Chapter 02
Psychology Research

Multiple Choice Questions

1. The approach used by psychologists to systematically acquire knowledge and understanding about behavior and other phenomena of interest is called:

A. the trial and error method.
B. the informed speculation method.
C. the scientific method.
D. the educated guessing method.

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Outline the steps of the scientific method.
Learning Outcome: 4-1
Topic: Scientific Method

2. Which of the following is the first step in the scientific method?

A. Formulating an explanation
B. Identifying questions of interest
C. Communicating the findings
D. Carrying out research designed to support or refute the explanation

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Outline the steps of the scientific method.
Learning Outcome: 4-1
Topic: Scientific Method

3. After identifying the question of interest, which is the next step in the scientific method?

A. Formulating an explanation
B. Evaluating the findings
C. Communicating the findings
D. Carrying out research designed to support or refute the explanation

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Outline the steps of the scientific method.
Learning Outcome: 4-1
Topic: Scientific Method

4. Which of the following sequences correctly arranges the steps in the scientific method from first to last?

A. Identify problem → formulate explanation → carry out research → communicate findings
B. Carry out research → formulate explanation → identify problem → communicate findings
C. Identify problem → carry out research → formulate explanation → communicate findings
D. Carry out research → identify problem → formulate explanation → communicate findings

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Outline the steps of the scientific method.
Learning Outcome: 4-1
Topic: Scientific Method

5. Frederico is presenting the outcomes of an experiment he conducted in a talk at a regional psychology conference. Frederico is engaged in the _____ step of the scientific method, namely _____.

A. first; communicating results
B. first; formulating an explanation
C. last; communicating results
D. last; formulating an explanation

APA Outcome: 1.2
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Outline the steps of the scientific method.
Learning Outcome: 4-1
Topic: Scientific Method

6. The development of a hypothesis occurs in which of the following steps of a scientific method?

A. Formulating an explanation
B. Identifying questions of interest
C. Communicating the findings
D. Carrying out research designed to support or refute the explanation

APA Outcome: 1.1
APA Outcome: 1.2
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Outline the steps of the scientific method.
Learning Outcome: 4-1
Topic: Scientific Method

7. Collection and analysis of data is done in which of the following steps of the scientific method?

A. Formulating an explanation
B. Identifying questions of interest
C. Communicating the findings
D. Carrying out research designed to support or refute the explanation

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Outline the steps of the scientific method.
Learning Outcome: 4-1
Topic: Scientific Method

8. Which of the following is the final step in the scientific method?

A. Formulating an explanation
B. Identifying questions of interest
C. Communicating the findings
D. Carrying out research designed to support or refute the explanation

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Outline the steps of the scientific method.
Learning Outcome: 4-1
Topic: Scientific Method

9. _____ are broad explanations and predictions concerning phenomena of interest.

A. Theories
B. Hypotheses
C. Operational definitions
D. Suppositions

APA Outcome: 1.3
APA Outcome: 2.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Theories

10. Andrea is reading a general, comprehensive account of human aggression in the introduction to a research report in psychology. Andrea is reading a(n):

A. theory.
B. hypothesis.
C. operational definition.
D. supposition.

APA Outcome: 1.3
APA Outcome: 2.1
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Theories

11. Regarding theories, which of the following statements is true?

A. Theories vary in their breadth.
B. Theories are translations of hypotheses into specific procedures.
C. Theories stem from hypotheses.
D. Theories are predictions stated in a way that allow them to be tested.

APA Outcome: 1.1
APA Outcome: 2.1
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Easy
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Theories

12. As compared to the theories about human behavior we all develop in daily life, those formulated by psychologists are:

A. more general.
B. broader.
C. more complex.
D. more formal.

APA Outcome: 1.1
APA Outcome: 2.1
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Theories

13. According to Bibb Latane and John Darley's theory of _____, the greater the number of bystanders or witnesses to an event that calls for helping behavior, the more the responsibility for helping is perceived to be shared by all the bystanders.

A. diffusion of responsibility
B. command responsibility
C. social responsibility
D. collective responsibility

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Theories

14. "People with opposite personality traits are more likely to be attracted to each other." This is a(n):

A. hypothesis.
B. correlation.
C. theory.
D. operational definition.

APA Outcome: 2.1
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Difficult
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Hypotheses

15. A hypothesis is best defined as a:

A. prediction stated in a way that allows it to be tested.
B. specification of a variable in terms of the procedures that will be used to measure it.
C. broad, general explanation of the phenomenon of interest.
D. behavior, event, or other characteristic that can assume different values.

APA Outcome: 2.1
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Hypotheses

16. When asked to define "popularity," Brianna offers, "It's when everyone likes you." Chrissy suggests, "It's basically the number of friends you have." How do the two girls' definitions differ?

A. Chrissy's is a procedural definition; Brianna's is not.
B. Brianna's is an operational definition; Chrissy's is not.
C. Brianna's is a procedural definition; Chrissy's is not.
D. Chrissy's is an operational definition; Brianna's is not.

APA Outcome: 1.3
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Hypotheses

17. Which of the following is an operational definition of happiness?

A. An individual's feeling of joy
B. An individual's sense of achievement and spirituality
C. An individual's self-rating on a 10-point happiness scale
D. An individual's feeling of contentment

APA Outcome: 1.3
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Hypotheses

18. Regarding operational definitions, which of the following statements is most accurate?

A. For a given hypothesis, there are usually two operational definitions.
B. For a given hypothesis, there is a single best operational definition.
C. For a given hypothesis, many operational definitions are usually possible.
D. Some hypotheses cannot be translated into operational definitions.

APA Outcome: 1.1
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Hypotheses

19. Which of the following statements best expresses the relationship between a theory and a hypothesis?

A. A theory is more focused than a hypothesis.
B. A theory is broader than a hypothesis.
C. A theory is the same as a hypothesis.
D. A theory is unrelated to a hypothesis.

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Hypotheses

20. Prediction is to explanation what _____ is to _____.

A. hypothesis; theory
B. theory; hypothesis
C. variable; supposition
D. hypothesis; variable

APA Outcome: 1.1
APA Outcome: 2.1
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Hypotheses

21. Which of the following sequences is correct?

A. Operational definition → hypothesis → theory
B. Operational definition → theory → hypothesis
C. Hypothesis → theory → operational definition
D. Theory → hypothesis → operational definition

APA Outcome: 1.1
APA Outcome: 2.1
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Hypotheses

22. _____ is defined as the systematic inquiry aimed at the discovery of new knowledge.

A. Theory
B. Critical thinking
C. Coherent observation
D. Research

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Descriptive Research

23. Each of the following is a descriptive research technique except:

A. experimental research.
B. case study research.
C. naturalistic observation.
D. archival research.

APA Outcome: 2.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Experimental Research

24. Research in which existing data, such as census documents, college records, and newspaper clippings, are examined to test a hypothesis is known as _____.

A. experimental research
B. archival research
C. naturalistic research
D. a case study

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Archival Research

25. Dr. Carruthers is using crime statistics available in a federal database as part of a study. Dr. Carruthers is conducting a(n):

A. case study.
B. naturalistic observation.
C. archival research.
D. survey.

APA Outcome: 1.1
APA Outcome: 1.3
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Easy
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Archival Research

26. Wallace is engaged in archival research. In which of the following projects is he most likely engaged?

A. Comparing the effects of cell phone distractions to those of text message distractions on participants' performance in a driving simulator
B. Asking a large sample of community dwellers a set of questions about their perceptions of healthcare reform
C. Recording language comprehension deficits in a woman with left hemisphere brain damage
D. Examining the registrar's records at a state university to explore the relationship between SAT scores and freshman GPA

APA Outcome: 1.3
APA Outcome: 2.1
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Archival Research

27. Which of the following is not a drawback of archival research?
A. Existing records are often incomplete.
B. It is expensive to conduct.
C. Existing data may not have been collected systematically.
D. Data may not be in a form that allows the researcher to test a hypothesis fully.

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Archival Research

28. Evelyn, a psychology graduate, watches parent-child interactions in a park. She simply records what she sees and does not make a change in the situation. The method she uses is known as _____.

A. naturalistic observation
B. archival research
C. experimentation
D. a case study

APA Outcome: 1.3
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Naturalistic Observation

29. Naturalistic observation entails:

A. the systematic, detailed study of a single individual.
B. examining existing records such as census documents.
C. asking a sample of individuals a set of questions.
D. examining behavior in the setting in which it typically occurs.

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Naturalistic Observation

30. DeAndre is recording instances of physical aggression among children in a schoolyard at recess. DeAndre is undertaking:

A. a naturalistic observation.
B. an archival research.
C. a survey.
D. a case study.

APA Outcome: 1.1
APA Outcome: 1.3
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Naturalistic Observation

31. Brooke is engaged in naturalistic observation. In which of the following projects is she most likely engaged?

A. Asking a sample of college students a set of questions about tendency to become angry in different situations
B. Watching and recording interactions between subordinates and their supervisors in a large corporate office
C. Conducting an in-depth investigation of the history and current behavior of an autistic boy
D. Examining crime statistics from the Department of Justice to see if the rate of property crimes is related to the rate of violent crimes

APA Outcome: 1.3
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Naturalistic Observation

32. Which of the following descriptive research methods is correctly matched with a description?

A. Archival research—in-depth investigation of an individual
B. Naturalistic observation—behavior is investigated in the environment in which it typically occurs, without intervention by the researcher
C. Case study—a sample is asked a series of questions about their thoughts, attitudes, or behaviors
D. Survey research—existing data is examined to test a hypothesis

APA Outcome: 1.1
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Easy
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Naturalistic Observation

33. Which of the following descriptive research methods is incorrectly matched with an advantage?

A. Archival research—inexpensive
B. Naturalistic observation—examines behavior in the "real world"
C. Survey—small sample can give accurate picture of much larger population
D. Case study—it controls any of the factors of interest

APA Outcome: 1.1
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Easy
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Case Studies

34. Which of the following statements best expresses the relationship between a sample and a population?

A. A sample includes a population.
B. A population includes a sample.
C. A population is similar to a sample.
D. A sample is completely separate from a population.

APA Outcome: 1.1
APA Outcome: 1.2
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Survey Research

35. Amy is conducting a survey of dating attitudes and behaviors among young adults as part of her master's thesis work. Amy distributes questionnaires to 200 randomly selected students enrolled in an introductory psychology course at her university. The 200 students constitute Amy's _____. The people whom she assumes her results will generalize are termed the _____.

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

APA Outcome: 2.2
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Survey Research

36. Wilma is undertaking survey research. Which of the following is she probably doing?

A. Recording the behaviors of sea lions in their natural habitat
B. Observing the problem-solving strategies of an extremely gifted middle school girl
C. Comparing students' performance on abstract and concrete versions of problems
D. Asking a sample of students a series of questions about their sexual attitudes and behaviors

APA Outcome: 1.3
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Survey Research

37. Dr. Estevez prepares a set of questions to ask college students about their drinking behavior and their attitudes toward alcohol. Dr. Estevez is undertaking a(n):

A. survey research.
B. case study.
C. naturalistic observation.
D. archival research.

APA Outcome: 1.3
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Easy
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Survey Research

38. Dr. Gigliotti is conducting an in-depth, intensive investigation of a patient with dissociative identity disorder. He uses psychological tests and interviews to better understand the patient. Dr. Gigliotti is undertaking a(n):

A. survey research.
B. archival research.
C. case study.
D. naturalistic observation.

APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Case Studies

39. _____ is an in-depth, intensive investigation of an individual or small group of people.

A. Archival research
B. Survey research
C. Naturalistic observation
D. Case study

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Case Studies

40. Which of the following researchers is conducting a case study?
A. Dr. Henriette, who is investigating the effect of word imageability on list memory by handing out questionnaires
B. Dr. Innis, who is investigating in detail the tactile perception of a blind woman
C. Dr. Jefferson, who is observing children on a playground
D. Dr. Kulik, who is studying newspaper stories on serial killers

APA Outcome: 1.3
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Case Studies

41. Behaviors, events, or other characteristics that can change in some way are referred to as:

A. variables.
B. constants.
C. operational definitions.
D. hypotheses.

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

42. Correlation research is:

A. research in which an investigator simply observes some naturally occurring behavior and does not make a change in the situation.
B. research in which people chosen to represent a larger population are asked a series of questions about their behavior, thoughts, or attitudes.
C. research in which the relationship between two sets of variables is examined to determine whether they are associated.
D. research in which existing data, such as census documents, college records, and newspaper clippings, are examined to test a hypothesis.

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

43. Irving has noticed a pattern: The more alcohol people drink, the more aggressive they seem to be. Which research method is aimed at verifying a relationship between two variables?

A. Naturalistic observation
B. Case study
C. Correlational research
D. Archival research

APA Outcome: 1.1
APA Outcome: 1.3
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Easy
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

44. Which term is most nearly synonymous with the term *correlation*?

A. Association
B. Explanation
C. Observation
D. Manipulation

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Easy
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

45. The correlation coefficient ranges from _____ to _____.

A. 1 to 10
B. +1.0 to -1.0
C. 0 to 1
D. -10 to +10

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

46. The strength and direction of the relationship between the two variables are represented by a mathematical statistic known as a(n) _____.

A. standard deviation
B. affiliation
C. operational definition
D. correlation

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

47. A positive correlation indicates that:

A. as the value of one variable increases, the value of the other increases.
B. as the value of one variable increases, the value of the other decreases.
C. little or no relationship exists between two variables.
D. one variable causes the other.

APA Outcome: 1.1
APA Outcome: 1.2
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

48. Using a sample of young adolescents, Dr. Nguyen finds a correlation of +.55 between scores on a measure of neglectful or uninvolved parenting and scores on a measure of delinquent behavior. Which of the following might Dr. Nguyen legitimately conclude?

A. Uninvolved parenting causes juvenile delinquency.
B. Parenting that is more neglectful is related to a lower degree of delinquent behavior.
C. Uninvolved parenting is unrelated to delinquency.
D. Parenting that is more neglectful is related to a higher degree of delinquent behavior.

APA Outcome: 1.3
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Difficult
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

49. Which of the following correlation coefficients represents the strongest relationship between two variables?

A. -.75
B. +.60
C. .00
D. +.30

APA Outcome: 1.1
APA Outcome: 1.2
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

50. Which of the following sequences of correlation coefficients correctly arranges the relationships between three pairs of two variables in order of increasing strength?

A. -.60, +.10, +.50
B. +.10, +.50, -.60
C. -.60, +.50, +.10
D. .00, -.60, +.50

APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Difficult
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

51. In a negative correlation:

A. the values of both variables increase simultaneously.
B. as the value of one variable increases, the value of the other decreases.
C. the values of both variables decrease simultaneously.
D. one variable is the cause of the other variable.

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

52. No relationship between two variables is represented by a:

A. negative sign.
B. sigma.
C. zero.
D. positive sign.

APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Easy
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

53. Experimental research is to correlational research what _____ is to _____.

A. association; cause
B. description; prediction
C. cause; association
D. description; association

APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental Research

54. The only way psychologists can establish cause-and-effect relationships through research is by carrying out a(n) _____.

A. correlational research
B. survey research
C. experiment
D. survey

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental Research

55. Dr. Ingram deliberately varied the imageability of items on a list and later measured participants' recall of the items. Dr. Ingram conducted a(n) _____ research.

A. correlational
B. archival
C. observational
D. experimental

APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental Research

56. Experimental research requires that the responses of _____ group(s) be examined.

A. at least one
B. at least five
C. at least two
D. at least three

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental Research

57. Experimental group is to control group what _____ is to _____.

A. treatment; no treatment
B. no treatment; treatment
C. independent variable; dependent variable
D. dependent variable; independent variable

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental Research

58. In the context of psychological research, _____ is any group that receives a treatment.

A. research group
B. experimental group
C. control group
D. secondary group

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental Research

59. _____ is a group participating in an experiment that receives no treatment.

A. Research group
B. Experimental group
C. Control group
D. Secondary group

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental and Control Groups

60. Why are control groups included in experiments?

A. To determine whether two variables are correlated
B. To ascertain cause-and-effect relationships
C. To ensure that participant characteristics are essentially the same in each group
D. To translate the hypothesis into something testable

APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental and Control Groups

61. In an experiment, the _____ variable is deliberately manipulated by the researcher.

A. control
B. dependent
C. independent
D. experimental

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental and Control Groups

62. In an experiment, the _____ variable is measured and is expected to change due to the experimenter's manipulation.

A. control
B. dependent
C. independent
D. experimental

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental and Control Groups

63. In an experiment, the dependent variable is:

A. applied to the treatment group.
B. randomized across groups.
C. measured by the researcher and is expected to change.
D. deliberately manipulated by the researcher.

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental and Control Groups

64. In an experiment, the independent variable is:

A. applied to the control group.
B. randomized across groups.
C. measured by the researcher and is expected to change.
D. deliberately manipulated by the researcher.

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Independent and Dependent Variables

65. Doctors Chase and Sanborn are conducting an experiment on the effects of caffeine on memory. Participants are randomly assigned to a caffeine or a no-caffeine group; their recall of items on a word list is later assessed. Which pair correctly identifies a variable in this experiment?

A. Caffeine—dependent variable
B. Caffeine—independent variable
C. Word recall—independent variable
D. Word recall—experimental variable

APA Outcome: 1.3
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Independent and Dependent Variables

66. Doctors Chase and Sanborn are conducting an experiment on the effects of caffeine on memory. Participants are randomly assigned to a caffeine or a no-caffeine group; their recall of items on a word list is later assessed. In this experiment, word recall is the _____ variable.

A. subject
B. control
C. independent
D. dependent

APA Outcome: 1.3
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Independent and Dependent Variables

67. Doctors Chase and Sanborn are conducting an experiment on the effects of caffeine on memory. Participants are randomly assigned to a caffeine or a no-caffeine group; their recall of items on a word list is later assessed. Which pair below correctly names and identifies the variables in this experiment?

A. Word recall—control variable; caffeine—experimental variable
B. Word recall—independent variable; caffeine—dependent variable
C. Word recall—dependent variable; caffeine—independent variable
D. Word recall—experimental variable; caffeine—control variable

APA Outcome: 1.3
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Independent and Dependent Variables

68. In a typical Latane and Darley "bystander" experiment, _____ is the independent variable and _____ is the dependent variable.

A. the presence of bystanders; whether a false emergency occurs
B. whether a false emergency occurs; the presence of bystanders
C. whether the participant helps; the number of people present
D. number of people present; whether the participant helps

APA Outcome: 1.2
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Independent and Dependent Variables

69. The people taking part in an experiment are referred to as _____.

A. patients
B. subjects
C. confederates
D. assignees

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental Research

70. The purpose of random assignment is to:

A. combine the results of a number of similar studies.
B. determine how likely it is that the results of a treatment were due to chance.
C. ensure that participant characteristics are equivalent across the various groups.
D. determine whether two variables are related.

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental Research

71. In which of the following procedures are participants assigned to different experimental groups on the basis of chance and chance alone?

A. Operationalization
B. Correlation
C. Random sampling method
D. Random assignment to condition

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Random Assignment

72. An experimenter flips a coin for each participant and assigns the participant to one group when "heads" came up and to the other group when "tails" came up. This process is referred to as:

A. operationalization.
B. random assignment to condition.
C. purposive sampling.
D. correlation.

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Random Assignment

73. Which of the following is an advantage of archival research?

A. It provides a thorough, in-depth understanding of participants.
B. It provides a sample of people in their natural environment.
C. A small sample can be used to infer attitudes and behavior of a larger population.
D. Data collection is easy because data already exists.

APA Outcome: 1.1
APA Outcome: 1.2
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-1
Topic: Archival Research

74. Which of the following is an advantage of survey research?

A. It provides a thorough, in-depth understanding of participants.
B. It provides a sample of people in their natural environment.
C. A small sample can be used to infer attitudes and behavior of a larger population.
D. Data collection is easy because data already exists.

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-1
Topic: Survey Research

75. Which of the following is a disadvantage of survey research?

A. It is dependent on the availability of existing data.
B. The "typically occurring habitat" being observed cannot be controlled.
C. A small sample cannot be used to infer attitudes and behavior of a larger population.
D. The sample may not be representative of the larger population.

APA Outcome: 1.1
APA Outcome: 1.2
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-1
Topic: Survey Research

76. Which of the following is an advantage of a case study?

A. It provides a thorough, in-depth understanding of participants.
B. It provides a sample of people in their natural environment.
C. A small sample can be used to infer attitudes and behavior of a larger population.
D. Data collection is easy because data already exists.

APA Outcome: 1.1
APA Outcome: 1.2
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-1
Topic: Case Studies

77. Which of the following is a disadvantage of a case study?

A. It is dependent on the availability of existing data.
B. The "typically occurring habitat" being observed cannot be controlled.
C. Results may not be generalizable beyond the sample.
D. It fails to provide a thorough, in-depth understanding of participants.

APA Outcome: 1.1
APA Outcome: 1.2
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-1
Topic: Case Studies

78. Meaningful results that make it possible for researchers to feel confident that they have confirmed their hypotheses is known as a _____.

A. mutually exclusive result
B. subjective outcome
C. significant outcome
D. conditional result

APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Case Studies

79. Research that is conducted, sometimes using other procedures, settings, and groups of participants, to increase confidence in prior finding is referred to as _____.

A. replicated research
B. archival research
C. naturalistic research
D. survey research

APA Outcome: 1.1
APA Outcome: 1.2
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Replicated Research

80. Iyesha reads a journal article reporting a study in which a small sample of women undertook tests of spatial ability at two points during their menstrual cycle. Iyesha conducts a similar study using not only spatial ability but also verbal ability tests. In addition, Iyesha tests a larger sample of women. She aims to confirm the findings of the study mentioned in the journal. Iyesha performs a _____.

A. meta-analysis
B. replicated research
C. significance test
D. control study

APA Outcome: 1.3
APA Outcome: 2.1
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Replicated Research

81. Kendra is combining the results of a number of experiments to yield an overall conclusion. Kendra is performing a _____.
A. meta-analysis
B. significance test
C. cross-validation
D. sensitivity analysis

APA Outcome: 1.3
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Replicated Research

82. Which of the following statements most accurately captures the opinion of most psychologists in the context of the use of deception?

A. It is integral to the conduct of scientifically valid research.
B. It is often necessary in psychological research.
C. It is sometimes necessary to safeguard the study's true purpose.
D. It has absolutely no place in psychological research.

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 6-1
Topic: Replicated Research

83. Before participating in an experiment, the participants must sign a document affirming that they have been told the basic outlines of the study and are aware of what their participation will involve, what risks the experiment may hold, and the fact that their participation is purely voluntary and they may terminate it at any time. This refers to which ethical principle of research?

A. Informed consent
B. Debriefing
C. Experimental manipulation
D. Significant outcome

APA Outcome: 1.2
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Experimental Research

84. Which of the following is not a component of informed consent?

A. A detailed explanation of the study and its procedures.
B. A statement of the potential risks of participating in the study.
C. An assurance that participation is completely voluntary.
D. The knowledge that a participant can terminate his/her participation at any time.

APA Outcome: 1.1
APA Outcome: 1.2
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Easy
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Experimental Research

85. Dr. O'Connor is telling his participants before he begins the experiment that their participation is completely voluntary and that they can stop taking part at any time. Dr. O'Connor is:
A. debriefing his participants.
B. obtaining informed consent.
C. using experimental manipulation.
D. assuring confidentiality.

APA Outcome: 1.3
APA Outcome: 2.5
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Easy
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Experimental Research

86. When a researcher debriefs her participants, she:

A. reveals the outcome of the study.
B. provides a detailed explanation of the study.
C. tells them they can stop taking part at any time.
D. assures the participants of confidentiality.

APA Outcome: 1.3
APA Outcome: 2.5
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Easy
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Experimental Research

87. Dr. O'Malley is informing participants before he begins the experiment that their participation is completely voluntary and that they can stop taking part at any time. Dr. Hensley is providing a detailed explanation of the study to participants who have just completed participating in the study. Which of the following statements is true?
A. Dr. O'Malley is obtaining informed consent from his participants. Dr. Hensley is debriefing her participants.
B. Dr. O'Malley is debriefing his participants. Dr. Hensley is obtaining informed consent from her participants.
C. Dr. O'Malley and Dr. Hensley are obtaining informed consent from their participants.
D. Dr. O'Malley and Dr. Hensley are debriefing their participants.

APA Outcome: 1.3
APA Outcome: 2.5
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Easy
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Case Studies

88. Which of the following sequences best reflects the order of events in an experiment?

A. Informed consent → experiment → debriefing
B. Informed consent → debriefing → experiment
C. Debriefing → informed consent → experiment
D. Experiment → informed consent → debriefing

APA Outcome: 2.5
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Experimental Research
Topic: Theories

89. Which of the following is not one of the reasons that college students are so often used as participants in psychological research?
A. They are representative of the population at large.
B. They are generally readily available to researchers.
C. They are inexpensive.
D. Most research occurs in university settings.

APA Outcome: 1.3
APA Outcome: 2.5
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Experimental Bias

90. A college student sample differs from the population it is implicitly intended to represent—that is, people in general, in each of the following ways except that:

A. they tend to come from industrialized cultures.
B. they tend to come from Western cultures.
C. they are better educated.
D. they tend to be poor.

APA Outcome: 1.3
APA Outcome: 2.5
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Experimental Bias

91. Which of the following guidelines is true regarding the use of nonhuman animals in experiments?

A. Researchers must minimize discomfort, illness, and pain for the animals.
B. Researchers must house, feed, and care for the animals properly.
C. Researchers must promote the animals' well-being, at least for some species.
D. Research with animals has failed to provide psychologists with valuable information.

APA Outcome: 1.2
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Ethics

92. Factors that distort the way the independent variable affects the dependent variable are referred to as:

A. double-blinds.
B. placebo effects.
C. experimental bias.
D. participant bias.

APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Experimental Bias

93. To guard against participant expectations biasing the results of an experiment, the experimenter may:

A. disclose to participants how earlier participants tested.
B. explain to the participant what the desired outcome should be.
C. try to disguise the true purpose of the experiment.
D. allow the participant to interact with people who have already been part of the experiment.

APA Outcome: 1.1
APA Outcome: 1.2
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Easy
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Ethics

94. When cues are transmitted to participants about how they are expected to behave in particular experimental conditions, the research results may reflect _____ expectations. When people develop their own ideas about the topic of the research, the investigation's outcomes may be biased by _____.

A. experimenter; participant expectations
B. experimenter; experimenter expectations
C. participant; participant expectations
D. participant; experimenter expectations

APA Outcome: 1.2
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Ethics

95. In Dr. Suarez's social psychology lab, some college students taking part in the research suspect that interpersonal attraction processes are under study. This knowledge influences the way they interact with each other. In a play session during a child development study, Dr. Thomas' research assistants are more likely to unconsciously reinforce aggressive behavior among children who view a violent video clip than among children viewing a nonviolent clip. Dr. Suarez's research is susceptible to _____ expectations. Dr. Thomas' work is prone to _____.

A. experimenter; participant expectations
B. experimenter; experimenter expectations
C. participant; participant expectations
D. participant; experimenter expectations

APA Outcome: 1.2
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Easy
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Experimental Bias

96. What is a placebo?

A. A small marsupial
B. A Japanese "hybrid" car
C. A false experimental treatment
D. A sac that contains and nourishes a fetus

APA Outcome: 1.2
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Experimental Bias

97. A _____ is a false treatment, such as a pill, "drug," or other substance, without any significant chemical properties or active ingredients.

A. double-blind procedure
B. correlation coefficient
C. placebo
D. single-blind procedure

APA Outcome: 1.2
APA Outcome: 2.2
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Experimental Bias

98. A team of researchers conduct an experiment to test the effectiveness of a new drug in treating anxiety disorders. The participants in the control group receive sugar pills without active ingredients, while those in the experimental group receive the new, anti-anxiety drug. In this example, the researchers use a:

A. double-blind procedure.
B. correlation coefficient.
C. placebo.
D. single-blind procedure.

APA Outcome: 1.3
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Identify possible sources of experimental bias in research.
Learning Outcome: 6-1
Topic: Experimental Bias

99. In an experiment involving a placebo,

A. all the participants receive a treatment.
B. the participants in the control group aware of the purpose of the research.
C. the experimenter who interacts with the participant is unaware of the nature of the drug that is being administered.
D. the participants belong to diverse ethnicities.

APA Outcome: 2.2
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Identify possible sources of experimental bias in research.
Learning Outcome: 6-1
Topic: Experimental Bias

100. A placebo is intended to minimize _____ expectations; a double-blind procedure minimizes _____.

A. participant; experimenter expectations
B. participant; participant expectations
C. experimenter; experimenter expectations
D. experimenter; participant expectations

APA Outcome: 2.2
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Understand
Difficulty: Medium
Learning Objective: Identify possible sources of experimental bias in research.
Learning Outcome: 6-1
Topic: Experimental Bias

101. In a _____, both the participant and the experimenter who interacts with the participant is unaware of the nature of the drug that is being administered.

A. double-blind procedure
B. control treatment
C. placebo experiment
D. single-blind procedure

APA Outcome: 1.1
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Identify possible sources of experimental bias in research.
Learning Outcome: 6-1
Topic: Experimental Bias

102. A pharmaceutical company is conducting an experiment to test the effectiveness of a tricyclic antidepressant. Which of the following, if true, would indicate that the experimenters used a placebo?

A. The participants were assigned to the experimental or control groups by drawing lots.
B. The participants were informed about the medication they would be taking and its possible side effects before starting the treatment.
C. The participants in both groups did not know if they were getting a real or a false treatment.
D. The research assistants who administered the drugs were asked to establish rapport with the participants.

APA Outcome: 2.2
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Identify possible sources of experimental bias in research.
Learning Outcome: 6-1
Topic: Experimental Bias

103. A double-blind procedure is administered to overcome _____.

A. participant expectations
B. memory bias
C. reporting bias
D. experimenter expectations

APA Outcome: 2.2
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Remember
Difficulty: Easy
Learning Objective: Identify possible sources of experimental bias in research.
Learning Outcome: 6-1
Topic: Experimental Bias

104. A pharmaceutical company wishes to test the efficacy of a new antidepressant using a double-blind procedure. Which alternative correctly describes the procedure the company would use?

A. The research assistants would know which participants were receiving the new drug and which were receiving an inert pill. Each patient would also know which type of pill he or she was taking.
B. The research assistants would know which participants were receiving the new drug and which were receiving an inert pill. Each patient, though, would not know which type of pill he or she was taking.
C. The research assistants would not know which participants were receiving the new drug and which were receiving an inert pill. Each patient, though, would know which type of pill he or she was taking.
D. The research assistants would not know which participants were receiving the new drug and which were receiving an inert pill. Also, each patient would not know which type of pill he or she was taking.

APA Outcome: 1.3
APA Outcome: 2.2
APA Outcome: 2.4
Accessibility: Keyboard Navigation
Bloom's: Apply
Difficulty: Medium
Learning Objective: Identify possible sources of experimental bias in research.
Learning Outcome: 6-1
Topic: Experimental Bias

Worksheet Questions

105. The approach used by psychologists to systematically acquire knowledge and understanding about behavior and other phenomena of interest is called the **scientific method**.

APA Outcome: 1.1
Bloom's: Remember
Difficulty: Easy
Learning Objective: Outline the steps of the scientific method.
Learning Outcome: 4-1
Topic: Scientific Method

106. Alyssa predicts that caffeine will improve her participants' performance on a visual tracking task. Alyssa has formed a(n) **hypothesis**.

APA Outcome: 1.3
APA Outcome: 2.4
Bloom's: Apply
Difficulty: Easy
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Hypotheses

107. A(n) **operational definition** is the translation of a hypothesis into specific, testable procedures that can be measured and observed.

APA Outcome: 1.1
Bloom's: Remember
Difficulty: Easy
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Hypotheses

108. Systematic inquiry aimed at generating new knowledge is called **research**.

APA Outcome: 2.1
Bloom's: Remember
Difficulty: Easy
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Descriptive Research

109. **Descriptive** research includes archival research, naturalistic observation, survey research, and the case study method.

APA Outcome: 1.1
Bloom's: Understand
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Descriptive Research

110. Dr. Leblanc is examining interactions among primates in the wild; he does not intervene. Dr. Leblanc is performing a **naturalistic observation**.

APA Outcome: 2.2
Bloom's: Apply
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Naturalistic Observation

111. In **survey research**, a sample of people chosen to represent a larger group of interest is asked a series of questions about their behavior, thoughts, or attitudes.

APA Outcome: 1.1
Bloom's: Apply
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Survey Research

112. A(n) **sample** is a representative subset of a population.

APA Outcome: 1.1
Bloom's: Remember
Difficulty: Easy
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Survey Research

113. One disadvantage of using **research** surveys to collect data is that participants may be unaware of their feelings or attitudes.

APA Outcome: 2.2
Bloom's: Understand
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Survey Research

114. **Psychological testing** is a procedure in which a carefully designed set of questions is used to gain some insight into the personality of the individual or group.

APA Outcome: 1.1
Bloom's: Remember
Difficulty: Easy
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Survey Research

115. **Variables** are behaviors, events, or other characteristics that can change, or vary, in some way.

APA Outcome: 1.1
Bloom's: Remember
Difficulty: Easy
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Correlational Research

116. The strength and direction of the relationship between the two variables are represented by a mathematical statistic formally known as a(n) **correlation coefficient**.

APA Outcome: 1.2
Bloom's: Apply
Difficulty: Easy
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

117. In an experiment, a researcher manipulates participants' exposure to a stimulus. Exposure is a(n) **independent** variable in this example.

APA Outcome: 1.1
Bloom's: Apply
Difficulty: Medium
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-2
Topic: Correlational Research

118. A(n) **significant** outcome is not due to chance.

APA Outcome: 2.4
Bloom's: Remember
Difficulty: Easy
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-2
Topic: Correlational Research

119. Miranda is statistically combining the results of all the published studies on the effects of the presence of a weapon on eyewitness accuracy. Miranda is performing a(n) **meta-analysis**.

APA Outcome: 2.4
Bloom's: Apply
Difficulty: Difficult
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-2
Topic: Replicated Research

120. Sometimes, to prevent participants from being influenced by what they think a study's true purpose is, investigators must engage in **deception**.

APA Outcome: 1.1
Bloom's: Remember
Difficulty: Easy
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Ethics

121. Before the outset of a study, participants must give **informed consent**, indicating that they know the potential risks of the study and are aware that their participation is voluntary.

APA Outcome: 1.3
APA Outcome: 2.5
Bloom's: Remember
Difficulty: Easy
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Ethics

122. At the conclusion of an experimental session, Nia tells her participants the purpose of the study and explains the procedures she used. Nia is **debriefing** her participants.

APA Outcome: 1.3
APA Outcome: 2.5
Bloom's: Apply
Difficulty: Medium
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Ethics

123. **Experimental bias** refers to factors that distort the way the independent variable affects the dependent variable.

APA Outcome: 1.1
Bloom's: Remember
Difficulty: Easy
Learning Objective: Identify possible sources of experimental bias in research.
Learning Outcome: 6-1
Topic: Experimental Bias

124. In a test of a new antianxiety medication, participants are given either the medication or a placebo; the personnel administering the study, moreover, do not know which participants receive the medication and which receive the placebo. This experiment may be described as a(n) **double-blind** study.

APA Outcome: 2.2
APA Outcome: 2.4
Bloom's: Apply
Difficulty: Medium
Learning Objective: Identify possible sources of experimental bias in research.
Learning Outcome: 6-1
Topic: Experimental Bias

Essay Questions

125. The text opens the research methods chapter by recounting Kitty Genovese's rape and murder, in which not a single neighbor came to her aid. Describe how each step of the scientific method might be applied to better understand such a phenomenon.

The answer should include all four steps of the scientific method:

1. Identifying a question of interest: How could it be that absolutely no one in a crowded city would help a women being raped and killed? That's disturbing; let's use the scientific method to find an answer.

2. Formulating an explanation: Psychologists Latane and Darley developed an explanation, or theory, based on the notion of diffusion of responsibility. The more bystanders there are, the more the responsibility for helping is perceived to be spread among them. Thus, the more bystanders, the smaller the share of responsibility felt by any one bystander, and the less likely he or she is to help.

3. Carrying out research: The answer should describe an experimental scenario in which the number of bystanders to a staged emergency is varied and the helping behavior of the participant is measured.

4. Sharing the findings: The results of the experiment should be published as a journal article or presented at a conference.

APA Outcome: 2.1
Bloom's: Apply
Difficulty: Difficult
Learning Objective: Outline the steps of the scientific method.
Learning Outcome: 4-1
Topic: Scientific Method

126. Distinguish between a hypothesis and a theory. Provide an example of a hypothesis, along with operational definitions of the variables included in your hypothesis.

Hypothesis is a specific prediction regarding the relationship between two variables. Theories are broad explanations of the phenomena of interest.

The answer should further suggest that a hypothesis is more specific than a theory.

Next, the answer should contain a single-sentence hypothesis, including some notion of both an independent and a dependent variable.

Finally, both the independent and dependent variables should be operationalized, or stated in quantifiable terms. Examples: intelligence = score on an intelligence test; partying = hours per week spent consuming alcohol or other psychoactive substances in the company of one or more other people; grades = GPA

APA Outcome: 1.3
APA Outcome: 2.4
Bloom's: Understand
Difficulty: Medium
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Hypotheses
Topic: Theories

127. Select two of the following aphorisms: (1) Birds of a feather flock together; (2) Opposites attract; (3) The more the merrier; (4) Two heads are better the one; (5) Two's company; three's a crowd. Translate each aphorism that you select into a testable hypothesis. Provide operational definitions of each of the variables in each hypothesis.

The answer should include examples similar to the following:

Birds of a feather flock together. Hypothesis: The more similar two people are, the more likely they are to be attracted to each other. Operational definitions: Similarity: (high) correlation between two people's scores on personality and intelligence measures interpersonal attraction—attraction ratings completed by the members of the couple; pupil dilation, whether a follow-up phone call takes place.

Opposites attract. Hypothesis: The more dissimilar two people are, the more likely they are to be attracted to each other. Operational definitions: Dissimilar: (low or negative) correlation between two people's scores on personality and intelligence measures interpersonal attraction—attraction ratings completed by the members of the couple; pupil dilation, whether a follow-up phone call takes place.

The more the merrier. Hypothesis: As more people participate in a social event, each individual's enjoyment of the event increases. Operational definitions: More people—the number of people attending an event. Enjoyment—enjoyment ratings; whether a subsequent get-together is endorsed.

Two heads are better than one. Hypothesis: Problems are solved more rapidly when two individuals collaborate than when one individual attempts the problems alone. Operational definitions: Rapidly—the time it takes to solve the problem. Collaboration: a second problem solver contributes to the solution, or is absent.

Two's company; three's a crowd. Hypothesis: Interpersonal attraction between members of a potential couple is higher when they meet alone than when they meet in the presence of a third individual. Operational definitions: Interpersonal attraction—attraction ratings completed by the members of the couple; pupil dilation, whether a follow-up phone call takes place. Third individual—a confederate is either present or absent.

APA Outcome: 1.3
APA Outcome: 2.4
Bloom's: Apply
Difficulty: Difficult
Learning Objective: Distinguish between theory and hypothesis.
Learning Outcome: 4-2
Topic: Hypotheses

128. Select and describe a behavioral or mental phenomenon of particular interest to you. Describe how one might use descriptive, correlational, and experimental techniques to shed light on the phenomenon.

Virtually any behavioral or mental phenomena might be selected. Examples include aggression, drinking alcohol, and depression.

The answer should describe in turn the application of at least one descriptive technique, the correlational method, and the experimental technique to the phenomenon of interest. Examples: Descriptive methods: naturalistic observation—observing children at play during recess and noting instances of aggression; case study—a detailed examination of one clinically depressed individual.

Correlational methods—the focus here should be on computing a correlation coefficient expressing the strength and direction of the relationship between scores on a measure of the phenomenon of interest and scores on measures of another variable that might plausibly be related to it. Example—scores on a measure of aggression and scores on measures of exposure to media violence should be positively correlated. The question does not specifically ask for operationalizations of the variables of interest.

Experimental—the focus should be on the manipulation of an independent variable and the measurement of a dependent variable. Example—manipulate exposure to an aggressive model and record the subsequent aggressive behavior of children. Experimental (e.g., exposed to aggressive model) and control groups (e.g., not exposed to aggressive model) should be described, and mention should be made of the random assignment of participants to groups.

APA Outcome: 1.3
APA Outcome: 2.2
Bloom's: Apply
Difficulty: Difficult
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Learning Outcome: 5-2
Topic: Descriptive Research

129. List and briefly describe three descriptive research methods. Provide an original example of each. Identify one advantage and one disadvantage of each of the methods you describe.

The answer should contain three of the following descriptive methods, along with a description, an example, an advantage, and a disadvantage.

1. Archival research

Description: existing data or records are used to test a hypothesis
Example: using crime statistics available from the government
Advantage: inexpensive
Disadvantage: records may not be systematic or in a form that ideally suits the purpose of the investigation

2. Case study

Description: a detailed examination of a single individual
Example: in-depth study of an individual with dissociative identity disorder
Advantage: rich source of data
Disadvantage: may not generalize to other cases

3. Naturalistic observation

Description: thought or behavior is systematically examined in the environment in which it typically occurs
Example: recording instances of helping or acts of consideration in an office to examine prosocial behavior at work
Advantage: provides a sample of people in their natural environment
Disadvantage: does not allow control over the factors of interest

4. Survey

Description: participants are asked a set of questions about their thought and behavior
Example: an inventory of 40 questions related to depression
Advantage: generalizable using relatively small sample; usually inexpensive and rapid
Disadvantage: people may not be aware of their attitudes or behavior; people may answer in a way that does not reflect their true attitudes or behavior.

APA Outcome: 2.2
Bloom's: Understand
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Archival Research
Topic: Case Studies
Topic: Naturalistic Observation
Topic: Survey Research

130. Describe survey research, highlighting not only its advantages, but also several issues that researchers must consider when designing survey research.

The answer should include the following points:

Survey research involves asking a sample of individuals a series of questions about their behavior, thoughts, or attitudes. The sample is chosen to be representative of a larger group of interest, namely, a population. Survey research is straightforward. It is efficient and allows researchers to infer with great accuracy how a large group of people would respond. Nevertheless, care must be taken to ensure that the sample is truly representative of the population: a random sample is ideal. In addition, researchers should be aware that respondents may be reluctant to admit holding socially undesirable attitudes. Moreover, people may not be consciously aware of their true attitudes or behaviors.

APA Outcome: 2.2
Bloom's: Understand
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Survey Research

131. Describe what a case study is, including both the advantages and disadvantages of this method.

A case study is an in-depth, intensive investigation of a single individual or a small group. Case studies often include psychological testing; a procedure in which a carefully designed set of questions is used to gain some insight into the personality of the individual or group. When case studies are used as a research technique, the goal is often not only to learn about the few individuals being examined but also to use the insights gained from the study to improve our understanding of people in general. Sigmund Freud developed his theories through case studies of individual patients. Similarly, case studies of terrorists might help identify others who are prone to violence. The drawback to case studies is that if the individuals examined are unique in certain ways, it is impossible to make valid generalizations to a larger population. Still, they sometimes lead the way to new theories and treatments for psychological disorders.

APA Outcome: 1.1
Bloom's: Understand
Difficulty: Medium
Learning Objective: Identify and discuss the types of research that are used in psychology.
Learning Outcome: 5-1
Topic: Case Studies

132. A researcher finds a correlation of -.45 between the amount of stress participants report having experienced recently and participants' scores on an index of physical health. What does this mean? Provide a one-sentence interpretation of this correlation coefficient. Provide three distinct cause-and-effect mechanisms that might explain this correlation.

The interpretation should be similar to: "The more stress participants report having experienced; the lower their scores on a physical health index."

Causal mechanisms: (1) Stress causes or produces poor health; (2) Poor health results in stress—e.g., from medical expenses, lost days at work, an inability to keep up with family demands; (3) A third variable leads to both high stress and poor health. One example might be low SES.

APA Outcome: 2.2
APA Outcome: 2.4
Bloom's: Understand
Difficulty: Medium
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

133. Suggest (a) two variables that are most likely positively correlated; two variables that are most likely negatively correlated; and (c) two variables that are probably uncorrelated.

Many examples are possible.

Positive—hours spent studying and GPA. Negative—stress and physical health.

Uncorrelated—agreeableness and intelligence. Graphical representations should show a line with a positive slope to reflect a positive correlation, a line with a negative slope to portray a negative correlation, and a flat, horizontal line to relate two uncorrelated variables.

APA Outcome: 1.3
APA Outcome: 2.4
Bloom's: Apply
Difficulty: Medium
Learning Objective: Describe how correlational research determines the relationship between two sets of variables.
Learning Outcome: 5-1
Topic: Correlational Research

134. How is it that the experimental method allows researchers to draw cause-and-effect conclusions? Identify the critical elements of the experimental method and explain how each helps enable the development of valid causal conclusions.

The answer should make mention of both (a) the deliberate manipulation of an independent variable and (b) the random assignment of participants to groups. The effects on the dependent variable of the treatment—the manipulation of the independent variable—are compared to the effects of no manipulation, in the control group. If a difference is observed, the independent variable may have an effect. Random assignment to groups minimizes the likelihood that the participants in the control group differ systematically from the participants in the experimental group, and therefore helps rule out such differences as potential causes of any difference observed between groups in the dependent variable.

APA Outcome: 2.2
Bloom's: Understand
Difficulty: Medium
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental Research

135. Suggest one variable other than the presence and number of bystanders that you think might influence the likelihood that an individual will come to someone's aid. State a hypothesis and explain how you might test it experimentally. Specify the independent and dependent variables, making sure to provide an operational definition of each. Describe the experimental and control groups and briefly outline the procedure.

Many variables are possible that might influence the likelihood that an individual will come to someone's aid. One might be apparent status of the victim, operationalized perhaps as dress—with the high-status victim in business attire and the low-status victim in dirty, unkempt attire.

The hypothesis should relate the proposed independent variable to the likelihood that the participant will help the victim. Example—People are more likely to help a high-status than a low-status victim. An operationalization of the independent variable should be provided—that is, a description of how the variable will be manipulated should appear in the answer. Dress may be one way to manipulate status. Groups should be identified. Example—participants will be randomly assigned to high-status victim and low-status victim groups. Finally, the procedure should be described in general terms; the procedure should make mention of a false emergency, as in the Latane and Darley experiment.

APA Outcome: 1.2
APA Outcome: 2.2
APA Outcome: 2.4
Bloom's: Apply
Difficulty: Difficult
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 4-2
Learning Outcome: 5-2
Topic: Experimental Research

136. Define the terms *replicated research* and *meta-analysis*. Identify the role of replicated research and meta-analysis in hypothesis testing and theory building.

The response should include the following:

Replicated research: attempting to repeat findings, sometimes using other procedures, other settings, or different groups of participants.

Meta-analysis: a statistical procedure allowing psychologists to combine the results of many separate studies into one overall conclusion.

Replication and meta-analysis reflect the scientific ideal that hypotheses are subject to stringent test and ultimately supported only if they are confirmed many times across a range of specific situations. Our confidence in a hypothesis is increased if it is supported by replications and meta-analyses; these procedures affirm the generality of a hypothesis. Such confidence in a hypothesis in turn contributes to the development of more accurate theories, or explanations, of thought and behavior.

APA Outcome: 2.1
APA Outcome: 2.4
Bloom's: Understand
Difficulty: Easy
Learning Objective: Understand how experimental research can establish cause and effect relationships.
Learning Outcome: 5-2
Topic: Experimental Research

137. Occasionally, psychology has been described as the science of the behavior of college sophomores. Discuss some of the specific criticisms of psychology implied by this charge. How might these shortcomings be rectified?

The answers should mention that college students are often used as participants in psychological research. The answer should indicate that college students are not representative of the population as a whole—they are younger, whiter, and better educated than the population at large.

The answer should describe some way in which the diversity of participants in psychological research may be increased.

APA Outcome: 2.2
APA Outcome: 2.5
Bloom's: Understand
Difficulty: Medium
Learning Objective: Identify possible sources of experimental bias in research.
Learning Outcome: 5-2
Topic: Experimental Bias

138. A pharmaceutical company has developed a new ADHD medication and wishes to test its effectiveness. Identify the threats that validity researchers might face in an experimental test of the medication's efficacy and suggest how these threats may be overcome.

The threats that validity researchers might face are:

a. Participant expectations—participants should not know whether they receive the medication or not, so that apparent effects of the drug do not reflect participants' belief in its efficacy. A placebo should be given in the no-medication group.

b. Experimenter expectations—the experimenter should not know which participants receive the medication so that apparent effects of the drug do not reflect the experimenter's belief in its efficacy. A double-blind procedure should be used.

APA Outcome: 2.4
Bloom's: Apply
Difficulty: Medium
Learning Objective: Identify possible sources of experimental bias in research.
Learning Outcome: 6-1
Topic: Ethics

139. Imagine that you must read several research articles for a term paper assignment in a psychology course. Identify the critical thinking questions you should keep in mind as you read each article.

The answer should mention most of the following questions:

Purpose of the research. Is the theoretical background clearly specified? Are specific hypotheses mentioned?

Methods of the research. Who were the participants? How many participants were used? What were the specific methods that the researchers used?

Presentation of the results. Are the results presented fairly, without distortion?

APA Outcome: 3.1
APA Outcome: 4.1
Bloom's: Remember
Difficulty: Easy
Learning Objective: Discuss ethical concerns regarding the use of animals and humans as participants in experimental research.
Learning Outcome: 6-1
Topic: Replicated Research