Chapter 1: Thinking Like a Researcher

Test Bank

# Multiple Choice

1. Which of the following is the best definition of critical thinking?

A. a process of evaluating information based on one’s personal experiences

B. a process of considering information based on current knowledge in a field while carefully avoiding personal bias

C. a process of criticizing current knowledge in a field

D. a process of unquestionably following what experts in a field suggest

Ans: B

Learning Objective: 1-1: The connection between thinking critically and thinking like a researcher.

Cognitive Domain: Comprehension

Answer Location: Thinking Critically About Ethics

Difficulty Level: Medium

2. Which of the following was the motivation behind the Nuremberg code?

A. Nazi experiments

B. Tuskegee syphilis experiments

C. Milgram’s obedience study

D. Zimbardo’s prison study

Ans: A

Learning Objective: 1-1: The connection between thinking critically and thinking like a researcher.

Cognitive Domain: Comprehension

Answer Location: Ethics Codes

Difficulty Level: Medium

3. Which of the following was the motivation behind the Belmont code?

A. Nazi experiments

B. Tuskegee syphilis experiments

C. Milgram’s obedience study

D. Zimbardo’s prison study

Ans: B

Learning Objective: 1-1: The connection between thinking critically and thinking like a researcher.

Cognitive Domain: Comprehension

Answer Location: Ethics Codes

Difficulty Level: Medium

4. The Tuskegee syphilis experiments occurred in what country?

A. Germany

B. England

C. United States

D. Mexico

Ans: C

Learning Objective: 1-1: The connection between thinking critically and thinking like a researcher.

Cognitive Domain: Knowledge

Answer Location: Ethics Codes

Difficulty Level: Easy

5. The Tuskegee syphilis experiments are considered unethical because of the use of \_\_\_\_\_\_.

A. debriefing

B. informed consent

C. deception

D. coercive incentives

Ans: C

Learning Objective: 1-1: The connection between thinking critically and thinking like a researcher.

Cognitive Domain: Comprehension

Answer Location: Ethics Codes

Difficulty Level: Easy

6. Which of the following was a social psychological experiment that is considered ethically questionable because of the use of deception?

A. Milgram’s obedience study

B. Zimbardo’s prison experiment

C. Tuskegee Study

D. Nuremburg Study

Ans: A

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Knowledge

Answer Location: Ethics Codes

Difficulty Level: Medium

7. Which of the following was a social psychological experiment that is considered ethically questionable because of the emotional and psychological risk incurred by participants?

A. Milgram’s obedience study

B. Zimbardo’s prison experiment

C. Tuskegee Study

D. Nuremburg Study

Ans: B

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Comprehension

Answer Location: Ethics Codes

Difficulty Level: Medium

8. Which of the following represent the moral values and ideals of a discipline?

A. Belmont code

B. Nuremberg code

C. ethical standards

D. ethical principles

Ans: D

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Comprehension

Answer Location: Ethical Principles

Difficulty Level: Medium

9. Which of the following represent the specific rules of an ethical code of conduct?

A. Belmont code

B. Nuremberg code

C. ethical standards

D. ethical principles

Ans: C

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Comprehension

Answer Location: Ethical Standards

Difficulty Level: Medium

10. Which of the following is true about informed consent process?

A. It occurs after the participants begin the study.

B. It includes informing participants of the risks and benefits of the study.

C. It includes telling participants they cannot withdraw at any point in the study.

D. It must be in writing.

Ans: B

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Application

Answer Location: Informed Consent

Difficulty Level: Medium

11. When a study involves interviews with 16-year-old subjects, which of the following is true?

A. You must obtain informed consent from the parent or legal guardian

B. If a parent or guardian gives consent, it is not necessary to inform the 16 year old about the purpose, risk, and benefits of the study.

C. If the parent gives consent, the 16 year old must participate.

D. The 16 year old’s interview information must be shared with the parent.

Ans: A

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Application

Answer Location: Informed consent

Difficulty Level: Medium

12. A researcher wishes to give a questionnaire to middle school children. The research has been approved by the Institutional Review Board at the university, and a middle school has agreed to help the researcher identify potential participants. The next step the researcher must do is \_\_\_\_\_\_.

A. get the informed consent of the potential participants

B. get the informed consent of the parents or guardians of potential participants

C. give the potential participants incentives to sign the informed consent form

D. give the school an incentive for identifying the potential participants

Ans: B

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Application

Answer Location: Informed Consent

Difficulty Level: Hard

13. Which of the following is true about debriefing?

A. It occurs before the participants begin the study.

B. It is not necessary for all studies.

C. It is designed to inform participants about the risks and benefits of the study.

D. It can be in writing.

Ans: B

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Comprehension

Answer Location: Debriefing

Difficulty Level: Medium

14. A researcher wants to conduct a study in which he throws cold water on unsuspecting participants and observes their reactions. He wants to forgo the informed consent process because he believes that the participants would not act naturally if they were told ahead of time about what the study involves. Under which of the following would this study be considered ethical?

A. If the researcher makes a convincing argument that informed consent would negatively impede his ability to obtain valid results.

B. If the researcher makes a convincing argument that the study has a clear rationale based on past research.

C. If the researcher thoroughly debriefs each participant as soon as his or her participation is complete.

D. This study would never be considered ethical because of the potential to cause participants physical and emotional pain.

Ans: D

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Application

Answer Location: Informed Consent

Difficulty Level: Hard

15. The American Psychological Association allows for the use of deception under certain circumstances. Which of the following is one of the necessary circumstances?

A. The use of deception would make the study more interesting.

B. The study is only expected to cause emotional, but not physical, distress.

C. The researchers debrief participants as soon as possible regarding the deception.

D. The researchers provide adequate compensation to the participants.

Ans: C

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Application

Answer Location: Deception

Difficulty Level: Medium

16. Which of the following organizations have essentially banned deception in research?

A. American Psychological Association

B. American Sociological Association

C. American Anthropological Association

D. American Political Science Association

Ans: C

Learning Objective: 1-1: The connection between thinking critically and thinking like a researcher.

Cognitive Domain: Knowledge

Answer Location: Deception

Difficulty Level: Easy

17. What is one of the arguments against using deception in research?

A. It takes too much time.

B. It is very work-intensive.

C. It may cause a researcher to have emotional distress.

D. It may damage the reputation of the discipline.

Ans: D

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Comprehension

Answer Location: Deception

Difficulty Level: Medium

18. Which of the following is considered deception?

A. not telling the participants the general topic you are examining

B. not telling the participants how you will analyze your data

C. not telling the participants the exact hypothesis for your study

D. not telling the participants that they will be exposed to different stimuli than other participants

Ans: A

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Comprehension

Answer Location: Deception

Difficulty Level: Medium

19. Which of the following is a question that a researcher should consider when deciding whether or not to offer participants an incentive for participation?

A. What is the lowest incentive I can give to convince potential participants to say yes?

B. Will the incentive help participants to be cooperative in the study?

C. How will I make it clear that the incentive will be given to participants even if they do not complete the entire study?

D. Will the incentive be strong enough to encourage participants to complete the entire study?

Ans: C

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Application

Answer Location: Incentives for Participation

Difficulty Level: Medium

20. \_\_\_\_\_\_ occurs when a participant’s responses are kept private, although the researcher may be able to link each participant to his or her responses.

A. Informed consent

B. Debriefing

C. Confidentiality

D. Anonymity

Ans: C

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Knowledge

Answer Location: Confidentiality

Difficulty Level: Easy

21. \_\_\_\_\_\_ occurs when a participant’s responses cannot be linked to his or her responses.

A. Informed consent

B. Debriefing

C. Confidentiality

D. Anonymity

Ans: D

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Knowledge

Answer Location: Confidentiality

Difficulty Level: Easy

22. \_\_\_\_\_\_ is essential to a research study, but \_\_\_\_\_\_ is not always possible.

A. Anonymity; confidentiality

B. Confidentiality; anonymity

C. Incentives; the right to withdraw

D. Debriefing; informed consent

Ans: B

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Comprehension

Answer Location: Confidentiality

Difficulty Level: Medium

23. The scientific approach is a specific type of \_\_\_\_\_\_.

A. research design

B. belief system

C. critical thinking

D. statistical analysis

Ans: C

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Knowledge

Answer Location: The Scientific Approach

Difficulty Level: Easy

24. Which of the following is an essential component of the scientific approach?

A. strong beliefs about the topic under study

B. a desire to prove something

C. identifying personal biases that might impact how you think about a topic

D. providing simple solutions to a complex problem

Ans: C

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Comprehension

Answer Location: The Scientific Approach

Difficulty Level: Medium

25. Who stated that a nonscientific approach might be our “default” way of approaching the world?

A. Milgram and Zimbardo

B. Ariely

C. Kiesler

D. Ornstein and Ehrlich

Ans: D

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Comprehension

Answer Location: The Scientific Approach

Difficulty Level: Medium

26. Which of the following is one of the potential benefits of the scientific approach?

A. It can provide solid proof of a phenomenon.

B. It can help individuals make better decisions.

C. It is a simple and easy way to prove something.

D. It can help people win arguments.

Ans: B

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Comprehension

Answer Location: The Scientific Approach and Decision Making

Difficulty Level: Medium

27. Which of the following is an example of how research was used to inform public policy?

A. Research on eyewitness reports informed national guidelines for collecting unbiased eyewitness testimony.

B. Research on multitasking was used to ban cell phone use in university classrooms.

C. Research on decision-making was used to limit menu options of all sitting presidents.

D. Research on science education has led to mandatory environmental education classes in public schools.

Ans: A

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Application

Answer Location: The Scientific Approach and Decision Making

Difficulty Level: Medium

28. Which of the following statement is most accurate?

A. Science helps us identify hard facts.

B. Social science should be considered a “soft science.”

C. Scientific results should not be questioned.

D. Science is a process, not an outcome.

Ans: D

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Comprehension

Answer Location: The Scientific Method: Defined and Refined

Difficulty Level: Medium

29. Which of the following statements about the scientific method is most accurate?

A. The steps to the scientific method must be followed in an exact order.

B. Once you complete one step in the scientific method, you must be sure not to revisit it.

C. If you complete one step in the scientific method, it may lead you to the next, or it may lead you to rethink an earlier step.

D. If you follow the steps in the scientific method, you will get a clear and irrefutable answer.

Ans: C

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Comprehension

Answer Location: The Scientific Method: Defined and Refined

Difficulty Level: Medium

30. After identifying your topic, you should \_\_\_\_\_\_.

A. identify a testable hypothesis

B. collect data

C. ask friends and family members for their opinions on the topic

D. read and evaluate past research on the topic

Ans: D

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Knowledge

Answer Location: Step 2: Find, Read, and Evaluate Past Research

Difficulty Level: Easy

31. The goal of which type of research design is to describe the variables, not examine relationships among the variables?

A. descriptive research

B. correlational research

C. quasi-experimental research

D. experimental research

Ans: A

Learning Objective: 1-4: Basic research terms that we will expound on in later chapters.

Cognitive Domain: Knowledge

Answer Location: Step 4: Choose a Research Design

Difficulty Level: Easy

32. Which type of research design is used to examine a causal relationship and involves manipulating one variable, randomly assigning participants or subjects to different levels of that manipulated variable, and measuring the effect of that manipulation on another variable?

A. descriptive research

B. correlational research

C. quasi-experimental research

D. experimental research

Ans: D

Learning Objective: 1-4: Basic research terms that we will expound on in later chapters.

Cognitive Domain: Knowledge

Answer Location: Step 4: Choose a Research Design

Difficulty Level: Easy

33. Which type of research design involves examining relationships among variables, but does not involve manipulation of any variables?

A. descriptive research

B. correlational research

C. quasi-experimental research

D. experimental research

Ans: B

Learning Objective: 1-4: Basic research terms that we will expound on in later chapters.

Cognitive Domain: Knowledge

Answer Location: Step 4: Choose a Research Design

Difficulty Level: Easy

34. Which type of research design involves examining relationships among variables, and includes a manipulation of one variable, but does not involve random assignment of participants or subjects to different levels of that manipulated variable?

A. descriptive research

B. correlational research

C. quasi-experimental research

D. experimental research

Ans: C

Learning Objective: 1-4: Basic research terms that we will expound on in later chapters.

Cognitive Domain: Knowledge

Answer Location: Step 4: Choose a Research Design

Difficulty Level: Easy

35. Which of the following types of designs would be most appropriate to use to understand whether or not playing a video game causes an increase in aggressive drives?

A. descriptive research

B. correlational research

C. quasi-experimental research

D. experimental research

Ans: D

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Application

Answer Location: Step 4: Choose a Research Design

Difficulty Level: Medium

36. Which of the following types of designs would be most appropriate to use to understand which age group plays the most video games?

A. descriptive research

B. correlational research

C. quasi-experimental research

D. experimental research

Ans: A

Learning Objective: 1-4: Basic research terms that we will expound on in later chapters.

Cognitive Domain: Application

Answer Location: Step 4: Choose a Research Design

Difficulty Level: Medium

37. Which of the following types of designs would be most appropriate to use to understand if age is related to choice of video games?

A. descriptive research

B. correlational research

C. quasi-experimental research

D. experimental research

Ans: B

Learning Objective: 1-4: Basic research terms that we will expound on in later chapters.

Cognitive Domain: Application

Answer Location: Step 4: Choose a Research Design

Difficulty Level: Medium

38. A factor in a study with two or more possible values is called a \_\_\_\_\_\_.

A. research design

B. quasi-factor

C. variable

D. causative factor

Ans: C

Learning Objective: 1-4: Basic research terms that we will expound on in later chapters.

Cognitive Domain: Knowledge

Answer Location: Step 4: Choose a Research Design

Difficulty Level: Easy

39. Which of the following is a variable?

A. marital status

B. married

C. divorced

D. never married

Ans: A

Learning Objective: 1-4: Basic research terms that we will expound on in later chapters.

Cognitive Domain: Knowledge

Answer Location: Step 4: Choose a Research Design

Difficulty Level: Easy

40. In order to conduct a study, you often must get approval from the \_\_\_\_\_\_ of your college or university.

A. Institutional Review Board (IRB)

B. American Psychological Association (APA)

C. Psi Chi

D. Judicial Board

Ans: A

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Knowledge

Answer Location: Step 5: Plan and Carry Out Your Study

Difficulty Level: Easy

41. The following statement appears in Chapter 1 of your textbook: Research should be a transparent process, and thus it is important that you make your results public so that others may learn from and build on your study. Which of the following would be OK to include in your own research report in that there is no evidence of plagiarism?

A. Research should be a transparent process, and thus it is important that you make your results public so that others may learn from and build on your study (Adams & Lawrence, 2014).

B. Adams and Lawrence (2014) state that “research should be a transparent process” (p. 25).

C. “Research should be a transparent process.”

D. Research should be a clear process, and therefore it is vital that you make your results public so others may build on and learn from your study.

Ans: B

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Application

Answer Location: Step 7: Communicate Results

Difficulty Level: Medium

42. Which of the following statements is most accurate?

A. A single study is relatively meaningless in the process of science.

B. Once several studies find consistent results, it is fair to say that we have proved something using the scientific method.

C. Supporting, refining, and refuting the results of a study are key aspects of scientific process.

D. The cycle of science is completed once a research study is made public.

Ans: C

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Comprehension

Answer Location: The Big Picture: Proof and Progress in Science

Difficulty Level: Medium

# True/False

1. All social science disciplines strictly prohibit the use of deception.

Ans: F

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Knowledge

Answer Location: Deception

Difficulty Level: Easy

2. Researchers must always maintain the confidentiality of their participants.

Ans: T

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Knowledge

Answer Location: Confidentiality

Difficulty Level: Easy

3. Researchers must always maintain the anonymity of their participants.

Ans: F

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Knowledge

Answer Location: Confidentiality

Difficulty Level: Easy

4. The scientific method is essentially the same as the research process.

Ans: T

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Knowledge

Answer Location: Overview of the Research Process (a.k.a. the Scientific Method)

Difficulty Level: Easy

5. Reading and evaluating past research on a chosen topic is a critical part of the scientific method.

Ans: T

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Knowledge

Answer Location: Step 2: Find, Read, and Evaluate Past Research

Difficulty Level: Medium

6. A hypothesis can be disproven.

Ans: T

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Comprehension

Answer Location: Step 3: Further Refine Your Topic and Develop a Hypothesis or Research Question

Difficulty Level: Easy

7. All studies are experiments.

Ans: F

Learning Objective: 1-4: Basic research terms that we will expound on in later chapters.

Cognitive Domain: Comprehension

Answer Location: Step 4: Choose a Research Design.

Difficulty Level: Easy

8. Science can prove something to be true.

Ans: F

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Comprehension

Answer Location: The Big Picture: Proof and Progress in Science

Difficulty Level: Easy

# Short Answer

1. Dr. Schlafen wonders if older adults have more vivid dreams than those in other age groups.

A. Can Dr. Schlafen conduct an experiment on this question? Explain.

Ans: No, Dr. Schlafen cannot manipulate participant age.

B. *If yes*, identify the independent variable. OR *If no*, what type of study could be used to help answer this question?

Ans: Descriptive (if examining only older adults) or correlational (if comparing age groups); you could also make a case for a quasi-experimental if you manipulate dreams but have preexisting age groups.

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Analysis

Answer Location: Step 4: Choose a Research Design

Difficulty Level: Hard

2. Suppose you wanted to do an *experiment* in order to see if you could increase energy conservation among college students through education. How would you operationally define the IV and DV of your experiment?

Ans: The IV would be the education program, should be operationally defined as the type of education provided. The DV would be level of energy conservation, and should provide a specific way to measure energy conservation (e.g., asking questions or observing).

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process.

Cognitive Domain: Analysis

Answer Location: Step 4: Choose a Research Design

Difficulty Level: Hard

3. Suppose you want to do a *descriptive study* of energy conservation (e.g., saving electricity) by college students. How would you carry out this study in an ethical manner?

Ans: If a survey, you should have informed consent, participants should be over 18 or have parental consent, participants can withdraw at any time, answers should be confidential, the questions and procedure should minimize deception and harm, and participants should be debriefed.

If observational, you may not need to have informed consent if the observations are in public areas. Still you need to minimize deception and harm and be sure participants’ data are kept confidential.

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Analysis

Answer Location: Ethical Standards | Step 4: Choose a Research Design

Difficulty Level: Hard

4. Suppose you want to do an observational study of procrastination behaviors of professors.

A. Provide an *operational definition* of procrastination.

Ans: The operational definition should be something measurable and concrete, such as how long the prof plays computer games a day when they have work to do, and so on.

B. What ethical issues should be addressed in order to gain approval from an IRB for your *specific* observational study?

Ans: Because this study is observational, you do not need to have informed consent if you observe the professors in public spaces. You will need to decide whether you should debrief them and how intrusive you can be about the observations. If you videotape your observations, you must safeguard the tapes (keep them locked up, destroy after you are finished with them). Make sure the data for a specific professor are not available to the professor’s employer.

Learning Objective: 1-3: How to take a scientific approach and apply the steps in the scientific process. | 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline.

Cognitive Domain: Analysis

Answer Location: Ethical Standards | Step 4: Choose a Research Design

Difficulty Level: Hard

5. A researcher wants to compare responses to visual stimuli between humans with “split brains” (i.e., those with a severed corpus callosum) and those who have an intact corpus callosum. What type of research design should she use--descriptive, correlational, or experimental? Explain your answer.

Ans:The researcher should conduct a correlational study because she is looking at the relationship between the corpus callosum (intact vs. severed) and responses to visual stimuli. She cannot ethically perform an experiment because an experiment would require that she assign some patients to have their corpus callosum severed, and that would be quite an unethical medical experiment. For a correlational study, she would recruit patients who have already had this procedure for a medical reason and those who have not had the procedure and compare their responses to visual stimuli.

Learning Objective: 1-2: How to think critically about research ethics, including understanding and applying the ethical principles and standards of your discipline

Cognitive Domain: Analysis

Answer Location: Ethical Standards | Step 4: Choose a Research Design

Difficulty Level: Hard