

# 2 RESEARCH METHODS IN PSYCHOLOGY

## Multiple-Choice Questions

1. What is the relationship between the scientific method and critical thinking?

- A) Science applies to psychology, whereas critical thinking applies to philosophy.
- B) Everyone who thinks critically is a scientist.
- C) Science is critical thinking in action.
- D) There is no relationship between science and critical thinking.

Answer: C

Book: Lahey

Difficulty: Low

Page: 25

Style: Factual

APA Learning Outcome: 2.1

2. Evidence gathered from publicly observable behavior is known as \_\_\_\_\_ evidence.

- A) empirical
- B) psychological
- C) rational
- D) hypothetical

Answer: A

Book: Lahey

Difficulty: Medium

Page: 25

Style: Factual

APA Learning Outcome: 2.1

3. Which of the following would be an operational definition designed to measure the amount of violence on television?

- A) Asking people how many TV sets they own in their home
- B) Counting the number of homicides that occur on a TV show
- C) Identifying the sponsors and producers of a particular TV show
- D) Determining if the TV show is translated into other languages

Answer: B

Book: Lahey

Difficulty: Medium

Page: 26

Style: Conceptual

APA Learning Outcome: 2.1

4. Science requires that the subject matter be

- A) qualitative.
- B) naturalistic.
- C) random and indeterminate.
- D) orderly and lawful.

Answer: D

Book: Lahey

Difficulty: Low

Page: 26

Style: Factual

APA Learning Outcome: 2.1

5. The key component of empirical evidence is that it must be based on \_\_\_\_\_ behavior.

- A) innocently reasoned
- B) gently executed
- C) publicly observable
- D) carefully planned

Answer: C

Book: Lahey

Difficulty: Low

Page: 26

Style: Factual

APA Learning Outcome: 2.1

6. When observing nature, all scientists

- A) need to be trained in psychology.
- B) follow strict rules.
- C) work in the laboratory.
- D) travel to the original environment.

Answer: B

Book: Lahey

Difficulty: Low

Page: 26

Style: Factual

APA Learning Outcome: 2.1

7. Which method is based on observation and the adherence to rules of evidence?

- A) Scientific method
- B) Philosophical method
- C) Theoretical method
- D) Moral method

Answer: A

Book: Lahey

Difficulty: Low

Page: 25

Style: Factual

APA Learning Outcome: 2.2

8. A student is interested in studying college student success. His professor asked, "How will you measure it?" The student replies, "with the grade-point average at graduation." This instance of specifying how college student success is to be measured is an example of

- A) placebo effects.
- B) descriptive identification.
- C) hypothesis testing.
- D) operational definitions.

Answer: D

Book: Lahey

Difficulty: Medium

Page: 26

Style: Applied

APA Learning Outcome: 2.2

9. The knowledge that science provides is \_\_\_\_\_ because theories are \_\_\_\_\_.

- A) tentative; subject to change
- B) tentative; permanent
- C) permanent; subject to change
- D) permanent; permanent

Answer: A

Book: Lahey  
Difficulty: Medium  
Page: 26  
Style: Factual  
APA Learning Outcome: 2.1

10. A psychologist has developed an explanation for why we sleep. In scientific terms, her explanation would be called a(n)

- A) theory.
- B) hypothesis.
- C) observation.
- D) correlation.

Answer: A

Book: Lahey  
Difficulty: Medium  
Page: 26  
Style: Conceptual  
APA Learning Outcome: 2.1

11. What is the significance of a hypothesis?

- A) It determines scientific truths.
- B) It is used to test theories.
- C) It determines if a sample is representative.
- D) It explains scientific relationships.

Answer: B

Book: Lahey  
Difficulty: Medium  
Page: 26  
Style: Factual  
APA Learning Outcome: 2.1

12. Theory is to explanation as hypothesis is to

- A) prediction.
- B) truth.
- C) observation.
- D) understanding.

Answer: A

Book: Lahey  
Difficulty: Medium  
Page: 26  
Style: Conceptual  
APA Learning Outcome: 2.1

13. A prediction based on a theory is known as a

- A) constant.
- B) hypothesis.
- C) law.
- D) variable.

Answer: B

Book: Lahey  
Difficulty: Low  
Page: 26  
Style: Factual  
APA Learning Outcome: 2.1

14. Early in the history of psychology Ebbinghaus, a memory researcher, used himself as the only research

participant in his study. Given this information, what might cause you to be skeptical about his results?

- A) The results were not gathered scientifically.
- B) The sample was probably not representative.
- C) People are smarter than they used to be.
- D) Most studies of memory focus on college students.

Answer: B

Book: Lahey

Difficulty: Medium

Page: 26

Style: Applied

APA Learning Outcome: 2.1

15. One of the key characteristics of using a sample to learn about a larger group of beings is that the sample needs to be

- A) knowledgeable.
- B) convenient.
- C) representative.
- D) affordable.

Answer: C

Book: Lahey

Difficulty: Low

Page: 26

Style: Factual

APA Learning Outcome: 2.1

16. When a scientist says that the theory is tentative, the scientist means that the

- A) conclusions are fully known.
- B) theory is subject to revision.
- C) study is confirmed with animals but not with humans.
- D) study is confirmed with humans but not with animals.

Answer: B

Book: Lahey

Difficulty: Low

Page: 26

Style: Factual

APA Learning Outcome: 2.1

17. Successful replication means that certain conclusions about behavior have been

- A) repeated in multiple experiments.
- B) verified in animal studies only.
- C) sponsored by federal funding.
- D) completed during field studies.

Answer: A

Book: Lahey

Difficulty: Medium

Page: 27

Style: Factual

APA Learning Outcome: 2.1

18. Rather than study the entire population of one group, you decide to focus on a subset of the group. This subset or subgroup is called a(n)

- A) hypothesis.
- B) sample.
- C) presentation.
- D) assimilation.

Answer: B

Book: Lahey  
Difficulty: Low  
Page: 26  
Style: Factual  
APA Learning Outcome: 2.1

19. When a scientist talks about the need for replication, she is talking about the need for

- A) more participants from the sample.
- B) different participant populations.
- C) repeating the study more than once.
- D) conducting the study with humans and animals.

Answer: C  
Book: Lahey  
Difficulty: Medium  
Page: 27  
Style: Factual  
APA Learning Outcome: 2.1

20. Which of the following is an example of a descriptive method of doing research?

- A) Test-retest reliability
- B) Naturalistic observation
- C) Placebo manipulation
- D) Quasi experimentation

Answer: B  
Book: Lahey  
Difficulty: Medium  
Page: 27  
Style: Factual  
APA Learning Outcome: 2.2

21. What do the survey technique and naturalistic observation have in common?

- A) They are both descriptive research methods.
- B) They are both experimental research methods.
- C) They both produce predictive regression coefficients.
- D) They both contain a control group and a treatment group.

Answer: A  
Book: Lahey  
Difficulty: Medium  
Page: 27–28  
Style: Conceptual  
APA Learning Outcome: 2.2

22. Dr. Carr needs a lot of information directly from people and has only one week to collect that information. Dr. Carr would probably benefit most by using

- A) the clinical method.
- B) formal experimentation.
- C) the survey method.
- D) natural observation.

Answer: C  
Book: Lahey  
Difficulty: Medium  
Page: 27  
Style: Applied  
APA Learning Outcome: 2.2

23. Which of the following is a potential disadvantage to using the survey method to answer questions of interest?

- A) Surveys are almost always representative of the population to be sampled.
- B) It is possible to collect large amounts of survey data in a relatively short period of time.
- C) Surveys may allow us to begin to understand those behaviors that we know the least about.
- D) You cannot be sure that answers are completely honest to questions about sensitive topics.

Answer: D

Book: Lahey

Difficulty: Medium

Page: 27

Style: Factual

APA Learning Outcome: 2.2

24. If you are considering the potential disadvantage of the lack of completely honest answers, particularly about sensitive topics such as sex and drug use, then you are probably considering using the \_\_\_\_\_ research method.

- A) forced choice
- B) quasi experimental
- C) naturalistic observation
- D) survey

Answer: D

Book: Lahey

Difficulty: Medium

Page: 27

Style: Conceptual

APA Learning Outcome: 2.2

25. Naturalistic observation describes a research technique in which careful observation and recording of behavior occurs

- A) in real-life settings.
- B) through archival research.
- C) in a controlled laboratory.
- D) under legal scrutiny.

Answer: A

Book: Lahey

Difficulty: Low

Page: 28

Style: Factual

APA Learning Outcome: 2.2

26. One advantage of naturalistic observation is that the researcher can examine behavior

- A) in a controlled laboratory setting.
- B) under conditions where cause and effect are clear.
- C) in a setting where subjects are comfortable and relaxed.
- D) in a normal and realistic setting.

Answer: D

Book: Lahey

Difficulty: Low

Page: 28

Style: Factual

APA Learning Outcome: 2.2

28. A psychologist who gathers data while watching managers interact with their employees is using

- A) a correlational strategy.
- B) naturalistic observation.
- C) the survey technique.
- D) a Gallup poll.

Answer: B

Book: Lahey

Difficulty: Medium  
Page: 28  
Style: Factual  
APA Learning Outcome: 2.2

29. The clinical method is a variation of

- A) the survey method.
- B) correlational methods.
- C) naturalistic observation.
- D) the dependent variable.

Answer: C  
Book: Lahey  
Difficulty: Low  
Page: 29  
Style: Factual  
APA Learning Outcome: 2.2

30. Which research technique did Sigmund Freud use while he gathered information to develop his theories of abnormal behavior?

- A) Experimental method
- B) Clinical method
- C) Correlational method
- D) Survey method

Answer: B  
Book: Lahey  
Difficulty: Low  
Page: 30  
Style: Factual  
APA Learning Outcome: 2.2

31. Going to the shopping mall and watching people's behavior is an example of

- A) descriptive research.
- B) inferential research.
- C) experimental research.
- D) variegated research.

Answer: A  
Book: Lahey  
Difficulty: Low  
Page: 26  
Style: Conceptual  
APA Learning Outcome: 2.2

32. Interviews and questionnaires are techniques that are used in \_\_\_\_\_ research.

- A) placebo
- B) survey
- C) clinical
- D) naturalistic observation

Answer: B  
Book: Lahey  
Difficulty: Low  
Page: 27  
Style: Factual  
APA Learning Outcome: 2.2

33. If you are doing research on how a patient reacts to a treatment in different settings, you are conducting

- A) clinical research.

- B) observational research.
- C) correlational research.
- D) descriptive research.

Answer: A

Book: Lahey

Difficulty: Low

Page: 29

Style: Conceptual

APA Learning Outcome: 2.2

34. You are recording behaviors as they occur in their natural setting. This type of study is called naturalistic

- A) desensitization.
- B) experimentation.
- C) correlation.
- D) observation.

Answer: D

Book: Lahey

Difficulty: Low

Page: 28

Style: Factual

APA Learning Outcome: 2.2

35. A researcher using the correlational method is interesting in determining if there is a \_\_\_\_\_ relationship between two variables.

- A) philosophical
- B) physical
- C) statistical
- D) empirical

Answer: C

Book: Lahey

Difficulty: Low

Page: 29

Style: Factual

APA Learning Outcome: 2.2

36. If a psychologist can measure a concept in such a way as to get a numerical value, then that concept is also referred to as a

- A) hypothesis.
- B) theory.
- C) constant.
- D) variable.

Answer: D

Book: Lahey

Difficulty: Medium

Page: 29

Style: Factual

APA Learning Outcome: 2.2

37. Which of the following would best describe what a correlational study would accomplish?

- A) Compare the amount of violence on TV to the amount of aggressive behavior in children.
- B) Survey children to see if they think they would be aggressive after watching too much TV.
- C) Going into stores that sell TV sets and watch children's behavior while they watch TV.
- D) Asking parents for their best estimate about their child's aggressive behavior.

Answer: A

Book: Lahey

Difficulty: Medium

Page: 29  
Style: Applied  
APA Learning Outcome: 2.2

38. A recent study reports that there is a positive correlation between the number of hours a student studies each week and the student's grade-point average (GPA). This findings means that

- A) as studying increases, students tend to become more distracted.
- B) as studying increases, GPA tends to increase.
- C) GPA and number of hours studying are unrelated.
- D) GPA tends to decrease as the number of study hours increases.

Answer: B  
Book: Lahey  
Difficulty: Medium  
Page: 29  
Style: Conceptual  
APA Learning Outcome: 2.2

39. The Department of Motor Vehicles recently completed a study that indicated there is a negative correlation between the age of the driver and the number of errors on the written driving test. This result means that

- A) the older the driver, the more errors on the driving test.
- B) younger drivers should not be allowed to drive.
- C) the older the driver, the fewer errors on the driving test.
- D) older drivers should not be allowed to drive.

Answer: C  
Book: Lahey  
Difficulty: Medium  
Page: 29  
Style: Applied  
APA Learning Outcome: 2.2

40. In a research study, participants recorded the number of cigarettes they smoked per day. "Number of cigarettes they smoked per day" is referred to as a(n)

- A) sample.
- B) variable.
- C) coefficient.
- D) hypothesis.

Answer: B  
Book: Lahey  
Difficulty: Low  
Page: 29  
Style: Conceptual  
APA Learning Outcome: 2.2

41. Prediction is the goal of which research method?

- A) Correlational
- B) Formal experiment
- C) Descriptive
- D) Clinical

Answer: A  
Book: Lahey  
Difficulty: Low  
Page: 29  
Style: Factual  
APA Learning Outcome: 2.2

42. What does it mean when there is zero (0) correlation between two variables?

- A) There was missing data that prevented an accurate calculation.
- B) The negative and positive correlations have cancelled each other out.
- C) The research study was improperly conducted by the researchers.
- D) There is no statistical relationship between the two variables being studied.

Answer: D

Book: Lahey

Difficulty: Medium

Page: 29

Style: Factual

APA Learning Outcome: 2.2

43. The degree of association between variables is expressed statistically as the

- A) standard deviation.
- B) correlation coefficient.
- C) qualitative mean score.
- D) integer of relativity.

Answer: B

Book: Lahey

Difficulty: Low

Page: 30

Style: Factual

APA Learning Outcome: 2.2

44. When you see a coefficient of correlation while reading a scientific research report, what does it indicate to you?

- A) The strength of a relationship between two variables
- B) A cause-and-effect relationship between many variables
- C) That the research was purely descriptive in nature
- D) The degree to which the research was scientific

Answer: A

Book: Lahey

Difficulty: Medium

Page: 30

Style: Conceptual

APA Learning Outcome: 2.2

45. What would you expect the correlation coefficient to look like if high numbers of cigarettes smoked predicted high incidences of lung cancer?

- A) +0.01
- B) +0.75
- C) +9.00
- D) -0.90

Answer: B

Book: Lahey

Difficulty: Medium

Page: 30

Style: Factual

APA Learning Outcome: 2.2

46. Variable X increases as Variable Y increases. Choose the correlation coefficient that best applies.

- A) +8.00
- B) +0.80
- C) -0.80
- D) -10.0

Answer: B

Book: Lahey

Difficulty: Medium

Page: 30  
Style: Conceptual  
APA Learning Outcome: 2.2

47. Which correlation coefficient represents the strongest relationship between variables?

- A) +0.72
- B) -0.72
- C) -0.89
- D) 0.00

Answer: C

Book: Lahey

Difficulty: Low

Page: 30

Style: Factual

APA Learning Outcome: 2.2

48. When there is a positive correlation between two variables, this means that

- A) the value of one variable increases as the value of another variable increases.
- B) the value of one variable increases as the value of another variable decreases.
- C) the value of one variable is the cause for increases in another variable.
- D) we are positive that the outcomes of this research are good for society.

Answer: A

Book: Lahey

Difficulty: Medium

Page: 30

Style: Conceptual

APA Learning Outcome: 2.2

49. A researcher finds that a person's height and weight are significantly positively correlated. Which interpretation below makes the most sense?

- A) Height causes weight.
- B) Weight causes height.
- C) To lose weight, a person should attempt to become shorter.
- D) When a person tends to be tall, they tend to be heavy.

Answer: D

Book: Lahey

Difficulty: Low

Page: 30

Style: Conceptual

APA Learning Outcome: 2.2

50. A psychology class found a strong correlation between armed robbery and ice cream sales. What could they conclude from their data?

- A) Armed robbery causes people to eat ice cream.
- B) The incidence of robbery is high near ice cream shops.
- C) Perhaps a third factor, such as seasonal temperature, is involved.
- D) Eating ice cream causes people to become violent and commit robbery.

Answer: C

Book: Lahey

Difficulty: Low

Page: 30

Style: Conceptual

APA Learning Outcome: 2.2

51. A danger in using the correlational strategy is that

- A) one might attribute causation between two events.

- B) the strategy may be unethical if used without caution.
- C) there may not be sufficient experimental controls.
- D) we cannot predict one variable from the other.

Answer: A

Book: Lahey

Difficulty: Low

Page: 31

Style: Factual

APA Learning Outcome: 2.2

52. Several lab groups found a strong positive correlation between number of hours spent on campus and grades. What can you conclude from this information?

- A) More time spent on campus causes grades to increase.
- B) The correlation coefficient must be zero.
- C) There is a numerical relationship between the two variables.
- D) To improve your grades, you must spend more time on campus.

Answer: C

Book: Lahey

Difficulty: Low

Page: 31

Style: Conceptual

APA Learning Outcome: 2.2

53. When making cause and effect conclusions, correlational studies are

- A) preferred.
- B) used exclusively.
- C) not appropriate.
- D) appropriate for 2 or fewer variables.

Answer: C

Book: Lahey

Difficulty: Low

Page: 31

Style: Factual

APA Learning Outcome: 2.2

54. A researcher wants to study the relationship between lifespan and cigarette smoking. For this study, he cannot ethically manipulate people to smoke cigarettes, so the researcher must rely on a correlational study. Based on the correlational approach, which of the following statements would be an appropriate conclusion?

- A) Smoking cigarettes is related to decreases in life span.
- B) A hard, stressful life causes people to smoke.
- C) Shorter life span and cigarette smoking cause the other in equal proportions.
- D) Cigarette smoking causes people to die young.

Answer: A

Book: Lahey

Difficulty: Medium

Page: 31

Style: Applied

APA Learning Outcome: 2.2

55. One advantage of formal experiments as compared to correlational studies is that formal experiments

- A) tend to be easier to conduct and interpret.
- B) can allow conclusions about cause and effect.
- C) do not require the use of representative sampling.
- D) can be completed without the use of statistics.

Answer: B

Book: Lahey

Difficulty: Low  
Page: 32  
Style: Factual  
APA Learning Outcome: 2.2

56. When the deliberate arrangement and control of variables is possible, the \_\_\_\_\_ is most likely to allow cause and effect conclusions to be drawn when the research is complete.

- A) quasi experiment
- B) naturalistic observation
- C) formal experiment
- D) correlational study

Answer: C  
Book: Lahey  
Difficulty: Medium  
Page: 32  
Style: Conceptual  
APA Learning Outcome: 2.2

57. The main difference between a correlational study and a formal experiment is that in a correlational study

- A) individuals are assigned to conditions randomly.
- B) the researcher begins without any hypothesis.
- C) the researcher does not intentionally influence either variable.
- D) there is an independent variable but no dependent variable.

Answer: C  
Book: Lahey  
Difficulty: Medium  
Page: 32  
Style: Conceptual  
APA Learning Outcome: 2.2

58. Which research technique allows fairly confident conclusions about cause-and-effect relationships?

- A) Case study
- B) Correlational research
- C) Descriptive survey
- D) Formal experiment

Answer: D  
Book: Lahey  
Difficulty: Low  
Page: 32  
Style: Factual  
APA Learning Outcome: 2.2

59. As a researcher, you believe that anxiety causes poor test performance. From the options below, the best research technique to support or refute your hypothesis is the

- A) descriptive method.
- B) formal experiment.
- C) clinical method.
- D) correlational method.

Answer: B  
Book: Lahey  
Difficulty: Low  
Page: 32  
Style: Conceptual  
APA Learning Outcome: 2.2

60. Research performed in carefully regulated settings where one or more variables are manipulated while others are

held constant is called

- A) formal experimentation.
- B) correlational research.
- C) naturalistic observation.
- D) a descriptive study.

Answer: A

Book: Lahey

Difficulty: Medium

Page: 32

Style: Factual

APA Learning Outcome: 2.2

61. What is an advantage that formal experimentation has over other research strategies?

- A) One may exert control over the influence of variables.
- B) It provides a real-to-life experimental environment.
- C) We do not need to be skeptical about its conclusions.
- D) It is the most ethical method of research available.

Answer: A

Book: Lahey

Difficulty: Medium

Page: 32

Style: Conceptual

APA Learning Outcome: 2.2

62. Which of the following statements is true regarding formal experimentation?

- A) It cannot support cause-and-effect relationships.
- B) Its conclusions should be evaluated cautiously.
- C) It is the best research method for answering any research question.
- D) It is not useful for making predictions about behavior.

Answer: B

Book: Lahey

Difficulty: Low

Page: 32

Style: Factual

APA Learning Outcome: 2.2

63. The dependent variable is called the dependent variable because its value \_\_\_\_\_ other parts of the experiment.

- A) is constant compared to
- B) is related to
- C) is the opposite of
- D) depends on

Answer: D

Book: Lahey

Difficulty: Medium

Page: 33

Style: Factual

APA Learning Outcome: 2.2

64. The variable that the researcher controls is called the

- A) manipulation check.
- B) dependent variable.
- C) placebo effect.
- D) independent variable.

Answer: D

Book: Lahey

Difficulty: Low

Page: 33

Style: Factual

APA Learning Outcome: 2.2

65. Which variable depends upon the effects of the independent variable?

- A) Dependent
- B) Manipulation
- C) Control
- D) Placebo

Answer: A

Book: Lahey

Difficulty: Low

Page: 33

Style: Factual

APA Learning Outcome: 2.2

66. A researcher has 40 people to assign into two groups: an experimental group and a control group. The researcher flips a coin: heads, experimental group and tails, control group. This is an example of

- A) monetary assignment.
- B) experimenter bias.
- C) random assignment.
- D) treatment effects.

Answer: C

Book: Lahey

Difficulty: Medium

Page: 34

Style: Conceptual

APA Learning Outcome: 2.2

67. For a formal experiment to yield valid results, all alternative explanations for the findings must be ruled out by a process of

- A) experimental control.
- B) placebo effectiveness.
- C) nonrandom assignment.
- D) interactive subjectivity.

Answer: A

Book: Lahey

Difficulty: Low

Page: 33

Style: Factual

APA Learning Outcome: 2.2

68. A researcher wants to study the effects of caffeine on student performance on quiz scores. The research gives a caffeinated drink to half the students and a non-caffeinated drink to the other half of students. The researcher then measures quiz scores by counting the number of correct answers. Given the above scenario, what is the independent variable?

- A) The number of caffeinated drinks the student consumes during the day
- B) The number of correct answers on the quiz
- C) The year in school of the students
- D) Whether the students receive the caffeinated drink or not

Answer: D

Book: Lahey

Difficulty: Medium

Page: 33

Style: Applied

APA Learning Outcome: 2.2

69. A researcher wants to study the effects of caffeine on student performance on quiz scores. The research gives a caffeinated drink to half the students and a non-caffeinated drink to the other half of students. The researcher then measures quiz scores by counting the number of correct answers. Given the above scenario, what is the dependent variable?

- A) The number of correct answers on the quiz
- B) The number of students reporting that they consume caffeine everyday
- C) Whether or not the students received a caffeinated drink during the study
- D) Whether or not students like drinking caffeinated beverages

Answer: A

Book: Lahey

Difficulty: Medium

Page: 33

Style: Applied

APA Learning Outcome: 2.2

70. A university is interested in measuring student's confidence in career decisions and the effectiveness of their career counseling center. One group of students is randomly assigned to receive three weeks of career counseling; another group of students is prevented from receiving career counseling during those same three weeks. After three weeks have passed, the university asks students about their confidence in their future career using a scale of 1 to 10, with 10 indicating highest confidence. What is the dependent variable?

- A) Whether or not students received career counseling
- B) The student's confidence score about the future career
- C) The number of weeks of counseling services
- D) The type of university attended

Answer: B

Book: Lahey

Difficulty: Medium

Page: 33

Style: Applied

APA Learning Outcome: 2.2

71. A university is interested in measuring student's confidence in career decisions and the effectiveness of their career counseling center. One group of students is randomly assigned to receive three weeks of career counseling; another group of students is prevented from receiving career counseling during those same three weeks. After three weeks have passed, the university asks students about their confidence in their future career using a scale of 1 to 10, with 10 indicating highest confidence. What is the independent variable?

- A) The student's confidence score about the future career
- B) The type of university attended
- C) Whether or not the student received career counseling
- D) The number of weeks of counseling services

Answer: C

Book: Lahey

Difficulty: Medium

Page: 33

Style: Applied

APA Learning Outcome: 2.2

72. The goal of random assignment in formal experiments is to

- A) ensure that the correct statistical procedures will be followed.
- B) make sure that the sample is representative of the population.
- C) make sure all the students signed up get a chance to participate.
- D) make the groups roughly equal prior to the start of the study.

Answer: D

Book: Lahey

Difficulty: Low

Page: 34

Style: Factual

APA Learning Outcome: 2.2

73. In formal experiments, the experimental group is the \_\_\_\_\_ group and the control group is the \_\_\_\_\_ group.

- A) inactive; inactive
- B) inactive; active
- C) active; active
- D) active; inactive

Answer: D

Book: Lahey

Difficulty: Medium

Page: 34

Style: Factual

APA Learning Outcome: 2.2

74. In a formal experiment, the variable that the experimenter measures is the \_\_\_\_\_ variable.

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

Answer: B

Book: Lahey

Difficulty: Low

Page: 33

Style: Factual

APA Learning Outcome: 2.2

75. A psychologist is studying the effect of varying levels of caffeine on anxiety. In this experiment, caffeine level is the

- A) correlation coefficient.
- B) dependent variable.
- C) independent variable.
- D) uncontrolled variable.

Answer: C

Book: Lahey

Difficulty: Low

Page: 33

Style: Conceptual

APA Learning Outcome: 2.2

76. In an experiment, the factors that are manipulated by the experimenter are known as

- A) independent variables.
- B) dependent variables.
- C) correlational variables.
- D) descriptive variables.

Answer: A

Book: Lahey

Difficulty: Low

Page: 33

Style: Factual

APA Learning Outcome: 2.2

77. A psychologist studied the effect of blood alcohol level on driving behavior. In this study, driving behavior was the \_\_\_\_\_ variable.

- A) control

- B) independent
- C) dependent
- D) manipulated

Answer: C

Book: Lahey

Difficulty: Medium

Page: 33

Style: Conceptual

APA Learning Outcome: 2.2

78. A professor is interested in how study breaks influence memory. Some students take a 45-minute break while others take three 15-minute breaks. What is the independent variable?

- A) The topic being studied
- B) The memory for the material
- C) The number of breaks taken
- D) The professor's lecture time

Answer: C

Book: Lahey

Difficulty: Medium

Page: 33

Style: Conceptual

APA Learning Outcome: 2.2

79. If a researcher tests the effects of alcohol on the reaction times of participants, the participants who get the alcohol are in the

- A) control group.
- B) dependent group.
- C) placebo group.
- D) experimental group.

Answer: D

Book: Lahey

Difficulty: Low

Page: 33

Style: Conceptual

APA Learning Outcome: 2.2

80. A psychologist wishes to study the effect of background music on test taking. A classroom of students is divided in two; half take a test in a quiet room and the other half take the test where music is playing. The group in the quiet room is known as the \_\_\_\_\_ group.

- A) correlational
- B) experimental
- C) quantitative
- D) control

Answer: D

Book: Lahey

Difficulty: Medium

Page: 33

Style: Applied

APA Learning Outcome: 2.2

81. To make the experience between the control group and the experimental group as equivalent as possible in a formal experiment, both groups must receive some treatment or have something done to them in order to avoid the

- A) manipulation check.
- B) dependent variable.
- C) placebo effect.
- D) random sample.

Answer: C  
Book: Lahey  
Difficulty: Medium  
Page: 35  
Style: Conceptual  
APA Learning Outcome: 2.2

82. A placebo effect can occur when the  
A) participant believes they are receiving a beneficial treatment.  
B) random sampling procedure has been conducted inaccurately.  
C) researcher fails to obtain informed consent from the participants.  
D) correlation between two key variables equals zero.

Answer: A  
Book: Lahey  
Difficulty: Low  
Page: 356  
Style: Factual  
APA Learning Outcome: 2.2

83. In a study examining the effects of caffeine on memory, the participants are not told if they received caffeine or not. The technical term for this procedure is that the participants were

A) uninformed.  
B) blind.  
C) manipulated.  
D) placeboed.

Answer: B  
Book: Lahey  
Difficulty: Low  
Page: 35  
Style: Conceptual  
APA Learning Outcome: 2.2

84. In a blind experiment, the participants do not know

A) the hypothesis.  
B) the dependent variable.  
C) which level of the independent variable they received.  
D) which level of the dependent variable they received.

Answer: C  
Book: Lahey  
Difficulty: Low  
Page: 35  
Style: Factual  
APA Learning Outcome: 2.2

85. When both the researchers and the participants do not know who is in the experimental group and do not know who is in the control group, this type of study is known as

A) placebo controlled.  
B) quasi-experimental.  
C) unwise.  
D) double blind.

Answer: D  
Book: Lahey  
Difficulty: Low  
Page: 36  
Style: Factual  
APA Learning Outcome: 2.2

86. When a researcher says she is concerned about experimenter bias, what is she concerned about?

- A) She is concerned about influencing the behavior of the participants because she knows what condition of the study they are in.
- B) She is concerned about the outcomes of the study because her next federal grant is dependent upon what happens next.
- C) She is concerned about the study because the experimental group and the control group are both receiving placebo controls.
- D) She is concerned about the study because the population of interest has been recruited and is the same as the sample.

Answer: A

Book: Lahey

Difficulty: Medium

Page: 35

Style: Factual

APA Learning Outcome: 2.2

87. In the middle of a study concerning pain reduction, you give a participant a pill and tell him it is a painkiller. It is actually a sugar pill. The person feels a reduction of pain. The \_\_\_\_\_ effect helps to explain how this can happen.

- A) sample
- B) replication
- C) manipulation
- D) placebo

Answer: D

Book: Lahey

Difficulty: Medium

Page: 35

Style: Conceptual

APA Learning Outcome: 2.2

88. In a blind experiment, the researcher does not

- A) know what treatment the participants received.
- B) know who is in the experiment.
- C) have the opportunity to see the participants.
- D) have access to the results of the study.

Answer: A

Book: Lahey

Difficulty: Low

Page: 35

Style: Factual

APA Learning Outcome: 2.2

89. If you are a participant in a blind experiment,

- A) the task is a visual task.
- B) the experimenter does not know the experimental condition you are in.
- C) you do not know what experimental condition you are in.
- D) the task involves not using your visual system.

Answer: B

Book: Lahey

Difficulty: Low

Page: 35

Style: Factual

APA Learning Outcome: 2.2

90. The advantage of a blind experiment is that the research project avoids the \_\_\_\_\_ effect.

- A) subjectivity

- B) representativeness
- C) manipulation check
- D) experimenter bias

Answer: D

Book: Lahey

Difficulty: Medium

Page: 35

Style: Factual

APA Learning Outcome: 2.2

91. When experimenter bias takes place, it means that

- A) no placebos are used.
- B) manipulation checks are invalid.
- C) the experimenter influenced the performance of the participants.
- D) the participants influenced the performance of the experimenter.

Answer: C

Book: Lahey

Difficulty: Low

Page: 35

Style: Factual

APA Learning Outcome: 2.2

92. If you are concerned that your researcher might actually influence the outcome of your experiment, you should conduct a

- A) placebo pretrial.
- B) manipulation check.
- C) correlational study.
- D) blind experiment.

Answer: D

Book: Lahey

Difficulty: Medium

Page: 35

Style: Conceptual

APA Learning Outcome: 2.2

93. In a double-blind study, who knows about the details of the study?

- A) the experimenter
- B) the participant
- C) both the experimenter and the participant
- D) neither the experimenter nor the participant

Answer: D

Book: Lahey

Difficulty: Low

Page: 36

Style: Factual

APA Learning Outcome: 2.2

94. If the experimenter treats the experimental group differently than the control group, the experimental group might behave differently. This unwanted effect is called

- A) experimental bias.
- B) manipulation checks.
- C) random sample.
- D) placebo effect.

Answer: A

Book: Lahey

Difficulty: Low

Page: 35

Style: Factual

APA Learning Outcome: 2.2

95. The difference between a single-blind study and a double-blind study is that in a double-blind study,

A) neither experimenter nor participants know of the particular conditions in the study.

B) correlational approaches are always preferred to more experimental analyses.

C) it takes twice as many participants to complete an adequate double-blind study.

D) only visually impaired participants are able to fulfill the needs of the study.

Answer: A

Book: Lahey

Difficulty: Medium

Page: 36

Style: Conceptual

APA Learning Outcome: 2.2

96. The basic idea for the use of descriptive statistics is to

A) be able to sample accurately from the larger population.

B) summarize the findings for large numbers of participants.

C) describe each participant's results in surprising detail.

D) differentiate between experimental and control group members.

Answer: B

Book: Lahey

Difficulty: Low

Page: 36

Style: Factual

APA Learning Outcome: 2.2

97. Given a list of numbers organized from the smallest to the largest, the number that divides the list of numbers exactly in half is called the

A) average.

B) mean.

C) median.

D) middle point.

Answer: C

Book: Lahey

Difficulty: Low

Page: 36

Style: Factual

APA Learning Outcome: 2.2

98. Another name for the bell-shaped curve in statistics is the

A) scatterplot.

B) standard deviation.

C) box plot.

D) normal distribution.

Answer: D

Book: Lahey

Difficulty: Medium

Page: 37

Style: Factual

APA Learning Outcome: 2.2

99. If the most frequently occurring age in your classroom belongs to 19-year-olds, then 19 is the \_\_\_\_\_ age of the class.

A) modal

- B) median
- C) mean
- D) average

Answer: A

Book: Lahey

Difficulty: Low

Page: 37

Style: Factual

APA Learning Outcome: 2.2

100. Which of the following statistics describes the spread of a series of numbers?

- A) Mode
- B) Standard deviation
- C) Midpoint
- D) Mean

Answer: B

Book: Lahey

Difficulty: Low

Page: 37

Style: Factual

APA Learning Outcome: 2.2

101. If the results of a study are found to have statistical significance, this means that the results

- A) would happen by chance more than 5% of the time.
- B) happen about 50% of the time, no matter what.
- C) would happen by chance less than 5% of the time.
- D) have important implications for society.

Answer: C

Book: Lahey

Difficulty: Medium

Page: 38

Style: Conceptual

APA Learning Outcome: 2.2

102. If a research finding is said to be statistically significant, this means that the research finding is unlikely to

- A) have been measured via random assignment.
- B) occur by random chance alone.
- C) be replicated under laboratory conditions.
- D) practically significant in real life.

Answer: B

Book: Lahey

Difficulty: Medium

Page: 38

Style: Conceptual

APA Learning Outcome: 2.2

103. Generally speaking, the larger the sample size (greater number of participants), the more likely a correlation will be

- A) positive.
- B) negative.
- C) greater than 1.0.
- D) statistically significant.

Answer: D

Book: Lahey

Difficulty: Medium

Page: 38

Style: Factual  
APA Learning Outcome: 2.3

104. What is the relationship between statistical significance and practical significance?

- A) Statistical significance does not equal practical significance.
- B) If an outcome is statistically significant, this means that it has practical significance.
- C) If an outcome is practical significance, this means that it has statistical significance.
- D) Statistical significance and practical significance are really the same thing.

Answer: A  
Book: Lahey  
Difficulty: Medium  
Page: 39  
Style: Conceptual  
APA Learning Outcome: 2.3

105. If you want your study to be sensitive to gender differences, what should you have?

- A) Less intelligent males than females
- B) Participants representing a wide range of ages
- C) Equal numbers of males and females
- D) Equal numbers of ethnic representation

Answer: C  
Book: Lahey  
Difficulty: Medium  
Page: 38  
Style: Conceptual  
APA Learning Outcome: 2.3

106. Rather than recording data from a study that is linked to the participant's names, the researchers arranged to give each participant a random number. Only the participant knows his or her random number, and these numbers are not connected to the participant's identity in any way. This procedure of conducting a study helps to ensure

- A) confidentiality.
- B) informed consent.
- C) limited deception.
- D) adequate debriefing.

Answer: A  
Book: Lahey  
Difficulty: Medium  
Page: 41  
Style: Applied  
APA Learning Outcome: 2.5

107. In psychological research, the idea of informed consent is that participants

- A) have a right to know the results of the study after it is complete.
- B) need to be aware of the risks and benefits of participating in research.
- C) should not be pressured into participating in a research experiment.
- D) can expect the researchers to keep the outcomes of the study confidential.

Answer: B  
Book: Lahey  
Difficulty: Low  
Page: 41  
Style: Factual  
APA Learning Outcome: 2.5

108. If as a college student you were forced against your will to participate in a research project, this would be a violation of the ethical code regarding

- A) adequate debriefing.

- B) confidentiality.
- C) freedom from coercion.
- D) informed consent.

Answer: C

Book: Lahey

Difficulty: Medium

Page: 40

Style: Conceptual

APA Learning Outcome: 2.5

109. When deception is used in a psychological study, do participants need to be told about the deception?

- A) No, if they have already provided informed consent.
- B) No, if the study is important enough to the university.
- C) Yes, at the beginning of the study.
- D) Yes, before the end of the study.

Answer: D

Book: Lahey

Difficulty: Medium

Page: 41

Style: Conceptual

APA Learning Outcome: 2.5

110. The American Psychological Association has established a set of ethical principles for research with human participants. The experimenter is usually required to give participants a complete description of the experiment before they are allowed to participate. This illustrates the principle of

- A) debriefing.
- B) informed consent.
- C) freedom from coercion.
- D) indoctrination.

Answer: B

Book: Lahey

Difficulty: Medium

Page: 41

Style: Factual

APA Learning Outcome: 2.5

111. One of the ethical principles of research dictates that all participants are provided with a summary of the study in a language they understand; this practice is called

- A) decentering.
- B) debriefing.
- C) humane treatment.
- D) freedom from coercion.

Answer: B

Book: Lahey

Difficulty: Low

Page: 41

Style: Factual

APA Learning Outcome: 2.5

112. When is deception allowed in psychological research?

- A) When it will not harm the participant and when the participant is debriefed.
- B) When the researcher has a Ph.D. in experimental psychology.
- C) Only when the participants agree to it before the experiment.
- D) Deception is never allowed in psychological research.

Answer: A

Book: Lahey

Difficulty: Medium  
Page: 41  
Style: Factual  
APA Learning Outcome: 2.5

113. Conducting research when the participant does not know the true purpose of the study is employing the use of

- A) coercion.
- B) consent.
- C) debriefing.
- D) deception.

Answer: D  
Book: Lahey  
Difficulty: Low  
Page: 41  
Style: Factual  
APA Learning Outcome: 2.5

114. A research participant walked out during the middle of an experiment without completing the research task. Which of the following statements is true regarding this incident?

- A) The participant cannot be penalized for withdrawing.
- B) The participant violated the principle of necessity.
- C) The research task was not free from coercion.
- D) The researcher used unethical principles.

Answer: A  
Book: Lahey  
Difficulty: Medium  
Page: 41  
Style: Conceptual  
APA Learning Outcome: 2.5

115. Dr. X required all of his students, without exception, to participate in an experiment for part of their course grade. What is true regarding Dr. X's use of the ethical principles of human research?

- A) He does not need to use informed consent.
- B) He is violating freedom from coercion.
- C) He is violating the use of deception.
- D) He will not be required to use debriefing.

Answer: B  
Book: Lahey  
Difficulty: Medium  
Page: 41  
Style: Applied  
APA Learning Outcome: 2.5

116. When you let someone know what she/he is about to do in a psychological experiment, you are providing

- A) informed consent.
- B) unlimited coercion.
- C) limited deception.
- D) adequate confidentiality.

Answer: A  
Book: Lahey  
Difficulty: Low  
Page: 41  
Style: Factual  
APA Learning Outcome: 2.5

117. Which of the following is a condition that is necessary for the ethical use of deception?

- A) The deception must be revealed immediately after the study is over.
- B) The participants must be forced to participate against their will.
- C) The data provided must be treated as confidential but not anonymous.
- D) Experimenter bias dictates that a double-blind design must be used.

Answer: A

Book: Lahey

Difficulty: Medium

Page: 41

Style: Factual

APA Learning Outcome: 2.5

118. Debriefing is the process of providing \_\_\_\_\_ to participants.

- A) the results of the study
- B) a method to avoid experimental bias
- C) random sampling
- D) freedom from coercion

Answer: A

Book: Lahey

Difficulty: Low

Page: 41

Style: Factual

APA Learning Outcome: 2.5

119. If you participated in a research study and your results accidentally became public and were linked to you by name, this would be a breach of

- A) coercion.
- B) confidentiality.
- C) debriefing.
- D) deception.

Answer: B

Book: Lahey

Difficulty: Low

Page: 41

Style: Factual

APA Learning Outcome: 2.5

120. Many research studies use college student volunteers as subjects. What concern does this practice raise?

- A) It is unethical to use student volunteers.
- B) The results may not generalize to noncollege populations.
- C) Students in college are too young to be subjects of study.
- D) The samples are too broad to be valid.

Answer: B

Book: Lahey

Difficulty: Low

Page: 41

Style: Conceptual

APA Learning Outcome: 2.5

121. Which of the following is NOT part of the ethical guidelines for research with animals?

- A) Necessity
- B) Freedom from coercion
- C) Healthy care of animals
- D) Humane treatment

Answer: B

Book: Lahey

Difficulty: Medium

Page: 42

Style: Factual

APA Learning Outcome: 2.5

122. Animal behavior is often studied by psychologists because

- A) animal behavior is more precise than human behavior.
- B) animals do not have free will.
- C) it is easier to control the experimental conditions.
- D) animal research is usually less expensive.

Answer: C

Book: Lahey

Difficulty: Low

Page: 41

Style: Factual

APA Learning Outcome: 2.5

123. Which of the following is a condition that is required to be present for animal research to be considered valid?

- A) Humane treatment
- B) Lack of placebo effect
- C) Training in animal psychology
- D) Multiple independent variables

Answer: A

Book: Lahey

Difficulty: Low

Page: 42

Style: Conceptual

APA Learning Outcome: 2.5

124. Necessity refers to the need to use an animal for research because of the \_\_\_\_\_ potential for advancement of our knowledge about behavior and mental processes.

- A) slight
- B) moderate
- C) significant
- D) inability to predict the

Answer: C

Book: Lahey

Difficulty: Low

Page: 42

Style: Factual

APA Learning Outcome: 2.5

125. When animals are used in studies, humane treatment dictates that discomforts must be

- A) ignored.
- B) maximized.
- C) avoided.
- D) minimized.

Answer: D

Book: Lahey

Difficulty: Low

Page: 42

Style: Factual

APA Learning Outcome: 2.5

126. According to ethical guidelines, studies that inflict pain or stress on animals

- A) can never be conducted due to the strict ethical guidelines.
- B) are done with regard for the amount of pain felt by the animal.

- C) can be done when considered essential to the scientific aim.
- D) can only be done with the supervision of licensed physicians.

Answer: C

Book: Lahey

Difficulty: Low

Page: 42

Style: Factual

APA Learning Outcome: 2.5

127. A nonhuman animal experiment meets the condition of necessity when

- A) the original owners of the animals provide their informed consent for the study to begin.
- B) the research can significantly advance our understanding of behavior or mental processes.
- C) equal number of male and female nonhuman animals can be obtained for scientific testing.
- D) human volunteers are not available and the only option is for experimentation on nonhuman animals.

Answer: B

Book: Lahey

Difficulty: Medium

Page: 42

Style: Factual

APA Learning Outcome: 2.5

128. In working with nonhuman animals, \_\_\_\_\_ refers to the concept of minimizing the discomfort of animals, such as performing surgeries under adequate anesthesia.

- A) limited deception
- B) anthropomorphism
- C) humane treatment
- D) adequate debriefing

Answer: C

Book: Lahey

Difficulty: Medium

Page: 42

Style: Factual

APA Learning Outcome: 2.5

129. What federal agency now requires all new research grants that involve human participants include both sexes and members of major racial and ethnic groups?

- A) Federal Trade Commission
- B) Central Intelligence Agency
- C) Food and Drug Administration
- D) National Institutes of Health

Answer: D

Book: Lahey

Difficulty: Medium

Page: 42

Style: Factual

APA Learning Outcome: 2.4

### **True/False Questions**

130. Empirical evidence is derived from publicly observable behavior.

Answer: True

Book: Lahey

Difficulty: Low

Page: 25

Style: Factual

APA Learning Outcome: 2.1

131. Theories are based on hypotheses.

Answer: False

Book: Lahey

Difficulty: Low

Page: 26

Style: Factual

APA Learning Outcome: 2.1

132. Scientists conduct experiments to test hypotheses.

Answer: True

Book: Lahey

Difficulty: Low

Page: 26

Style: Factual

APA Learning Outcome: 2.1

133. The clinical method is a descriptive method.

Answer: True

Book: Lahey

Difficulty: Low

Page: 29

Style: Factual

APA Learning Outcome: 2.2

134. The survey method shows cause-and-effect relationships.

Answer: False

Book: Lahey

Difficulty: Medium

Page: 27

Style: Factual

APA Learning Outcome: 2.2

135. The careful observation of behavior in laboratory settings is called naturalistic observation.

Answer: False

Book: Lahey

Difficulty: Low

Page: 28

Style: Factual

APA Learning Outcome: 2.2

136. A coefficient of correlation of  $-0.87$  would be considered a strong correlation.

Answer: True

Book: Lahey

Difficulty: Medium

Page: 29

Style: Conceptual

APA Learning Outcome: 2.2

137. If a variable is quantitative, this means that numerical values can be assigned to that variable.

Answer: True

Book: Lahey

Difficulty: Low

Page: 29

Style: Factual

APA Learning Outcome: 2.2

138. When correlations are positive, this means that one variable caused another variable to occur.

Answer: False

Book: Lahey

Difficulty: Medium

Page: 29

Style: Factual

APA Learning Outcome: 2.2

139. The correlational method is one example of a formal experiment.

Answer: False

Book: Lahey

Difficulty: Low

Page: 29

Style: Factual

APA Learning Outcome: 2.2

140. The independent variable is what the experimenter arranges or has control over to allow a comparison in an experiment.

Answer: True

Book: Lahey

Difficulty: Medium

Page: 33

Style: Factual

APA Learning Outcome: 2.2

141. Formal experiments must have an independent variable and a dependent variable.

Answer: True

Book: Lahey

Difficulty: Low

Page: 33

Style: Factual

APA Learning Outcome: 2.2

142. Without random assignment, a formal experiment is invalid.

Answer: True

Book: Lahey

Difficulty: Medium

Page: 34

Style: Factual

APA Learning Outcome: 2.2

143. The experimenter controls the quantitative value of the dependent variable.

Answer: False

Book: Lahey

Difficulty: Low

Page: 33

Style: Factual

APA Learning Outcome: 2.2

144. Placebo effects can only be obtained with pills.

Answer: False

Book: Lahey

Difficulty: Medium

Page: 35

Style: Conceptual  
APA Learning Outcome: 2.2

145. Blind formal experiments are conducted in an effort to rule out experimental bias.

Answer: True  
Book: Lahey  
Difficulty: Medium  
Page: 35  
Style: Factual  
APA Learning Outcome: 2.2

146. In a drug study, sometimes the pill with an inert substance (such as a sugar pill) may have an unintended effect. This is called the bias effect.

Answer: False  
Book: Lahey  
Difficulty: Medium  
Page: 35  
Style: Conceptual  
APA Learning Outcome: 2.2

147. In a set of numbers, the mode is the number that divides the distribution in half when the numbers are arranged from lowest to highest.

Answer: False  
Book: Lahey  
Difficulty: Low  
Page: 37  
Style: Factual  
APA Learning Outcome: 2.3

148. Practical significance is the same thing as statistical significance.

Answer: False  
Book: Lahey  
Difficulty: Medium  
Page: 39  
Style: Factual  
APA Learning Outcome: 2.3

149. Researchers are free to publish the identity of research participants who were studied using the clinical method.

Answer: False  
Book: Lahey  
Difficulty: Medium  
Page: 41  
Style: Factual  
APA Learning Outcome: 2.5

150. Under certain conditions, deception can be used in psychological studies of humans.

Answer: True  
Book: Lahey  
Difficulty: Medium  
Page: 41  
Style: Factual  
APA Learning Outcome: 2.5

151. A participant's right to know about the outcomes of the study is referred to in psychological experiments as adequate debriefing.

Answer: True

Book: Lahey  
Difficulty: Medium  
Page: 41  
Style: Factual  
APA Learning Outcome: 2.5

152. Studies with nonhuman animals are justified because animals are conveniently available to researchers.  
Answer: False  
Book: Lahey  
Difficulty: Low  
Page: 42–43  
Style: Factual  
APA Learning Outcome: 2.5

153. In the past, much of the research was conducted by white men using white men as research participants.  
Answer: True  
Book: Lahey  
Difficulty: Low  
Page: 43  
Style: Factual  
APA Learning Outcome: 2.4