

**Chapter 2 – Psychology’s Scientific Method**

**Multiple Choice Questions**

1. The first step of the scientific method in psychology involves:

- A. observing some phenomenon in the world.
- B. formulating hypotheses and predictions.
- C. testing through empirical research.
- D. evaluating the theory based on the conclusions drawn.

Answer: A

Feedback: Psychology’s Scientific Method

Topic: Scientific Method

Bloom’s Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

2. In the context of psychology’s scientific method, variables are elements of research that:

- A. can change.
- B. cannot be depended upon.
- C. are invalid due to fluidity.
- D. remain constant.

Answer: A

Feedback: Step 1. Observing Some Phenomenon

Topic: Scientific Method

Bloom’s Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

3. Joaquin has been assigned a research project in his psychology class. He must observe student behavior during a learning task and attempt to form a(n) \_\_\_\_\_, which is a broad idea that describes other ideas and how they may be related.

- A. theory
- B. correlation
- C. statistic
- D. bias

Answer: A

Feedback: Step 1. Observing Some Phenomenon

Topic: Theories

Bloom’s Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.2

4. In the context of psychology’s scientific method, a theory is defined as:

- A. an attempt to test behavior and thought processes.
- B. an educated guess about some phenomenon.
- C. a set of closely related ideas that explains an observation.
- D. the mathematical procedure used to interpret data.

Answer: C

Feedback: Step 1. Observing Some Phenomenon

Topic: Scientific Method

Bloom's Level: Remember  
Difficulty: Low  
APA Learning Outcome: 1.1

5. In the context of psychology's scientific method, which of the following is true of a theory?

- A. A theory explains relations between variables on a conceptual level.
- B. A theory is an educated guess that derives logically from a hypothesis.
- C. A theory cannot explain the occurrences of phenomena.
- D. A theory cannot be used to make predictions about future observations.

Answer: A

Feedback: Step 1. Observing Some Phenomenon

Topic: Theories

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 1.1

6. Dr. Kate proposes that students find it difficult to return to their academic schedules after spring break. Specifically, she predicts that every year there will be more student absences on the Monday following spring break than on the Friday before spring break. The first statement describes the \_\_\_\_\_, while the second is the \_\_\_\_\_.

- A. design of the study; research method
- B. theory; hypothesis
- C. hypothesis; operational definition
- D. prediction; procedure

Answer: B

Feedback: Step 1. Observing Some Phenomenon

Feedback: Step 2. Formulating Hypotheses and Predictions,

Topic: Scientific Method

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.2

7. In the context of psychology's scientific method, a(n) \_\_\_\_\_ is an educated guess that derives logically from a theory.

- A. operational definition
- B. fact
- C. hypothesis
- D. logical conclusion

Answer: C

Feedback: Step 2. Formulating Hypotheses and Predictions

Topic: Hypotheses

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

8. Allie has developed a theory concerning test grades of high school students. She believes that there is a strong causal relationship between students' frequency of study and their grades in school. In the context of psychology's scientific method, in order to test her theory, Allie would first have to state a \_\_\_\_\_.

- A. conclusion
- B. bias

C. fact

D. hypothesis

Answer: D

Feedback: Step 2. Formulating Hypotheses and Predictions

Topic: Hypotheses

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.2

9. Ciara believes that working women are happier than women who do not work. She predicts that women who work for at least ten years are more likely to have good mental health after the age of 50 years than women who do not. She decides to test this prediction. In the context of psychology's scientific method, Ciara's prediction is the \_\_\_\_\_ for the study she will conduct.

A. independent variable

B. operational definition

C. theory

D. hypothesis

Answer: D

Feedback: Step 2. Formulating Hypotheses and Predictions

Topic: Hypotheses

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.2

10. In surveys conducted by Gerald, many adolescents reported that they started smoking cigarettes because of peer pressure. In observing adolescent groups, however, Gerald rarely sees adolescents offering each other cigarettes or putting pressure on others to smoke. Gerald predicts that if he conducts further studies on this topic, he will be able to prove that peer pressure is not the primary reason that adolescents start smoking cigarettes. In the context of psychology's scientific method, Gerald is basing his further studies on:

A. historical facts.

B. a hypothesis.

C. meta-analysis.

D. an operational definition.

Answer: B

Feedback: Step 2. Formulating Hypotheses and Predictions

Topic: Hypotheses

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.2

11. After careful observation, Dylan has stated a hypothesis that spending money on other people leads to greater happiness than spending money on oneself. In accordance with the scientific method, which of the following steps is Dylan most likely to take next?

A. He will evaluate the results of his experiment.

B. He will examine the prediction through empirical research.

C. He will conclude whether spending money on others can be a strong predictor of happiness.

D. He will publish the experimental results in a reputable journal.

Answer: B

Feedback: Step 3. Testing Through Empirical Research

Topic: Theories

Bloom's Level: Apply  
Difficulty: Medium  
APA Learning Outcome: 2.2

12. In the context of psychology's scientific method, the objective description of how a variable is going to be measured and observed in a particular study is referred to as the:

- A. hypothesis.
- B. theory.
- C. logical conclusion.
- D. operational definition.

Answer: D

Feedback: Step 3. Testing Through Empirical Research

Topic: Scientific Method

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

13. Ashton, a biology student, wants to study butterflies using the scientific method. Which of the following scenarios represents a step or steps in the scientific method?

- A. While watching the butterflies, Ashton notices a phenomenon in their feeding behavior.
- B. Ashton makes a logical educated guess to predict the butterflies' future behaviors.
- C. Ashton tests his prediction by recording objective information about the butterflies.
- D. All of these.

Answer: D

Feedback: Psychology's Scientific Method

Topic: Scientific Method

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.2

14. Ryan wants to study the level of personal happiness among his students. He devises a self-report questionnaire that measures how highly a student scores his or her life's achievements. Ryan believes that these scores are a good measure of personal happiness. In the context of empirical research, the scores on the questionnaire are representative of the \_\_\_\_\_ of the study.

- A. independent variable
- B. hypothesis
- C. operational definition
- D. theory

Answer: C

Feedback: Step 3. Testing Through Empirical Research

Topic: Scientific Method

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.2

15. In the context of psychology's scientific method, which of the following scenarios best represents an operational definition?

- A. Dr. Williams states that his subjects' manual dexterity can be assessed by the number of assigned manual tasks they are able to complete.
- B. Dr. Bowden determines the efficiency of the newest jets found in the Air Force.

C. Dr. Smith states that his students must recall their earliest childhood memories and use these to understand more about themselves.

D. Dr. Benedict has his subjects go online to look up examples of “jealousy.”

Answer: A

Feedback: Step 3. Testing Through Empirical Research

Topic: Scientific Method

Bloom’s Level: Apply

Difficulty: High

APA Learning Outcome: 2.2

16. If a psychologist was to study the emotion of “love,” he or she would need to have \_\_\_\_\_ love. Without this specific information, the hypothesis could not be tested.

A. personal experience with

B. an operational definition for

C. existing data on

D. strong opinions about

Answer: B

Feedback: Step 3. Testing Through Empirical Research

Topic: Hypotheses

Bloom’s Level: Understand

Difficulty: Medium

APA Learning Outcome: 2.2

17. Dr. Gordon conducts an experiment on one of her clients, Johnny, who displays symptoms of attention deficit hyperactivity disorder. She postulates that Johnny’s hyperactivity will be measured by the number of times he moves about while in the middle of a conversation. In this scenario, Dr. Gordon’s postulation is the:

A. logical conclusion.

B. theory.

C. operational definition.

D. fact.

Answer: C

Feedback: Step 3. Testing Through Empirical Research

Topic: Scientific Method

Bloom’s Level: Apply

Difficulty: High

APA Learning Outcome: 2.2

18. A key requirement of the process of testing hypotheses in psychological research is \_\_\_\_\_.

A. experimenter bias

B. conjecture

C. data analysis

D. personal opinion

Answer: C

Feedback: Step 3. Testing Through Empirical Research

Topic: Hypotheses

Bloom’s Level: Remember

Difficulty: Medium

APA Learning Outcome: 2.2

19. The final step in the scientific method of psychology is:

- A. drawing conclusions.
- B. evaluating the theory.
- C. formulating hypotheses and predictions.
- D. testing through empirical research.

Answer: B

Feedback: Step 5. Evaluating the Theory

Topic: Scientific Method

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

20. In the context of evaluating theories in psychology, \_\_\_\_\_ replication means doing a study precisely as it was conducted in its original form.

- A. theoretical
- B. abstract
- C. conceptual
- D. direct

Answer: D

Feedback: Step 5. Evaluating the Theory

Topic: Theories

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

21. In the context of evaluating theories in psychology, \_\_\_\_\_ replication means doing a study with different methods or different types of samples.

- A. concrete
- B. hypothetical
- C. conceptual
- D. direct

Answer: C

Feedback: Step 5. Evaluating the Theory

Topic: Theories

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

22. In the context of evaluating theories in psychology, \_\_\_\_\_ is a method that allows researchers to combine the results of several studies on a similar topic in order to establish the strength of an effect.

- A. meta-analysis
- B. replication
- C. substantiation
- D. verification

Answer: A

Feedback: Step 5. Evaluating the Theory

Topic: Theories

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

23. Bradley conducts research to validate his hypothesis that increased job satisfaction leads to greater organizational commitment among employees. He collates the existing data from all of the studies that he can locate on the topic. By looking at the data, he establishes that his hypothesis has been consistently proven correct across the studies. In this scenario, the method of study used by Bradley is \_\_\_\_\_.

- A. direct replication
- B. correlational research
- C. meta-analysis
- D. experimental design

Answer: C

Feedback: Step 5. Evaluating the Theory

Topic: Hypotheses

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.2

24. Meta-analytic results in psychological research are more powerful than the results of a single study because:

- A. they combine many findings in the literature.
- B. they use different sampling techniques.
- C. they are obtained using careful experimental design.
- D. they provide conclusions from bias-free studies.

Answer: A

Feedback: Step 5. Evaluating the Theory

Topic: Theories

Bloom's Level: Understand

Difficulty: High

APA Learning Outcome: 2.2

25. Surveys, case studies, and interviews are all a part of the psychological research method known as \_\_\_\_\_ research.

- A. experimental
- B. descriptive
- C. correlational
- D. developmental

Answer: B

Feedback: Descriptive Research

Topic: Descriptive Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

26. In the context of psychological research methods, a(n) \_\_\_\_\_ presents a standard set of questions, or items, to obtain people's self-reported attitudes or beliefs about a particular topic.

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

Answer: D

Feedback: Descriptive Research

Topic: Survey Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

27. In the context of psychological research methods, which of the following scenarios is an example of the survey method?

- A. Dr. Adele watches children as they learn to read.
- B. Dr. Gomes studies his patients while they undergo psychological counseling.
- C. Dr. Trooper collects children's school grades and test scores.
- D. Dr. Frank asks people how many hours of television they watch per week.

Answer: D

Feedback: Descriptive Research

Topic: Survey Research

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.2

28. Mila, a geography teacher, wants to know her students' opinions about the food served in the school's cafeteria. In the context of psychological research, Mila should use the \_\_\_\_\_ method to obtain the data.

- A. observational
- B. experimental
- C. survey
- D. case study

Answer: C

Feedback: Descriptive Research

Topic: Survey Research

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.2

29. Which of the following psychological research methods is likely to be most effective for the purpose of determining the popularity of a social networking site among students in a university?

- A. Experiment
- B. Case study
- C. Survey
- D. Longitudinal study

Answer: C

Feedback: Descriptive Research

Topic: Survey Research

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 2.2

30. Which of the following techniques is NOT an example of the survey method?

- A. A telephone interview
- B. An online poll
- C. A naturalistic observation
- D. A paper-and-pencil test

Answer: C

Feedback: Descriptive Research

Topic: Survey Research

Bloom's Level: Remember  
Difficulty: Low  
APA Learning Outcome: 2.2

31. For which of the following purposes is a survey likely to be LEAST useful?

- A. Determining students' attitudes toward their new class president
- B. Determining subjects' opinions about a new amendment
- C. Determining subjects' levels of honesty
- D. Determining students' feelings about homework

Answer: C

Feedback: Descriptive Research

Topic: Survey Research

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.2

32. In the context of descriptive research methods in psychology, \_\_\_\_\_ are performed mainly by clinical psychologists when, for either practical or ethical reasons, the unique aspects of an individual's life cannot be duplicated and tested in other individuals.

- A. case studies
- B. surveys
- C. correlational studies
- D. experiments

Answer: A

Feedback: Descriptive Research

Topic: Case Studies

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 2.2

33. Which of the following statements is true about using a case study as a method of descriptive research in psychology?

- A. A single case study's results are generalizable to the entire population.
- B. A case study's subject is unique, with personal history that no one else shares.
- C. A case study is most valuable as the last step of the scientific method.
- D. A case study cannot include thorough explorations of particular families or social groups.

Answer: B

Feedback: Descriptive Research

Topic: Case Studies

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 2.2

34. Which of the following scenarios exemplifies a case study as a method of descriptive research in psychology?

- A. Professor McGonagall asks all her psychology students to complete a mood survey for extra credit.
- B. Dr. Fiennes conducts a series of interviews over the course of a year with a student diagnosed with an anxiety disorder.
- C. Mr. Pierre, a researcher, observes the study habits of students in the library versus students in the cafeteria.

D. Mrs. Dmitri, a teacher, assigns half her class to computerized instruction and the rest to the traditional classroom.

Answer: B

Feedback: Descriptive Research

Topic: Case Studies

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.2

35. Derek, an Internet activist, committed suicide. Investigators are exploring Derek's past interactions on Wordbook, a famous social networking site, to discover any information that might reveal the reasons behind his suicide. In this scenario, the research method used by the investigators is most likely the \_\_\_\_\_.

A. case study

B. interview

C. survey

D. experiment

Answer: A

Feedback: Descriptive Research

Topic: Case Studies

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.2

36. Professor Milton wants to examine the relationship between brain damage and intelligence levels in adults. She wants to know whether brain damage has any relation to intelligence and, if so, what the extent of this relationship is likely to be. Which of the following psychological research methods is likely to be most suitable to Professor Milton's needs?

A. Case study

B. Survey

C. Correlational research

D. Experimental research

Answer: C

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.2

37. Aaron wants to study the association between sleep deprivation and the number of hours spent on a computer every day. He is not keen to establish causation, but would like to determine whether and how the increase or decrease in one variable is related to the increase or decrease in the other variable. Which of the following research methods is likely to be most effective for Aaron's study?

A. Survey

B. Correlational research

C. Experimental research

D. Case study

Answer: B

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.2

38. In psychological research, a correlational study is used to determine:

- A. cause and effect between variables.
- B. the link between variables.
- C. the nature of dependent and independent variables.
- D. a measure of central tendency.

Answer: B

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

39. When psychological researchers use the correlational method to study variables, the degree of relation between two variables is expressed as a numerical value known as \_\_\_\_\_.

- A. correlative conjunction
- B. error variance
- C. correlational coefficient
- D. correlative code

Answer: C

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

40. When psychological researchers use the correlational method to study variables, a correlation coefficient indicates the \_\_\_\_\_ between two variables.

- A. cause and effect relationship
- B. degree of relationship
- C. standard deviation
- D. validity

Answer: B

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

41. A psychological study indicates a strong positive correlation between two variables. This means that:

- A. as one variable increases, the other decreases.
- B. the correlation coefficient is 0.00.
- C. one variable causes the other variable to occur.
- D. as one variable increases, the other also increases.

Answer: D

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.2

42. Chris makes an observation that the longer a classroom lecture is, the lower the attentiveness of students in the class. In the context of correlational research, the length of the lecture and level of attentiveness are said to have a(n) \_\_\_\_\_.

- A. positive correlation
- B. negative correlation
- C. lack of correlation
- D. cause and effect relation

Answer: B

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.4

43. Dr. Klaus conducted research in psychology, which established that the number of hours of study before a test is directly proportional to performance in the test. In the context of correlational research, it can be said that \_\_\_\_\_ exists between the two variables.

- A. positive correlation
- B. negative correlation
- C. no correlation
- D. cause and effect relation

Answer: A

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.4

44. Jessica investigates the relationship between caffeine intake and performance on a class test for high school students. Before her sample of students takes an exam, she notes the number of cups of coffee they consumed two hours before the test. She obtains their scores after the test is over. She then calculates the correlation coefficient between the two variables and finds it to be +0.82. Which of the following conclusions should Jessica draw from this value?

- A. Higher caffeine consumption is related to higher exam scores.
- B. Eighty-two percent of the students consumed caffeine prior to the exam.
- C. Caffeine consumption causes higher scores.
- D. Caffeine consumption has no association with performance on a test.

Answer: A

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

45. What does the magnitude of a correlation coefficient indicate about the variables in a correlational study?

- A. Size of the variables
- B. Strength of the relationship between the variables

- C. Number of data points
- D. Direction of the relationship between the variables

Answer: B

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 2.2

46. In the context of a correlational study, what does the positive or negative sign of a correlation coefficient indicate?

- A. Cause of the relationship
- B. Strength of the relationship
- C. Number of data points
- D. Direction of the relationship

Answer: D

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 2.2

47. Which of the following correlation coefficients is indicative of the strongest relationship between two variables?

- A. +0.65
- B. 0.00
- C. -0.87
- D. -0.24

Answer: C

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

48. Bill can predict participants' scores on a particular math test with perfect accuracy by knowing their scores on a specific aptitude test. Higher scores on the math test are closely associated with higher scores on the aptitude test. Which of the following correlation coefficients most likely expresses an accurate relationship between the two tests?

- A. -0.99
- B. +0.20
- C. -0.78
- D. +1.00

Answer: D

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

49. Professor Jacobs believes that sleep deprivation is related to conflicts between roommates. He collects data on the number of hours of sleep and the number of conflicts for a group of college students over the course of a month. He obtains a correlation coefficient of  $-0.75$ . In the context of correlational research, which of the following is the most likely conclusion from the results of his study?

- A. Seventy-five percent of the conflicts investigated are not related to sleep deprivation.
- B. Sleep deprivation causes fewer conflicts.
- C. Sleeping too little is associated with more conflicts.
- D. Sleep and conflict are not related.

Answer: C

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

50. In the context of correlational research, if there is no relationship between two variables, what is the correlation coefficient?

- A.  $+1.00$
- B.  $0.00$
- C.  $-0.87$
- D.  $-0.99$

Answer: B

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

51. Joshua designs a research study to investigate the relationship between two variables: the size of a person's head and I.Q. level. He measures each variable without manipulating either of the variables and finds that I.Q. is higher for subjects with bigger heads. In the context of correlational research, what can Joshua conclude?

- A. A large head size causes high I.Q.
- B. Head size and I.Q. are negatively correlated.
- C. A high I.Q. causes a large head size.
- D. I.Q. and head size are positively correlated.

Answer: D

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

52. Professor Jordan has suggested to his students that a strong relationship exists between the number of hours they spend studying and their grade on the final exam. He would like his students to improve their test scores by increasing the time they spend studying. The professor is describing a:

- A. mean score.
- B. negative correlation.
- C. positive correlation.
- D. standard deviation.

Answer: C

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.4

53. Sandra says that whenever she drinks coffee in the evenings it interferes with her ability to fall asleep. The more coffee she drinks before sleeping, the less sleep she gets. In the context of correlational research, Sandra is describing a \_\_\_\_\_ between caffeine intake and sleep.

- A. negative correlation
- B. positive correlation
- C. causal relationship
- D. lack of relationship

Answer: A

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

54. Professor Rodman, a social psychologist, studied the relationship between the severity of injuries in automobile accidents and the use of seat belts. He obtained a correlation coefficient of  $-0.72$ . In the context of correlational research, which of the following conclusions will the professor most likely arrive at?

- A. Wearing seat belts saves lives.
- B. People who wear seat belts sustain less serious injuries in an accident.
- C. People who wear seat belts sustain more injuries in an accident.
- D. Wearing a seatbelt is not predictive of the type of injury one receives in an accident.

Answer: B

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

55. In the context of the correlational method of study, the "third variable problem" refers to a:

- A. study in which an independent variable is not manipulated.
- B. study in which the results reveal a zero correlation.
- C. situation where a variable that is not measured actually accounts for the relationship.
- D. situation where the proper dependent variable is not measured.

Answer: C

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

56. A \_\_\_\_\_ design is a type of correlational study in which variables are measured at a single point in time and then observations from this single measurement are compared.

- A. cross-sectional
- B. longitudinal

- C. latitudinal
- D. short-term

Answer: A

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

57. Which of the following is a potential problem of using correlational studies in psychological research?

- A. They do not enable researchers to establish a causal connection between variables.
- B. They do not allow researchers to use just one variable to predict the movement of the other variable.
- C. They cannot be used in situations where the issue of ethics is important.
- D. They can be used to study the relationship between only two variables.

Answer: A

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 2.2

58. A \_\_\_\_\_ design is a special kind of systematic observation, used by correlational researchers, that involves obtaining measures of the variables of interest in multiple waves over time.

- A. cross-sectional
- B. longitudinal
- C. latitudinal
- D. short-term

Answer: B

Feedback: Correlational Research

Topic: Longitudinal Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

59. Lauren, a social psychologist, hypothesizes that the best way for a young woman to increase the number of friends she has on a social networking site is to place a smiling display picture in her profile. Lauren wants to establish a cause-effect relationship between these two variables. In order to accomplish her objective, Lauren should use:

- A. a survey
- B. correlational research
- C. experimental research
- D. an interview

Answer: C

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.2

60. In the context of psychological research methods, \_\_\_\_\_ research is conducted to determine whether a causal relationship exists between two variables.

- A. descriptive
- B. correlational
- C. experimental
- D. observational

Answer: C

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

61. In the context of psychological research methods, a(n) \_\_\_\_\_ is a carefully regulated procedure in which the researcher manipulates one or more variables that are believed to influence some other variable.

- A. experiment
- B. correlational study
- C. meta-analysis
- D. survey

Answer: A

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

62. When conducting an experiment on time management, Jamie assigns everyone who arrives before noon to the experimental group and everyone who arrives after 12 noon to the control group. In the context of experimental research methods, what is wrong with Jamie's experiment?

- A. The experiment is not ethical.
- B. Jamie has not used true random assignment.
- C. Jamie has introduced a confederate into the experiment.
- D. The experiment is deceptive.

Answer: B

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

63. Dr. Gillespie conducts an experiment on childhood aggression. She has two groups in her experiment. She places participants into each group by flipping a coin. Heads places them in group A; tails places them in group B. In this experiment, Dr. Gillespie has satisfied the requirement of:

- A. experimental control.
- B. placebo control.
- C. blind experimentation.
- D. random assignment.

Answer: D

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Apply  
Difficulty: Medium  
APA Learning Outcome: 2.4

64. Researchers' assignment of participants to groups by chance in order to reduce the likelihood that an experiment's results will be due to preexisting differences between groups is known as \_\_\_\_\_ assignment.

- A. correlative
- B. meta-analytical
- C. random
- D. replicative

Answer: C

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

65. In the context of experimental research, random assignment of participants is important in order to ensure that:

- A. independent variables are not restricted.
- B. groups have equal and balanced composition.
- C. genders and ages are viewed independently.
- D. all participants that have specific characteristics are viewed in a single group.

Answer: B

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Understand

Difficulty: High

APA Learning Outcome: 2.2

66. In the context of experimental research, the logic of random assignment is:

- A. if participants in an experiment are assigned to each group by stratification, the actual differences between the groups will sustain over the long run.
- B. if participants in an experiment are assigned to each group only by chance, the actual similarities between the groups will sustain over the long run.
- C. if participants in an experiment are assigned to each group by stratification, the potential differences between the groups will cancel out over the long run.
- D. if participants in an experiment are assigned to each group only by chance, the potential differences between the groups will cancel out over the long run.

Answer: D

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Understand

Difficulty: High

APA Learning Outcome: 2.2

67. If Professor Jung wants to be able to draw cause and effect conclusions from her research, which of the following is the most crucial aspect of her experimental design?

- A. Naturalistic observation
- B. Random assignment

- C. Correlational research
- D. Cross-sectional design

Answer: B

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.2

68. In an experimental study, a(n) \_\_\_\_\_ is a manipulated experimental factor that the experimenter changes to see what its effects are.

- A. third variable
- B. correlation coefficient
- C. dependent variable
- D. independent variable

Answer: D

Feedback: Experimental Research

Topic: Variables

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

69. Participants in an experimental research study listen to a lecture either in a lecture hall filled with natural light or in a lecture hall with no windows and artificial light. Before leaving the lecture halls, the participants fill out a mood survey. What is the independent variable in this study?

- A. The participants' responses to the survey questions
- B. The number of participants in the experiment
- C. The type of light in the rooms
- D. The mood survey

Answer: C

Feedback: Experimental Research

Topic: Variables

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.4

70. David Harper, the marketing manager of a large cosmetic company, observes that when the company decreases the price of its premium deodorant brand, there is an increase in the level of sales of the brand. If the company increases the price of its premium brand, there is a decrease in the level of sales of the brand. In the context of experimental research studies, the changes in price represent the:

- A. independent variable.
- B. dependent variable.
- C. placebo.
- D. confederate.

Answer: A

Feedback: Experimental Research

Topic: Variables

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

71. Professor Stenson is examining the effects of color on patients' anxiety levels. She randomly assigns patients to either a room painted white or a room painted black, and then records their blood pressure. In this case, the independent variable is the:

- A. blood pressure.
- B. anxiety level.
- C. room color.
- D. building type.

Answer: C

Feedback: Experimental Research

Topic: Variables

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

72. Albert, a student researcher, varies the amount of food given to rats in an experiment, to measure the effect on their learning behavior. In Albert's study, the amount of food given is the \_\_\_\_\_ variable.

- A. dependent
- B. experimental
- C. independent
- D. third problem

Answer: C

Feedback: Experimental Research

Topic: Variables

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.4

73. In an experimental study, a properly designed hypothesis will test a theory by predicting the:

- A. random assignment of the experimental and control groups.
- B. changes in the dependent variable in response to changes in the independent variable.
- C. amount of social context that will be manipulated by the confederate.
- D. participant error and its effect upon the results of the experiment.

Answer: B

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Understand

Difficulty: High

APA Learning Outcome: 2.2

74. Dr. Kingston, a psychologist, is examining how a student's reading speed is differently affected by two variables: being tutored by a teacher's assistant or being tutored by a computer-based reading program. In this experiment, which of the following is the dependent variable?

- A. The student's reading speed
- B. The teacher's assistant
- C. The computer-based reading program
- D. The grade that the student belongs to

Answer: A

Feedback: Experimental Research

Topic: Variables

Bloom's Level: Apply  
Difficulty: High  
APA Learning Outcome: 2.4

75. A history class of 50 students has agreed to be the subject of a research study. Half of the class has been asked to study for the next history test while listening to classical music. The remaining half has been asked to study in a completely silent environment. The test scores of the two groups will be compared at the end of the experiment. In this experiment, which of the following is the dependent variable?

- A. The classical music for the first half of the class
- B. The silent environment for the second half of the class
- C. The reading speed of both groups during the experiment
- D. The test scores of both groups at the end of the experiment

Answer: D

Feedback: Experimental Research

Topic: Variables

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

76. A researcher predicted that talking to plants enhances their growth. She gave 24 plants the same amount of water and sunlight. She talked to 12 of the 24 plants daily for 6 weeks and then measured their growth. In this experiment, which of the following is the dependent variable?

- A. Food, water, and sunlight
- B. The plants
- C. Talking to the plants
- D. Growth of the plants

Answer: D

Feedback: Experimental Research

Topic: Variables

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

77. A researcher tells his group of experimental subjects that they are going to receive "painful" electrical shocks as part of the experiment. He tells a second group that they will receive "mild" electric shocks. He asks participants in both groups whether they prefer to wait alone or with others while he sets up the machinery that will deliver the shocks. In this experiment, which of the following is the dependent variable?

- A. The use of the term "painful"
- B. The use of the term "mild"
- C. The participants' choice to wait alone or with others
- D. The machinery that delivers the shocks to the participants

Answer: C

Feedback: Experimental Research

Topic: Variables

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.2

78. A(n) \_\_\_\_\_ is a person who is given a role to play in an experimental study so that the social context can be manipulated.

- A. confederate
- B. experimenter
- C. placebo
- D. confounder

Answer: A

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

79. Dr. Smith conducts an experiment on motivation. His experimental group is administered the independent variable. His control group is not. Dr. Smith hires Jack to act as a research subject who has little motivation despite the encouragement provided to him during the experiment. Dr. Smith wants to see how Jack's behavior affects the motivation of the actual research subjects in the experimental group. In this experiment, Jack is serving as:

- A. the dependent variable.
- B. a confederate.
- C. an observer.
- D. the independent variable.

Answer: B

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

80. Participants in a study are divided into two groups. One group receives a specific drug and the second group receives a pill that looks like the drug but does not actually contain chemicals. In this study, the group that receives the real drug is called the \_\_\_\_\_ group.

- A. independent
- B. control
- C. placebo
- D. experimental

Answer: D

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.4

81. In an experimental research study, which of the following groups is an experimental group?

- A. The group that is subjected to the change that the independent variable represents
- B. The group that is not randomly assigned
- C. The group that is not subjected to the manipulated independent variable
- D. The group that is expected to have no response to the independent variable

Answer: A

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 1.1

82. In an experimental research study, the control group is the:
- A. group that is exposed to the change that the independent variable represents.
  - B. group that has the most significant response to the independent variable.
  - C. group that is not subjected to the manipulated independent variable.
  - D. group that has the least significant response to the dependent variable.

Answer: C

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 1.1

83. In an experimental research study, the group that receives treatment is called the \_\_\_\_\_ group.
- A. experimental
  - B. control
  - C. independent
  - D. confederate

Answer: A

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

84. In an experimental research study, the group that receives no treatment is called the \_\_\_\_\_ group.
- A. placebo
  - B. abstinence
  - C. control
  - D. experimental

Answer: C

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

85. Noelle, a psychologist, hypothesizes that male high school students experience increased self-esteem if they receive excellent grades in math. She conducts an experiment in which she divides the participants to two groups. One group is consistently given excellent grades in math by their teachers, whether they are actually doing well or not. The other group is consistently given average scores by their teachers. After two months, she gives the boys the same self-esteem questionnaire that she administered to them before the test. In the context of experimental research, the group that receives average grades consistently is the:

- A. confederate group.
- B. control group.
- C. experimental group.
- D. confound group.

Answer: B

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

86. An experimenter studies the relationship between caffeine and reaction time. She designs her experiment with four groups. Group one receives 100 mg of caffeine each in their cups of coffee; group two receives 200 mg of caffeine each in their cups of coffee; group three receives 300 mg of caffeine each in their cups of coffee; and group four receives no coffee. Twenty minutes later, participants from all the groups are given a reaction-time test. In this experiment, which group is the control group?

A. Group four

B. Group three

C. Group two

D. Group one

Answer: A

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

87. In an experimental study, group A receives progressive relaxation training before taking a general knowledge test, while group B receives no training before taking the same test. In this student, group A is the \_\_\_\_\_ group, while group B is the \_\_\_\_\_ group.

A. treatment; placebo

B. experimental; control

C. control; treatment

D. placebo; control

Answer: B

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

88. Leslie wants to study the relationship between dieting and low confidence in teenagers. Her hypothesis is that teenagers who diet start to develop low self-esteem because of the diet. She designs an experiment in which she places the participants into two groups—teenagers who are placed on a strict diet for three months and teenagers who are not. In the context of the experimental research method, the group that diets for three months is the:

A. confederate group.

B. control group.

C. experimental group.

D. confound group.

Answer: C

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

89. If the finding from an experimental study is replicated each time it is carried out, the study is considered to be \_\_\_\_\_.

- A. valid
- B. biased
- C. reliable
- D. faulty

Answer: C

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

90. In an experimental study, external validity refers to the:

- A. extent to which the results of a study can improve human life.
- B. fact that the study was subjected to some form of experimenter bias.
- C. fact that the finding of the study is replicated each time the experiment is conducted.
- D. extent to which the experimental design reflects the real-world issues it explores.

Answer: D

Feedback: Experimental Research

Topic: Validity

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 1.1

91. In the context of experimental research, internal validity refers to the:

- A. extent to which the experimental design reflects the real-world issues it explores.
- B. extent to which changes in the dependent variable are genuinely due to the manipulation of the independent variable.
- C. degree to which the results of the experiment are generalizable to the larger population.
- D. methodology used to carry out the random assignment of samples.

Answer: B

Feedback: Experimental Research

Topic: Validity

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 1.1

92. The influence of a researcher's expectations on the outcome of a research study is known as \_\_\_\_\_ bias.

- A. experimenter
- B. control
- C. participant
- D. third variable

Answer: A

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

93. Dale, a researcher, conducts a study on two groups. During the study, he is friendlier toward the female participants than he is toward the male participants which makes the women feel more relaxed during the study. In this scenario, Dale might be influencing the results of the experiment through \_\_\_\_\_ bias.

- A. subject
- B. response
- C. experimenter
- D. participant

Answer: C

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.4

94. \_\_\_\_\_ characteristics are any aspects of an experimental research study that communicate to participants how the experimenter wants them to behave.

- A. Confound
- B. Meta-analytic
- C. Demand
- D. Placebo

Answer: C

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

95. Which of the following features of an experiment does not typically lead to biased results?

- A. Confound variables
- B. Random assignment
- C. Demand characteristics
- D. Experimenter bias

Answer: B

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Understand

Difficulty: Low

APA Learning Outcome: 2.2

96. Professor Bobson conducted a psychological experiment on personality by administering questionnaires to subjects. Although the true nature of the experiment was supposed to be a secret, Professor Bobson always smiled when a subject checked the left boxes in the written questionnaire. As a result, subjects began to routinely check the left box. This potential problem can be described as the study's \_\_\_\_\_.

- A. confederate
- B. third variable
- C. demand characteristic
- D. placebo effect

Answer: C

Feedback: Experimental Research

Topic: Experimental Research  
Bloom's Level: Apply  
Difficulty: High  
APA Learning Outcome: 2.4

97. Brian wants to study how toddlers tackle difficult situations by themselves in their parents' absence. While observing the children in a playground, Brian helps Timmy, a two-year-old toddler, tie his shoe lace. This is an example of:

- A. research participant bias.
- B. experimenter bias.
- C. placebo effect.
- D. double-blind experiment.

Answer: B

Feedback: Experimental Research  
Topic: Experimental Research  
Bloom's Level: Apply  
Difficulty: Medium  
APA Learning Outcome: 2.2

98. The placebo effect in an experimental study refers to the:

- A. difference between experimental and control groups.
- B. experimenter's expectation that the experimental group will perform better.
- C. participants' expectations producing an outcome.
- D. effect of the third variable on the independent variable.

Answer: C

Feedback: Experimental Research  
Topic: Experimental Research  
Bloom's Level: Remember  
Difficulty: Low  
APA Learning Outcome: 1.1

99. As a part of a medical research study, a researcher exposes two groups of participants either to an actual painkiller or a sugar pill. The participants feel their pain being eliminated even with the sugar pill. In this case, the sugar pill is known as the:

- A. confederate.
- B. random sample.
- C. placebo.
- D. independent variable.

Answer: C

Feedback: Experimental Research  
Topic: Experimental Research  
Bloom's Level: Apply  
Difficulty: Medium  
APA Learning Outcome: 2.4

100. Sonja is being treated by her psychiatrist for an anxiety disorder. Her therapist knows the extent of Sonja's faith in medication and gives her pills that contain no active ingredients. Despite this, Sonja is cured of her anxiety disorder. Sonja's recovery is due to her belief that the pill has taken away her anxiety; this is an example of \_\_\_\_\_.

- A. informed consent

- B. nondisclosure agreement
- C. the confederate variable
- D. the placebo effect

Answer: D

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.4

101. Experimental data states that the painkiller Tafta takes at least thirty minutes to start having an effect on pain symptoms. However, most people report that their headaches begin to fade within just ten minutes of taking Tafta. Which of the following is the best explanation for this finding?

- A. Subjects are giving false reports.
- B. Correlational data is inaccurate.
- C. Subjects are experiencing placebo effects.
- D. Subjects are experiencing the effect of demand characteristics.

Answer: C

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

102. In a \_\_\_\_\_, neither the participants nor the experimenter administering the treatment are aware of which participants belong to the experimental group and which are part of the control group.

- A. double-blind experiment
- B. controlled experiment
- C. correlational study
- D. case study

Answer: A

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

103. In a double-blind experiment:

- A. only the participants know whether they are in the control group or experimental group.
- B. researchers do not manipulate the independent variable.
- C. neither researchers nor participants know who is in the control or experimental group.
- D. researchers do not have access to the results of the study.

Answer: C

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Understand

Difficulty: Low

APA Learning Outcome: 1.1

104. A(n) \_\_\_\_\_ allows researchers to distinguish the specific effects of the independent variable from the possible effects of the experimenter's and participants' expectations about it.

- A. double-blind experiment
- B. measure of central tendency
- C. meta-analytical study
- D. interview

Answer: A

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 2.2

105. When psychologists conduct a study, the group of participants chosen for the study is referred to as the:

- A. sample.
- B. study group.
- C. population.
- D. social group.

Answer: A

Feedback: The Research Sample

Topic: Research Samples

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

106. When psychologists conduct a study, a \_\_\_\_\_ sample gives every member of the population an equal chance of being selected.

- A. convenience
- B. quota
- C. random
- D. stratified

Answer: C

Feedback: The Research Sample

Topic: Research Samples

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

107. Dr. Wong is conducting an experiment on conformity. His research subjects include all of the students who are taking his introductory sociology course. In the context of the research, this entire group of students is referred to as the:

- A. control group.
- B. sample.
- C. experimental group.
- D. population.

Answer: B

Feedback: The Research Sample

Topic: Research Samples

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.2

108. Ryan wants to study the behavior of employees in the call center industry in the country of Utopia. For his study, he designs a questionnaire and distributes it among 500 call center employees across the country. These 500 employees are the:

- A. population.
- B. sample.
- C. estimates.
- D. confederates.

Answer: B

Feedback: The Research Sample

Topic: Research Samples

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.2

109. In the context of research settings, researchers who use \_\_\_\_\_ attempt to view behavior without disturbing the environment.

- A. naturalistic observation
- B. controlled observation
- C. experimental research
- D. double-blind experimentation

Answer: A

Feedback: The Research Setting

Topic: Naturalistic Observation

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

110. Justin, a psychologist, wants to study the behavior of call center employees when they attend a call. Which of the following research settings would be most effective for this study?

- A. Experimental observation
- B. Restricted design
- C. Research laboratory
- D. Naturalistic observation

Answer: D

Feedback: The Research Setting

Topic: Naturalistic Observation

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.2

111. Which of the following is an advantage of conducting psychological research in a laboratory?

- A. It is easy to conduct laboratory research without subjects knowing that they are being observed.
- B. A laboratory setting is close to the real world and therefore causes subjects to behave naturally.
- C. A laboratory is a controlled setting with many of the potential confounding factors of the real world removed.
- D. It is possible to study all aspects of the mind and behavior in a laboratory.

Answer: C

Feedback: The Research Setting

Topic: Research Setting  
Bloom's Level: Understand  
Difficulty: High  
APA Learning Outcome: 2.2

112. Dr. Jimand poses as a student for his study of foreign students who are adjusting to college life in the United States. Dr. Jimand lives in the dorm with the students and attends classes with them. The students do not know that he is a researcher. Which of the following research methods is Dr. Jimand using?

- A. Formal experimentation
- B. Survey method
- C. Clinical method
- D. Naturalistic observation

Answer: D

Feedback: The Research Setting  
Topic: Naturalistic Observation  
Bloom's Level: Apply  
Difficulty: High  
APA Learning Outcome: 2.2

113. The correlational method differs from naturalistic observation in that the correlational method:

- A. involves the use of more than one variable, while naturalistic observation does not.
- B. explains the causal nature of a relationship, while naturalistic observation does not.
- C. is not used only in real-world settings, while naturalistic observation is.
- D. is not used to predict the behavior of variables, while naturalistic observation is.

Answer: C

Feedback: The Research Setting  
Topic: Naturalistic Observation  
Bloom's Level: Understand  
Difficulty: High  
APA Learning Outcome: 2.2

114. In descriptive statistics, the three measures of central tendency are:

- A. mean, median, and mode.
- B. mean, variance, and standard deviation.
- C. range, variance, and standard deviation.
- D. correlation, regression, and variance.

Answer: A

Feedback: Descriptive Statistics  
Topic: Measures of Central Tendency  
Bloom's Level: Remember  
Difficulty: Low  
APA Learning Outcome: 2.2

115. In descriptive statistics, the \_\_\_\_\_ is determined by adding up participants' scores and dividing by the number of scores.

- A. median
- B. standard deviation
- C. correlation coefficient
- D. mean

Answer: D

Feedback: Descriptive Statistics

Topic: Measures of Central Tendency

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

116. The head of accounting at Delores Inc. is computing a value that represents the company's financial performance for the previous year. The company made approximately \$90,000 in 11 out of the 12 months. In the last month of the fiscal year, the company made \$530,000. In this scenario, which measure of central tendency will be least effective as an accurate representation of financial performance?

A. Mean

B. Median

C. Range

D. Mode

Answer: A

Feedback: Descriptive Statistics

Topic: Measures of Central Tendency

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

117. Five students had the following scores on a psychological test: 10, 10, 15, 25, and 40. The mean of these five scores is \_\_\_\_\_.

A. 10

B. 15

C. 20

D. 25

Answer: C

Feedback: Descriptive Statistics

Topic: Statistics in Psychology

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.4

118. Five adults had the following scores on a personality test: 10, 10, 20, 30, and 50. The median of these five scores is \_\_\_\_\_.

A. 4

B. 24

C. 20

D. 120

Answer: C

Feedback: Descriptive Statistics

Topic: Statistics in Psychology

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.4

119. In the context of measures of central tendency, the mode of a distribution of scores refers to the:

A. most common score in the sample.

B. degree to which the scores are spread out in the sample.

- C. average score of the sample.
- D. difference between the lowest and highest score in the sample.

Answer: A

Feedback: Descriptive Statistics

Topic: Measures of Central Tendency

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

120. Five students had the following scores on a geography test: 22, 22, 35, 45, and 50. The mode of these five scores is \_\_\_\_\_.

A. 22

B. 35

C. 45

D. 50

Answer: A

Feedback: Descriptive Statistics

Topic: Statistics in Psychology

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.4

121. The annual earnings of five employees of Concard Inc. are: \$19,000, \$19,000, \$23,000, \$24,000, and \$450,000. The mode of these five earnings is:

A. \$19,000.

B. \$23,000.

C. \$450,000.

D. \$107,000.

Answer: A

Feedback: Descriptive Statistics

Topic: Statistics in Psychology

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.4

122. The heights of Ross, Matt, Martin, Jonah, and Jared are 6 feet, 5.8 feet, 5.5 feet, 6 feet, and 5.7 feet respectively. The median of these five heights is:

A. 5.7 feet.

B. 5.5 feet.

C. 5.8 feet.

D. 6 feet.

Answer: C

Feedback: Descriptive Statistics

Topic: Statistics in Psychology

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.4

123. Liam, a psychology teacher, designs a questionnaire to determine the most preferred social media among students in his classroom. Which measure of central tendency should he use to get an accurate idea?

- A. Range
- B. Mode
- C. Median
- D. Mean

Answer: B

Feedback: Descriptive Statistics

Topic: Measures of Central Tendency

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 2.2

124. In descriptive statistics, range is a measure of:

- A. central tendency that is the average for a sample.
- B. dispersion that tells researchers about the standard deviation of a sample.
- C. dispersion that is the difference between the highest and lowest scores.
- D. central tendency that is the most common score in a sample.

Answer: C

Feedback: Descriptive Statistics

Topic: Measures of Central Tendency

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

125. \_\_\_\_\_ is a measure of dispersion that indicates how much scores in a sample vary around the mean of the sample.

- A. Correlation coefficient
- B. Median
- C. Range
- D. Standard deviation

Answer: D

Feedback: Descriptive Statistics

Topic: Statistics in Psychology

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

126. In a class test, Keith, Ethan, Hannah, and Taylor score 5, 6, 2, and 3 respectively. The mean of these scores is 4. Therefore, the standard deviation of their scores is approximately:

- A. 5.00
- B. 3.92
- C. 1.82
- D. 10.00

Answer: C

Feedback: Descriptive Statistics

Topic: Statistics in Psychology

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

127. In descriptive statistics, range and standard deviation are measures of \_\_\_\_\_.

- A. regression
- B. dispersion
- C. central tendency
- D. confidence level

Answer: B

Feedback: Inferential Statistics

Topic: Statistics in Psychology

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

128. \_\_\_\_\_ statistics are the mathematical methods that are used to indicate whether results for a sample are likely to generalize to a population.

- A. Regressive
- B. Differential
- C. Descriptive
- D. Inferential

Answer: D

Feedback: Inferential Statistics

Topic: Statistics in Psychology

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 1.1

129. When using inferential statistics in psychological research studies, the researcher learns:

- A. how to conduct a correlational study.
- B. how to test predictions about a sample.
- C. the degree of bias in the data.
- D. only the significant outcomes.

Answer: B

Feedback: Inferential Statistics

Topic: Statistics in Psychology

Bloom's Level: Understand

Difficulty: High

APA Learning Outcome: 2.2

130. In inferential statistics, \_\_\_\_\_ means that the differences observed between two groups are large enough that it is highly unlikely that those differences are merely due to chance.

- A. statistical significance
- B. double-blind
- C. random assignment
- D. operational definition

Answer: A

Feedback: Inferential Statistics

Topic: Statistics in Psychology

Bloom's Level: Remember

Difficulty: Medium

APA Learning Outcome: 1.1

131. In terms of statistical significance, what is considered to be the minimum level of probability that scientists will accept for concluding that observed differences are real and not due to chance?

- A. .001
- B. .05
- C. .95
- D. .99

Answer: B

Feedback: Inferential Statistics

Topic: Statistics in Psychology

Bloom's Level: Remember

Difficulty: Medium

APA Learning Outcome: 2.2

132. In the context of inferential statistics, a confidence level of .05 means that:

- A. if the odds are .05 or less that the differences are due to chance, the results are considered statistically significant.
- B. the researchers are confident about the methodology of their research to an extent of five percent.
- C. the confidence level of participants in a research study is calculated to be .05.
- D. if the study is conducted five times using the same variables and conditions, the result would be the same.

Answer: A

Feedback: Inferential Statistics

Topic: Statistics in Psychology

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 2.2

133. In the context of inferential statistics, which of the following values represents the highest level of statistical significance?

- A. .05
- B. .01
- C. .001
- B. .005

Answer: B

Feedback: Inferential Statistics

Topic: Statistics in Psychology

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

134. Dr. Matthews has submitted a proposal to the institutional review board (IRB) of a university. At this university, she intends to conduct research on the socialization patterns of students from foreign countries. In the context of ethics guidelines, the IRB at the university will decide:

- A. how many students she can include in her study.
- B. where she can publish the results of her study after it is completed.
- C. the dependent and independent variables to be used during the study.
- D. whether her study meets ethical guidelines before it is initiated.

Answer: D

Feedback: Ethics Guidelines

Topic: Ethics

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 3.1

135. A team of psychology students would like to expose their classmates to an embarrassing experience in order to gather data for their term project. Their instructor has asked them to read the ethical guidelines published by the American Psychological Association (APA). She wants them to understand that, as researchers:

- A. they cannot ever engage in deception.
- B. they cannot conduct a study in which people will feel embarrassed.
- C. they must obtain the consent of the participants after informing them of the procedures.
- D. they must not let the participants know that they will be subject to embarrassing experiences.

Answer: C

Feedback: Ethics Guidelines

Topic: Ethics

Bloom's Level: Apply

Difficulty: Medium

APA Learning Outcome: 3.1

136. Inmates at a correctional facility take part in an experiment on social development. Once the experiment is over, the correctional officer goes home and tells his roommates about the results of the study and about the inmates who did not perform well. In this scenario, which ethical guideline of psychological research has been violated by the correctional officer?

- A. Limited deception
- B. Informed consent
- C. Freedom from coercion
- D. Confidentiality

Answer: D

Feedback: Ethics Guidelines

Topic: Ethics

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 3.1

137. In the context of ethical guidelines in psychological research, when data are confidential:

- A. it is possible to link a participant's identity to his or her data.
- B. it is possible to clearly tell participants how they should act during the research.
- C. it is possible to explain the results of the study to the participants.
- D. it is possible to share a participant's details with the other participants.

Answer: A

Feedback: Ethics Guidelines

Topic: Ethics

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 3.1

138. Courtney, a young woman with an anxiety disorder, volunteers to participate in a psychological study so that she can earn \$100. She knows that the study will require her to reflect upon her childhood but she does not know that this experiment is unsuitable for individuals with anxiety. Courtney's symptoms act up during the experiment and she re-starts her therapy. In Courtney's case, the American Psychological Association (APA) ethics guideline that has most likely been violated is \_\_\_\_\_.

- A. choice
- B. informed consent
- C. debriefing
- D. confidentiality

Answer: B

Feedback: Ethics Guidelines

Topic: Ethics

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 3.1

139. Aaron participates in a reality show on television. The reality show subjects its contestants to frightening situations which also include exposure to certain paranormal activities. The participants are not informed about the fact that their experiences might be frightening. After the first day on the show, Aaron wishes to withdraw from the show. In the context of ethics guidelines in psychological research:

- A. Aaron cannot withdraw from the reality show because he is bound by contract.
- B. Aaron cannot withdraw from the reality show because he hasn't received the participation reward yet.
- C. Aaron can withdraw from the reality show on grounds of deception by the show producers.
- D. Aaron can withdraw from the reality show as the show is a simulation that involves the imitation of real-life events.

Answer: C

Feedback: Ethics Guidelines

Topic: Ethics

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 3.1

140. Before agreeing to participate in a psychological research study, all participants must know what their participation will involve and what risks might develop. According to the American Psychological Association (APA) guidelines, which of the following addresses this issue?

- A. Debriefing
- B. Informed consent
- C. Nondisclosure agreement
- D. Meta-analysis

Answer: B

Feedback: Ethics Guidelines

Topic: Ethics

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 3.1

141. After a psychological research study has been completed, the researchers should inform the participants of its purpose and the methods they used. According to the American Psychological Association (APA) guidelines, which of the following addresses this issue?

- A. Debriefing
- B. Informed consent
- C. Nondisclosure agreement.
- D. Meta-analysis.

Answer: A

Feedback: Ethics Guidelines

Topic: Ethics  
Bloom's Level: Remember  
Difficulty: Low  
APA Learning Outcome: 3.1

142. In the context of ethics guidelines in psychological research, deception is ethically allowed:

- A. only in correlational studies.
- B. only in the case of double-blind studies that provide subsequent debriefing.
- C. if it is possible to link a participant's identity to his or her data.
- D. if the deception will not harm the participants.

Answer: D  
Feedback: Ethics Guidelines  
Topic: Ethics  
Bloom's Level: Understand  
Difficulty: Medium  
APA Learning Outcome: 3.1

143. According to a school survey, the midnight dance on Christmas day has been cancelled by popular vote. Haley is angry because she did not participate in the survey. Her teacher explains to Hailey that she must accept the results of the study because:

- A. responses to surveys are very complex and are seldom understood.
- B. everyone wants to be home with their families on Christmas Eve.
- C. a representative sample of responses can indicate the view of the majority.
- D. freshmen were excluded from the survey due to their lack of experience.

Answer: C  
Feedback: Avoid Overgeneralizing Based on Little Information  
Topic: Critical Thinking  
Bloom's Level: Apply  
Difficulty: High  
APA Learning Outcome: 2.4

144. Norah, a social psychologist, conducts research on a sample of 100 high school students. The sample is collected from the three high schools in Norah's hometown. She observes that the high school students who participate in extracurricular activities get higher test grades than those students who do not participate in those activities. Norah writes a paper that concludes that all American high school students involved in extracurricular activities are better academic performers. Which of the following is the most likely reason that her research paper is NOT published?

- A. The sample of her study is not representative of the population.
- B. The research is subjected to random sampling.
- C. The research is subjected to the research participants' bias.
- D. The sample size is too big.

Answer: A  
Feedback: Avoid Overgeneralizing Based on Little Information  
Topic: Critical Thinking  
Bloom's Level: Apply  
Difficulty: High  
APA Learning Outcome: 2.4

145. Rebecca reads an article in her daily newspaper that quotes a research finding that most babies start walking at the age of eight months. However, Rebecca's one-year-old daughter, Jenna, hasn't starting walking yet. Should Rebecca be concerned? Why?

- A. Yes, since this finding has been proven by research.
- B. Yes, since the finding is applicable to all the babies who are eight months and above.
- C. No, since the finding cannot be generalized to all children who are developing normally.
- D. No, since the finding is published in a newspaper and not in a scientific journal.

Answer: C

Feedback: Avoid Overgeneralizing Based on Little Information

Topic: Critical Thinking

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

146. Which of the following is a guideline to follow to consume psychological information critically and wisely?

- A. Consider the source of psychological information.
- B. Apply conclusions from a group to an individual.
- C. Assume that a single study will provide conclusive answers to an important question.
- D. Draw causal conclusions from correlational studies.

Answer: A

Feedback: Thinking Critically About Psychological Research

Topic: Critical Thinking

Bloom's Level: Understand

Difficulty: High

APA Learning Outcome: 2.2

147. Which of the following is NOT a guideline one should follow when consuming psychological information critically and wisely?

- A. Avoid generalizing based on little information.
- B. Distinguish between group results and individual needs.
- C. Look for answers beyond a single study.
- D. Draw causal correlations from correlational studies.

Answer: D

Feedback: Avoid Attributing Causes Where None Have Been Found

Topic: Critical Thinking

Bloom's Level: Apply

Difficulty: High

APA Learning Outcome: 2.4

148. Jennifer has had a troubled past and has been emotionally affected by her parents' divorce. Jennifer's therapist suggests that she write a book about her life; he says that this will be therapeutic for Jennifer and might help her get closure on her past. Which of the following guidelines should Jennifer follow while attempting to write this book?

- A. She should explore various topics through her writing.
- B. She should focus on punctuation, grammar, and spelling while writing.
- C. She should dedicate herself to a few minutes of writing each day.
- D. She should write about her negative thoughts and emotions, even if this makes her uncomfortable.

Answer: C

Feedback: The Scientific Method and Health and Wellness

Topic: Health Psychology  
Bloom's Level: Apply  
Difficulty: High  
APA Learning Outcome: 2.2

149. Which of the following is NOT a guideline one should follow if one wants to explore the benefits of writing in one's own life?

- A. Find a quiet place to write.
- B. Pick just one topic to explore through writing.
- C. Dedicate time to a few minutes of writing each day.
- D. Worry about punctuation and grammar while writing.

Answer: D

Feedback: The Scientific Method and Health and Wellness

Topic: Health Psychology  
Bloom's Level: Remember  
Difficulty: Low  
APA Learning Outcome: 2.2

150. If a person wants to explore the benefits of writing in his or her own life, he or she should:

- A. find a quiet place to write.
- B. pick many topics to explore through writing.
- C. write about negative experiences, even if it is uncomfortable.
- D. worry about punctuation and grammar while writing.

Answer: A

Feedback: The Scientific Method and Health and Wellness

Topic: Health Psychology  
Bloom's Level: Remember  
Difficulty: Low  
APA Learning Outcome: 2.2

### Short Answer Questions

151. What is an operational definition? Explain its importance in the field of psychology.

Answer: An operational definition is an objective description of a variable being measured in a given study. The purpose of an operational definition is to eliminate the fuzziness in defining psychological phenomena and provide a common language to facilitate communication among researchers.

Feedback: Step 3. Testing Through Empirical Research

Topic: Scientific Method  
Bloom's Level: Remember  
Difficulty: Low  
APA Learning Outcome: 2.2

152. Briefly describe the process of replication in the final step of psychology's scientific method.

Answer: Replicating a study means repeating it and getting the same results. Scientific conclusions rely on showing that the results remain the same, regardless of the specific scientist who conducts the study or the specific group of people who were studied. Direct replication means doing the study precisely as it was conducted in its original form. Conceptual replication means doing the study with different methods or different types of samples. For instance, a researcher might want to know if a particular strategy to enhance social skills works not only for college students but for older adults or for individuals with autism. If a research finding is

shown again and again—that is, if it is replicated—across different researchers and different specific methods, it is considered reliable. It is a result on which researchers can depend.

Feedback: Step 5. Evaluating the Theory

Topic: Scientific Method

Bloom's Level: Remember

Difficulty: Medium

APA Learning Outcome: 2.2

153. Discuss two limitations of using surveys in research.

Answer: Although surveys can be a straightforward way to measure psychological variables, constructing them requires care. For example, surveys can measure only what people think about themselves. Thus, if researchers are interested in studying a variable that they believe is unconscious, such as a psychodynamic drive, they cannot use a survey.

Furthermore, people do not always know the truth about themselves. If a person was answering a survey that asked, "Are you a generous person?" how might the person's answer compare to that of a friend who is asked to make that same rating about the person? One particular problem with surveys and interviews is the tendency of participants to answer questions in a way that will make them look good rather than in a way that communicates what they truly think or feel.

Feedback: Descriptive Research

Topic: Survey Research

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 2.2

154. Alfred conducted a study on the relationship between playground aggression observed in five-year-old boys and their time spent playing with toy guns. The data he obtained gave him a correlation coefficient of +0.64. Explain what this coefficient means with reference to a graph, indicate the approximate appearance of the line, and discuss the strength and direction of the relationship.

Answer: The correlation coefficient represents a positive correlation between the two variables in the study. Because the correlation coefficient is a positive number, the slope of the line on a graph must move in the positive direction with one variable on each axis. A positive correlation means that as variable A increases, so does variable B. (Note: The answer should clearly spell out that the correlation observed does not indicate that there is a cause-and-effect relationship between the variables. An answer that does not address cause-and-effect at all should not receive full credit.)

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Understand

Difficulty: High

APA Learning Outcome: 2.2

155. Explain the third variable problem of correlational research with an example.

Answer: Students' answers will vary. The circumstance where a variable that has not been measured accounts for the relationship between two other variables is known as the third variable problem.

For example, a researcher measures two variables: the number of ice cream cones sold in a town and the number of violent crimes that occur in that town throughout the year. The researcher finds that ice cream cone sales and violent crimes are positively correlated, to the magnitude of +.50. This high positive correlation would indicate that as ice cream sales increase, so does violent crime. It would not be reasonable for the local paper to run the headline "Ice Cream Consumption Leads to Violence." A third variable that can possibly explain this correlation is "heat." Indeed, when it is hot outside, people are more likely both to purchase ice cream and to act aggressively.

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Understand

Difficulty: High

APA Learning Outcome: 2.2

156. Explain the difference between a dependent variable and an independent variable in experimental research.  
Answer: An independent variable is the one believed to influence the other variable. The variable hypothesized to be influenced is called the dependent variable. The independent variable is the variable that the experimenter changes to see what its effects are; it is a potential cause.

A dependent variable in an experiment is the variable that may change as a result of manipulations of the independent variable. It represents the outcome (effect) in an experiment. As researchers manipulate the independent variable, they measure the dependent variable to test for any effect of the manipulated variable. Independent and dependent variables are two of the most important concepts in psychological research. Despite their similar names, they are very different. Remember that the independent variable is the cause, and the dependent variable is the effect. The independent variable is the one that is manipulated, and the dependent variable is the outcome.

Feedback: Experimental Research

Topic: Variables

Bloom's Level: Understand

Difficulty: Medium

APA Learning Outcome: 2.2

157. Dr. Schwartzmiller believes that herbal medicines significantly reduce the number of depressive symptoms in women. She wants to use experimental methods to test her hypothesis. What components of a well-designed experiment should be included in this study?

Answer: To test her hypothesis experimentally, Dr. Schwartzmiller will want to randomly assign her participants to receive either no medicine (control group) or some amount of the medicine (experimental groups). This means that participants are equally likely to be in either the control or experimental groups, and that all the other ways in which participants differ from each other will be distributed across the groups. Participants in the control group will receive no medicine, whereas those in the experimental groups will receive some dose of the medicine (e.g., 1 pill, 2 pills, and so on.). The importance of having a control group is that Schwartzmiller will be able to say that any changes in the experimental participants' number of symptoms are due to the medicine, and not due to normal fluctuations in depressive symptoms.

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Understand

Difficulty: High

APA Learning Outcome: 2.2

158. Explain the concepts of experimental groups and control groups with examples.

Answer: Students' examples will vary. An experimental group consists of participants in an experiment who receive the drug or other treatment under study—that is, those who are exposed to the change that the independent variable represents. On the other hand, a control group consists of participants in an experiment who are as much like the experimental group as possible and who are treated in every way like the experimental group except for a manipulated factor, the independent variable. For example, a researcher notices that people who listen to classical music seem to be of above average intelligence. He creates two groups: one that listens to classical music and one that does not. To test for differences in intelligence, the researcher then measures intelligence in the two groups. Here, the experimental group is the group that listened to classical music; the no-music group is the control group.

Feedback: Experimental Research  
Topic: Experimental Research  
Bloom's Level: Understand  
Difficulty: Medium  
APA Learning Outcome: 2.2

159. Describe the placebo effect. Provide an example to explain how this effect works.

Answer: Students' answers will vary. The placebo effect occurs when participants' expectations, rather than the experimental treatment, produce a particular outcome. Participants in a drug study might be assigned to an experimental group that receives a pill containing an actual painkiller or to a control group that receives a placebo pill. A placebo is a harmless substance that has no physiological effect. This placebo is given to participants in a control group so that they are treated identically to the experimental group except for the active agent—in this case, the painkiller. Giving individuals in the control group a placebo pill allows researchers to determine whether changes in the experimental group are due to the active drug agent and not simply to participants' expectations.

Feedback: Experimental Research  
Topic: Experimental Research  
Bloom's Level: Understand  
Difficulty: Medium  
APA Learning Outcome: 2.2

160. Explain the concepts of random assignment and random sample. State the difference between the two.

Answer: Random assignment refers to researchers' assignment of participants to groups by chance, to reduce the likelihood that an experiment's results will be due to preexisting differences between groups. A random sample refers to a sample that gives every member of the population an equal chance of being selected. A random sample is not the same thing as random assignment. Random assignment is about making sure experimental and control groups are equivalent, and a random sample is about selecting participants from a population so that the sample is representative of that population.

Feedback: Experimental Research  
Feedback: The Research Sample  
Topic: Experimental Research  
Topic: Research Samples  
Bloom's Level: Understand  
Difficulty: Medium  
APA Learning Outcome: 2.2

161. List four drawbacks of doing research in a laboratory.

Answer: Although laboratory research provides a great deal of control, doing research in the laboratory has drawbacks. First, it is almost impossible to conduct research in a lab without the participants knowing they are being studied. Second, the laboratory setting is not the real world and therefore can cause the participants to behave unnaturally. A third drawback of laboratory research is that individuals who are willing to go to a university laboratory may not be representative of groups from diverse cultural backgrounds. Those who are unfamiliar with university settings and with the idea of "helping science" may be intimidated by the setting. Fourth, some aspects of the mind and behavior are difficult if not impossible to examine in the laboratory.

Feedback: The Research Setting  
Topic: Research Setting  
Bloom's Level: Understand  
Difficulty: Medium  
APA Learning Outcome: 2.2

162. Define the term external validity and determine the research technique that provides the highest degree of external validity.

Answer: External validity

is the degree to which the findings from a research design actually reflect what is going on in the “real world.” Naturalistic observation provides the highest degree of external validity, because the data is collected in “real world” settings.

Feedback: Experimental Research

Topic: Validity

Bloom’s Level: Understand

Difficulty: High

APA Learning Outcome: 2.2

163. Given the following data set, calculate the mean and discuss why the mean in this case is, or is not, the best measure of central tendency.

12, 16, 11, 2, 44, 15

Answer: Mean=16.7, for this particular data set. The mean is not a very effective choice because of the two extreme scores—2 and 44.

Feedback: Descriptive Statistics

Topic: Measures of Central Tendency

Bloom’s Level: Understand

Difficulty: Medium

APA Learning Outcome: 2.4

164. Contestants of reality television (TV) shows are often asked to engage in unpleasant behaviors, such as eating bugs or living in isolation for days. While viewers think they are learning about human nature, these experiments are not real psychological studies that employ the scientific method and ethical guidelines as put forth by the American Psychological Association. Describe why these TV shows do not meet the ethical guidelines that psychological research must follow.

Answer: These TV shows do not meet the ethical guidelines because the contestants have most often not given their informed consents. Moreover, the TV shows use deception, unreasonable levels of risk, and exorbitant award money as it relates to undue persuasion. There is also a lack of ecological validity. In other words, one cannot really learn much from the contestants of reality TV shows.

Feedback: Ethics Guidelines

Topic: Ethics

Bloom’s Level: Understand

Difficulty: Medium

APA Learning Outcome: 2.2

165. Briefly describe the research of James Pennebaker with regard to expressive writing and health, and present the guidelines an individual should follow in order to benefit from the healing power of writing.

Answer: Pennebaker’s research explored the connections between traumatic life events, expressive writing, health, and work performance. He found that writing about traumatic life events had healing effects in that the individuals had improved psychological well-being in comparison to those who experienced similar events but did not write about them. The following guidelines are suggested for those who wish to benefit from the healing power of writing: find a quiet place to write; limit writing to one topic; write for a few minutes each day; do not worry about the conventions of writing; and write about the positives in life.

Feedback: The Scientific Method and Health and Wellness

Topic: Health Psychology

Bloom’s Level: Remember

Difficulty: Medium

APA Learning Outcome: 2.2

## True/False Questions

166. The first step in the scientific method of psychology is formulating hypotheses and predictions.

Answer: False

Feedback: Psychology's Scientific Method

Topic: Scientific Method

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

167. In the context of the scientific method of psychology, a hypothesis seeks to explain why certain things have happened and can be used to make predictions about future observations.

Answer: False

Feedback: Step 2. Formulating Hypotheses and Predictions

Topic: Hypotheses

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

168. In the context of the scientific method of psychology, data refers to all the information a researcher collects when carrying out a study.

Answer: True

Feedback: Step 3. Testing Through Empirical Research

Topic: Scientific Method

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

169. In the context of evaluating a theory, meta-analysis refers to the process of establishing causal relationships between variables.

Answer: False

Feedback: Step 5. Evaluating the Theory

Topic: Theories

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

170. In psychology, a correlational research study tells the researcher which variable is the cause and which is the effect.

Answer: False

Feedback: Correlational Research

Topic: Correlational Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

171. In the context of correlational research, when a correlation coefficient is positive, it means that one variable caused another variable to occur.

Answer: False  
Feedback: Correlational Research  
Topic: Correlational Research  
Bloom's Level: Understand  
Difficulty: Medium  
APA Learning Outcome: 2.2

172. In correlational studies, a variable that has not been measured sometimes accounts for the relationship between the two measured variables. This is known as the confounded variable.

Answer: False  
Feedback: Correlational Research  
Topic: Correlational Research  
Bloom's Level: Understand  
Difficulty: Medium  
APA Learning Outcome: 2.2

173. In an experiment, the independent variable is what the experimenter arranges or has control over to allow a comparison.

Answer: True  
Feedback: Experimental Research  
Topic: Variables  
Bloom's Level: Remember  
Difficulty: Low  
APA Learning Outcome: 2.2

174. In a psychological experiment, the dependent variable is the cause and the independent variable is the effect.

Answer: False  
Feedback: Experimental Research  
Topic: Variables  
Bloom's Level: Remember  
Difficulty: Low  
APA Learning Outcome: 2.2

175. A quasi-experimental design does not randomly assign participants to conditions because such assignment is either impossible or unethical.

Answer: True  
Feedback: Experimental Research  
Topic: Research Designs and Methods  
Bloom's Level: Understand  
Difficulty: Medium  
APA Learning Outcome: 2.2

176. In a psychological experiment, the experimental group is exposed to the change that the independent variable represents.

Answer: True  
Feedback: Experimental Research  
Topic: Experimental Research  
Bloom's Level: Remember  
Difficulty: Low

APA Learning Outcome: 2.2

177. The internal validity of a study refers to the degree to which an experimental design actually reflects the real-world issues it is supposed to address.

Answer: False

Feedback: Experimental Research

Topic: Validity

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

178. Double-blind experiments are conducted in an effort to rule out experimenter bias as well as research participant bias.

Answer: True

Feedback: Experimental Research

Topic: Experimental Research

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

179. In the context of psychological research, a random sample is the same thing as random assignment.

Answer: False

Feedback: The Research Sample

Topic: Research Samples

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

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

Answer: False

Feedback: The Research Setting

Topic: Naturalistic Observation

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

181. 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

Feedback: Descriptive Statistics

Topic: Measures of Central Tendency

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

182. Standard deviation is an inferential statistic.

Answer: False

Feedback: Inferential Statistics

Topic: Statistics in Psychology

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

183. When a psychological study uses deception, the principle of informed consent is violated.

Answer: True

Feedback: Ethics Guidelines

Topic: Ethics

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

184. People should take a research study as the absolute, final answer to a problem, especially when the findings of the study are compelling.

Answer: False

Feedback: Look for Answers Beyond a Single Study

Topic: Critical Thinking

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2

185. If a person would like to explore the benefits of writing in his or her own life, he or she should pick just one topic to explore.

Answer: True

Feedback: The Scientific Method and Health and Wellness

Topic: Health Psychology

Bloom's Level: Remember

Difficulty: Low

APA Learning Outcome: 2.2