Chapter 1: Introduction to Educational Research

Test Bank

# Multiple Choice

1. One reason knowledge of educational research is important to educational practitioners is \_\_\_\_\_\_.

A. it can help you “prove” something is true

B. it is guaranteed to lead to better practice

C. it can help practitioners reflect critically on claims about educational practice

D. it is actually not important unless you want to pursue a doctoral degree

Ans: C

Learning Objective: 1-1: Explain the importance of educational research.

Cognitive Domain: Comprehension

Answer Location: Why Study Educational Research?

Difficulty Level: Medium

2. Research literature refers to \_\_\_\_\_\_.

A. the research that has been done on literature from a specific historic time period

B. the set of published research studies on a particular topic

C. the literature about research done in a particular discipline

D. research that backs up what a researcher is looking for in a study

Ans: B

Learning Objective: 1-1: Explain the importance of educational research.

Cognitive Domain: Knowledge

Answer Location: Why Study Educational Research?

Difficulty Level: Easy

3. Applied research has as its primary focus \_\_\_\_\_\_.

A. basic learning processes

B. theory testing

C. practical questions

D. fundamental knowledge

Ans: C

Learning Objective: 1-2: List at least five areas of educational research.

Cognitive Domain: Comprehension

Answer Location: General Kinds of Research

Difficulty Level: Medium

4. Basic research has as its primary focus \_\_\_\_\_\_.

A. current educational interventions

B. immediate solutions

C. practical questions

D. fundamental knowledge

Ans: D

Learning Objective: 1-2: List at least five areas of educational research.

Cognitive Domain: Knowledge

Answer Location: General Kinds of Research

Difficulty Level: Easy

5. Action research \_\_\_\_\_\_.

A. is a form of basic research

B. is a form of applied research

C. is a form of research that deals with fundamental knowledge

D. uses only qualitative methods

Ans: B

Learning Objective: 1-2: List at least five areas of educational research.

Cognitive Domain: Knowledge

Answer Location: Action Research

Difficulty Level: Easy

6. What general type of research is focused on solving specific problems that local practitioners face in their schools and communities?

A. evaluation research

B. basic research

C. action research

D. orientational research

Ans: C

Learning Objective: 1-2: List at least five areas of educational research.

Cognitive Domain: Knowledge

Answer Location: Action Research

Difficulty Level: Easy

7. What general type of research is focused on collecting information to help a researcher advance an ideological or political position?

A. evaluation research

B. basic research

C. action research

D. orientational research

Ans: D

Learning Objective: 1-2: List at least five areas of educational research.

Cognitive Domain: Knowledge

Answer Location: Action Research

Difficulty Level: Easy

8. What type of evaluation is focused on improving an educational program?

A. formative

B. summative

C. evaluative

D. cost analysis

Ans: A

Learning Objective: 1-2: List at least five areas of educational research.

Cognitive Domain: Comprehension

Answer Location: Evaluation Research

Difficulty Level: Medium

9. Another name for critical theory research is \_\_\_\_\_\_.

A. evaluation research

B. orientational research

C. applied research

D. basic research

Ans: B

Learning Objective: 1-2: List at least five areas of educational research.

Cognitive Domain: Knowledge

Answer Location: Orientational Research

Difficulty Level: Easy

10. A researcher has developed a theory about a student’s motivation in school. She conducts several studies to test the theory. This is an example of \_\_\_\_\_\_.

A. eEvaluation

B. basic research

C. applied research

D. epistemology

Ans: B

Learning Objective: 1-2: List at least five areas of educational research.

Cognitive Domain: Analysis

Answer Location: Examples of Educational Research

Difficulty Level: Hard

11. A researcher has conducted several studies to verify her theory of school motivational factors. These studies have validated her theory so now she wants to conduct research to see if changing aspects of the school classroom based on her theory lead to improvements in the classroom. This is an example of \_\_\_\_\_\_.

A. evaluation

B. basic research

C. applied research

D. epistemology

Ans: C

Learning Objective: 1-2: List at least five areas of educational research.

Cognitive Domain: Analysis

Answer Location: Examples of Educational Research

Difficulty Level: Hard

12. According to the text, basic and applied research should be viewed as \_\_\_\_\_\_.

A. the poles on a single continuum

B. distinct categories

C. logical categories

D. the same type of research

Ans: A

Learning Objective: 1-3: Explain the difference between basic and applied research.

Cognitive Domain: Knowledge

Answer Location: General Kinds of Research

Difficulty Level: Easy

13. A researcher does a study that primarily tests out a theory about memory in college student volunteers from an introductory psychology class. What makes this study basic research rather than applied research?

A. the subject area of memory

B. the focus on testing theory

C. studying college students

D. that it is likely to use quantitative methods

Ans: B

Learning Objective: 1-3: Explain the difference between basic and applied research.

Cognitive Domain: Knowledge

Answer Location: Basic Research

Difficulty Level: Easy

14. A researcher does a study that explores the implementation of new curriculum standards in a school district. Where does it fall on the basic to applied continuum of research and why?

A. It is basic research because it studies new standards.

B. It is applied research because the focus is on implementation in real settings.

C. It is basic research because it deals with fundamental knowledge.

D. It is applied research because it uses only qualitative methods.

Ans: B

Learning Objective: 1-3: Explain the difference between basic and applied research.

Cognitive Domain: Comprehension

Answer Location: Action Research

Difficulty Level: Medium

15. At the end of a teacher education program, students take a comprehensive exam to see if they have met standards for teaching. This is an example of \_\_\_\_\_\_.

A. formative assessment

B. summative assessment

C. theory assessment

D. efficiency assessment

Ans: B

Learning Objective: 1-4: Describe evaluation research, action research, and orientational research.

Cognitive Domain: Application

Answer Location: Evaluation Research

Difficulty Level: Medium

16. Research that is focused on reducing some form of inequality in a society is known as which of the following?

A. orientational research

B. experimental research

C. theoretical research

D. grounded research

Ans: A

Learning Objective: 1-4: Describe evaluation research, action research, and orientational research.

Cognitive Domain: Knowledge

Answer Location: Orientational Research

Difficulty Level: Easy

17. Determining the worth, merit, or quality of an evaluation object is known as which of the following?

A. action research

B. explanatory research

C. evaluation

D. descriptive research

Ans: C

Learning Objective: 1-4: Describe evaluation research, action research, and orientational research.

Cognitive Domain: Knowledge

Answer Location: Evaluation Research

Difficulty Level: Easy

18. Applied research that is focused on solving local problems is also known as which of the following?

A. orientational research

B. action research

C. basic research

D. predictive research

Ans: B

Learning Objective: 1-4: Describe evaluation research, action research, and orientational research.

Cognitive Domain: Knowledge

Answer Location: Action Research

Difficulty Level: Easy

19. In evaluation research, which type of assessment is concerned with whether there is a demand for a particular program?

A. implementation

B. impact

C. needs assessment

D. efficiency assessment

Ans: C

Learning Objective: 1-4: Describe evaluation research, action research, and orientational research.

Cognitive Domain: Knowledge

Answer Location: Evaluation Research

Difficulty Level: Easy

20. In evaluation research, if a program fails because it was poorly conceptualized, this is labeled \_\_\_\_\_\_.

A. theory failure

B. implementation failure

C. needs assessment failure

D. efficiency failure

Ans: A

Learning Objective: 1-4: Describe evaluation research, action research, and orientational research.

Cognitive Domain: Knowledge

Answer Location: Evaluation Research

Difficulty Level: Easy

21. In evaluation research, if a program fails because it was not carried out, or not carried out with the specified components, this is called \_\_\_\_\_\_.

A. theory failure

B. implementation failure

C. needs assessment failure

D. efficiency failure

Ans: B

Learning Objective: 1-4: Describe evaluation research, action research, and orientational research.

Cognitive Domain: Knowledge

Answer Location: Evaluation Research

Difficulty Level: Easy

22. Which approach to reasoning goes "from the particular to the general?”

A. deductive

B. inductive

C. abductive

D. retroductive

Ans: B

Learning Objective: 1-5: Discuss the different sources of knowledge.

Cognitive Domain: Comprehension

Answer Location: Reasoning

Difficulty Level: Medium

23. Epistemology is the \_\_\_\_\_\_.

A. theory of knowledge and its justification

B. idea that knowledge comes from experience

C. theory that empirical evidence does not provide proof

D. idea that research requires generating ideas about phenomena

Ans: A

Learning Objective: 1-5: Discuss the different sources of knowledge.

Cognitive Domain: Knowledge

Answer Location: Sources of Knowledge

Difficulty Level: Easy

24. Which of the following concepts specifically refers to the idea that knowledge comes from experience?

A. epistemology

B. empiricism

C. rationalism

D. materialism

Ans: B

Learning Objective: 1-5: Discuss the different sources of knowledge.

Cognitive Domain: Knowledge

Answer Location: Experience

Difficulty Level: Easy

25. Which of the following terms refers to the idea that knowledge comes from reasoning?

A. epistemology

B. empiricism

C. rationalism

D. materialism

Ans: C

Learning Objective: 1-5: Discuss the different sources of knowledge.

Cognitive Domain: Knowledge

Answer Location: Experience

Difficulty Level: Easy

26. "Dr. Smith has parked in the same parking space for over a year now. Most likely, she will be parking there again tomorrow." This statement is an example of \_\_\_\_\_\_.

A. deductive reasoning

B. inductive reasoning

C. rationalistic reasoning

D. essentialist reasoning

Ans: B

Learning Objective: 1-5: Discuss the different sources of knowledge.

Cognitive Domain: Application

Answer Location: Reasoning

Difficulty Level: Medium

27. The key difference between *deductive* reasoning and *inductive* reasoning is \_\_\_\_\_\_.

A. in deductive reasoning, the conclusion must be true if the premises are true

B. in deductive reasoning, the conclusion will usually be true if the premises are true

C. in inductive reasoning, the conclusion must be true if the premises are true

D. in deductive reasoning, the researcher makes probabilistic generalizations

Ans: A

Learning Objective: 1-5: Discuss the different sources of knowledge.

Cognitive Domain: Analysis

Answer Location: Reasoning

Difficulty Level: Hard

28. According to the book, when you engage in inductive reasoning, you are also using \_\_\_\_\_\_.

A. deductive reasoning

B. quantitative reasoning

C. moral reasoning

D. probabilistic reasoning

Ans: D

Learning Objective: 1-5: Discuss the different sources of knowledge.

Cognitive Domain: Knowledge

Answer Location: Reasoning

Difficulty Level: Easy

29. Pseudoscience is defined as \_\_\_\_\_\_.

A. any set of beliefs or practices that purport to be scientific but are not

B. research that is scientific but poorly designed

C. prescientific research

D. early research in a field before methods are developed to make it scientific

Ans: A

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Knowledge

Answer Location: Critical/Scientific Reasoning Versus Pseudoscience

Difficulty Level: Easy

30. The theory *testing* approach to science is called \_\_\_\_\_\_.

A. the parsimony principle

B. the exploratory method

C. the inductive method

D. the confirmatory method

Ans: D

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Application

Answer Location: Reasoning

Difficulty Level: Hard

31. The theory *generation* approach to science is called \_\_\_\_\_\_.

A. the parsimony principle

B. the exploratory method

C. the deductive method

D. the confirmatory method

Ans: B

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Comprehension

Answer Location: Scientific Methods

Difficulty Level: Medium

32. Which of the following is a basic assumption of science?

A. Science can answer all questions.

B. Science is never wrong.

C. Researchers should follow certain agreed upon norms and practices.

D. Science can solve value conflicts, such as whether abortion is immoral.

Ans: C

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Analysis

Answer Location: Basic Assumptions of Science

Difficulty Level: Medium

33. Popper’s criterion of falsifiability suggests that \_\_\_\_\_\_.

A. good theories are, in principle, refutable

B. good theories are complex

C. good theories are never falsifiable

D. good theories are based on inductive logic

Ans: A

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Comprehension

Answer Location: Theory

Difficulty Level: Medium

34. If a researcher tests a hypothesis with new data to see if it is supported or rejected, she will be using which of the following methods?

A. exploratory method

B. confirmatory method

C. theory generation approach

D. cost analysis approach

Ans: B

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Application

Answer Location: Scientific Methods

Difficulty Level: Medium

35. Why is the word "proof" not used in empirical research in the social and behavioral sciences?

A. Human behavior always follows mathematical laws.

B. Researchers create data to get promoted at their jobs.

C. New theories might provide a better explanation of the same observations.

D. 100 studies must be completed on a topic before something is proven.

Ans: C

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Analysis

Answer Location: The Principle of Evidence

Difficulty Level: Hard

36. What is the principle of evidence?

A. Research proves theories.

B. Research produces deductive truth.

C. Research provides evidence, not proof.

D. Research provides information and it is up to the researcher to decide if the information proves his or her theory.

Ans: C

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Comprehension

Answer Location: The Principle of Evidence

Difficulty Level: Medium

37. In which of the following scenarios would you be most confident that evidence exists to support an educational practice?

A. One study done by well-known researchers and published in a high-quality peer-reviewed journal found the educational practice to be effective.

B. Four studies done by different groups of researchers showed positive results and were published in high-quality peer-reviewed journals.

C. An advocate for a program provides anecdotes of its effectiveness by asking for testimonials.

D. A curriculum publisher presents marketing material with claims of effectiveness.

Ans: B

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Analysis

Answer Location: The Principle of Evidence

Difficulty Level: Hard

38. Dr. Ellis read a study about improving reading skills in elementary school students. Using the teaching techniques and assessments used in the article, she conducted another study at five local elementary schools to see if she too could improve students’ reading skills. Dr. Ellis’ study is \_\_\_\_\_\_.

A. a needs assessment

B. a replication

C. basic research

D. a formative evaluation

Ans: B

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Analysis

Answer Location: The Principle of Evidence

Difficulty Level: Hard

39. A central part of the scientific method is generating a *hypothesis*. A hypothesis is \_\_\_\_\_\_.

A. the results of the research

B. an explanatory system

C. an educated guess

D. an interpretation of findings

Ans: C

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Knowledge

Answer Location: Scientific Methods

Difficulty Level: Easy

40. Test scores are typically considered what type of data \_\_\_\_\_\_.

A. parsimonious

B. error-free

C. qualitative

D. quantitative

Ans: D

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Comprehension

Answer Location: Scientific Methods

Difficulty Level: Medium

41. An example of qualitative data would be \_\_\_\_\_\_.

A. scores on weekly spelling tests

B. responses on open-ended interviews

C. the number of words a first grader read in a minute

D. an individual’s IQ

Ans: B

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Comprehension

Answer Location: Scientific Methods

Difficulty Level: Medium

42. A researcher does a presentation where he describes three studies that support his position but fails to mention 10 studies that do not. What pseudoscience strategy is he engaging in \_\_\_\_\_\_.

A. ignoring negative evidence

B. overreliance on testimonials and anecdotal evidence

C. appealing to trust/faith rather than empirical/observable evidence

D. using confusing language to make a claim seem scientific

Ans: A

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Comprehension

Answer Location: Critical/Scientific Reasoning Versus Pseudoscience

Difficulty Level: Medium

43. A researcher makes a claim about a practice in a field by telling practitioners, “trust me, I know what works.” Which of the following pseudoscience strategies is she using?

A. ignoring negative evidence

B. appealing to trust/faith rather than empirical/observable evidence

C. reversal of the burden of proof

D. using confusing language to make a claim seem scientific

Ans: B

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Comprehension

Answer Location: Critical/Scientific Reasoning Versus Pseudoscience

Difficulty Level: Medium

44. The rule of parsimony suggests that scientists should \_\_\_\_\_\_.

A. use the most complex theory

B. use an inductive method

C. use experimental designs

D. prefer the simplest theory that works

Ans: D

Learning Objective: 1-7: Explain how to determine the quality of a theory or explanation.

Cognitive Domain: Application

Answer Location: Scientific Methods

Difficulty Level: Medium

45. Which of the following is a characteristic of a good theory or explanation?

A. It is very complex.

B. It is testable.

C. It is very specific and only applies to one place, situation, or person.

D. It is only observed by specific researchers.

Ans: B

Learning Objective: 1-7: Explain how to determine the quality of a theory or explanation.

Cognitive Domain: Analysis

Answer Location: Theory

Difficulty Level: Medium

46. Which statement best represents Karl Popper’s criterion of falsifiability?

A. The most important property of a scientific theory is that it is capable of being supported by empirical data if it is true.

B. The most important property of a scientific theory is that it is capable of being refuted by empirical data if it is false.

C. When testing a theory, strong conclusions from a study can be drawn based on either supporting or refuting data.

D. If there is a single study that does not support a theory, it should be abandoned.

Ans: B

Learning Objective: 1-7: Explain how to determine the quality of a theory or explanation.

Cognitive Domain: Analysis

Answer Location: Theory

Difficulty Level: Medium

47. The explanatory system that explains how a phenomenon operates and why it operates as it does is a \_\_\_\_\_\_.

A. theory

B. hypothesis

C. principle of evidence

D. fact

Ans: A

Learning Objective: 1-7: Explain how to determine the quality of a theory or explanation.

Cognitive Domain: Knowledge

Answer Location: Theory

Difficulty Level: Easy

48. A good theory is one that is \_\_\_\_\_\_.

A. clear and parsimonious

B. very complex

C. not easily testable

D. applicable in very limited circumstances

Ans: A

Learning Objective: 1-7: Explain how to determine the quality of a theory or explanation.

Cognitive Domain: Comprehension

Answer Location: Theory

Difficulty Level: Medium

49. Which of the following is an objective of educational research?

A. tenure

B. exploitation

C. prediction

D. demarcation

Ans: C

Learning Objective: 1-8: List the six objectives of educational research and provide an example of each.

Cognitive Domain: Knowledge

Answer Location: Objectives of Educational Research

Difficulty Level: Easy

50. A researcher wants to know the effectiveness of early intervention programs on preventing developmental delay in children. She hopes that the results of the work will have implications for state and national policies concerning early intervention. In this case, the main purpose of the study was \_\_\_\_\_\_.

A. exploration

B. description

C. influence

D. prediction

Ans: C

Learning Objective: 1-8: List the six objectives of educational research and provide an example of each.

Cognitive Domain: Application

Answer Location: Objectives of Educational Research

Difficulty Level: Hard

51. A researcher designs an experiment to test how variables interact to influence how well children learn spelling words. In this case, the main purpose of the study was \_\_\_\_\_\_.

A. explanation

B. description

C. influence

D. prediction

Ans: A

Learning Objective: 1-8: List the six objectives of educational research and provide an example of each.

Cognitive Domain: Application

Answer Location: Objectives of Educational Research

Difficulty Level: Hard

52. There is a school of science and mathematics in a state that serves students who are intellectually gifted in math and science. A researcher wants to find out more about how students from impoverished communities who attended poor schools were able to stay motivated and show high level of performance in the face of poor teaching and low-resourced schools. The main purpose of the study was \_\_\_\_\_\_.

A. exploration

B. control

C. influence

D. prediction

Ans: A

Learning Objective: 1-8: List the six objectives of educational research and provide an example of each.

Cognitive Domain: Application

Answer Location: Objectives of Educational Research

Difficulty Level: Hard

53. The government agency that trains air traffic controllers wants to examine how well an admissions test can differentiate candidates for air traffic controller positions who are likely to pass the training course from those who would not. In this case, the primary purpose of the study is \_\_\_\_\_\_.

A. influence

B. description

C. prediction

D. control

Ans: C

Learning Objective: 1-8: List the six objectives of educational research and provide an example of each.

Cognitive Domain: Application

Answer Location: Objectives of Educational Research

Difficulty Level: Hard

54. A brief summary of what is in an article is called a(n) \_\_\_\_\_\_.

A. research evaluation

B. abstract

C. project description

D. article review

Ans: B

Learning Objective: 1-8: List the six objectives of educational research and provide an example of each.

Cognitive Domain: Knowledge

Answer Location: Examples of Educational Research

Difficulty Level: Easy

55. A research study aimed at determining whether the Saxon Math or the Harcourt Math program causes higher math achievement in third-grade students is an example of \_\_\_\_\_\_.

A. explanatory research

B. predictive research

C. descriptive research

D. basic research

Ans: A

Learning Objective: 1-8: List the six objectives of educational research and provide an example of each.

Cognitive Domain: Application

Answer Location: Objectives of Educational Research

Difficulty Level: Hard

56. Researcher A completed a study of homeschooled children and found that 67% of the homeschooled students reported that they currently had difficulty relating to other children their age. Researcher B conducted a study to determine whether children who are homeschooled during their elementary school years will have problems relating to their peers during their college years. What type of studies were these researchers conducting?

A. Both A and B were conducting descriptive studies.

B. A was conducting a descriptive study, and B was conducting a predictive study.

C. A and B were conducting predictive studies.

D. A was conducting a predictive study, and B was conducting a descriptive study.

Ans: B

Learning Objective: 1-8: List the six objectives of educational research and provide an example of each.

Cognitive Domain: Analysis

Answer Location: Objectives of Educational Research

Difficulty Level: Medium

57. A researcher is interested in the viewpoints of transgender students in schools so he designs a research study to investigate this topic. This study will meet which objective of educational research?

A. prediction

B. explanation

C. exploration

D. understanding

Ans: D

Learning Objective: 1-8: List the six objectives of educational research and provide an example of each.

Cognitive Domain: Application

Answer Location: Objectives of Educational Research

Difficulty Level: Hard

58. After doing several research studies that showed that a theory did not fit with the evidence, a researcher decides he needs to come up with a new theory. Which of the dispositions of good researchers does this best illustrate?

A. Researchers (and students) always write with integrity, avoid any possibility of plagiarism, and give credit to others’ previous works and ideas when relevant.

B. Researchers are curious about how people, groups, and the world work.

C. Researchers always respect their human participants in the research process and follow good ethical guidelines.

D. Researchers let reality and the world “push back,” and they document what they learn about the world.

Ans: D

Learning Objective: Describe the dispositions of a good educational researcher.

Cognitive Domain: Comprehension

Answer Location: Dispositions of a Good Researcher

Difficulty Level: Medium

59. Which of the following descriptors is one characteristic of the dispositions of a good researcher?

A. impatient

B. closed to change

C. unconcerned about respect for human subjects

D. committed to systematic inquiry

Ans: D

Learning Objective: Describe the dispositions of a good educational researcher.

Cognitive Domain: Comprehension

Answer Location: Dispositions of a Good Researcher

Difficulty Level: Medium

# True/False

1. Studying educational research leads to improvements in critical thinking skills.

Ans: T

Learning Objective: 1-1: Explain the importance of educational research.

Cognitive Domain: Knowledge

Answer Location: Why Study Educational Research?

Difficulty Level: Easy

2. AERA is interested in research from all fields and settings of education.

Ans: T

Learning Objective: 1-2: List at least five areas of educational research.

Cognitive Domain: Comprehension

Answer Location: Areas of Educational Research

Difficulty Level: Medium

3. Needs assessment, theory assessment, implementation assessment, impact assessment, and efficiency assessment are all currently considered part of the field of evaluation.

Ans: T

Learning Objective: 1-4: Describe evaluation research, action research, and orientational research.

Cognitive Domain: Knowledge

Answer Location: Evaluation Research

Difficulty Level: Easy

4. According to your text, a synonym for the word theory is "explanation."

Ans: T

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Knowledge

Answer Location: Scientific Methods

Difficulty Level: Easy

5. According to the principle of evidence, empirical research provides degrees of evidence but it does not provide proof.

Ans: T

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Comprehension

Answer Location: The Principle of Evidence

Difficulty Level: Medium

6. Once a researcher has completed the initial search of literature and generated a hypothesis, the purpose of the research is to *prove* that the hypothesis is true.

Ans: F

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Comprehension

Answer Location: The Principle of Evidence

Difficulty Level: Medium

7. Qualitative and quantitative researchers focus on different parts of the research cycle, and neither goes through the entire research cycle.

Ans: F

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Comprehension

Answer Location: Scientific Methods

Difficulty Level: Medium

8. In educational research, we focus on the most complex theory that works and ignore the simplest theory.

Ans: F

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Comprehension

Answer Location: Theory

Difficulty Level: Medium

9. Relying on anecdotes and testimonials for most of the evidence to support a claim is pseudoscience.

Ans: T

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Application

Answer Location: Critical/Scientific Reasoning Versus Pseudoscience

Difficulty Level: Medium

10. A theory can be judged in terms of how well empirical data fit the theories/predictions.

Ans: T

Learning Objective: 1-7: Explain how to determine the quality of a theory or explanation.

Cognitive Domain: Application

Answer Location: Theory

Difficulty Level: Medium

11. Replication is a way to evaluate the quality of a theory or finding.

Ans: T

Learning Objective: 1-7: Explain how to determine the quality of a theory or explanation.

Cognitive Domain: Application

Answer Location: The Principle of Evidence

Difficulty Level: Hard

12. Exploratory research is often conducted in the early phases of research on a topic because little is known about the topic.

Ans: T

Learning Objective: 1-8: List the six objectives of educational research and provide an example of each.

Cognitive Domain: Comprehension

Answer Location: Objectives of Educational Research

Difficulty Level: Medium

13. A good researcher would abandon a theory that is not supported by evidence.

Ans: T

Learning Objective: Describe the dispositions of a good educational researcher.

Cognitive Domain: Application

Answer Location: Dispositions of a Good Researcher

Difficulty Level: Medium

14. A good researcher believes a single study provides sufficient evidence to be confident in a finding.

Ans: F

Learning Objective: Describe the dispositions of a good educational researcher.

Cognitive Domain: Application

Answer Location: Dispositions of a Good Researcher

Difficulty Level: Medium

15. A good educational researcher only carries out a study after an independent review of ethical and human subject concerns.

Ans: T

Learning Objective: Describe the dispositions of a good educational researcher.

Cognitive Domain: Application

Answer Location: Dispositions of a Good Researcher

Difficulty Level: Medium

# Essay

1. Educational research courses are required for many programs in education. Why is it important for people in a variety of educational areas to learn about educational research?

Ans: Almost all fields have claims about best practices and fundamental knowledge that are part of the field. Knowledge of educational research can help practitioners better understand their fields, recognize when practices in fields are supported, what is needed to improve the practices in a field. Without being able to understand the basis for knowledge within a field, it is difficult to become an effective and/or expert practitioner.

Learning Objective: 1-1: Explain the importance of educational research.

Cognitive Domain: Comprehension

Answer Location: Why Study Educational Research?

Difficulty Level: Medium

2. Describe the dispositions of a good researcher. Why is each of these dispositions important to the success of educational research?

Ans: Good examples will mention the following six dispositions:

1. Researchers are curious about how people, groups, and the world work.
2. Researchers are patient and committed to systematic inquiry because advances often come through hard work over time.
3. Researchers let reality and the world “push back,” and they document what they learn about the world.
4. Researchers are creative and open to change, so that knowledge can continually grow in new says.
5. Researchers always respect their human participants in the research process and follow good ethical guidelines (see Chapter 6).
6. Researchers (and students) always write with integrity, avoid any possibility of plagiarism, and give credit to others’ previous works and ideas when relevant.

A good explanation of “why” would focus on the researcher attending to the importance of evidence over his or her own gain, as well as a general interest in finding out how things work in educational systems.

Learning Objective: Describe the dispositions of a good educational researcher.

Cognitive Domain: Application

Answer Location: Dispositions of a Good Researcher

Difficulty Level: Hard

3. Describe the differences in the goals of basic and applied research.

Ans: Basic research has a focus on fundamental knowledge of a process or concept, whereas applied research focuses on practice and its improvement. Basic research is more likely to have a theoretical focus without necessarily having any impact on immediate improvement in practice. The primary audience for basic research is other researchers, whereas applied research often has a practitioner focus.

Learning Objective: 1-3: Explain the difference between basic and applied research.

Cognitive Domain: Comprehension

Answer Location: Basic and Applied Research

Difficulty Level: Medium

4. Compare and contrast qualitative and quantitative researchers.

Ans: A quantitative researcher is someone who focuses on testing theories and hypotheses using quantitative data to see if they are confirmed or not. A qualitative researcher is someone who focuses on the exploration, description, and sometimes generation and construction of theories using qualitative data. Quantitative researchers like hard data such as test scores, while qualitative researchers prefer to explore educational issues using qualitative data such as open-ended interviews that provide data based on the participants’ perspectives and their actual words. Both go through the full research cycle, but they emphasize different parts. Quantitative researchers emphasize movement from theory to hypotheses to data to conclusions, while qualitative researchers emphasize movement directly from observations and data to descriptions and patterns and, sometimes, to theory generation.

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Comprehension

Answer Location: Scientific Methods

Difficulty Level: Medium

5. Describe the objectives of educational research.

Ans: Exploration research occurs when the researcher is trying to understand some phenomenon that is relatively unknown. Description is the objective of educational research when the researcher is trying to identify the characteristics or the phenomenon. Understanding is part of studies that focus on participants’ subjective viewpoints either as individuals or as members of groups. Some research studies are focused on prediction, attempting to forecast or predict the phenomenon. Finally, research can also be designed to influence. In influence, the research is done to make certain outcomes happen.

Learning Objective: 1-8: List the six objectives of educational research and provide an example of each.

Cognitive Domain: Knowledge

Answer Location: Objectives of Educational Research

Difficulty Level: Easy

6. Define theory and explain its role in educational research.

Ans: A theory is an explanation or explanatory system that explains how a phenomenon operates and why it operates as it does. It can generalize to many different situations. It can also help in the predication of outcomes. In educational research, some research is focused on developing theories, some on providing support for theories, and other on applying theories to solve problems.

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Comprehension

Answer Location: Theory

Difficulty Level: Medium

7. An evaluation researcher does a study and finds no impact of a program. Describe some possible reasons why the program might not have worked.

Ans: A good example will include theory failure, implementation failure, and other possible explanations. The other possible explanations will depend where in the course the question is asked and the prior knowledge of students. For example, research design issues might be mentioned if this were part of test that included the chapter on research validity.

Learning Objective: 1-4: Describe evaluation research, action research, and orientational research.

Cognitive Domain: Comprehension

Answer Location: Evaluation Research

Difficulty Level: Medium

8. Explain how the dispositions of good researchers keep them from engaging in pseudoscience.

Ans: Researchers who illustrate those dispositions are not likely to make strong, unsubstantiated claims of pseudoscience. They focus on the data and evidence rather than on proving themselves right. Those who engage in pseudoscience tend to ignore evidence and focus on weak evidence such as anecdotes to support their arguments. Good researchers look to systematically collect evidence that rigorously tests out programs, theories, and elements of educational practice. They are more cautious in drawing conclusions. Those who engage in pseudoscience often make strong claims without evidence.

Learning Objective: 1-6: Explain the scientific approach to knowledge generation.

Cognitive Domain: Application

Answer Location: Critical/Scientific Reasoning Versus Pseudoscience | Dispositions of a Good Researcher

Difficulty Level: Hard