

Test Bank

Chapter 2: Research Methods: Safeguards Against Error

Multiple Choice

1. Your textbook discusses the issue of facilitated communication and its applicability to assisting children with autism. One possibility for the early research results was that the children were communicating through the adults who were assisting them. As the book notes, a simpler explanation for the miraculous findings was that the “facilitators” were simply guiding the hands of the children to communicate things that their parents would want to hear. This simpler explanation is consistent with the concept of

A) replicability.

Incorrect. Though replication of early findings was a problem for the issue of facilitated communication, it is not the answer to this particular question.

B) Occam's Razor.

Correct. Occam's Razor suggests that the simplest explanation for a phenomenon tends to be the correct explanation. In this example, the facilitator guiding the “communication” of the children is the simplest explanation for the early outcomes.

C) falsifiability.

D) correlation versus causation.

Answer: B

Diff: 3 Page Ref: 44–45

Skill: Conceptual

APA LO: 5.1a

TEXT LO Introduction

Topic: Introduction

2. What is one take home message from the discussion of autism and facilitated communication?

A) Autistic children want to communicate with their parents but need someone to facilitate the process.

B) In almost all cases researched, the data failed to support the idea that facilitated communication was truly effective.

Correct. Your authors note that in nearly 100% of cases tested, the picture flashed to the facilitator was the word typed.

C) Psychological research is dangerous because it allows anyone to find support for any idea or opinion.

Incorrect. While this may be true in some cases, this is not the prevailing message that the authors are trying to convey.

D) The scientific method is not an effective means for finding solutions for persons who live with autism and other psychological disorders.

Answer: B

Diff: 3 Page Ref: 44–45

Skill: Conceptual

APA LO: 5.1a

TEXT LO Introduction

Topic: Introduction

3. Contradicting years of theory and practice, Douglas Biklen claimed that children with autism could, in fact, communicate with the aid of a “facilitator.” With his help, these children gave messages of love and warmth to their parents, many of whom had been without such affection since their children were born. When the evidence of this “facilitated communication” is examined, which principle of critical thinking from your chapter is not supported?

- A) Occam’s Razor
- B) Correlation vs. causation
- C) Falsifiability

Incorrect. In this case, the claims were falsifiable as demonstrated by ongoing research.

- D) Extraordinary claims

Correct. The extraordinary claims that autistic children could suddenly be given an avenue to communicate effectively was belied by the research evidence, which showed facilitated communication to be without validity of any kind.

Answer: D

Diff: 2 Page Ref: 44–45

Skill: Conceptual

APA LO: 5.1a

TEXT LO Introduction

Topic: Introduction

4. The discussion on the topic of facilitated communication demonstrated the importance of which critical component of critical thinking?

- A) Developing falsifiable hypotheses
- B) Parsimonious theories
- C) Replication of earlier research findings
- D) Ruling out rival hypotheses

Correct. As it turned out, research demonstrated that facilitated communication had no true research validity, and an alternate explanation was needed. That explanation was that the “facilitators” were actually the ones doing the communicating, not the children with autistic disorder.

Answer: D

Diff: 2 Page Ref: 44–45

Skill: Conceptual

APA LO: 5.1a

TEXT LO Introduction

Topic: Introduction

5. The use of the prefrontal lobotomy was, for quite some time, regarded as a miracle treatment for people suffering from schizophrenia and other mental illnesses. The amazing nature of this treatment was not, however, supported by research into its effectiveness. Which concept of critical thinking is important to consider in this example?

- A) Correlation vs. causation
- B) Replicability

Incorrect. Because there was no scientific research that supported the claims of the effectiveness of the lobotomy, there would be nothing to be replicated. Therefore this answer is not the best choice.

- C) Occam’s Razor
- D) Extraordinary claims

Correct. Remember that extraordinary claims, including “miracle cures,” must be supported by extraordinary evidence. That evidence was sorely lacking in the case of the prefrontal lobotomy.

Answer: D

Diff: 2 Page Ref: 46

Skill: Conceptual

APA LO: 1.4a

TEXT LO 2.1 Identify two modes of thinking and their application to scientific reasoning

Topic: The Beauty and Necessity of Good Research Design

6. Once controlled research studies were conducted on the effectiveness of prefrontal lobotomies, they were discovered to be

- A) slightly effective.
- B) sometimes effective, sometimes not.
- C) universally effective.
- D) virtually useless.

Answer: D

Diff: 1 Page Ref: 46

Skill: Factual

APA LO: 1.4a

TEXT LO 2.1 Identify two modes of thinking and their application to scientific reasoning

Topic: The Beauty and Necessity of Good Research Design

7. When a psychologist is discussing a *heuristic*, he or she is referring to

- A) biased information processing strategies.
- B) a mental shortcut or rule of thumb.
- C) a mental technique to improve memory recall.
- D) a mental technique to increase deliberation in our decision making.

Answer: B

Diff: 2 Page Ref: 47

Skill: Factual

APA LO: 1.4a

TEXT LO 2.1 Identify two modes of thinking and their application to scientific reasoning

Topic: The Beauty and Necessity of Good Research Design

8. A mental shortcut that helps us to streamline our thinking and make sense of our world is called a

- A) theory.
- B) heuristic.
- C) schema.
- D) mental reference.

Answer: B

Diff: 1 Page Ref: 47

Skill: Factual

APA LO: 1.4a

TEXT LO 2.1 Identify two modes of thinking and their application to scientific reasoning

Topic: The Beauty and Necessity of Good Research Design

9. Dr. Fortner is discussing cognitive psychology with his introductory psychology class and says that we act as cognitive misers when making judgments about others or making decisions. What does Dr. Fortner mean with this statement?

- A) We are frequently incorrect in our judgments and decision making.

Incorrect. This is not implied by calling people cognitive misers.

- B) We value accuracy in our judgments and decisions.

- C) We are lazy and conserve mental energy by simplifying the world.

Correct. Referring to people as cognitive misers suggests that they take mental shortcuts in their attempt to solve problems. This implies that people are lazy and conserve their mental energy by using heuristics.

- D) We will use heuristics only as long as they give us the correct answer.

Answer: C

Diff: 3 Page Ref: 46–47

Skill: Applied

APA LO: 1.4a

TEXT LO 2.1 Identify two modes of thinking and their application to scientific reasoning

Topic: The Beauty and Necessity of Good Research Design

10. A key idea that emerged from Kahneman and Tversky's research is that people often behave
- A) irrationally.
 - B) logically and reasonably.
 - C) rationally.
 - D) in an unbiased fashion.

Answer: A

Diff: 2 Page Ref: 47

Skill: Factual

APA LO: 1.4a

TEXT LO 2.1 Identify two modes of thinking and their application to scientific reasoning

Topic: The Beauty and Necessity of Good Research Design

11. When a researcher tests his or her hypothesis, he or she is often hoping to gather information that is consistent with a particular theory. What, more specifically, allows a researcher to say that he or she has "proven" a theory?

- A) Any time a hypothesis is confirmed, a theory is automatically "proven."
- B) Any time a hypothesis confirms one theory and simultaneously disconfirms at least one other theory, a theory has been "proven."
- C) Any time a hypothesis confirms one theory and simultaneously disconfirms all other known theories, a theory has been "proven."
- D) A researcher is never able to say that he or she has "proven" a theory.

Answer: D

Diff: 3 Page Ref: 48

Skill: Factual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

12. Which of the following is one of the questions that a researcher should ask herself before conducting a research study?

A) "How can I avoid using statistics to analyze my results?"

B) "What research strategies should I use to test my idea?"

Correct. In fact, this should be one of the first questions asked after the idea has been formulated.

C) "Will I be able to prove my hypothesis?"

Incorrect. Recall from your chapter that a true theory cannot be proven. It simply stands as the best model, based on the available data, until a better model replaces it.

D) "How can I guarantee that I obtain subjective results?"

Answer: B

Diff: 2 Page Ref: 48–49

Skill: Conceptual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

13. Which of the following statements is true about naturalistic observation?

- A) It recreates natural conditions in the laboratory as closely as possible to make an experiment more valid.
- B) It involves observing behavior in its real-world context.
- C) It is basically the same process as objective introspection.
- D) It involves observing behavior in the lab without taking formal notes or using technological equipment to measure the experimental findings.

Answer: B

Diff: 1 Page Ref: 49

Skill: Factual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

% correct 75 a = 14 b = 75 c = 0 d = 11 r = .53

% correct 74 a = 21 b = 74 c = 0 d = 5 r = .66

Topic: The Scientific Method: Toolbox of Skills

14. Watching behavior in real-world settings is known as

- A) case study.
- B) correlation design.
- C) naturalistic observation.
- D) existence proof.

Answer: C

Diff: 1 Page Ref: 49

Skill: Factual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

15. Dr. Watson wanted to know which sex was better at sharing at the sixth-grade level, so he went to the local middle school to observe lunch periods. This is a form of

- A) case study.
- B) naturalistic observation.
- C) experimental design.

Correct. Naturalistic observation entails watching behavior in a real-world settings.
Incorrect. Naturalistic observation takes place in the real world. Experimental designs take place in a laboratory setting.

D) confirmation bias.

Answer: B

Diff: 2 Page Ref: 49

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

16. A researcher is interested in determining how frequently bullying behavior occurs in real-life settings. This researcher would best be advised to use the

- A) case study design.
- B) correlational design.
- C) experimental design.

Incorrect. Naturalistic observation takes place in the real world. Experimental designs take place in a laboratory setting.

D) naturalistic observation design.

Correct. Naturalistic observation occurs in the real world, rather than in a laboratory.

Answer: D

Diff: 2 Page Ref: 49

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

% correct 84 a = 11 b = 0 c = 5 d = 84 r = .32

Topic: The Scientific Method: Toolbox of Skills

17. A group of student researchers divide up the different times and buildings on their campus to attempt to determine when people will hold a door open for another person. These student researchers are most likely to use which research method design when conducting their study?

- A) Case study design
- B) Correlational design
- C) Experimental design

Incorrect. Naturalistic observation takes place in the real world. Experimental designs take place in a laboratory setting.

D) Naturalistic observation design

Correct. Naturalistic observation occurs in the real world, rather than in a laboratory. This is how one can most effectively assess behaviors without influencing them.

Answer: D

Diff: 1 Page Ref: 49

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

% correct 75 a = 6 b = 19 c = 0 d = 75 r = .23

Topic: The Scientific Method: Toolbox of Skills

18. Jason was conducting an evaluation of a restaurant waitress. He sat at the table with a list of things to observe in front of him, and the waitress noticed that he was assessing her every move. He noticed that she began acting more professionally around him, was friendlier, and gave him extra attention. Why would Jason have been better off using naturalistic observation for this assessment?

A) So that he could have more experimental control over his independent variable.

Incorrect. Remember that naturalistic observation is not a form of experimental research, and so one of its drawbacks is a lack of control.

B) So that he would be sure to "catch" the waitress behaving unprofessionally.

C) So that he could have been sure to get enough data to use proper statistics.

D) So that his observations would not have changed the waitress's behaviors.

Correct. Naturalistic observation involves watching behaviors take place without influencing them. This way the researcher can get a true and objective "picture" of how those behaviors take place.

Answer: D

Diff: 1 Page Ref: 49

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case

studies, self-report measures, and surveys
Topic: The Scientific Method: Toolbox of Skills

19. Professor Williams wants to know if “real” college students exhibit the same kinds of behaviors in class that subjects who were paid to act like college students do. She decides to have someone come in once a week to her classes to record the types of nonverbal behaviors that students engage in while listening to her lectures. This would be an example of which kind of study?

A) A formal experiment

Incorrect. In this study there is no manipulation of one variable to explore its effect on a second variable. This research is naturalistic observation.

B) Naturalistic observation

Correct. Naturalistic observation involves watching and recording participants' behavior, often without their knowledge.

C) Case study

D) Survey research

Answer: B

Diff: 2 Page Ref: 49

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

20. The extent to which it is possible to draw cause-and-effect conclusions from a given research project describes the study's _____ validity.

A) construct

B) cohesive

C) external

D) internal

Answer: D

Diff: 2 Page Ref: 49

Skill: Factual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

21. Vincent is designing a research study as part of his Master's thesis. He wants to do a laboratory study where he can control as many variables as possible, but he is concerned that his findings will not generalize very well from the laboratory setting to the real world. In technical terms, Vincent is concerned about the _____ of his study.

A) internal validity

B) test-retest reliability

Incorrect. Test-retest reliability refers to the consistency of findings from one administration of an assessment tool to the next.

C) external validity

Correct. External validity refers to the extent to which we can generalize findings from a research study to real world settings.

D) confound reliability

Answer: C

Diff: 2 Page Ref: 49

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

22. A student researcher wishes to maximize the external validity of his or her research design. What research method should you recommend to him or her?

- A) Case study design
- B) Correlational design
- C) Experimental design
- D) Naturalistic observational design

Incorrect. The primary benefit of experimental designs is that they are high in internal validity. The generalizability, or external validity, of such research is sometimes quite low.

D) Naturalistic observational design

Correct. Because naturalistic observations often generalize well to the real world, they are high in external validity.

Answer: D

Diff: 3 Page Ref: 49

Skill: Conceptual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

23. This research design involves an extremely deep and detailed information gathering from a single individual over an extended period of time.

- A) Case study design
- B) Correlational design
- C) Experimental design
- D) Naturalistic observation design

Answer: A

Diff: 1 Page Ref: 49

Skill: Factual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

24. Which of the following is one of the primary benefits of the case study method of conducting research?

A) They can be helpful in providing existence proofs.

Correct. Existence proofs, which are demonstrations that a particular psychological phenomenon can occur, are actually assisted by case study research.

B) They have a very high level of external validity.

Incorrect. In fact, one problem with case studies is that they often have a low level of external validity.

C) They are the only type of research that allows for cause-and-effect conclusions.

D) They are resistant to heuristic biases that can skew results.

Answer: A

Diff: 3 Page Ref: 49

Skill: Conceptual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

25. The study of rare or unusual phenomena is most easily done through the use of the _____ design.

A) case study

Correct. Because case studies can get unusually high levels of detail information, there are very useful for studying rare or unusual phenomena.

B) correlational

C) experimental

Incorrect. In fact, rare or unusual phenomena occur so infrequently that they are not effectively studied using experimental designs.

D) observational

Answer: A

Diff: 1 Page Ref: 50

Skill: Conceptual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

26. Sarah, a graduate student in psychology, just heard about a five-year-old child who has already learned calculus. She is thinking about doing an in-depth study of the child for her dissertation because such early-life math skill is so rare. Sarah is considering which research method?

A) Naturalistic observation

Incorrect. While naturalistic observation might give Sarah some useful information about this five-year-old child, in order to get the depth that she is looking for she would have to do a case study.

B) Experiment

C) Independent study

D) Case study

Correct. Case studies involve in-depth analyses of one or a few participants.

Answer: D

Diff: 1 Page Ref: 50

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

27. When psychologists want to find out about people's personality or attitudes, an effective research tool would be a(n)

A) naturalistic observation.

B) experiment.

C) case study.

D) self-report measure.

Answer: D

Diff: 2 Page Ref: 50

Skill: Factual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

28. Dr. Potter, an English professor, is curious about his students' attitudes toward one of his favorite books. What research method is he most likely to use to gather this information?

A) Case study

Incorrect. Because Dr. Potter wants to get information from multiple students, a case study would not be an effective way of gathering that information.

B) Survey

Correct. The survey method is most appropriate when we are interested in people's attitudes or opinions.

C) Experiment

D) Naturalistic observation

Answer: B

Diff: 2 Page Ref: 50

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

29. The most important factor to ensure that one's results apply to other people in other settings is to use

A) extremely large sample sizes.

B) extremely small sample sizes.

C) random assignment.

D) random selection.

Answer: D

Diff: 2 Page Ref: 51

Skill: Factual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

% correct 67 a = 11 b = 5 c = 17 d = 67 r = .68

% correct 63 a = 21 b = 5 c = 11 d = 63 r = .63

Topic: The Scientific Method: Toolbox of Skills

30. Sue asked three of her friends after class if they thought the test they just finished taking was as easy as she thought it was. They all agreed that it was. She was surprised to find out the next day that, although she and her friends had indeed done well, a majority of the class had failed. Why shouldn't Sue have been surprised?

A) Most of the students did not study for the test.

B) She did not use random selection when asking people about the test.

Correct. Without random selection, we can't be sure whether the group we've selected is representative of the larger group.

C) Students should have been randomly assigned to take the tests on different days.

Incorrect. The concept of randomness is important to answer this question, but the correct answer is random selection, not random assignment.

D) Her friends shouldn't have expressed their views regarding the test.

Answer: B

Diff: 2 Page Ref: 51

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

31. The large difference in the percentages of women who admitted to extramarital affairs in the *Hite Report* versus a Harris organization pool was most likely due to

A) demand characteristics.

B) how the questions were worded in each study.

Incorrect. It is not the wording of the questions that was the problem, rather the way participants were selected.

C) the method of participant selection used in each study.

Correct. As your text points out, random selection was not used in this case.

D) the use of covert versus participant observation.

Answer: C

Diff: 3 Page Ref: 51

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

32. _____ is consistency of measurement.

A) Random assignment

B) Validity

C) Reliability

D) Confounding variable

Answer: C

Diff: 1 Page Ref: 51

Skill: Factual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

% correct 58 a = 0 b = 26 c = 58 d = 16 r = .47

Topic: The Scientific Method: Toolbox of Skills

33. Dr. Sparks is concerned because he gave Julie a new intelligence test that he personally designed and her scores do not seem very consistent. With which aspect of psychological testing is Dr. Sparks concerned?

A) Validity

Incorrect. Validity is the extent to which a measure assesses what it claims to measure.

B) Self-report measures

C) Reliability

Correct. Reliability is the extent to which test scores are consistent.

D) Falsibility

Answer: C

Diff: 1 Page Ref: 51

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

% correct 47 a = 36 b = 11 c = 47 d = 6 r = .43

Topic: The Scientific Method: Toolbox of Skills

34. Dr. Riviera measures his students' knowledge on the topic of memory by giving them three different quizzes over the course of 3 weeks (1 per week). He is hoping to show that student scores are largely the same from week to week. He is trying to establish the _____ of his quiz.

- A) objectivity
- B) reliability

Correct. Reliability is the extent to which test scores are consistent.

- C) subjectivity
- D) validity

Incorrect. Validity is the extent to which a measure assesses what it claims to measure.

Answer: B

Diff: 3 Page Ref: 51

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

35. When assessing patients' personalities using an "ink blot" test that she created, Dr. Hardcastle is gaining confidence in the test's reliability. Which of the following is likely to be happening?

- A) Her patients are enjoying being tested every day.
- B) The test is generating approximately the same results each time.

Correct. We have evidence of reliability when test scores are consistent, or similar, each time the test is administered to the same person.

- C) The test is measuring what it is supposed to be measuring.

Incorrect. This concept would refer to validity, not reliability.

- D) The test is likely to be uninformative.

Answer: B

Diff: 1 Page Ref: 51–52

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

36. Brittany, a softball player who plays catcher for the local college, has thrown out base stealers at a 42, 39, and 41 percent rate over her three years. Her performance could be considered which of the following?

- A) Valid

Incorrect. Validity is the extent to which a measure assesses what it claims to measure.

- B) Invalid

- C) Reliable

Correct. Reliability refers to the extent to which performance is consistent.

- D) Not reliable

Answer: C

Diff: 1 Page Ref: 51–52

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

37. _____ is the extent to which a measure assesses what it claims to measure.

- A) Operationalization
- B) Reliability
- C) Validity
- D) Control group

Answer: C

Diff: 1 Page Ref: 52

Skill: Factual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

38. Jack, Martin, and Gene are all psychologists who are asked to consult on a difficult case. They are all given the results of a particular client's Rorschach Test, and are asked to come up with independent assessments of the results. All three psychologists have approximately the same level of training, and their findings are very similar. From a research perspective, one could say that there was a high level of _____ reliability between the three reports.

- A) interrater

Correct. Interrater reliability refers to the extent to which different people agree on a given finding, whether it refers to a behavioral observation or an interview outcome.

- B) construct
- C) external
- D) predictive

Incorrect. Predictive validity refers to the extent to which a given assessment tool can accurately anticipate future behaviors or outcomes.

Answer: A

Diff: 1 Page Ref: 52

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

39. The most central question used to assess the quality of a psychological measure is its

- A) objectivity.
- B) readability.
- C) reliability.

Incorrect. Reliability refers to the extent to which performance is consistent.

- D) validity.

Correct. Validity is the extent to which a measure assesses what it claims to measure.

Answer: D

Diff: 3 Page Ref: 52

Skill: Conceptual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

40. Sarula recently completed a compatibility “quiz” from one of her favorite magazines, and although she and her boyfriend have been dating for nearly two years, the “quiz” results suggested they are not compatible. Luckily, Riley, one of Sarula’s friends, is a student of psychology and suggested that the “quiz” may not be valid. What is her friend suggesting?

A) The “quiz” only gives you the answers you want.

B) The “quiz” is going to give you similar results every time.

Incorrect. This would be the case of her friend suggested that the quiz was not reliable.

C) The “quiz” is not very scientific.

D) The “quiz” may not actually measure compatibility.

Correct. If a measure is not valid, that means that it does not measure what it claims to measure or predict what it claims to predict.

Answer: D

Diff: 3 Page Ref: 52

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

41. Jasmine took several different self-administered intelligence tests online yesterday and obtained scores of 124, 128, and 125. She felt great, because the score she received from the psychologist last month at school was only a 95. What characteristic might the online tests be lacking?

A) Reliability

Incorrect. In fact, this test has high reliability because it's producing very consistent results.

B) Validity

Correct. The tests might lack validity because they don't match a psychologist-administered test (which presumably has been validated). It does seem to be reliable, because the scores are consistent with each other.

C) Both reliability and validity

D) The tests appear to have both reliability and validity.

Answer: B

Diff: 3 Page Ref: 53

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

42. The major advantage of self-report measures, like surveys, is that they

A) are easy to administer.

Correct. This is, in fact, the easiest type of research to conduct.

B) are extremely reliable and valid.

Incorrect. Validity is often a problem with self-report measures, because you can't be certain that your respondents are being totally honest.

C) help establish causality.

D) are unaffected by the wording or phrasing of the questions.

Answer: A

Diff: 1 Page Ref: 53

Skill: Conceptual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

43. One difficulty of survey research is that people may not answer questions with complete honesty, and thus may skew the results of the study. If people give different answers to a survey question that is asked on different occasions, this would be a particular problem for the critical thinking concept of _____.

A) correlation versus causation

Incorrect. There is nothing in the question that speaks to the nature of relationships (causal or otherwise) between variables.

B) replicability

Correct. If people give different answers to survey questions asked at different times, the outcomes of the research would be inconsistent. This would present a problem for replication, as the research will not give the same picture from study to study.

C) extraordinary claims

D) falsifiability

Answer: B

Diff: 2 Page Ref: 53

Skill: Conceptual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

44. Alex, a freshman in college, wants to know how many of her dormmates have tried marijuana, so she decides to survey everyone on her floor. Despite rumors to the contrary, the results suggest that fewer than ten percent of her classmates have tried the drug. What is the most likely explanation for her findings?

A) People often distort their answers or fail to tell the complete truth when surveyed.

Correct. One downside of using self-report measures and surveys is that people often distort answers, either for lack of personal insight or because they want to appear more in a more positive light.

B) Her dormmates did not understand the question.

C) Alex did not calculate the findings correctly.

Incorrect. Alex may have calculated the findings correctly, but the findings may not represent the true behaviors of those with whom she spoke.

D) Surveys are not an acceptable means to gather new information.

Answer: A

Diff: 2 Page Ref: 53–54

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

45. A key disadvantage to self-report measures is that

A) demand characteristics can bias participants answers.

B) observing behavior leads to changes in behavior.

Incorrect. This problem occurs more in experimental research, not in research that uses self-report measures.

C) respondents are not always honest in their answers.

Correct. This can be a serious problem with self-report measures.

D) they are less effective than experiments in accurately predicting peoples' behavior.

Answer: C

Diff: 2 Page Ref: 53–54

Skill: Conceptual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

46. While taking a survey on her opinions on abortion rights, Carolyn feels very conflicted. On the one hand, she believes in a woman's right to choose to terminate a pregnancy if she wants to, but at the same time she feels like this is not a particularly popular answer. Most of her friends are very opposed to the idea of having an abortion. In order to make herself feel like a better person, Carolyn distorts her answers to the survey questions. Instead of being totally honest, she answers in ways that make her feel like a better person. This tendency to distort one's answer is called a(n)

A) demand characteristic.

Incorrect. A demand characteristic is a cue that participants in a research study may pick up that allows them to figure out the true nature of the researcher's hypotheses.

B) confirmation heuristic.

C) response set.

Correct. A response set refers to the tendency of research participants to distort their responses to questionnaire items.

D) confounding bias.

Answer: C

Diff: 3 Page Ref: 54

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

47. A group of students watch a videotape of two managers interacting with their subordinates at a customer service desk in a department store. Students see one of the managers act in a friendly and respectful manner toward all of the employees. The other manager is less friendly but still respectful toward the employees. What concept would explain the more positive ratings on other dimensions for the friendly manager as compared to the less friendly manager?

A) The central tendency error

Incorrect. Central tendency refers to a type of statistics, and does not apply to this example.

B) The halo effect

Correct. The halo effect refers to the tendency of ratings of one positive characteristic to influence the ratings of other positive characteristics.

C) The horns effect

D) The leniency effect

Answer: B

Diff: 3 Page Ref: 54

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

48. If you are interested in examining the relationship between the number of class days missed and one's subsequent semester grade point average, you would be best served to use a(n) _____ to study this question.

A) case study design

B) correlational design

Correct. Correlational research is used to examine relationships between variables.

C) experimental design

Incorrect. Experimental research can investigate the relationship between variables, but if one is not looking to establish a cause and effect relationship, a correlational design is usually easier to employ.

D) naturalistic observation design

Answer: B

Diff: 2 Page Ref: 54–55

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

% correct 84 a = 0 b = 84 c = 11 d = 5 r = .70

Topic: The Scientific Method: Toolbox of Skills

49. Two variables are said to be correlated when scores on one variable

- A) are unrelated to the scores on the second variable.
- B) are related to the scores on the second variable.
- C) cause the scores on the second variable.
- D) are different from the scores on the second variable.

Answer: B

Diff: 2 Page Ref: 54–55

Skill: Factual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

50. Authorities have noted that there is an increased number of teen pregnancies among high schools that offer day care to their students. We can draw which of the following conclusions?

- A) The presence of day care is causing students to become sexually active.
- B) High schools that provide day care are also offering sexual education.
- C) There is a negative correlation between teen pregnancies and day care in the high schools.
Incorrect. Two variables are negatively correlated if, as one increases, the other decreases.
- D) There is a positive correlation between teen pregnancies and day care in the high schools.
Correct. Two variables are positively correlated if, as one increases, the other increases.

Answer: D

Diff: 3 Page Ref: 55

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

51. Which of these is a type of correlation coefficient?

- A) Normal
- B) Parallel
- C) Skewed
- D) Negative

Answer: D

Diff: 1 Page Ref: 55

Skill: Factual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

52. If there is no discernible relationship between scores on students' homework assignments and their exam scores in an introductory biology class, we would say that a(n) _____ correlation exists.

- A) inverse
- B) negative

Incorrect. A negative correlation would indicate that there is a relationship between the two variables in question.

- C) positive
- D) zero

Correct. When there is no relationship between two variables, the correlation is zero.

Answer: D

Diff: 3 Page Ref: 55

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

% correct 70 a = 5 b = 11 c = 14 d = 70 r = .46

Topic: The Scientific Method: Toolbox of Skills

53. As the average daily temperature in Des Moines, Iowa, *decreases*, the number of persons who are observed wearing sweaters in the workplace *increases*. This is an example of a _____ correlation.

A) causal

B) negative

Correct. A negative correlation occurs when one variable moves in one direction as the other variable moves in the opposite direction.

C) positive

Incorrect. A positive correlation occurs when both variables move in the same direction.

D) zero

Answer: B

Diff: 2 Page Ref: 55

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

% correct 47 a = 11 b = 47 c = 37 d = 3 r = .40

% correct 47 a = 11 b = 47 c = 42 d = 0 r = .35

Topic: The Scientific Method: Toolbox of Skills

54. Hopefully, the amount of time a student spends studying would show a(n) _____ correlation with the student's grades.

A) negative

Incorrect. A negative correlation occurs when the variables move in the opposite direction. In this example this is not the outcome that we would hope to see.

B) spurious

C) positive

Correct. A positive correlation means that as the value of one variable goes up, so does the other; in this instance, one would hope that the more one studies, the higher the grade.

D) illusory

Answer: C

Diff: 2 Page Ref: 55

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

55. There is a negative correlation between wearing one's seat belt and the severity of injuries received during an accident. Which statement correctly illustrates this correlation?

A) The more often you wear your seat belt, the more serious the injury you are likely to receive in an accident.

B) The more often you wear your seat belt, the less likely you are to suffer serious injuries in an accident.

Correct. A negative correlation means that as one variable goes up, the other goes down. And remember, correlation is not causation.

C) Wearing your seatbelt prevents you from being injured in an accident.

Incorrect. At first glance this might look like a correct conclusion, and tell you recognize that this conclusion involves a cause and effect statement. Correlation does not imply causation.

D) Failing to wear your seat belt increases the likelihood that you will sustain serious injuries in an accident.

Answer: B

Diff: 2 Page Ref: 55

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

56. Mr. Jones, a sixth grade science teacher, has tried to predict his students' end-of-the-year grades by looking at their end-of-the-year grades from the previous year. Unfortunately, there does not seem to be any systematic relationship between these two variables. The correlation between these two variables is probably

A) near zero.

Correct. When there is no relationship between two variables, the correlation coefficient will be at or near zero.

B) positive.

C) negative.

Incorrect. A negative correlation would indicate that there is a relationship between the two variables in question.

D) near 1.0.

Answer: A

Diff: 1 Page Ref: 55

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

57. A correlation coefficient will always range between

A) 0 and 1.

B) -10 and +10.

C) 0 percent and 100 percent.

D) -1.0 and +1.0.

Answer: D

Diff: 1 Page Ref: 55

Skill: Factual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

58. Which correlation coefficient is most likely to describe the relationship between brushing one's teeth and the number of cavities one gets?

A) $r = -.62$

Correct. One would expect that as brushing increases, cavities tend to decrease. Thus, a negative correlation would best describe the relationship. Further, one would expect the relationship to be fairly strong and thus closer to 1.0 than to 0 in absolute value.

B) $r = .83$

Incorrect. This correlation coefficient would suggest that as brushing increases, the number of cavities increases. We would hope that the relationship between tooth brushing and the number of cavities one gets would be a strong negative correlation.

C) $r = -.08$

D) $r = .45$

Answer: A

Diff: 2 Page Ref: 55

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

59. Which of the following correlations represents the *weakest* degree of relation between two variables?

- A) Daily calcium intake and bone mass density, $r = +.11$
- B) Degree of exposure to lead and IQ scores in children, $r = -.12$
- C) Hours of exposure to media violence and aggressive behavior, $r = +.31$
- D) Number of cigarettes smoked per day and incidence of lung cancer, $r = +.39$

Answer: A

Diff: 1 Page Ref: 55

Skill: Factual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

% correct 14 a = 14 b = 80 c = 3 d = 3 r = .45

Topic: The Scientific Method: Toolbox of Skills

60. Which of the following correlation coefficients represents the *strongest* degree of relation between two variables?

- A) $+.19$
- B) $-.25$
- C) $+.43$
- D) $-.47$

Answer: D

Diff: 2 Page Ref: 55

Skill: Factual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

61. A graph that can be used to represent the pattern of relationship between scores from two variables is called a

- A) bar graph.
- B) frequency polygon.
- C) histogram.
- D) scatterplot.

Answer: D

Diff: 1 Page Ref: 55

Skill: Factual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

62. Dr. Schott's scatterplot reveals no real patterns or clusters. In fact, the data seems to fall randomly on the graph. This pattern of results is most likely from which type of correlation?

- A) Positive
- B) Zero

Correct. When the correlation coefficient is near zero, the points on a scatterplot will be all over the graph, with no discernable pattern.

- C) Negative

Incorrect. On a scatterplot, a negative correlation will appear as data points clustered around a line going from upper left to lower right.

- D) Skewed

Answer: B

Diff: 2 Page Ref: 56

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

63. Dr. Stanhope is trying to determine which type of correlation is represented on his scatterplot, in which nearly all of his data are clustered along a diagonal line running from higher numbers on the left down to lower numbers on the right. Which type of correlation is represented by this pattern?

A) Positive

B) Zero

Incorrect. When the correlation coefficient is near zero, the points on a scatterplot will be all over the graph, with no discernable pattern.

C) Negative

Correct. On a scatterplot, a negative correlation will appear as data points clustered around a line going from upper left to lower right.

D) We need more information to draw a conclusion.

Answer: C

Diff: 2 Page Ref: 56

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

64. For many years, newspapers often mentioned the race of criminal suspects who were NOT white in the article detailing their crimes. This often led people who were not obviously biased or prejudiced to conclude that more non-whites committed crimes than whites. This is one example of

A) the confirmation bias.

Incorrect. The confirmation bias occurs when people attend to information that supports their beliefs, but disregard information that contradicts their beliefs.

B) the hindsight bias.

C) an illusory correlation.

Correct. An illusory correlation exists when there is the appearance of a relationship between two variables that does not truly exist.

D) the representativeness heuristic.

Answer: C

Diff: 3 Page Ref: 57

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

65. The perception of a statistical association between two variables where none exists is known as

A) confirmation bias.

B) illusory correlation.

C) existence proof.

D) Type I error.

Answer: B

Diff: 1 Page Ref: 57

Skill: Factual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

66. While playing poker with his friends, Matthew scratches his right leg before winning a very big hand. He decides that scratching his right leg will be his “lucky gesture,” and for a long time scratches his right leg with every hand that is dealt. This silly superstition violates which rules of critical thinking?

A) Correlation versus causation

Correct. A demonstration of an illusory correlation, which underlies many superstitions, Matthew has failed to recognize that the relationship between a leg scratch and a winning hand is not causal.

B) Falsifiability

C) Extraordinary claims

D) Occam’s Razor

Incorrect. Nothing in this particular question speaks to the rule of parsimony, or Occam’s Razor.

Answer: A

Diff: 3 Page Ref: 57

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

67. When asked if there are more ice cream cones sold in November or July, Mary answers July immediately. She is surprised to find out that there is little to no difference between the two months in terms of ice cream cone sales. Mary’s error is most clearly an example of

A) imaginary correlation.

Incorrect. The correct term for this incorrect belief in the existence of relationship is the illusory correlation.

B) common sense.

C) superstitions.

D) illusory correlation.

Correct. Illusory correlation occurs when we perceive a relationship between two variables where none actually exists.

Answer: D

Diff: 2 Page Ref: 57–58

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

68. Six-year-old Scotty comes running in the door and yells triumphantly to his mother, “Today is my lucky day; I found a four-leaf clover!” Many superstitions, like this one, likely began as which of the following?

A) Imaginary correlation

B) Anecdotal stories

C) Coincidence

Incorrect. Coincidental events are often at the heart of the belief in an illusory correlation.

D) Illusory correlation

Correct. Illusory correlation refers to our tendency to perceive a relationship between two events that are not actually related.

Answer: D

Diff: 2 Page Ref: 57–58

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

69. _____ studies allow us to make predictions about one variable based on the knowledge of another.

- A) Case
- B) Experimental
- C) Natural
- D) Correlational

Answer: D

Diff: 1 Page Ref: 58

Skill: Factual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

70. Correlational research designs are NOT appropriate for purposes of

- A) causation.
- B) description.
- C) prediction.
- D) describing relationships.

Answer: A

Diff: 2 Page Ref: 58–59

Skill: Factual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

71. As your textbook discusses, a statistician once discovered that in one of the United States there was a negative correlation between the number of Ph.Ds granted and the number of mules in that state. The fact that you cannot then state that the number of Ph.Ds conferred causes the mule population to decrease demonstrates which principle of critical thinking?

- A) Correlation vs. causation

Correct. Bear in mind that correlational data only gives information about the strength and direction of a relationship between two variables. It says nothing of the causal direction.

- B) Extraordinary claims

Incorrect. It is indeed extraordinary to believe that the number of mules in a state would be related to the number of Ph.Ds that are conferred, but this question demonstrates the problem of correlation versus causation.

- C) Ruling out rival hypotheses

- D) Falsifiability

Answer: A

Diff: 1 Page Ref: 58–59

Skill: Conceptual

APA LO: 1.2e and 1.4b

TEXT LO 2.3 and 2.4 Describe the role of correlational designs and distinguish correlation from causation; identify the components of an experiment and the potential pitfalls that can lead us to faulty conclusions

% correct 74 a = 74 b = 21 c = 0 d = 5 r = .24

Topic: The Scientific Method: Toolbox of Skills

72. The only research design that allows one to make cause-and-effect inferences is the _____ design.

- A) case study
- B) correlational
- C) experimental
- D) naturalistic observation

Answer: C

Diff: 2 Page Ref: 59

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

% correct 49 a = 19 b = 24 c = 49 d = 8 r = .39

Topic: The Scientific Method: Toolbox of Skills

73. What is the main difference between an experiment and a correlational study?

- A) A correlational study involves the manipulation of variables, while an experiment does not.

Incorrect. This is the opposite of the correct answer.

- B) An experiment looks at the relationship between independent and dependent variables, while a correlational study looks at the relationship between within-group and between-group variables.

- C) A correlational study looks at the relationship between independent and dependent variables, while an experiment looks at the relationship between within-group and between-group variables.

- D) An experiment involves the manipulation of variables, while a correlational study does not.

Correct. It is the manipulation of variables along with random assignment that allows an experiment to make cause and effect conclusions, while a correlational study cannot.

Answer: D

Diff: 2 Page Ref: 60

Skill: Conceptual

APA LO: 1.2e

TEXT LO 2.3 and 2.4 Describe the role of correlational designs and distinguish correlation from causation; identify the components of an experiment and the potential pitfalls that can lead us to faulty conclusions

% correct 44 a = 0 b = 31 c = 25 d = 44 r = .35

% correct 42 a = 5 b = 53 c = 0 d = 42 r = .46

Topic: The Scientific Method: Toolbox of Skills

74. A research design characterized by random assignment of participants to conditions and manipulation of an independent variable is called a(n)

- A) case study.
- B) naturalistic observation.
- C) experiment
- D) survey.

Answer: C

Diff: 1 Page Ref: 60

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

75. A key aspect of an experiment that is missing in other research designs is

- A) description of the phenomena of interest.
- B) explanation of why a relationship exists.
- C) prediction of the effects of differences in variable on another.
- D) random assignment.

Answer: D

Diff: 2 Page Ref: 60

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

76. Professor Golder is studying hyperactivity in preschool age children. She is concerned that differences in child rearing, diet, and so forth may affect her results. To minimize these potential preexisting variables, she should be sure to do which of the following?

- A) Use random assignment when forming her groups.

Correct. Random assignment "cancels out" the effects of any preexisting differences between groups, allowing study of the variable of interest.

- B) Include an independent variable.
- C) Include a dependent variable.
- D) Assign boys to the experimental group and girls to the control group.

Incorrect. This kind of assignment to participant groups would actually be problematic, because it would create a confounding variable that could make the experiment invalid.

Answer: A

Diff: 2 Page Ref: 60

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

77. In an experiment, the _____ group receives no manipulation.

- A) control
- B) dependent
- C) independent
- D) experimental

Answer: A

Diff: 1 Page Ref: 60

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

78. A researcher wants to see whether she can make the typical administrative assistant job more motivating at Acme, Inc. To experimentally investigate this possibility, she randomly assigns administrative assistants to one of the following conditions: doing the job as it has always been done, having a computer performance monitoring device installed, receiving feedback about their performance on a weekly basis, or being given a say in how one's workload is structured and done. Which of the preceding conditions is an example of a *control group*?

A) Being given a say in how one's workload is structured and done

B) Doing the job as it has always been done

Correct. The group that receives no independent variable is the control group. In this case, doing the job as it always has been done would serve as the control.

C) Having a computer performance monitoring device installed

Incorrect. This group of participants would represent one of the experimental groups.

D) Receiving feedback on a weekly basis

Answer: B

Diff: 2 Page Ref: 60

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

% correct 65 a = 19 b = 65 c = 13 d = 3 r = .37

% correct 79 a = 16 b = 79 c = 5 d = 0 r = .45

Topic: The Scientific Method: Toolbox of Skills

79. Ryan, a professional bass fisherman, is trying to determine which lure is most effective on Wakeby Lake: the plastic worm he normally uses or the new minnow-style lure he bought yesterday. Based on this scenario, what would constitute the control?

A) The new minnow lure

Incorrect. Using the new minnow lure would represent the experimental case.

B) The plastic worm

Correct. A control receives no manipulation in an experiment. In this case, normal use of the plastic worm suggests lack of manipulation.

C) Neither the minnow lure nor the plastic worm

D) There is no control in this particular experiment.

Answer: B

Diff: 1 Page Ref: 60

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

80. Dr. Johansen randomly assigned subjects to three different groups during her last experiment. She then proceeded to give all the participants in the experiment a new study technique designed to enhance their learning for the upcoming test. What critical error did she make during her experiment?

A) She failed to identify the independent variable.

B) She failed to identify the dependent variable.

C) She failed to include an experimental group.

Incorrect. Because all of her participants received the independent variable in question, they were all part of an experimental group. The problem with this research is that there is no control group.

D) She failed to include a control group.

Correct. In an experiment, we need to ensure that there is a group that receives the "active" treatment and a group that receives a "placebo" treatment (in this case, a study technique that has already been tested).

Answer: D

Diff: 3 Page Ref: 60

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

81. Several years ago, the NBA (National Basketball Association) introduced a new style of basketball to the players. After several months, many players complained that they did not like the “feel” of the new ball. Based on this scenario, what constitutes the control?

A) There is no control condition.

Incorrect. The control condition was the use of the original ball that the players have become accustomed to.

B) The new ball that was introduced

C) The original ball the players were used to

Correct. A control receives no manipulation in an experiment. In this case, the original ball suggests lack of manipulation.

D) Both the new and old balls are part of the control condition.

Answer: C

Diff: 1 Page Ref: 60

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

82. The group that receives the manipulation is called the

A) control group.

B) dependent group.

C) experimental group.

D) independent group.

Answer: C

Diff: 1 Page Ref: 60

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

83. The _____ variable is what the experimenter “manipulates” or varies.

A) control

B) dependent

C) operational

D) independent

Answer: D

Diff: 1 Page Ref: 60

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

84. The variable that an experimenter measures to determine whether or not the manipulation has had an effect is the _____ variable.

A) causal

B) confounding

C) dependent

D) independent

Answer: C

Diff: 2 Page Ref: 60

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to

faulty conclusions, and how psychologists control for these pitfalls
Topic: The Scientific Method: Toolbox of Skills

85. An administrator believes that the placement of motivational posters on the walls in classrooms of academic buildings will lead to increased GPAs at his school. To test his theory, he randomly assigns certain classrooms within the College of Liberal Arts and Sciences to have the posters, while others do not. None of the remaining four academic colleges have any posters placed in their classrooms. What is the *independent* variable in this study?

- A) Academic college
- B) Classroom wall hangings

Correct. The presence or absence of classroom wall hangings is the manipulated variable, so that is the independent variable.

- C) Gender of the student
- D) Grade point average

Incorrect. The grade point average of the students is what is being measured, so that is the dependent variable.

Answer: B

Diff: 3 Page Ref: 60

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

% correct 74 a = 0 b = 74 c = 10 d = 16 r = .47

Topic: The Scientific Method: Toolbox of Skills

86. A medical doctor believes that the presence of aromatherapy will reduce the anxiety of first-time mothers-to-be during labor and will increase their reported satisfaction with their care at his hospital. He randomly assigns mothers to give birth in a room either with or without aromatherapy. What is the *independent* variable in this example?

- A) Anxiety level during labor
- B) Number of previous birthing experiences
- C) Presence or absence of aromatherapy

Correct. The room environment is what is being manipulated in the experiment, so that is the independent variable.

- D) Satisfaction with hospital care

Incorrect. He satisfaction with hospital care is what is being measured, so that is the dependent variable.

Answer: C

Diff: 3 Page Ref: 60

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

87. Professor Todd decides to test her hypothesis that eating chocolate prior to exams increases students' test scores. She randomly assigns students to two groups at the beginning of the semester. One group receives a bar of chocolate before each test, while the other group receives another type of candy. She compares their scores at the end of the year, and finds that the students who ate the chocolate scored an average of ten points higher on their exams. What is the dependent variable in this experiment?

A) Students' test scores

Correct. These students' test scores are what is being measured, so that is the dependent variable.

B) Chocolate bars

Incorrect. The presence or absence of a chocolate bar is what is being manipulated in the experiment, so that is the independent variable.

C) The students themselves

D) The professor

Answer: A

Diff: 2 Page Ref: 60

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

% correct 50 a = 50 b = 42 c = 5 d = 3 r = .62

% correct 79 a = 79 b = 16 c = 0 d = 5 r = .47

Topic: The Scientific Method: Toolbox of Skills

88. Coach Ezell wants her players to relax before playing important conference games. At the halfway point in the season, instead of the dance music she normally had playing in the locker room, she switches to classical music before the games. What is the dependent variable in this scenario?

A) The new classical music

Incorrect. The type of music that is being played is what is being manipulated in the experiment, so that is the independent variable.

B) The players' anxiety level

Correct. The players' anxiety level is what is being measured, so that is the dependent variable.

C) The coach

D) The original dance music

Answer: B

Diff: 1 Page Ref: 60

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

89. Professor Todd decides to test her hypothesis that eating chocolate prior to exams increases students' test scores. She randomly assigns students to two groups at the beginning of the semester. One group receives a bar of chocolate before each test, while the other group receives another type of candy. She compares their scores at the end of the year, and finds that the students who ate the chocolate scored an average of ten points higher on their exams. What is a fair conclusion that can be drawn from this experiment?

A) Eating chocolate causes students' test scores to increase.

Correct. An experiment with random assignment to groups allows us to determine cause and effect.

B) Eating chocolate has no relationship to students' test scores.

C) Eating chocolate may increase students' satisfaction with the class.

D) Eating chocolate makes students happy.

Incorrect. These students may feel happy as a result of doing better on their exams, but that is not a relationship measured in this experiment. This experiment also does not look at the relationship between eating chocolate and student happiness.

Answer: A

Diff: 1 Page Ref: 60

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

90. When conducting an experiment, it is of crucial importance that the operational definitions of what is being measured are clearly stated and easily identified. This allows for other researchers to try to repeat the research to verify the findings. To which principle of critical thinking is this factor most salient?

A) Occam's Razor

B) Replicability

Correct. If research is to be repeated (or replicated), then the operational definitions from one study to the next must be consistent and clear.

C) Extraordinary claims

Incorrect. There is nothing in this question that speaks to the need for extraordinary claims to be supported by similarly impactful evidence.

D) Correlation versus causation

Answer: B

Diff: 1 Page Ref: 60

Skill: Conceptual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

91. A(n) _____ definition in an experiment refers to a working description of what the researcher is measuring or observing in the study.

A) control

B) dependent

C) operational

D) independent

Answer: C

Diff: 1 Page Ref: 60

Skill: Factual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

92. In an experiment, a researcher wants to avoid the presence of

- A) confounding variables.
- B) dependent variables.
- C) independent variables.
- D) random assignment.

Answer: A

Diff: 2 Page Ref: 61

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

93. When acting as a participant in a research study examining the relationship between alcohol consumption and driving ability, Layla was assigned to the experimental group that received the highest amount of alcohol to drink. Despite this ingestion of liquor, Layla was still able to navigate the driver's course perfectly. The experimenter did not consider the fact that Layla had been a drinker for many years, and had developed a high alcohol tolerance. This factor, which impacted the dependent variable in the study, would be called a(n) _____ variable.

- A) external
- B) dependent
- C) independent
- D) confounding

Answer: D

Diff: 2 Page Ref: 61

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

94. A difference between experimental and control groups, other than the independent variable, is a _____ variable.

- A) confounding
- B) dependent
- C) false
- D) placebo

Answer: A

Diff: 1 Page Ref: 61

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

95. Why is it important to make sure that different participant groups are roughly equivalent in terms of personal characteristics (e.g., age, gender) before any independent variable is introduced?

A) Because it is important to treat all research participants equally so that they feel that they are not being manipulated.

Incorrect. This is a correct statement, but it does not answer the question of why we want participant groups to be equivalent before an independent variable is introduced.

B) Because research ethics forbid any experiment to take place when the participant groups are fundamentally different from each other.

C) So that no major differences between the groups unduly bias the results of the experiment.

Correct. When the groups are different before the research begins, any changes in the dependent variable might be caused by those differences (which are called confounding variables).

D) Because it threatens the integrity of a within-group experimental design.

Answer: C

Diff: 3 Page Ref: 61

Skill: Conceptual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

96. One difficulty in conducting medical research is that participants often assume that any treatment will be effective in alleviating their symptoms. Therefore, a researcher has to design an experiment that measures the influence of

A) random selection.

B) medical confounds.

C) the Rosenthal effect.

Incorrect. The Rosenthal effect refers to experimenter expectancy effects. That is not seen in this example.

D) the placebo effect.

Correct. The placebo effect occurs when a participant's expectations cause him or her to experience certain effects.

Answer: D

Diff: 2 Page Ref: 62

Skill: Conceptual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

97. People report feeling better after taking medication even though it hasn't had time to be effective. They are experiencing

A) the experimenter bias effect.

B) low reliability.

C) the placebo effect.

D) confirmation bias.

Answer: C

Diff: 2 Page Ref: 62

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

98. Dr. Wilkins randomly assigns subjects to one of three groups. He is interested in the effects of caffeine on anxiety levels. He gives subjects in the first group an extra two cups of coffee a day for six months. The second group receives an extra two cups of decaffeinated coffee a day for the same time period, while the control group is not given either regular or decaffeinated coffee. By providing one group with decaffeinated coffee, Dr. Wilkins is trying to account for which potential element of the experiment?

- A) A control condition
- B) The Rosenthal effect

Incorrect. The Rosenthal effect refers to experimenter expectancy effects. That is not seen in this example.

- C) The placebo effect

Correct. The placebo effect occurs when an inert treatment “works.” In this case, it would occur if the decaf coffee increased anxiety (it should have no effect on anxiety).

- D) The artificial condition

Answer: C

Diff: 2 Page Ref: 62

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

% correct 88 a = 8 b = 1 c = 88 d = 1 r = .37

Topic: The Scientific Method: Toolbox of Skills

99. Lisa, a college student, had a great time at the party last night. She danced, sang karaoke, and even played the “rock band” video game—all behaviors that she had never exhibited in public before. She had been drinking the “punch” all night long, which she was told contained high levels of alcohol. Lisa was quite surprised to find out the next morning that the punch did NOT contain any alcohol. What concept may explain Lisa’s behavior?

- A) The Rosenthal effect
- B) Illusory correlations
- C) The nocebo effect

Incorrect. The nocebo effect is harm resulting from the mere expectation of harm.

- D) The placebo effect

Correct. The placebo effect occurs when an inert treatment “works.” In this case, it would occur if the nonalcoholic punch produced more gregarious behavior.

Answer: D

Diff: 2 Page Ref: 62

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

100. The best way to avoid the placebo effect in research is to:

- A) keep the participants “blind” as to which participant group they are in.
- B) use adequate debriefing before the research is conducted.
- C) wait until after the research is complete before garnering informed consent.
- D) using better methods of deception (consistent with research ethics) in the experiment.

Answer: A

Diff: 2 Page Ref: 62

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

101. When someone experiences harm based solely on the expectation that they will experience harm, this is called the _____ effect.

- A) Zaigarnik
- B) nocebo
- C) Barnum
- D) placebo

Answer: B

Diff: 2 Page Ref: 62–63

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

102. _____ is a phenomenon in which researchers' hypotheses lead them to unintentionally bias the outcome of a study.

- A) Durability bias
- B) Experimenter expectancy effect
- C) Availability heuristic
- D) Confounding variable

Answer: B

Diff: 1 Page Ref: 64

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

103. Dr. Francis is conducting a study in which she is examining the impact of a new math tutoring program on elementary school students' performance in a math class. She has hypothesized that the tutoring will significantly increase the performance of students who are enrolled in this program. She has to remember not to let her expectation of an outcome influence her interpretation of the final data. In other words, she needs to defend against the _____ effect.

- A) Flynn

Incorrect. The Flynn effect, which is not discussed in this chapter, refers to a tendency for a population's IQ scores to gradually increase over time.

- B) nocebo

- C) Rosenthal

Correct. The Rosenthal effect, which is another name for experimenter expectancy effect, occurs when a researcher's hypotheses lead them to unintentionally bias the study's outcomes.

- D) Rogers

Answer: C

Diff: 3 Page Ref: 64

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

104. An experiment would be described as _____ when neither researchers nor participants are aware of who is in the experimental or control group.

- A) blind
- B) unfalsifiable
- C) a placebo
- D) double-blind

Answer: D

Diff: 2 Page Ref: 64

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

105. How does conducting a double-blind study attempt to remedy the experimenter expectancy effect?

- A) The experimenter does not know, but the participant does know, what condition the participant is assigned to.

Incorrect. This would be an example of a single blind study. In a double-blind study, neither the experimenter nor the participant knows which condition the participant has been assigned to.

- B) The experimenter and the participant both know what condition the participant is assigned to.
- C) The experimenter knows, but the participant does not know, what condition the participant is assigned to.

- D) Neither the experimenter nor the participant knows what condition the participant is assigned to.

Correct. When neither the experimenter nor the participant knows what condition has been assigned, it eliminates the possibility of the placebo and experimenter effects.

Answer: D

Diff: 2 Page Ref: 64

Skill: Conceptual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

106. In the case of Clever Hans, a teacher named Wilhelm von Oster claimed that he had taught his horse arithmetic, including square roots. As it turns out, the horse was merely responding to subtle, unintentional physical signals being given by von Oster. This demonstrates which principle of critical thinking?

- A) Extraordinary claims

Correct. It is certainly extraordinary to think that a horse can be taught to do higher math problems, but in this case, the evidence of the validity of the claims was not so extraordinary.

- B) Correlation vs. causation
- C) Replicability
- D) Occam's Razor

Incorrect. The simplest explanation for the case of Clever Hans is that he was being unintentionally fed the correct answers, but the best answer to this case is extraordinary claims.

Answer: A

Diff: 2 Page Ref: 64–65

Skill: Conceptual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

107. Marissa just finished completing her new employee questionnaire form for a job in sales. Despite being a rather shy, introverted person, Marissa checked all the areas that referred to her as a talkative and outgoing individual. She believes those extraverted characteristics are exactly what her new employer is looking for. Which concept is being illustrated?

- A) Participant bias
- B) The primacy effect
- C) Demand characteristics

Correct. Demand characteristics are cues that participants pick up that allow them to guess about the researcher's hypothesis. In this case, Marissa could guess that the employer was looking for extraverted candidates.

- D) The Rosenthal effect

Incorrect. The Rosenthal effect refers to experimenter expectancy effects. That is not seen in this example.

Answer: C

Diff: 2 Page Ref: 65

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

108. Eila is participating in a psychological experiment for one of the graduate students at her university. She is pretty confident that she knows the true intent of the study and is trying to answer the questions accordingly. A common pitfall in experiments, Eila is falling prey to

- A) intentionality.
- B) the Rosenthal effect.

Incorrect. The Rosenthal effect refers to experimenter expectancy effects. That is not seen in this example.

- C) observer bias.
- D) demand characteristics.

Correct. Demand characteristics are cues that participants pick up that allow them to guess about the researcher's hypothesis.

Answer: D

Diff: 2 Page Ref: 65

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

109. In attempt to examine whether research done in a laboratory setting can, in fact, be generalized to the "real world," Douglas Mook pointed out that studies that had high internal validity often had high external validity and could be repeated in a way that yielded the same, or at least similar, findings. Which principle of critical thinking does this address?

- A) Occam's Razor
- B) Ruling out rival hypotheses
- C) Falsifiability

Incorrect. There is nothing in this question that discusses the possibility of a finding being falsified, or proven incorrect.

- D) Replicability

Correct. This issue directly addresses the ability to repeat research and obtain the same or similar findings. That is the crux of the issue of replicability.

Answer: D

Diff: 2 Page Ref: 66

Skill: Conceptual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls
Topic: The Scientific Method: Toolbox of Skills

110. According to your authors, laboratory research generalizes
A) poorly from college undergraduates to other groups of people in other settings.
B) poorly from experimental designs in the laboratory but well from correlational or naturalistic observation designs.
C) well from laboratory settings to the real world, but only when undergraduates are not used as participants.
D) well from laboratory settings to the real world.

Answer: D

Diff: 2 Page Ref: 66

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

111. In one of the most shameful violations of research ethics to date, nearly 400 African American men from _____ were not informed that they had been diagnosed with syphilis and were not provided with available, effective treatments for this illness.

- A) Tuskegee
- B) Baton Rouge
- C) Biloxi
- D) Montgomery

Answer: A

Diff: 1 Page Ref: 67

Skill: Factual

APA LO: 2.1a

TEXT LO 2.5 Explain the ethical obligations of researchers toward their research participants

Topic: Ethical Issues in Research Design

112. Which ethical requirement of research was not present in the Tuskegee experiment, where nearly 400 African American men were exposed to syphilis and denied treatment for its symptoms?

- A) Anonymity
- B) Confidentiality
- C) Informed consent
- D) Protection from deception

Answer: C

Diff: 1 Page Ref: 67

Skill: Factual

APA LO: 2.1a

TEXT LO 2.5 Explain the ethical obligations of researchers toward their research participants

Topic: Ethical Issues in Research Design

113. What is the purpose of an institutional review board?

- A) To help protect research participants from abuse
- B) To hinder the research process by placing unnecessary hurdles in the way of researchers
- C) To help protect the university from lawsuits from unhappy research participants
- D) To encourage the use of deception in medical and psychological research with humans

Answer: A

Diff: 3 Page Ref: 67

Skill: Factual

APA LO: 2.1a

TEXT LO 2.5 Explain the ethical obligations of researchers toward their research participants

Topic: Ethical Issues in Research Design

114. Students of psychology are often frustrated because there are very few, if any, clear-cut answers to many of their questions. What is the primary limiting factor in obtaining first-hand knowledge of questions such as the long-term effects of child abuse or the effects of smoking marijuana on a pregnancy?

A) Most people in the general public are not concerned with these issues.

B) It is difficult to find people who are victims of abuse or mothers who smoke marijuana during pregnancy.

C) Ethical guidelines in research prevent psychologists from carrying out many of these studies.

Correct. Due to ethical considerations, we cannot randomly assign children to abusive or nonabusive homes, for example. Thus, it is impossible to say whether A causes B, in many cases.

D) Institutional review boards encourage participation in studies that may be harmful to participants either mentally or physically.

Incorrect. Nothing could be further from the truth. Institutional review boards exist to prevent unnecessary harm or discomfort to research participants.

Answer: C

Diff: 1 Page Ref: 67

Skill: Conceptual

APA LO: 2.1a

TEXT LO 2.5 Explain the ethical obligations of researchers toward their research participants

Topic: Ethical Issues in Research Design

115. If Dr. Shioux wants to conduct research that will involve human participants at his university, he will have to submit a summary of the study to a(n) _____ before he can actually proceed. This will act as a form of protection for the participants he intends to enroll in his research.

A) subjects rights committee (SRC)

B) institutional review board (IRB)

Correct. An IRB exists to protect human participants from potentially abusive research protocols.

C) human resources investigation panel (HRIP)

Incorrect. Human resources is usually a department involved in assisting and interacting with faculty members at a company or business. It is not involved in research protocol examination.

D) ethics assurance board (EAB)

Answer: B

Diff: 1 Page Ref: 67

Skill: Applied

APA LO: 2.1a

TEXT LO 2.5 Explain the ethical obligations of researchers toward their research participants

Topic: Ethical Issues in Research Design

116. Which of these is part of the APA ethical principles for human research?

A) Research participants must give informed consent.

B) Research participants must be deceived so that they do not know the true nature of the research to which they are contributing.

C) Research participants must be paid for their contribution.

D) As long as informed consent has been given, research participants may be subjected to any level of physical or psychological pain or discomfort.

Answer: A

Diff: 1 Page Ref: 68

Skill: Factual

APA LO: 2.1a

TEXT LO 2.5 Explain the ethical obligations of researchers toward their research participants

% correct 91 a = 91 b = 0 c = 0 d = 9 r = .44

Topic: Ethical Issues in Research Design

117. In examining the research of Stanley Milgram, who explored factors related to obedience in research participants, which of the following areas of ethics seems to be the most salient issue in determining if his research was or was not a violation of reasonable ethical standards?

- A) The right to withdraw from research
- B) Pain and suffering in non-human participants
- C) Debriefing

Incorrect. Milgram's research protocol involved a thorough debriefing to participants after the research session was completed.

- D) Informed consent

Correct. Some have suggested that because he did not adequately inform participants what they were "getting into," that his research failed in its obligation to obtain true informed consent.

Answer: D

Diff: 3 Page Ref: 68

Skill: Conceptual

APA LO: 2.1a

TEXT LO 2.5 Explain the ethical obligations of researchers toward their research participants

Topic: Ethical Issues in Research Design

118. Dr. Williams believes that by administering brief electric shocks to his students, he can improve their attention to his lectures. He blames daydreaming and inattention by his students for their poor performance in his class. His colleagues are not convinced that the potential benefits to the students will outweigh the physical pain they may endure. Ultimately, what will Dr. Williams have to obtain from his students before proceeding?

- A) Medical records
- B) A debriefing of the results of the study

Incorrect. Debriefings come after a participant's contribution to a study has been completed. In this case, informed consent must be obtained before the participants contribute to the study.

- C) Information about the students' parents
- D) Informed consent

Correct. Informed consent is a process that helps research participants know what they are getting into, and is necessary for conducting an ethically sound study.

Answer: D

Diff: 2 Page Ref: 68

Skill: Applied

APA LO: 2.1a

TEXT LO 2.5 Explain the ethical obligations of researchers toward their research participants

Topic: Ethical Issues in Research Design

119. Professor Wagner is explaining to his subjects the purpose behind the experiment they just participated in, along with a general description of the results. He is engaging in what aspect of a research study?

- A) Debriefing

Correct. Debriefing is a process that allows the researcher to fully disclose the nature of the study and provide more information. It occurs once an individual's participation is complete.

- B) Informed consent

Incorrect. Informed consent is a process that helps research participants know what they are getting into, and is necessary for conducting an ethically sound study. It must be garnered before a participant contributes to a study.

- C) Ethical considerations
- D) Ethical consent

Answer: A

Diff: 1 Page Ref: 68

Skill: Applied

APA LO: 2.1a

TEXT LO 2.5 Explain the ethical obligations of researchers toward their research participants

Topic: Ethical Issues in Research Design

120. An overwhelming number of research studies that examine non-human participants involve the use of

- A) monkeys and chimpanzees.
- B) fish and insects.
- C) rodents and birds.
- D) dogs and cats.

Answer: C

Diff: 1 Page Ref: 69

Skill: Factual

APA LO: 2.1c

TEXT LO 2.6 Describe both sides of the debate on the use of animals as research subjects

Topic: Ethical Issues in Research Design

121. Dr. Nolen wants to know the effects of removing portions of one's hippocampus on long-term memory, in the hopes of one day finding a cure for patients with Alzheimer's disease. The subjects for his study are most likely to be

- A) humans.

Incorrect. Although it would probably be most useful for the treatment of Alzheimer's disease to conduct this research on human beings, there is no ethical way this could be occur.

- B) nonhuman animals.

Correct. Some research cannot ethically be conducted on humans, so nonhuman animals (most often mice or rats) are used instead.

- C) robots.

- D) insects.

Answer: B

Diff: 1 Page Ref: 69

Skill: Applied

APA LO: 2.1c

TEXT LO 2.6 Describe both sides of the debate on the use of animals as research subjects

Topic: Ethical Issues in Research Design

122. What is the authors' position on the use of animal research in psychology?

- A) Animal research provides important insights but also comes with costs in terms of death and suffering of these subjects.

Correct. This is a correct statement of the authors' position on the use of animal research.

- B) All animal research must be ended as soon as is possible.

Incorrect. Many people feel this way, but this is not the position taken by the authors.

- C) It is more desirable to harm animals than to harm humans in the research process.

- D) Results from animal research cannot inform us of how the same phenomenon occur with humans.

Answer: A

Diff: 2 Page Ref: 69–70

Skill: Conceptual

APA LO: 2.1c

TEXT LO 2.6 Describe both sides of the debate on the use of animals as research subjects

Topic: Ethical Issues in Research Design

123. The application of mathematics to describe and analyze data is known as

- A) dispersion.
- B) data reduction.
- C) statistics.
- D) psychometrics.

Answer: C

Diff: 1 Page Ref: 70

Skill: Factual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability
Topic: Statistics: The Language of Psychological Research

124. Numerical characterizations that describe data are known as

- A) central tendencies.
- B) inferential statistics.
- C) dispersion.
- D) descriptive statistics.

Answer: D

Diff: 1 Page Ref: 70

Skill: Factual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

125. Which of the following is one of the two types of statistics that researchers use to analyze the data that they collect?

- A) Predictive statistics
- B) Conscriptive statistics
- C) Descriptive statistics
- D) Computational statistics

Answer: C

Diff: 1 Page Ref: 70

Skill: Factual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

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

- A) Mode
- B) Variability
- C) Range
- D) Standard deviation

Answer: A

Diff: 1 Page Ref: 71

Skill: Factual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

127. Which of the following words is probably the best synonym for the mean of a data set?

- A) Popular
- B) Middle
- C) Spread

Incorrect. The spread of a set of data points would be indicated by the range, not the mean.

- D) Average

Correct. The mean is a measure of central tendency that refers to the average of a set of data points.

Answer: D

Diff: 2 Page Ref: 71

Skill: Conceptual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

128. A university president asks her psychology department chair if the university has more male or more female undergraduate psychology majors. What measure of central tendency is she asking about?

A) Mean

Incorrect. The mean refers to the average of a data set.

B) Median

C) Mode

Correct. The mode is a measure of central tendency that refers to the most frequently appearing value in a data set.

D) Range

Answer: C

Diff: 1 Page Ref: 71

Skill: Applied

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

129. A British literature instructor examines the number of class periods his students have missed by mid-terms and has the following data: 1, 0, 10, 0, 2, 1, 0, 0, 5, 2, 3, 0, 0, 0, 1, 1, 2, 3, 1, 2.

What is the median for this data set?

A) 0

B) 1

Correct. Fifty percent of the data points occur below and above 1, so it is the median.

C) 1.7

Incorrect. 1.7 is the average of this data set, so it is the mean.

D) 2.5

Answer: B

Diff: 2 Page Ref: 71

Skill: Applied

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

130. In which situation would presenting the mean as one's measure of central tendency be *least* accurate?

A) When the distribution is normally distributed

B) When the distribution is negatively skewed

Correct. The mean is adversely affected by positively or negatively skewed data sets.

C) When the distribution is bimodal

Incorrect. A bimodal data set does not necessarily impact the meaning of that data set.

D) When there are many scores in the data set

Answer: B

Diff: 3 Page Ref: 71

Skill: Conceptual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

131. If I wanted to determine, on average, how far apart any one score is from another, I should use a measure of

A) central tendency.

B) correlation.

C) variability.

D) statistical significance.

Answer: C

Diff: 2 Page Ref: 71

Skill: Factual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

132. This simplest measure of variability is the

- A) mean.
- B) mode.
- C) range.
- D) standard deviation.

Answer: C

Diff: 1 Page Ref: 71

Skill: Factual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

133. Which descriptive statistic is *least* likely to be influenced by the presence of skewed data?

- A) Mean
- B) Median
- C) Range
- D) Standard deviation

Answer: B

Diff: 3 Page Ref: 71

Skill: Factual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

134. Which of the following is one of the two types of statistics that researchers use to analyze the data that they collect?

- A) Referential statistics
- B) Inferential statistics
- C) Binomial statistics
- D) Cyclical statistics

Answer: B

Diff: 2 Page Ref: 72

Skill: Factual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

135. In a data set, the measure of variability that indicates how far each individual data point is from the average of the entire set is called the _____.

- A) standard deviation
- B) canonical correlation
- C) regression from the mean
- D) variance

Answer: A

Diff: 3 Page Ref: 72

Skill: Factual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

136. Mathematical methods that allow us to determine whether we can generalize findings from our sample to the full population are called

- A) central tendencies.
- B) inferential statistics.
- C) dispersion.
- D) descriptive statistics.

Answer: B

Diff: 1 Page Ref: 72

Skill: Factual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

137. A researcher wishes to generalize his findings beyond the people at the organization he is studying in Florida. He wants to attempt to show that the findings apply to all people who work in a similar type of organization throughout the United States. He should use _____ to analyze his data.

- A) correlational statistics
- B) descriptive statistics

Incorrect. Descriptive statistics are used to describe a data set, not to generalize from a sample to a larger population.

- C) inferential statistics

Correct. Inferential statistics are used to generalize findings from a sample to the larger population from which it was drawn.

- D) logical statistics

Answer: C

Diff: 3 Page Ref: 72

Skill: Applied

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

138. Mary conducts research examining the efficacy of treatment of elderly persons in nursing facilities in her home state. In order for her to use this research to influence larger political policies regarding the care of the elderly on a state and federal level, she will have to generalize her findings to the larger population of elderly nursing home residents. What sort of statistics should she use to accomplish this goal?

- A) correlational statistics
- B) descriptive statistics

Incorrect. Descriptive statistics are used to describe a data set, not to generalize from a sample to a larger population.

- C) inferential statistics

Correct. Inferential statistics are used to generalize from a sample to the larger population from which it was drawn.

- D) logical statistics

Answer: C

Diff: 2 Page Ref: 72

Skill: Applied

APA LO: 1.5d

TEXT LO 2.8 Explain how inferential statistics can help us to determine whether we can generalize from our sample to the full population

Topic: Statistics: The Language of Psychological Research

139. When a given research finding is believed to have less than a ____ in 100 probability of occurring by chance, it is usually described as being statistically significant.

- A) 1
- B) 5
- C) 10
- D) 25

Answer: B

Diff: 2 Page Ref: 72

Skill: Factual

APA LO: 1.5d

TEXT LO 2.8 Explain how inferential statistics can help us to determine whether we can generalize from our sample to the full population

Topic: Statistics: The Language of Psychological Research

140. The term *statistical significance* implies that the results are

- A) important.
- B) extremely meaningful.
- C) valid.
- D) not likely due to chance.

Answer: D

Diff: 3 Page Ref: 72

Skill: Factual

APA LO: 1.5d

TEXT LO 2.8 Explain how inferential statistics can help us to determine whether we can generalize from our sample to the full population

% correct 63 a = 6 b = 7 c = 23 d = 63 r = .32

Topic: Statistics: The Language of Psychological Research

141. What is the relationship between the *p*-value of a study and its statistical significance?

- A) The higher the *p*-value, the greater the statistical significance.

Incorrect. This is the opposite of the correct answer. The higher the p-value, the lower the statistical significance.

- B) The *p*-value is unrelated to the level of statistical significance.

- C) The *p*-value is equal to the statistical significance.

- D) The lower the *p*-value, the greater the statistical significance.

Correct. As p, or probability, drops, there is a greater chance that the findings are a real event and not caused by random chance or happenstance.

Answer: D

Diff: 3 Page Ref: 72

Skill: Conceptual

APA LO: 1.5d

TEXT LO 2.8 Explain how inferential statistics can help us to determine whether we can generalize from our sample to the full population

Topic: Statistics: The Language of Psychological Research

142. A therapist wishes to show that his new therapy is a marked improvement over the current best available therapy. To do so, he examines the number of participants who improved with each. A total of 125 participants received his treatment (and 100 of them improved). A total of 80 participants received the alternative treatment (and 64 of them improved). What should the therapist conclude?

A) His treatment is superior to the alternative because 100 is greater than 64.

B) His treatment is no better than the alternative because the percentages are the same.

Correct. He has found the same probability in both cases, so there is no statistical difference between the two participant groups.

C) His treatment is inferior because the percentages are the same.

Incorrect. His treatment is neither inferior nor superior. His findings suggest that his treatment is equivalent.

D) His treatment is superior because it included 125 people as opposed to 80.

Answer: B

Diff: 3 Page Ref: 72

Skill: Applied

APA LO: 1.5d

TEXT LO 2.8 Explain how inferential statistics can help us to determine whether we can generalize from our sample to the full population

Topic: Statistics: The Language of Psychological Research

143. After carefully observing thousands of students, Dr. O'Brien revealed to his colleagues that students with brown eyes are statistically more likely to write with pens instead of pencils. Although his colleagues did not question his statistics, they did suggest that a finding such as this lacked

A) authenticity.

B) validity.

Incorrect. There is nothing in this example that suggests a lack of validity. The practical significance of his findings is rather small.

C) statistical measures.

D) practical significance.

Correct. Practical significance refers to whether a statistical difference "makes a difference" in the real world.

Answer: D

Diff: 2 Page Ref: 72

Skill: Applied

APA LO: 1.5d

TEXT LO 2.8 Explain how inferential statistics can help us to determine whether we can generalize from our sample to the full population

Topic: Statistics: The Language of Psychological Research

144. A mechanism by which experts in a field carefully screen the work of their colleagues is known as

A) experimental validity.

B) experimenter bias effect.

C) peer review.

D) peer assessment.

Answer: C

Diff: 1 Page Ref: 75

Skill: Factual

APA LO: 1.1b

TEXT LO 2.10 Identify flaws in research designs and how to correct them

Topic: Evaluating Psychological Research

145. The peer review process is designed to

- A) block alternative therapies from being made available to the general public.
- B) identify flaws in a research study's methods, findings, and conclusions.
- C) make researchers feel bad when their article is not published.
- D) place obstacles in front of people whose theories differ from mainstream science.

Answer: B

Diff: 2 Page Ref: 75

Skill: Factual

APA LO: 1.1b

TEXT LO 2.10 Identify flaws in research designs and how to correct them

Topic: Evaluating Psychological Research

146. In one research project, a scientist gave students subliminal cassette tapes and told them to play them for 2 months. After 2 months, she assessed whether the tapes helped the self-esteem of her participants and found that self-esteem had indeed risen! While she may have attributed this to the tapes, it is also possible that those students may have found college life to be manageable and thus experienced an increase in self-esteem for that reason. This demonstrates which principle of critical thinking?

- A) Correlation vs. causation
- B) Extraordinary claims
- C) Ruling out rival hypotheses

Correct. In this case, there are alternative explanations that must be considered before assuming that a research finding is accurate.

- D) Replicability

Incorrect. Nothing in this example addresses repeating the research with the goal of producing the same findings.

Answer: C

Diff: 2 Page Ref: 75

Skill: Applied

APA LO: 1.2b

TEXT LO 2.11 Identify skills for evaluating psychological claims in the popular media

% correct 59 a = 38 b = 0 c = 59 d = 3 r = .46

Topic: Evaluating Psychological Research

147. The general public is often misled by discussions of research in the media because

- A) most reporters are not fair and balanced in their reporting of the facts.
- B) most reporters are actively working to bias the public against scientific research.
- C) most reporters are not trained in understanding research or how to accurately communicate about it.
- D) most reporters are lazy and attempting to do as little as possible in their jobs.

Answer: C

Diff: 1 Page Ref: 76

Skill: Factual

APA LO: 1.2b

TEXT LO 2.11 Identify skills for evaluating psychological claims in the popular media

Topic: Evaluating Psychological Research

148. Professor Bowden is in the middle of her lecture on marital satisfaction when a student in the back interrupts her and says, "Dr. Phil doesn't agree with that theory!" Soon other students chime in to add fuel to the discussion. Professor Bowden just smiles and asks the original student to produce the research that Dr. Phil carried out to justify his statements. What lesson is Professor Bowden trying to teach?

A) Information from the media is always inaccurate.

B) One should never question a well-established theory.

Incorrect. It is one of the most important aspects of critical thinking that the theories should be questioned, whether they are or are not well-established.

C) Always check the source of your information before you believe it.

Correct. The authors discuss how we should be skeptical of psychology-related claims in the media, and look for scientific evidence.

D) Secondary sources are just as reliable as primary sources.

Answer: C

Diff: 3 Page Ref: 76

Skill: Applied

APA LO: 1.2b

TEXT LO 2.11 Identify skills for evaluating psychological claims in the popular media

Topic: Evaluating Psychological Research

149. A key factor to consider when reading about the results of a study on the Internet, in a newspaper, or in a news magazine is to

A) consider the source of the information.

Correct. One must always consider the source from which information is drawn.

B) determine how well it fits with what others have told you in the past.

C) rely on your common sense or "gut" intuition.

D) popular media outlets always have inaccurate information.

Incorrect. It is entirely possible that the results of the study reported on the Internet, a newspaper, or in a newsmagazine are accurate. One must simply not accept that to be the case just because it is published.

Answer: A

Diff: 1 Page Ref: 76

Skill: Conceptual

APA LO: 1.2b

TEXT LO 2.11 Identify skills for evaluating psychological claims in the popular media

% correct 88 a = 88 b = 12 c = 0 d = 0 r = .34

Topic: Evaluating Psychological Research

150. A major limitation in reading about the results of psychological research in the newspaper is that

A) reporters provide too much detailed information about the research study that the general public cannot comprehend in their articles.

B) reporters are so well-trained to discuss research that they cannot easily communicate about it with the average lay person.

C) reporters create controversy where none exists by treating scientific evidence and dissenter's biased opinions as equally compelling.

Correct. This is an important point to make, because those without basis for opinions are often given the same weight as those who do have scientific basis for opinions.

D) reporters do not know how to identify experts to interview for many of their stories and end up unintentionally misleading the public.

Incorrect. Reporters may very well know how to interview people for their stories, but may choose to do so in such a way that makes the stories more sensational.

Answer: C

Diff: 2 Page Ref: 77

Skill: Conceptual

APA LO: 1.2b

TEXT LO 2.11 Identify skills for evaluating psychological claims in the popular media
Topic: Evaluating Psychological Research

Fill-in-the-Blank

1. _____ communication is a process that involves one person sitting next to a child with autism for the purpose of helping that child type out words and sentences. Research has demonstrated that it was an invalid way of assisting these children with communication deficits.

Answer: Facilitated

Diff: 2 Page Ref: 44

Skill: Factual

APA LO: 5.1a

TEXT LO Introduction

Topic: The Beauty and Necessity of Good Research Design

2. A(n) _____ refers to a mental shortcut or rule of thumb that assists people with intuitive decision-making problems.

Answer: heuristic

Diff: 3 Page Ref: 47

Skill: Factual

APA LO: 1.4a

TEXT LO 2.1. Identify two modes of thinking and their application to scientific reasoning

Topic: The Beauty and Necessity of Good Research Design

3. If a researcher investigated the topic of aggression by simply recording instances of aggression on a school playground, in a place of business, in a nightclub, and in many other everyday settings, he or she would be using the research design of _____.

Answer: naturalistic observation

Diff: 1 Page Ref: 49

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

4. _____ is the most important part of ensuring the generalizability of one's results to the general population.

Answer: Random selection

Diff: 3 Page Ref: 51

Skill: Conceptual

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

5. Dr. Barrios is examining the relationship between student scores on a practice test in his senior-level class with their actual performance, with different questions, on his first exam. If there is consistency or stability in these scores, Dr. Barrios would be able to say that _____ exists.

Answer: reliability

Diff: 2 Page Ref: 52

Skill: Applied

APA LO: 1.4a

TEXT LO 2.2 Describe the advantages and disadvantages of using naturalistic observation, case studies, self-report measures, and surveys

Topic: The Scientific Method: Toolbox of Skills

6. An important concern in research is that people will respond in a manner that conveys a specific impression rather than in a way that reflects his or her true behavior. If a person does this to make themselves appear more skilled than they really are, he or she is engaging in a(n) _____.

Answer: response set

Diff: 3 Page Ref: 53

Skill: Conceptual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

7. The degree of statistical association between two variables is the focus of _____ designs.

Answer: correlational

Diff: 1 Page Ref: 54

Skill: Factual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

8. The major advantage of a correlational design over a naturalistic observation or a case study design is that a correlational design allows us to _____.

Answer: make predictions (or make predictions about future events or describe and make predictions about behavior)

Diff: 2 Page Ref: 55

Skill: Conceptual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

9. When one variable under investigation rises while the second variable under investigation drops, a(n) _____ correlation would be the result.

Answer: negative

Diff: 1 Page Ref: 55

Skill: Factual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

10. According to the authors, many superstitious behaviors result from _____.

Answer: illusory correlation

Diff: 3 Page Ref: 57

Skill: Conceptual

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

11. Causal inferences are only possible with a(n) _____ design.

Answer: experimental

Diff: 2 Page Ref: 59

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

12. When a researcher provides a specific definition of the independent and dependent variables for the purpose of a study, they are creating _____ definitions for the research.

Answer: operational

Diff: 2 Page Ref: 60

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

13. The ability to state that differences in the conditions of the independent variable led to the observed differences in the dependent variable is lessened when a(n) _____ variable is present in one's research design.

Answer: confounding

Diff: 3 Page Ref: 61

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

14. The two major features of an experiment – random assignment and manipulation of an independent variable - permit the researcher to infer _____ and _____ relationships between variables.

Answer: cause/effect

Diff: 3 Page Ref: 61

Skill: Conceptual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

15. Although, physiologically speaking, it should take approximately 30 minutes for an aspirin to relieve a headache, most people claim to feel better only minutes after taking the pill. This observation can best be explained by the _____ effect.

Answer: placebo

Diff: 1 Page Ref: 61

Skill: Applied

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

16. One important limitation of the experimental design is that when research participants know what condition they have been assigned to, this knowledge, rather than the independent variable, may be the cause of the differences observed in the dependent variable. This is known as the _____ effect.

Answer: placebo (nocebo is also correct)

Diff: 2 Page Ref: 61–64

Skill: Conceptual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

17. When neither the experimenter nor the participant have any knowledge of the experimental condition to which the participant has been assigned, we say that this is a _____ study.

Answer: double-blind

Diff: 2 Page Ref: 64

Skill: Factual

APA LO: 1.4b

TEXT LO 2.4 Identify the components of an experiment, the potential pitfalls that can lead to faulty conclusions, and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

18. In psychological research studies, the researcher is required to obtain the participant's _____.

Answer: informed consent

Diff: 1 Page Ref: 68

Skill: Factual

APA LO: 2.1a

TEXT LO 2.5 Explain the ethical obligations of researchers toward their research participants

Topic: Ethical Issues in Research Design

19. Dr. Friesz asks his research assistant to gather information on how his data are clustering together on the variable, average daily temperature for December. He is asking for a measure of _____.

Answer: central tendency

Diff: 2 Page Ref: 70

Skill: Conceptual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

20. If a statistician asks you, his assistant, to calculate the middle score from a data set, he is asking you to determine the value of the _____.

Answer: median

Diff: 1 Page Ref: 71

Skill: Factual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

21. The preferred measure of variability in descriptive statistics is the _____.

Answer: standard deviation

Diff: 2 Page Ref: 72

Skill: Conceptual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

22. The goal of inferential statistics is to _____ our results to other similar samples.

Answer: generalize (or apply is also correct)

Diff: 3 Page Ref: 72

Skill: Factual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

23. Before Dr. Smith submits his new grant proposal to the committee, he asks several of his colleagues to read, revise, and make suggestions about his research design. He is engaging in one form of _____.

Answer: peer review

Diff: 2 Page Ref: 75

Skill: Applied

APA LO: 1.1b

TEXT LO 2.10 Identify flaws in research designs and how to correct them

Topic: Evaluating Psychological Research

24. Jay is writing an article for the school newspaper about student attendance. His main point is that during the final semester of one's senior year, a student is more likely to miss school. Data obtained from his principal indicate that, on any given day, 17% of the senior class is absent (compared to 12% of juniors, and 13% and 16% of sophomores and freshmen). His headline reads "Senioritis: A Real Phenomenon." He has engaged in use of the misleading tool of _____.

Answer: leveling

Diff: 3 Page Ref: 76

Skill: Applied

APA LO: 1.2b

TEXT LO 2.11 Identify skills for evaluating psychological claims in the popular media

Topic: Statistics: The Language of Psychological Research

25. When the media provide information about a scientific question, it often does so using a balanced coverage approach. This creates an artificial appearance of _____, and thus gives the impression that a scientific debate exists where it does not.

Answer: pseudosymmetry

Diff: 3 Page Ref: 77

Skill: Conceptual

APA LO: 1.2b

TEXT LO 2.11 Identify skills for evaluating psychological claims in the popular media

Topic: Statistics: The Language of Psychological Research

Essay

1. Why is it necessary for psychologists to have so many different research designs to study human behavior?

Answer: Answers will vary but should contain the following points for full credit.

- Each research design has its own important limitations. Students should identify at least two examples from two different designs to earn full credit.
- The goals of research differ (some focus on description, others on predictions, and others on establishing causation).
- If different methods produce similar results, this increases our confidence in our understanding of a particular phenomenon (idea of convergence).

Diff: 2 Page Ref: 48–61

Skill: Factual

APA LO: 1.2e

TEXT LO 2.3 and 2.4 Describe the role of correlational designs and distinguish correlation from causation; identify the components of an experiment and the potential pitfalls that can lead us to faulty conclusions and how psychologists control for these pitfalls

Topic: The Scientific Method: Toolbox of Skills

2. Discuss how the concept of the illusory correlation would explain a friend's complaint that his fraternity/her sorority (or other student group) is always being displayed in a negative light by the campus newspaper while other groups are not treated the same.

Answer: Answers will vary but should include the following to earn full credit.

- Student should define or describe what the illusory correlation is in his/her answer (either directly or demonstrate an understanding indirectly).
- The student should discuss the general ideas associated with the Great Fourfold Table of Life from page 57.
- More specifically, he or she should focus on the fact that the student—in the question—is focusing on instances where negative portrayal of the fraternity/sorority are occurring but is neglecting stories about the fraternity/sorority that are positive or have no evaluative component. Likewise, the student—in the question—is also ignoring when other groups are discussed negatively or other negative stories that are irrelevant to friend's group are published.

Diff: 3 Page Ref: 57–58

Skill: Applied

APA LO: 1.2e

TEXT LO 2.3 Describe the role of correlational designs and distinguish correlation from causation

Topic: The Scientific Method: Toolbox of Skills

3. Describe the roles of institutional review boards and statements of informed consent within the human research process.

Answer: Answers will vary but should contain the following for full credit.

- Institutional review boards (IRBs) exist to ensure that participants are protected against abuses from researchers. The members are drawn from different departments and must give their approval, and their concerns and requests for changes addressed, before research with human participants may begin.
- The informed consent ensures that participants understand what is being asked of them and what will be involved in their experience. Participants must be given enough information to make a decision to voluntarily participate in the research. If they are misled during the research, the missing information must be explained during a debriefing.

Diff: 2 Page Ref: 68–69

Skill: Factual

APA LO: 2.1a

TEXT LO 2.5 Explain the ethical obligations of researchers toward their research participants

Topic: Ethical Issues in Research Design

4. Explain why no single measure of central tendency and measure of dispersion exists that a researcher can use every single time.

Answer: Answers will vary but should contain the following information for full credit.

- Sometimes one measure is more appropriate than another. For example, the mean is distorted by the presence of outliers in a skewed distribution, so a researcher would be advised to report the median instead.
- It depends what information a researcher wants to highlight. For example, if a researcher wants to identify what was the most frequently endorsed option for a question, he or she would choose the mode. If he or she wants to report about how the scores were represented over all the possible answers, he or she would report the mean.
- Some people may wish to know the typical difference between scores and thus choose standard deviation, while others would look at the amount of difference from the most extreme scores and choose the range.
- A researcher cannot just report central tendency or dispersion because they each only tell part of the whole, either where scores are located (central tendency) or how much difference between scores is present (dispersion).

Diff: 3 Page Ref: 70–71

Skill: Conceptual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research

5. Illustrate why being an informed consumer about research, research designs, and statistics will be helpful in identifying incorrect statements about research in the media and on the Internet.

Answer: Answers will vary but should contain *at least four* of the following, and include the first idea, for full credit.

- Student should mention that understanding research designs will aid in identifying when statements of cause and effect are appropriate and when they are not. (Need to give supportive evidence for this and all statements to see that they truly demonstrate an understanding of each idea.)
- One will recognize misleading or inaccurate statistical statements.
- One will recognize when headlines are inaccurate summaries of the research results.
- One will recognize when reporters or writers have used sharpening or leveling.
- One will consider the source and whether the story coverage is balanced or whether it muddies the discussion.

Diff: 2 Page Ref: 75–77

Skill: Conceptual

APA LO: 1.2b

TEXT LO 2.11 Identify skills for evaluating psychological claims in the popular media
Topic: Evaluating Psychological Research

Critical Thinking

1. Discuss why researchers need to be familiar with both descriptive and inferential statistics.

Answer: Answers will vary but should contain the following ideas for full credit.

- Student needs to mention that each gives a different kind of information because each has differing goals (organization and summarization for descriptive and generalization for inferential).
- Techniques in each can be misused in different ways to make effects appear that really are not accurate or appropriate.
- Often both are used in conjunction by the researcher rather than being two types that are chosen between (e.g., using the means of the groups to help see the statistically significant group differences).

Diff: 3 Page Ref: 70–72

Skill: Conceptual

APA LO: 3.1f

TEXT LO 2.7 Identify uses of various measures of central tendency and variability

Topic: Statistics: The Language of Psychological Research