

1. Science comes from the Latin *scientia*, which means “knowledge.” According to your text, which of the following best describes “science” today?

- a. a study of the physical world through objective and subjective observations
- b. a method of assessment that uses all of a researcher’s senses
- c. a special way of learning about reality through systematic observation and experimentation
- d. a process of investigation through thoughtful and personal reflection

ANSWER: c

POINTS: 1

DIFFICULTY: Understand

REFERENCES: What Is Science?

2. One important difference between science and everyday observations is that science relies on ____.

- a. objectivity
- b. introspection
- c. perspective
- d. subjectivity

ANSWER: a

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: What Is Science?

3. Soma and Biresh are debating about the best places to live after college. Soma states that the Northeast offers a healthier lifestyle than the Southwest and insists that she is basing her conclusions on facts, without any influence of personal emotion or bias. In other words, Soma believes that she is showing ____.

- a. subjectivity
- b. neutrality
- c. objectivity
- d. perspective

ANSWER: c

POINTS: 1

DIFFICULTY: Apply

REFERENCES: What Is Science?

4. Deena, a licensed practical nurse, is assisting a psychology professor with a research study on the physiological and psychological reactions to violence in blockbuster films. After a participant views a film clip, she administers some basic tests. Which of the following is the most subjective result?

- a. The participant’s blood pressure is 140/90.
- b. The participant describes the level of film violence as 8 on a scale of 0 to 10.
- c. The participant’s heart rate is 75.
- d. The participant has perspiration on her brow and her pupils are dilated.

ANSWER: b

POINTS: 1

DIFFICULTY: Apply

REFERENCES: What Is Science?

5. Any observation by a human being is, by definition, _____.

- a. objective
- b. falsifiable
- c. inferential
- d. subjective

ANSWER: d

POINTS: 1

DIFFICULTY: Understand

REFERENCES: What Is Science?

6. What is a research design called when neither the participant nor the experimenter observing the participant knows which participants were given an active substance and which were given a placebo?

- a. clinical trial
- b. open trial
- c. double-blind procedure
- d. prospective cohort study

ANSWER: c

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

7. An inactive substance or treatment that cannot be distinguished from a real, active substance or treatment is called a _____.

- a. false positive
- b. placebo
- c. remedy
- d. sample

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

8. Maya participates in a double-blind study on the effectiveness of a new time-release antidepressant medication. Once a week, she receives a small white pill from Dr. Stanley, which she takes immediately. In this type of study, which of the following is true?

- a. Dr. Stanley does not know whether Maya receives a real substance or placebo until the experiment is over.
- b. Maya does not know the purpose of the study being conducted until it is over.
- c. Dr. Stanley never meets Maya or knows she is in the study until the experiment is over.
- d. Maya knows whether the white pill is a real substance or a placebo throughout the study.

ANSWER: d

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

9. When we make conclusions based on observations of our immediate circle of acquaintances, friends and loved ones, we are engaging in _____.

- a. systematic observations
- b. repeated observations
- c. interpreted observations
- d. hit or miss observations

ANSWER: d

POINTS: 1

DIFFICULTY: Apply

REFERENCES: What Is Science?

10. Emily grew up in Boston and attends college there. She often notices clusters of people smoking outside of office buildings as she walks to class. Which of the following sources would provide the most reliable information regarding the prevalence of smoking in Boston?

- a. A detailed personal study of the history of her extended family
- b. Interviews with her classmates and professors
- c. A review of her professor's behavioral statistics study drawn from census data
- d. Observations of campus fraternity and sorority life

ANSWER: c

POINTS: 1

DIFFICULTY: Apply

REFERENCES: What Is Science?

11. Researchers found that "the widespread and highly publicized stereotype about female talkativeness is unfounded." This conclusion illustrates that science relies primarily on _____.

- a. strongly held beliefs
- b. subjective evidence
- c. observable, repeatable evidence
- d. laboratory experiments

ANSWER: c

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: What Is Science?

12. According to your text, scientific knowledge is _____.

- a. introspective
- b. a work in progress
- c. quantitative
- d. a finished product

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: What Is Science?

13. The ability to think clearly, rationally, and independently is called ____.

- a. naturalistic observation
- b. authoritative reasoning
- c. free thinking
- d. critical thinking

ANSWER: d

POINTS: 1

DIFFICULTY: Understand

REFERENCES: What Is Science?

14. Critical thinking is ____.

- a. a skill people learn
- b. set by one's teenage years
- c. genetically determined
- d. based on cultural norms

ANSWER: a

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: What Is Science?

15. Which of the following questions demonstrates critical thinking?

- a. What is your immediate reaction to this information?
- b. What political party is expressing this point of view?
- c. What evidence supports this position?
- d. What did the professor give as the answer?

ANSWER: c

POINTS: 1

DIFFICULTY: Apply

REFERENCES: What Is Science?

16. Jim and Gary support different presidential candidates, and frequently debate the claims that each candidate makes against the other on various issues. Jim insists that they both look up evidence that supports both candidates' positions using independent sources. Jim's ground rules for the debate show good principles of:

- a. critical thinking
- b. debate
- c. psychology
- d. social control

ANSWER: a

POINTS: 1

DIFFICULTY: Apply

REFERENCES: What Is Science?

17. The news headline, “Recession Spurs Young in U.S. to Forgo or Delay Marriage,” described ____.
- a. a study that found a causal link between the U. S. recession and the decisions of young adults to marry
 - b. census data that indicated poverty was a primary cause of decreased marriage rates
 - c. data that could have been explained by the trend for Americans to marry at later ages
 - d. a study of historical data on marriage rates

ANSWER: c

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: What Is Science?

18. A set of facts and relationships between facts that can explain and predict related phenomena is called a(n) ____.
- a. theory
 - b. hypothesis
 - c. descriptive method
 - d. experiment

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: What Is Science?

19. The best scientific theories not only explain and organize known facts, but they also ____.
- a. use historical perspectives
 - b. generate predictions
 - c. establish new facts
 - d. discredit other theories

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: What Is Science?

20. A proposed explanation for a situation, usually taking the form “if A happens then B will be the result” is called a(n) ____.
- a. theory
 - b. research proposal
 - c. experiment
 - d. hypothesis

ANSWER: d

POINTS: 1

DIFFICULTY: Understand

REFERENCES: What Is Science?

21. Scientific hypotheses are best described as _____.

- a. educated guesses
- b. the first step to proving a fact is true
- c. theories
- d. research methods

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: What Is Science?

22. When a hypothesis is demonstrated to be false using appropriate research methods, what must be done?

- a. Another researcher must replicate the research.
- b. The hypothesis must be modified or discarded.
- c. Different statistical analyses should be conducted to find support for the hypothesis.
- d. Research should be repeated with the opposite hypothesis.

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: What Is Science?

23. Which of the following statements would be most difficult to falsify?

- a. All swans are white.
- b. All cars require gasoline.
- c. All men are mortal.
- d. All birds fly.

ANSWER: c

POINTS: 1

DIFFICULTY: Apply

REFERENCES: What Is Science?

24. How frequently can scientists prove that their hypotheses are true?

- a. never
- b. always
- c. sometimes
- d. often

ANSWER: a

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: What Is Science?

25. Jeanine, a research psychologist, has developed a hypothesis. Her next step is to ____.
- interpret the data necessary to evaluate it
 - conduct the statistical analysis
 - undergo peer review of her hypothesis
 - collect the data necessary to evaluate it

ANSWER: d

POINTS: 1

DIFFICULTY: Apply

REFERENCES: What Is Science?

26. Arthur has developed a hypothesis and now is designing a study to test it. Which of the following can provide the best guidance regarding his choice of measures, types of data to be collected, and methods for interpreting the data?
- the people who are readily available to study
 - the scientific literature in the area of interest
 - the method that can be replicated by others
 - personal observations during the development phase

ANSWER: b

POINTS: 1

DIFFICULTY: Apply

REFERENCES: What Is Science?

27. Professor Frankel is an editor for a psychology journal. She is considering which submissions to send out for peer review. Which of the following submissions is likely to receive the strongest consideration based on its research methods?
- a professor from Utah who used well-established methods
 - a researcher from California who developed novel methods
 - a professor from Illinois who employed rarely-used methods
 - a postdoctoral fellow from Texas who used a controversial method

ANSWER: a

POINTS: 1

DIFFICULTY: Apply

REFERENCES: What Is Science?

28. Science is best described as a(n) ____ enterprise.
- socialist
 - collaborative
 - hierarchical
 - solitary

ANSWER: b

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: What Is Science?

29. The process of having other scientists who are experts examine research prior to its publication is called ____.
- a. quality assurance
 - b. jury evaluation
 - c. peer review
 - d. validation

ANSWER: c

POINTS: 1

DIFFICULTY: Understand

REFERENCES: What Is Science?

30. Keith feels that the results of his research study in autism spectrum disorder among the elderly is finally ready for submission to a journal. For the journal editor to recommend his article for publication, what must the peer reviewers conclude?

- a. His research is important, accurate, and explained thoroughly.
- b. His methods are novel and could contribute to the field.
- c. No other article on this topic has been published in the journal recently.
- d. His findings are the first of their kind.

ANSWER: a

POINTS: 1

DIFFICULTY: Apply

REFERENCES: What Is Science?

31. During the peer review process, whose work is most likely to be accepted rapidly into the body of scientific knowledge?

- a. Dr. Gupta's, whose research led to unexpected and unique results
- b. Dr. Koch's, whose results fit with existing knowledge in her field
- c. Dr. Anton's, who used novel research methods and produced unconventional findings
- d. Dr. Dunn's, whose results are unrepeated in previous reports in his field

ANSWER: b

POINTS: 1

DIFFICULTY: Apply

REFERENCES: What Is Science?

32. Dr. Snape was skeptical after reading a study concluding that chocolate truffles reduced the symptoms of generalized anxiety disorder. Therefore, he initiated a similar study to determine whether he would achieve the same results. Dr. Snape's study would be termed a ____.

- a. statistical sampling
- b. validity test
- c. regressive analysis
- d. replication

ANSWER: d

POINTS: 1

DIFFICULTY: Apply

REFERENCES: What Is Science?

33. Research methods designed for making careful, systematic observations are called ____.
- a. correlational methods
 - b. inferential methods
 - c. experimental methods
 - d. descriptive methods

ANSWER: d

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

34. Which of the following lends itself to the use of a descriptive method?
- a. Daniel seeks to test his hypothesis that stress in early childhood is positively related to heart disease in adulthood.
 - b. Bina would like to find whether there is a correlation between stress in early childhood and learning difficulties in school.
 - c. Jonathan would like to develop a hypothesis regarding the role of parental expression of affection in reducing toxic stress in early childhood.
 - d. Heather is conducting data analysis regarding health disparities and depression among children from different socio-economic and racial groups.

ANSWER: c

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

35. Dr. Crane is studying patients who are in the residual phase of schizophrenia. His colleague, Dr. Mellus, takes detailed notes during a series of interviews and interactions that Dr. Crane has with one such patient for later analysis. What research method are these doctors employing?
- a. experimental study
 - b. case study
 - c. correlational study
 - d. experiential study

ANSWER: b

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

36. Professor Scott conducts research on teenage risk-taking behavior. He would like to develop a hypothesis on the parental influence on teenage risk-taking at the extreme end of the spectrum, with a focus on teenagers who sail around the world alone. Would a case study be an appropriate first step, and why or why not?

- a. Yes, because Professor Scott already knows that parents are the driving influence behind teenage circumnavigation.
- b. No, because it will not generate a sufficient amount of data to be tested statistically.
- c. Yes, because teenage circumnavigators are rare and the data will help generate new, or possibly falsify existing, hypotheses.
- d. No, because case studies are too idiosyncratic and lack scientific rigor.

ANSWER: c

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: How Do Psychologists Conduct Research?

37. You decide to study weekend dorm life for a sociology term paper. In order to do this, you attend several fraternity parties at a large university, week after week. What method of research are you employing?

- a. case study
- b. naturalistic observation
- c. survey
- d. experiential observation

ANSWER: b

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

38. What is one advantage of using naturalistic observation over the case study method?

- a. Looking at a much larger group supports application of the results to the general population.
- b. Observing individuals in their natural setting without their knowledge is the most accepted form of research.
- c. Observing individuals outside of their everyday circumstances encourages candor.
- d. Looking at a much larger group supports hypothesis testing as well as hypothesis generation.

ANSWER: a

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: How Do Psychologists Conduct Research?

39. Seth, a psychologist, would like to conduct research in the form of naturalistic observation of drug sales and use among teenagers in his city's poorest neighborhood without their knowledge. What problem does this raise?

- a. The research may be unethical.
- b. People often behave differently when they know they are being observed.
- c. His sample is insufficiently representative for naturalistic observation.
- d. Study participants tend to want to appear socially appropriate.

ANSWER: a

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

40. Naturalistic observation is best suited for ____.
- a. testing hypotheses
 - b. determining a cause-and-effect relationship between two variables
 - c. developing hypotheses
 - d. establishing whether the relationship between two concepts is positive or negative

ANSWER: c

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: How Do Psychologists Conduct Research?

41. A survey is a descriptive method in which the participants are asked ____.
- a. open-ended questions
 - b. to journal their own thoughts
 - c. the same questions
 - d. to converse with other survey members

ANSWER: c

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

42. Which of the following is an advantage of survey research?
- a. Survey participants are easy to recruit since the typical sample is small.
 - b. Survey participants are more likely to be truthful than participants of other research methods.
 - c. Surveys provide insight into real-world behaviors in their natural setting.
 - d. Surveys provide large amounts of data quickly and relatively inexpensively.

ANSWER: d

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

43. A subset of a population being studied is called a ____.
- a. sample
 - b. cohort
 - c. demographic
 - d. cluster

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

44. Surveys results can be influenced by people's natural tendency to want to appear socially appropriate because surveys rely on ____.

- a. later publication
- b. public funding
- c. peer review
- d. self-report

ANSWER: d

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

45. Participants in the following surveys are guaranteed that their answers will remain confidential and anonymous. In which case are survey respondents least likely to shade the truth?

- a. A survey regarding personal displays of racial prejudice
- b. A survey regarding sexual infidelity
- c. A survey regarding preferences as to online news sources
- d. A survey regarding the purchase, sale, or use of illegal drugs

ANSWER: c

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

46. The text described a survey that asked a representative sample of middle school students to respond to 17 motives for playing violent video games on a four-point scale. Surprisingly, around 20% of boys indicated that they liked to play these games in order to ____.

- a. compete and win
- b. help get their anger out
- c. reduce boredom
- d. make friends and teach others

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

47. A measure of the direction and strength of the relationship between two variables is called ____.

- a. statistical power
- b. its distribution
- c. standard deviation
- d. a correlation

ANSWER: d

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

48. A factor that has a range of values is called a _____.

- a. measure
- b. variable
- c. set
- d. parameter

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

49. A measure is a method for describing a variable's _____.

- a. quantity
- b. reliability
- c. fluctuation
- d. deviation

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

50. A newspaper headline states, "Autism spectrum disorder correlation to wealth affirmed." Researchers found that affluent youngsters were almost twice as likely as the poorest children in the study to have autism spectrum disorder. This is a _____.

- a. positive correlation
- b. reciprocal correlation
- c. negative correlation
- d. zero correlation

ANSWER: a

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

51. A correlational study found that wealthy children were almost twice as likely as the poorest children in the study to have autism spectrum disorder. What is the likely reason?

- a. Autism and the traits of high achievers lie on the same continuum.
- b. The reason is impossible to determine from this correlation.
- c. Wealthier parents tend to put off child-bearing until they're older, which increases the risk of autism.
- d. Poorer children have less access to diagnosis and services for autism.

ANSWER: b

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: How Do Psychologists Conduct Research?

52. Consider the following pairs of variables. Which pair is most likely to have a weak correlation?

- a. hair color and intelligence
- b. height and weight
- c. salary and educational level
- d. age and verbal ability up to age 20

ANSWER: a

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: How Do Psychologists Conduct Research?

53. Consider the observation that many school shootings have been perpetrated by people with a history of playing violent video games. In this scenario, what could the third variable be?

- a. the school shootings
- b. the shooter's history of being bullied.
- c. the age of the shooter
- d. the type of violence in the video games

ANSWER: b

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: How Do Psychologists Conduct Research?

54. In his study of American cities, Professor Smith finds a strong positive correlation between the number of preschools and the number of bars. What is the most likely explanation of this relationship?

- a. Parents of small children need to take an occasional break.
- b. The relationship is due to a third variable, population size.
- c. Confounding variables explain the relationship.
- d. People who regularly frequent bars often meet their life partner and procreate.

ANSWER: b

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

55. A newspaper headline reads, "Are intellectual pursuits the key to preventing Alzheimer's disease?" The researchers scanned the brains of healthy seniors with no memory loss and asked the seniors to recall how much reading, writing, and game-playing they did in childhood. Those who reported doing daily brain activities from a young age had very low levels of amyloid plaques, which are associated with Alzheimer's disease. Which of the following best describes this study's findings?

- a. Intellectual pursuits and presence of amyloid plaque are positively correlated.
- b. Amyloid plaques are the main cause of Alzheimer's disease.
- c. Intellectual pursuits prevent Alzheimer's disease.
- d. There is a negative correlation between intellectual pursuits and the presence of amyloid plaques.

ANSWER: d

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

56. Which of the following is the most appropriate research method for studying the effects of moderate to heavy parental smoking on infants from birth to 1 year of age?

- a. experimental study
- b. naturalistic observation
- c. correlational study
- d. case study

ANSWER: c

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

57. In their study, Anderson and Dill found that the physical aggression score was positively correlated with the amount of recently recorded video playing time. Based on these results, we know that ____.

- a. having an aggressive personality leads to spending more time playing violent video games
- b. a third variable contributes to both physical aggression and continued violent video game play
- c. playing violent video games leads to more physical aggression

d. both relationships are possible: An aggressive personality may lead to more video game time or playing violent video games may lead to more aggression

ANSWER: d

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: How Do Psychologists Conduct Research?

58. A research method that tests hypotheses and allows researchers to make conclusions about causality is called a(n) ____.

- a. case study
- b. experiment
- c. descriptive method
- d. correlational study

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

59. An experimental study is conducted examining the relationship between sleep deprivation and depression. Participants are kept awake by the experimenters for different amounts of time, and then are assessed on various symptoms of depression. In this study, the number of hours that a participant stays awake is the ____.

- a. random variable
- b. independent variable
- c. dependent variable
- d. control variable

ANSWER: b

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

60. An experimental study focuses on the effects that the amount of exercise has on the number of calories consumed per day. The number of calories that a participant consumes is represented by the ____.

- a. independent variable
- b. confounding variable
- c. continuous variable
- d. dependent variable

ANSWER: d

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

61. A group that experiences all experimental procedures with the exception of exposure to the independent variable is called a ____.

- a. control group
- b. random group
- c. variable group
- d. dynamic group

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

62. A group of participants that is exposed to the independent variable is called a(n) ____.

- a. control group
- b. experimental group
- c. random group
- d. non-experimental group

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

63. Random assignment is the procedure in which each participant's chance of being assigned to any group in an experiment is ____.

- a. dependent on their relevant personal qualities
- b. hypothetical
- c. equal
- d. dependent on the size of the control group

ANSWER: c

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

64. A variable that is irrelevant to the hypothesis being tested and can alter a researcher's conclusions is called a(n) ____.
- confounding variable
 - independent variable
 - dependent variable
 - third variable

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

65. Participants in an experiment on stress management are given stress reduction techniques and then measured for the effect. What is the role of the control group in this experiment?

- They receive no stress management techniques, and they are not measured.
- They receive a random stress management technique.
- They receive no stress management techniques, but they are measured.
- They receive the same stress management techniques as the experimental group, but they are not measured.

ANSWER: c

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

66. Dr. Segal is testing the hypothesis that television watching in children under the age of two enhances the development of language skills. In her study, the use of random assignment ____.

- ensures that the dependent variable reflects the personal qualities of the participants
- addresses situational confounding variables, such as the time of day or weather conditions
- ensures that the independent variable reflects the outcomes of the dependent variables
- tends to cancel out individual differences among participants in the experimental group and the control group

ANSWER: d

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

67. Dr. Segal is studying the effects of television watching on the language development of children under the age of two. Because of room scheduling issues, the children in the experimental group underwent testing in the morning and the children in the control group underwent testing in the afternoon. This is an example of ____.

- random assignment
- a situational confounding factor
- a confounding factor due to individual differences
- randomization error

ANSWER: b

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do Psychologists Conduct Research?

68. A limitation of the experimental method is that ____.
- a. participants know that they are in a research study and may vary their behavior accordingly
 - b. causation cannot be established
 - c. the results are rarely accepted by scientific peers
 - d. experiments involving fear, panic, and stress may be so realistic that participants are harmed

ANSWER: a

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: How Do Psychologists Conduct Research?

69. Defining variables in practical terms is called ____.
- a. regression
 - b. validity
 - c. operationalization
 - d. variability

ANSWER: c

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

70. In Dr. Segal's study of the effects of television watching on the language development of children under the age of two, which of the following would you recommend to operationalize the dependent variable?
- a. The cumulative amount of time spent watching television during the study
 - b. A count of the number of words each child knows at the end of the study
 - c. The amount of time per session spent watching television
 - d. A count of the number of words each child knows at the beginning and end of the study

ANSWER: d

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: How Do Psychologists Conduct Research?

71. A statistical analysis of many previous experiments on a single topic is called a ____.
- a. meta-analysis
 - b. modal analysis
 - c. deviation analysis
 - d. regression analysis

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do Psychologists Conduct Research?

72. Conducting a meta-analysis often provides a ____.
- a. clearer picture of a phenomenon than single experiments observed in isolation
 - b. narrow view of a phenomenon
 - c. random sampling of a phenomenon
 - d. less discrete picture of a phenomenon than that of single experiments

ANSWER: a

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: How Do Psychologists Conduct Research?

73. What is an experimental design for assessing age-related changes in which data are obtained simultaneously from people of differing ages?
- a. longitudinal study
 - b. mixed longitudinal study
 - c. cross-sectional study
 - d. correlational study

ANSWER: c

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Study the Effects of Time?

74. The cross-sectional method is subject to the generational effects of having been born at a particular point in history, which is called the ____.
- a. generational correlation
 - b. cohort effect
 - c. historical bias
 - d. age-related differences

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Study the Effects of Time?

75. An experimental design for assessing age-related changes in which data are obtained from the same individuals at intervals over a long period is called a ____.
- a. cross-sectional study
 - b. longitudinal study
 - c. correlational study
 - d. mixed longitudinal study

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Study the Effects of Time?

76. Which of the following is a drawback of longitudinal studies?

- a. They are subject to cohort effects.
- b. They cannot be used to discuss causality.
- c. Participants may drop out of the study over time.
- d. They have limited generalizability.

ANSWER: c

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Study the Effects of Time?

77. Which of the following is not a significant drawback of conducting a longitudinal study?

- a. Participants may drop out of the study for a variety of reasons.
- b. Participants may come to no longer comprise a representative sample of a population.
- c. It can take a long time and cost a lot of money.
- d. It is highly susceptible to the cohort effect.

ANSWER: d

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Study the Effects of Time?

78. A method for assessing age-related changes that combines the cross-sectional and longitudinal approaches by observing a cross-section of participants over a relatively limited period of time is called a ____.

- a. mixed longitudinal study
- b. longitudinal study
- c. cohort study
- d. limited longitudinal study

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Study the Effects of Time?

79. A quality of a measure that leads to meaningful conclusions (i.e., the measure measures the concept it was designed to measure) is called ____.

- a. reliability
- b. variability
- c. statistical significance
- d. validity

ANSWER: d

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

80. Which of the following term is most synonymous with “reliability”?

- a. *consistency*
- b. *uniformity*
- c. *meaningful*
- d. *repeatability*

ANSWER: a

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do We Draw Conclusions From Data?

81. The SAT II single subject achievement test shows the highest positive correlation with first-year college grades compared to both the SAT I aptitude test and high school grade point average. This indicates that of the three tests, it is the most ____.

- a. valid
- b. generalizable
- c. reliable
- d. operational

ANSWER: a

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do We Draw Conclusions From Data?

82. The consistency of a measure, including test-retest, inter-rater, inter-method, and internal consistency, is called ____.

- a. significance
- b. reliability
- c. validity
- d. testability

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

83. Tomoko is developing a survey regarding anger management. Respondents rate their level of agreement with each item on a scale of one to five. Item 4 states: “Given enough provocation, I may swear at a friend or family member.” Item 12 states: “I can think of no good reason for ever swearing at a friend or family member.” These questions seek to determine ____.

- a. inter-rater consistency
- b. internal consistency
- c. inter-method consistency
- d. test-retest consistency

ANSWER: b

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do We Draw Conclusions From Data?

84. Which of the following term is most synonymous with “reliability”?

- a. *consistency*
- b. *uniformity*
- c. *meaningful*
- d. *repeatability*

ANSWER: a

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do We Draw Conclusions From Data?

85. Which of the following is true?

- a. A measure cannot be reliable without being valid.
- b. Numerical measures are rarely valid.
- c. A measure cannot be valid without being reliable.
- d. Numerical measures are always reliable.

ANSWER: c

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: How Do We Draw Conclusions From Data?

86. Statistical methods that organize data into meaningful patterns and summaries, such as finding the average value, are called ____.

- a. inferential statistics
- b. measures
- c. descriptive statistics
- d. modes

ANSWER: c

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

87. Callie has gathered extensive data regarding the working conditions and stress levels of domestic workers in five U.S. cities, including their annual income. She arranges the data from low to high and notes how many workers are in each category using a bar chart. This is called a ____.

- a. standard deviation
- b. frequency distribution
- c. normal distribution
- d. median

ANSWER: b

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do We Draw Conclusions From Data?

88. The mean, median, and mode are all measures of a data set's ____.

- a. frequency distribution
- b. numerical average
- c. variability
- d. central tendency

ANSWER: d

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

89. The numerical average of a set of scores is the ____.

- a. mean
- b. median
- c. mode
- d. norm

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

90. The halfway mark in a set of data, with half of the scores above and half below, is the ____.

- a. norm
- b. mode
- c. median
- d. mean

ANSWER: c

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

91. The most frequently occurring score in a set of data is the ____.

- a. mean
- b. norm
- c. median
- d. mode

ANSWER: d

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

92. Callie's data set regarding the working conditions and stress levels of domestic workers contains housing expenses. The average is surprisingly low, but then she realizes that many workers are live-in employees and report zero housing expense. A more useful measure of central tendency that would not be as impacted by these extreme, outlying scores would be the ____.

- a. median
- b. frequency
- c. normal distribution
- d. mean

ANSWER: a

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do We Draw Conclusions From Data?

93. Neil has gathered data regarding self-report of successful smoking cessation. He finds that one of the eight methods used by study participants accounts for a high proportion of the successes. The most useful measure of central tendency to report would be the ____.

- a. distribution
- b. mode
- c. frequency
- d. mean

ANSWER: b

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: How Do We Draw Conclusions From Data?

94. In statistics, the extent to which scores differ from one another or from their mean; often measured using the standard deviation, is called ____.

- a. variability
- b. frequency
- c. distribution
- d. correlation

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

95. A measure of how tightly clustered a group of scores is around their mean is called the ____.

- a. variability
- b. mode
- c. standard deviation
- d. frequency

ANSWER: c

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

96. Using her data set regarding the working conditions and stress levels of domestic workers, Callie has calculated the standard deviation of their housing expenses in two ways, with and without the workers who have zero housing expense. When she includes all workers, the standard deviation is _____.

- a. smaller
- b. larger
- c. the same
- d. scattered

ANSWER: b

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do We Draw Conclusions From Data?

97. A model of a data set that indicates symmetrical probability of different values is called a _____.

- a. standard deviation
- b. cumulative distribution
- c. frequency distribution
- d. normal distribution

ANSWER: d

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

98. In the ideal normal curve, 95% of the population falls within _____ standard deviation(s) of the mean.

- a. one
- b. two
- c. three
- d. four

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

99. To illustrate the relationship between two variables, one can use a _____.

- a. normal curve
- b. histogram
- c. scatter plot
- d. bar graph

ANSWER: c

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

100. Which correlational coefficient represents the strongest relationship?

- a. $-.95$
- b. $-.75$
- c. $.75$
- d. 1.25

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

101. Statistical methods that allow experimenters to extend conclusions from samples to larger populations are called _____.

- a. descriptive statistics
- b. probability distributions
- c. representative samples
- d. inferential statistics

ANSWER: d

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

102. Dr. Jonas wants to know whether men or women are better drivers. He designs a study to examine this question, and before he begins to collect data he writes up the plan for the research, including his hypothesis. Which of the following would represent a null hypothesis for this study?

- a. Women will demonstrate better driving ability than men.
- b. There will be no differences between the driving abilities of men and women.
- c. Age, not sex, will predict the driving ability of the participants.
- d. Men will demonstrate better driving ability than women.

ANSWER: b

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Do We Draw Conclusions From Data?

103. A standard for deciding whether an observed result is due to chance is called _____.

- a. randomization
- b. statistical significance
- c. the null hypothesis
- d. reasonable doubt

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

104. Like most sciences, psychology has accepted as a standard for statistical significance the odds of 5 out of 100 that an observed result is ____.

- a. true
- b. due to error
- c. due to chance
- d. false

ANSWER: c

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

105. Analysis of SAT test data shows that the differences on the mathematics portion of the SAT test between male and female test-takers are ____.

- a. attributable to chance
- b. precisely correlated with performance in college mathematics courses
- c. unreliable
- d. statistically significant

ANSWER: d

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

106. One critique of Professor Bem's recent study of extrasensory perception (ESP) is that ____.

- a. he exposed undergraduates to erotic photographs without their consent
- b. he changed his research methods in the middle of the experiment without explanation
- c. he coerced students into participating by implying that he would lower their grades
- d. he failed to compensate the students for their participation

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Do We Draw Conclusions From Data?

107. Researchers working in universities and other agencies must receive the approval of institutional review boards (IRBs) for human participant research and institutional animal care and use committees (IACUCs) before conducting research, ____.

- a. if their institution receives federal funding
- b. if their institution receives private funding
- c. only if their research involves vulnerable populations
- d. only if their research has a questionable purpose

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Can We Conduct Ethical Research?

108. At the core of ethical standards for human research is the idea that participation should involve ____.

- a. positive experiences
- b. no coercion
- c. substantial compensation
- d. minimization of pain and suffering

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Can We Conduct Ethical Research?

109. While people who volunteer to participate in research are probably quite different in important ways from those who don't volunteer, most psychologists have chosen to prioritize ____.

- a. the generalizability of research results over research ethics
- b. validity over reliability
- c. reliability over validity
- d. research ethics over the generalizability of research results

ANSWER: d

POINTS: 1

DIFFICULTY: Think Critically

REFERENCES: How Can We Conduct Ethical Research?

110. In Callie's study of the working conditions and stress levels of domestic workers, which of the following would be the most reasonable form of incentive for each interviewee?

- a. A cup of tea
- b. An amount that approximates the domestic worker's hourly rate
- c. One hundred dollars for a one hour interview
- d. Two bottles of wine

ANSWER: b

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Can We Conduct Ethical Research?

111. Permission obtained from a research participant after the risks and benefits of an experimental procedure have been thoroughly explained is called ____.

- a. informed consent
- b. assumption of risk
- c. IRB approval
- d. parental assent

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Can We Conduct Ethical Research?

112. Noreen is a graduate student in psychology. She is designing a study regarding health care decision-making among teenagers. Which of the following research participants can legally provide his or her own informed consent?

- a. an 18-year-old male with HIV/AIDS
- b. a 19-year-old female with profound developmental disabilities
- c. a 17-year-old female with chronic kidney disease
- d. an 18-year-old male with schizophrenia

ANSWER: a

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Can We Conduct Ethical Research?

113. Dr. Harmon has conducted a study of social networks and health within an isolated community. Which of the following would breach a research participant's right to confidentiality?

- a. The completed surveys are stored in a locked file cabinet to which only Dr. Harmon has access.
- b. Dr. Harmon's report avoids the use of identifying information.
- c. As part of the study, Dr. Harmon reviewed each participant's medical record.
- d. Dr. Harmon stored the completed surveys and the key linking names and code numbers on his laptop, to which only he and his wife have the password.

ANSWER: d

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Can We Conduct Ethical Research?

114. Dr. Harmon has conducted a study of social networks and health within an isolated community. Which of the following would breach a research participant's right to privacy?

- a. As part of the study, Dr. Harmon reviewed each participant's medical record.
- b. Dr. Harmon's report contains some potentially identifiable information.
- c. Dr. Harmon conducted his interviews at the health clinic in an examining room separated from the waiting room by a curtain.
- d. Dr. Harmon stored the completed surveys and the key linking names and code numbers on his laptop, to which only he and his wife have the password.

ANSWER: c

POINTS: 1

DIFFICULTY: Apply

REFERENCES: How Can We Conduct Ethical Research?

115. In the Tuskegee syphilis experiment, researchers from the U.S. Public Health Service ____.
- a. studied the progression of syphilis in a group of African American men without providing diagnosis or treatment
 - b. poured bacteria on scrapes made on prisoners' faces and arms to transmit syphilis for the purposes of study
 - c. hired syphilis-infected prostitutes to sleep with soldiers to study the progression of the disease
 - d. exposed prisoners, soldiers, and mental patients to syphilis and gonorrhea to test the effectiveness of penicillin

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Can We Conduct Ethical Research?

116. Research using animals must demonstrate a(n) ____.
- a. physical or financial benefit to humans
 - b. clear scientific purpose
 - c. clear benefit to other animals
 - d. absence of discomfort or invasive procedures

ANSWER: b

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Can We Conduct Ethical Research?

117. According to the American Psychological Association's guidelines, research animals ____.
- a. may be euthanized in accordance with veterinary standards
 - b. must be provided with housing, food, and veterinary care until their natural end
 - c. may be killed only after individual review and certification of need
 - d. may not be killed

ANSWER: a

POINTS: 1

DIFFICULTY: Understand

REFERENCES: How Can We Conduct Ethical Research?

118. Apply your critical thinking skills to the accompanying research study description. Use the five critical thinking questions provided in the text as a basis for your response.

What am I being asked to believe or accept?

What evidence supports this position?

Are there other ways this evidence could be interpreted?

What other evidence would I need to evaluate these alternatives?

What are the most reasonable conclusions?

A newspaper headline reads “Intellectual pursuits key to preventing Alzheimer’s disease?” The researchers scanned the brains of healthy seniors with no memory loss and asked the seniors to recall how much reading, writing, and game-playing they did when they were growing up. The researchers found that those who reported doing daily brain activities from a young age had very low levels of amyloid plaques, which are associated with Alzheimer’s disease. The study involved fewer than 100 participants and could not account for certain factors that may have confounded the results, including socio-economic factors, diet, and overall health behaviors that might also contribute to amyloid plaque formation and Alzheimer’s risk. It also asked participants, whose average age was 76, to recall how much reading, writing, and game-playing they did when they were in elementary school, high school, and as young adults.

ANSWER: Answers will vary. Students should organize their answers around the five critical thinking questions in the text:

What am I being asked to believe or accept?

What evidence supports this position?

Are there other ways this evidence could be interpreted?

What other evidence would I need to evaluate these alternatives?

What are the most reasonable conclusions?

POINTS: 10

DIFFICULTY: Think Critically

REFERENCES: What Is Science?, How Do Psychologists Conduct Research?

119. Describe the basic structure of a research experiment. Include the definition and purpose of the hypothesis, independent variable, dependent variable, control group, experimental group, and random assignment.

ANS A researcher begins designing an experiment with a **hypothesis**, which can be viewed as a highly educated guess *WER* based on systematic observations, a review of previous research, or a scientific theory. A hypothesis takes this form:
: “If I do this, that will happen.” To test the hypothesis, the researcher manipulates or modifies one or more variables and observes changes in others. The variable controlled and manipulated by an experimenter (“If I do this . . .”) is known as the **independent variable**. We need some way to evaluate the effects of this manipulation. We use a **dependent variable**, defined as the observed result of the manipulation of the independent variable, to tell us “that will happen” as a result of the independent variable. Like the independent variable, our choice of dependent variable is based on our original hypothesis.

In most experiments, we want to know how simply going through the procedures of being in an experiment influences our dependent variable. Perhaps the hassle of going to a laboratory and filling out paperwork changes our behavior. To evaluate these effects, we assign some of our participants to a **control group**, or a group that experiences all experimental procedures with the exception of exposure to the independent variable. The experience of the control group should be as similar as possible to that of the **experimental groups**, who do experience the independent variable.

We want to ensure that our dependent variables reflect the outcomes of our independent variables, instead of individual differences among the participants’ personalities, abilities, motivations, and other similar factors. To prevent these individual differences from masking or distorting the effects of our independent variable, we randomly assign participants to experimental or control groups. **Random assignment** means that each participant has an equal chance of being assigned to any group in an experiment. With random assignment, any differences we see between the behavior of one group and that of another is unlikely to be the result of the individual differences among the participants, which tend to cancel each other out.

POI 10

NTS:

DIF Understand

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REF How Do Psychologists Conduct Research?

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120. Professor Wyler has obtained a grant from the National Institute of Mental Health to study the effects of violence in film on attitudes towards aggression among teenagers. He would like to study the effects in a range of socio-economic settings, from impoverished to very wealthy communities. Should he obtain approval from his institutional review board? Why or why not? Discuss potential ethical issues that he should consider related to research in an impoverished community.

ANS Professor Wyler needs approval of his institutional review board because his university receives federal funding. He *WER* must assure that participation is voluntary; for example, any incentives should be at an appropriate level that does not make it difficult to decline to participate. Each participant must provide informed consent. Consent forms should be written in plain language. Depending on age and literacy levels, there may be some difficulty in reading consent forms. Assistance may need to be provided. Teenagers age 18 and above likely can consent for themselves. Younger teenagers would need parental consent as well as their own. Professor Wyler must take care that the content of the films cannot do harm to the participants. He must plan for protection of the participants' privacy during the study and for protection of the confidentiality of their data. Students may raise other issues.

POI 10

NTS:

DIF Think Critically

FIC

ULT

Y:

REF How Can We Conduct Ethical Research?

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S: