or she may use a checklist for data collection.

Ans: F

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Comprehension

Answer Location: Implementing the Research Plan and Collecting Data

Difficulty Level: Medium

7. Surveys, checklists, interviews, and questionnaires are different types of observational data.

Ans: F

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Knowledge

Answer Location: Implementing the Research Plan and Collecting Data

Difficulty Level: Easy

8. Existing documents consist of student portfolios and minutes of faculty meetings.

Ans: T

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Knowledge

Answer Location: Implementing the Research Plan and Collecting Data

Difficulty Level: Easy

9. Aspects of one study (e.g., conclusions, methods, literature review, etc.) should never influence and guide subsequent studies.

Ans: F

Learning Objective: 2-1: Summarize various activities that must be conducted during each step of the educational research process.

Cognitive Domain: Comprehension

Answer Location: Chapter Introduction

Difficulty Level: Medium

10. Personal interest is a huge factor in deciding on an initial topic for educational research.

Ans: T

Learning Objective: 2-2: Evaluate why specification of a research problem is so critical.

Cognitive Domain: Knowledge

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Easy

11. A key factor in identifying a topic for a research study is verifying whether the potential topic is, in fact, a genuine problem.

Ans: T

Learning Objective: 2-2: Evaluate why specification of a research problem is so critical.

Cognitive Domain: Comprehension

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Medium

12. Researchers have a responsibility to provide a rationale for why a particular topic or problem is worthy of being studied.

Ans: T

Learning Objective: 2-2: Evaluate why specification of a research problem is so critical.

Cognitive Domain: Comprehension

Answer Location: Educational Research--What It Is and What It Is Not

Difficulty Level: Easy

13. The literature review should have little influence on the identification, specification, and articulation of the research problem.

Ans: F

Learning Objective: 2-4: List various reasons for conducting a review of related research.

Cognitive Domain: Comprehension

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Easy

14. Compiling and synthesizing literature related to a given topic is a straightforward process.

Ans: F

Learning Objective: 2-4: List various reasons for conducting a review of related research.

Cognitive Domain: Comprehension

Answer Location: Writing a Literature Review

Difficulty Level: Medium

15. It is uncommon for multiple researchers to arrive at different results and conclusions after analyzing qualitative data.

Ans: F

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Comprehension

Answer Location: Analyzing the Data

Difficulty Level: Medium

16. In qualitative research studies, data analysis typically occurs following the completion of *all* data collection.

Ans: F

Learning Objective: 2-7: Describe how and when data analysis occurs in qualitative and quantitative research.

Cognitive Domain: Knowledge

Answer Location: Analyzing the Data

Difficulty Level: Easy

Short Answer

1. Why isn't there a "magical formula" for writing a literature review?

Ans: Answer would ideally include: Compiling and synthesizing literature related to a given topic is not always as straightforward as it might seem. Further, every topic is different, especially in terms of the existing body of literature.

Learning Objective: 2-5: Identify various issues that must be addressed when developing a research plan.

Cognitive Domain: Comprehension

Answer Location: Writing a Literature Review

Difficulty Level: Medium

2. Summarize the process of quantitative data analysis.

Ans: Answer would ideally include: 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.

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Application

Answer Location: Analyzing the Data

Difficulty Level: Hard

3. Summarize the process of qualitative data analysis.

Ans: Answer would ideally include: 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.

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Application

Answer Location: Analyzing the Data

Difficulty Level: Hard

4. Summarize the process of mixed-methods data analysis.

Ans: Answer would ideally include: 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."

Learning Objective: 2-6: List and describe examples of techniques for collecting qualitative and quantitative data.

Cognitive Domain: Application

Answer Location: Analyzing the Data

Difficulty Level: Hard

5. Explain why "carefully wording a research question" is a critical aspect of conducting educational research.

Ans: Answer would ideally include: 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. Care must be taken to ensure that the question is actually answerable by data the researcher is able to collect.

Learning Objective: 2-3: Describe the importance of carefully stating the research question.

Cognitive Domain: Comprehension

Answer Location: Formally Stating and Refining Research Question(s)

Difficulty Level: Medium

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.

Ans: Answer would ideally include: 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.

Learning Objective: 2-3: Describe the importance of carefully stating the research question.

Cognitive Domain: Application

Answer Location: Formally Stating and Refining Research Question(s)

Difficulty Level: Medium

7. The text states, "Care must be taken to evaluate the existing literature against several criteria." Provide at least two of these criteria.

Ans: Answer would ideally include: 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.

Learning Objective: 2-4: List various reasons for conducting a review of related research.

Cognitive Domain: Comprehension

Answer Location: Reviewing Existing Literature Related to the Problem

Difficulty Level: Medium

8. What questions must the researcher answer when attempting to contextualize his or her results?

Ans: Answer would ideally include: What do the findings mean to the field of education? What are the implications for practicing educators? What impact might they have on students and parents? What recommendations for practice can be made? What recommendations, if any, regarding educational theory can be made?

Learning Objective: 2-8: Describe the importance of results, conclusions, and recommendations in a research study.

Cognitive Domain: Application

Answer Location: Stating Findings, Conclusions, and Recommendations in a Written Research Report

Difficulty Level: Medium

9. How is quantitative data analysis an objective process?

Ans: Answer would ideally include: Since the analysis is actually being done by computer software, the subjectivity and potential biases of the researcher do not impact the results.

Learning Objective: 2-7: Describe how and when data analysis occurs in qualitative and quantitative research.

Cognitive Domain: Application

Answer Location: Analyzing the Data

Difficulty Level: Medium

10. How is qualitative analysis a subjective process?

Ans: Answers would ideally include: Qualitative analyses 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.

Learning Objective: 2-7: Describe how and when data analysis occurs in qualitative and quantitative research.

Cognitive Domain: Application

Answer Location: Analyzing the Data

Difficulty Level: Medium

11. What key questions should be asked about the research plan?

Ans: Answers should ideally include the following questions: What data will be collected? Will those data be qualitative, quantitative, or both? Do the data already exist, or will original data be required? Will it be necessary to develop instrumentation (e.g., a survey or rating scale) or interview protocols? How and when will the data be collected? How will the quality of the data be ensured? If the data need to be collected from human participants, from whom will they be collected? How many participants will be necessary? What techniques will be used to analyze those data? Do all of the above align well with the research question(s)?

Learning Objective: 2-5: Identify various issues that must be addressed when developing a research plan.

Cognitive Domain: Comprehension

Answer Location: Developing a Research Plan

Difficulty Level: Medium

Essay

1. Why is it important for a research study to have existing need?

Ans: Answer would ideally include: If a need has been determined, then there will be an audience interested in the results of a given research study. A need for research on a particular topic may stem from prior research conducted on that topic. It may also arise from various experiences of practitioners in the field related to the topic. Therefore, current and future research, as driven by this identified need, should likely make a contribution to the body of research in a particular field of study.

Learning Objective: 2-2: Evaluate why specification of a research problem is so critical.

Cognitive Domain: Application

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Medium

2. Outline the researcher's role in stating findings, conclusions, and recommendations in a written report.

Ans: Answer would ideally include: 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.

Learning Objective: 2-8: Describe the importance of results, conclusions, and recommendations in a research study.

Cognitive Domain: Analysis

Answer Location: Stating Findings, Conclusions, and Recommendations in a Written Research Report

Difficulty Level: Hard

3. Why is it important for the researcher to have personal interest in the study topic?

Ans: Answer would ideally include: In addition to experience and exposure to the topic, topics for educational research studies should hold a good deal of personal interest for the researcher. If for no other reason, you are going to spend several months, if not years, researching the topic--so it most definitely should pique your interest. Personal interest, therefore, is a huge factor in deciding on an initial topic for educational research.

Learning Objective: 2-2: Evaluate why specification of a research problem is so critical.

Cognitive Domain: Application

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Medium

4. Why does it matter that the problem at hand is, in fact, a genuine problem?

Ans: Answer would ideally include: The researcher has a responsibility to provide a rationale for why this particular topic or problem is worthy of being studied. Arguably, the majority of the evidence for this justification and rationale will be found in the body of related research literature. The literature review should have a strong influence on the identification, specification, and articulation of the research problem. Similarly, specification of a particular research problem in subsequent cycles of research may be guided by various aspects of previously conducted research studies.

Learning Objective: 2-2: Evaluate why specification of a research problem is so critical.

Cognitive Domain: Application

Answer Location: Identifying and Limiting a Research Topic or Problem

Difficulty Level: Medium

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.

Ans: Answer would ideally include: 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.

Learning Objective: 2-7: Describe how and when data analysis occurs in qualitative and quantitative research.

Cognitive Domain: Analysis

Answer Location: Analyzing the Data

Difficulty Level: Hard

6. Describe how and why it is important to formally state and refine the research question(s).

Ans: Answers should ideally include: Once the research topic or problem has been clearly identified, the next step is to formally state one or more research questions. 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. In addition, care must be taken to ensure that the question is actually answerable by data the researcher is able to collect. 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.

Learning Objective: 2-3: Describe the importance of carefully stating the research question.

Cognitive Domain: Application

Answer Location: Formally Stating and Refining Research Question(s)

Difficulty Level: Medium