

CHAPTER 2

PSYCHOLOGY AS A SCIENCE

CHAPTER LEARNING OBJECTIVES

1. *List two core beliefs of science, and describe the steps in the scientific method.*

- Science is an approach to knowing the world built on the core principles that (1) the universe operates according to certain natural laws, and (2) these laws are discoverable and testable.
- Science is founded upon the scientific method, a process that moves from making controlled, direct observations to generating progressively broader conclusions and tests and attempting to disprove hypotheses.

2. *Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.*

- Psychology shares with every science the primary goals of describing, explaining, predicting, and controlling the objects of study. The goals of psychology differ from those of other sciences because the search for elements of mental processes and behaviour is complicated by constantly shifting human factors.
- Psychology also shares more similarity with the fields of religion and philosophy than many sciences do because psychological findings are more often associated with values, morality, and personal preference.
- Psychology is different from pseudopsychology. Although the latter also attempts to answer fundamental questions about human nature and behaviour, it has no basis in the scientific method.

3. *List steps in the research process and key characteristics of descriptive and experimental psychological research methods.*

- Psychological research is rooted in first generating a hypothesis, or prediction, about the relationship between two or more variables based on observations.
- Psychologists conduct research with a sample, a small group meant to represent the larger population of interest. The best means of selecting a sample is random selection, a procedure in which everyone in the population has an equal chance of being selected to be in the sample.
- Descriptive research methods include case studies, naturalistic observations, and surveys.
- Case studies are in-depth observations of a single individual.
- Naturalistic observation involves observing people in settings outside of laboratories where their behaviour occurs naturally.
- Surveys may be conducted in interviews or with questionnaires.
- Only experiments allow researchers to draw conclusions about cause-and-effect relationships.
- All research methods have advantages for particular uses and all are subject to various drawbacks. Researchers must plan carefully to avoid subject bias, researcher bias, and demand characteristics.

4. Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

- Correlations allow us to describe and measure relationships between two or more variables. A *correlation coefficient* tells the direction and size of a correlation.
- Researchers use the mean and standard deviation to describe and summarize their results.
- Researchers use *p values* to determine the statistical significance of results. *Effect size* tells how strong the relationship is between variables.
- Replication of experiments and repeated study of the same predictions using different methods help hypotheses become theories.

5. Tell what ethical steps psychologists take to protect the rights of human research participants.

- Today, oversight boards called research ethics boards (REBs) help to protect human rights.
- Psychological researchers must obtain informed consent from human participants, protect them from harm and discomfort, protect their confidentiality, and completely debrief them at the end of their participation.
- The use of animal participants in research has also raised ethical concerns. An oversight council called the Canadian Council on Animal Care (CCAC) works to protect animals' needs and comfort in experiments.

TRUE-FALSE STATEMENTS

1. Psychology, like biology and physics and chemistry, relies on the scientific method.

Answer: True

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

2. If individuals carefully observe the events in the world around them, they are often able to discover the laws that govern those events.

Answer: True

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

3. "Smoky is a cat. All cats are mammals. Therefore, Smoky is a mammal." This line of argument is an example of inductive reasoning.

Answer: False

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

4. "I predict that females will demonstrate 35% more empathic acts after reading a sad story than will males." This statement is an example of a theory.

Answer: False

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

5. Psychology differs from other sciences in that not all psychological phenomenon can be directly observed.

Answer: True

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

6. The four goals of psychology are controlling, predicting, explaining, and monitoring

Answer: True

Difficulty: Medium

Bloomcode: Knowledge

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

7. More time spent outdoors is associated with greater mental health. In this instance time spent outdoors is the dependent variable.

Answer: False

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

8. Researchers can only generalize their findings if they have studied every individual in the population of interest.

Answer: False

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

9. Descriptive research methods allow psychologists to determine the causal relationship between variables.

Answer: False

Difficulty: Easy

Bloomcode: Conceptual

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

10. Researcher bias is NOT an issue when naturalistic observation is used.

Answer: False

Difficulty: Easy

Bloomcode: Conceptual

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

11. Dr., Yee researches the treatment outcomes experienced by her patients. She focuses on one patient at a time in her research. This type of research is called a case study.

Answer: True

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

12. People in the control group of an experiment are NOT exposed to the independent variable.

Answer: True

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

13. To maintain the validity of the study, researchers must actively avoid exposure to sources of biases that may influence their data collection.

Answer: True

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

14. Without statistical analyses, researchers would not know if their original hypotheses were valid.

Answer: True

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

15. The closer in value a correlation coefficient is to zero, the stronger the relationship.

Answer: False

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

16. Experimental research must be conducted if researchers intend to claim cause and effect..

Answer: True

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

17. A mean is a statistical measure of how much scores vary within a group.

Answer: False

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

18. The term “effect size” refers to a way to discuss the extent to which groups differ.

Answer: True

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

19. During the process of informed consent researchers explain the risks of the experiment to the participant.

Answer: True

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

20. One reason an ethics board would not ethically approve a research proposal is that it might believe that the risks to participants outweigh any benefits.

Answer: True

Difficulty: Easy

Bloomcode: Conceptual

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

MULTIPLE CHOICE QUESTIONS

21. Prior to the nineteenth century, which field contributed most to the rise of psychology?

- a) philosophy
- b) chemistry
- c) biology
- d) physics

Answer: a

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

22. Which approach to psychology advocated focus on observable behaviours only?

- a) hypothetico-deductive
- b) inductive reasoning
- c) pseudopsychology
- d) behaviourism

Answer: d

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

23. Which of the following is a core belief of psychology and all sciences?

- a) The universe provides clues to what we can learn about.
- b) The laws of nature are mysterious and untestable.
- c) The universe operates according to certain natural laws.
- d) Reliance on natural observation is a necessary first step.

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

24. Daphne is writing a paper about the core beliefs of science. Which of the following would NOT be included in her paper?

- a) a reliance on the scientific method
- b) the idea that some events in nature are untestable
- c) the belief that events in nature follow certain laws
- d) the assumption that natural laws are testable

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

25. All sciences, including psychology, are built on the core belief that
- a) the natural laws of the universe are discoverable and testable.
 - b) the universe provides clues to what we can learn about.
 - c) reliance on natural observation is a necessary first step.
 - d) the laws of nature are mysterious and untestable.

Answer: a

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

26. A given field of study is defined as a science by its
- a) methods.
 - b) equipment.
 - c) subject matter.
 - d) findings.

Answer: a

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

27. "Psychology is not a science," Adam argues. Which of the following is the BEST argument opposing this claim?
- a) Psychology is a science because it uses sophisticated technology in its research.
 - b) Psychology is a science because some of its early contributors were physiologists.
 - c) Psychology is a science because of the methods it uses.
 - d) Psychology is a science because it studies the brain and the rest of the nervous system.

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

28. Which of the following adjectives would a scientist use most readily in describing the universe?

- a) mysterious
- b) lawful
- c) simple
- d) chaotic

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

29. Your text states that, "By carefully observing what happens ... we can figure out the laws governing those events. In turn, we can use these laws to make predictions about what might happen, and we can then experiment to see whether those predictions come true." Which of these sequences reflects the order in which the goals of psychology are mentioned in this passage?

- a) explanation – description – prediction
- b) explanation – prediction – description
- c) description – prediction – explanation
- d) description – prediction – control

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

30. Julia, a biology researcher, is trying to isolate a gene that may be responsible for autism. David, a psychology researcher, is investigating the influence of various social factors on outcomes for children with autism. These examples emphasize the difference between psychology and physical sciences in their goal of

- a) prediction.
- b) description.
- c) explaining.

d) controlling.

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

31. Dr. Arceneaux is a meteorologist. Dr. Bianchini is a psychologist. With which of the following statements would they most likely agree?

- a) Like the weather, human behaviour is inherently unpredictable.
- b) The weather is predictable. Human behaviour is not.
- c) While the weather is unpredictable, human behaviour is predictable.
- d) Both the weather and human behaviour are ultimately predictable.

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

32. Most of Francine's friends who have been married are now divorced. Francine never wants to get married because she knows that most marriages end in divorce. Francine's thinking on this matter is an example of

- a) empirical reasoning.
- b) deductive reasoning.
- c) inductive reasoning.
- d) logical reasoning.

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

33. Astrid believes that drinking red wine gives her migraines. As such, when she's at a dinner party and the only beverages available are red wine and water, she sticks with water. What type of reasoning is Astrid using?

- a) deductive
- b) inductive
- c) hypothetico-deductive
- d) It is impossible to determine from the information given.

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

34. Barney pulled an all-nighter to study before his last exam and he failed it. With the exam before that, he got a good sleep and he passed. Based on this, Barney predicts that he will do better on his next exam if he gets a good sleep the night before. What type of reasoning is Barney using?

- a) deductive
- b) inductive
- c) hypothetico-deductive
- d) It is impossible to determine from the information given.

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

35. Nine-year-old Bryson brought a troll doll with him to his last exam and he aced it. He forgot the troll doll the exam before that and he failed it. Based on this, Bryson predicts that he will do better on his next exam if he brings the troll doll with him. What type of reasoning is Bryson using?

- a) deductive
- b) inductive
- c) hypothetico-deductive
- d) It is impossible to determine from the information given.

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

36. Which of the following is the correct sequence of events for inductive reasoning?

- a) observation/experiment > predictions > theory
- b) theory > predictions > observation/experiment
- c) hypothesis > observation/experiment > theory
- d) hypothesis > theory > predictions

Answer: a

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

37. Cecilia is using the formula $F = M \cdot A$ to solve a physics problem. Cecilia is using ____ reasoning.

- a) hypothetico-deductive
- b) empirical
- c) inductive
- d) deductive

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

38. Which of the following is the correct sequence of events for deductive reasoning?

- a) observation/experiment > predictions > theory
- b) theory > predictions > observation/experiment
- c) hypothesis > observation/experiment > theory
- d) hypothesis > theory > predictions

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

39. Which statement below is MOST consistent with the hypothetico-deductive approach to reasoning?

- a) Hypotheses are deduced from theories.
- b) Hypotheses are induced from theories.
- c) Theories are deduced from hypotheses.
- d) Theories are induced from observations.

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

40. You are at the annual conference of the Association for Psychological Science, listening to researcher's present papers on social development in later adulthood. In her presentation, Dr. Dryer notes, "Social disengagement theory predicts that older adults will attend social events less often than will middle-aged adults." The next presenter, Dr. Ebrahimi, reports that in the diaries participants kept as part of his study, older adults reported attending just as many parties, dinners, or other informal gatherings as did middle-aged adults, casting doubt on social disengagement theory. Dr. Dryer's statement reflects the ____ component of hypothetico-deductive reasoning, whereas Dr. Ebrahimi's illustrates ____.

- a) inductive; the inductive component also
- b) inductive; the deductive component
- c) deductive; the inductive component
- d) deductive; the deductive component also

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

41. Dr. Ellis is using the scientific method to investigate the effects of sugar consumption on the attention span of 8-year old children. He predicts that children who drink a pop prior to participating in a boring task will give up sooner than children who drink a glass of milk before doing the boring task. What is the next thing that Dr. Ellis should do?

- a) Observe children in their daily lives after they consume sugary and non-sugary foods.
- b) Develop a hypothesis about what consuming sugar will do to children.
- c) Test his hypothesis in a controlled environment.
- d) Come up with a theory about the effects of sugar on attention.

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

42. The main difference between deductive and inductive reasoning is that deductive reasoning ____, whereas inductive reasoning ____.

- a) goes from general to specific; goes from specific to general
- b) is based on observations; is based on logic

- c) begins with an observation; ends with an observation
- d) involves theories; involves hypotheses

Answer: a

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

43. What is the difference between inductive and deductive reasoning?

- a) Inductive reasoning is based on logic, deductive reasoning is based on observations.
- b) Inductive reasoning goes from specific to general, deductive reasoning goes from general to specific.
- c) Inductive reasoning ends with an observation, deductive reasoning begins with an observation.
- d) Inductive reasoning involves hypotheses, deductive reasoning involves theories.

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

44. Why does contemporary psychology no longer rely solely on inductive reasoning?

- a) Inductive reasoning is too susceptible to the biases of the individual psychologist.
- b) Inductive reasoning is not based on objective observation.
- c) There are so many factors influencing human behaviour that pure induction could never identify them all.
- d) Inductive reasoning never proved a successful way of gaining knowledge.

Answer: c

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

45. Why might one argue that inductive reasoning is less susceptible to bias than deductive reasoning is?

- a) Inductive reasoning begins with a general theory rather than specific observations.
- b) In inductive reasoning, the observations that would refute the theory are specified in advance.
- c) Inductive reasoning begins with objective observations rather than a theory in the reasoner's mind.

d) Inductive reasoning is essentially the opposite of the sort of deductive reasoning that philosophers used.

Answer: c

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

46. What is a theory?

- a) an idea about the laws that govern phenomena
- b) a testable statement about the way variables are related
- c) a reasoning process that proceeds from specific to general
- d) a belief based on a researcher's objective sense of reality

Answer: a

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

47. What is the difference between a theory and a hypothesis?

- a) A theory is a specific statement, a hypothesis is a general statement.
- b) A theory is a prediction, a hypothesis is an observation.
- c) A theory is the result of many observations, a hypothesis is a specific prediction.
- d) A theory is falsifiable, a hypothesis is not.

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

48. If a hypothesis was disproved, all the following could happen EXCEPT

- a) the hypothesis would be thrown out.
- b) the hypothesis would be modified.
- c) the theory would be reconsidered.
- d) the research topic would be abandoned.

Answer: d

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

49. One difference between a hypothesis and a theory is that a hypothesis is ____, whereas a theory is ____.

- a) a specific prediction; the result of many observations
- b) a general statement; a specific statement
- c) an observation; a prediction
- d) not falsifiable; falsifiable

Answer: a

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

50. What British philosopher argued against the use of deductive reasoning because he believed it was too susceptible to thinkers' biases?

- a) Skinner
- b) Popper
- c) Kant
- d) Bacon

Answer: d

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

51. Why did the Renaissance philosopher Francis Bacon question the validity of deductive reasoning? Which type of reasoning did he suggest as an alternative?

- a) Bacon believed that deductive reasoning was prone to biases. He suggested hypothetico-deductive reasoning as an alternative.
- b) Bacon believed that deductive reasoning was prone to biases. He suggested inductive reasoning as an alternative.
- c) Bacon believed that deductive reasoning often failed to result in general theories. He suggested hypothetico-deductive reasoning as an alternative.
- d) Bacon believed that deductive reasoning often failed to result in general theories. He suggested inductive reasoning as an alternative.

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

52. Dr. Emmerson is using the scientific method to investigate the effects of social media on empathy. He predicts that people who spend more time on social media will score lower on a test of empathy than people who spend less time on social media. What is the next thing that Dr. Emmerson should do?

- a) Observe people in their daily lives after they go on social media.
- b) Develop a hypothesis about what social media time will do to empathy.
- c) Test his hypothesis in a controlled environment.
- d) Come up with a theory about the effects of social media on empathy.

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

53. The frustration-aggression hypothesis predicts that aggressive behaviour follows the failure to attain a goal. The hypothesis is supported when an individual hits and curses at a vending machine that fails to deliver a cold drink after money has been inserted. This scenario illustrates the ____ reasoning process.

- a) reductive
- b) deductive
- c) inductive
- d) hypothetico-deductive

Answer: d

Difficulty: Easy

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

54. Today, when psychologists conduct research, they examine the findings of other researchers first to look at broader topic, then narrow it down to design their own studies based on specific predictions. This is an example of

- a) deductive reasoning.
- b) inductive reasoning.
- c) hypothetico-deductive reasoning.
- d) empirical reasoning.

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

55. Roger Sperry examined which processes occur in each hemisphere. Since that time, researchers have conducted many different experiments that have helped us understand that, in right handed persons, the left hemisphere typically processes language while the right hemisphere processes non-verbal material such as emotions. This is an example of
- a) empirical reasoning.
 - b) deductive reasoning.
 - c) inductive reasoning.
 - d) hypothetico-deductive reasoning.

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

56. A statement of the objective relationship between two variables is termed a(n) ____.
- a) axiom
 - b) law
 - c) theory
 - d) hypothesis

Answer: d

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

57. What is a hypothesis?
- a) an idea about the laws that govern phenomena
 - b) a testable statement about the way variables are related
 - c) a reasoning process that proceeds from specific to general
 - d) a belief based on a researcher's objective sense of reality

Answer: b

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

58. For a hypothesis to be considered acceptable, it must

- a) be confirmed.
- b) be falsifiable.
- c) lead to a new or revised theory.
- d) disprove an existing theory.

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

59. Dr. Farnum is using the scientific method to investigate how the content of dreams affects memory for personal events. Specifically, she predicts that any dream about a personal event will increase the individual's memory for that event. What is the biggest problem that Dr. Farnum overlooking with her research?

- a) Her hypothesis isn't falsifiable.
- b) Her prediction is biased.
- c) She isn't following the steps of the scientific method.
- d) She is studying a topic that is out-dated.

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

60. Ms. Juniper, an elementary school teacher, believes that children who play outdoors do better in school. She predicts that those children who play outside for at least half an hour each day will make better grades than those who stay inside all day. Which of the following terms best describes her predictions?

- a) hypothesis
- b) theory
- c) inductive reasoning
- d) deductive reasoning

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

61. Dr. Fernelli is using the scientific method to investigate Freud's concepts about the unconscious as a strong determiner of behaviour. Specifically, he predicts that people who have more unconscious aggressive urges will act more aggressively than people with fewer unconscious aggressive urges. What is the biggest problem that Dr. Fernelli is overlooking in his research?

- a) His hypothesis isn't falsifiable.
- b) His prediction is biased.
- c) He isn't following the steps of the scientific method.
- d) He is studying a topic that is out-dated.

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

62. Observations of behaviours or any other events must be objectively testable. Which of the following does NOT meet this criterion?

- a) dollars spent in a department store
- b) number of students in a school
- c) frequency of reported car accidents
- d) number of caring people in the world

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

63. Dr. Crandall wants to use the scientific method to test whether caffeine improves cardiovascular endurance in male athletes. What is the first thing that he should do?

- a) Observe male athletes doing cardiovascular workouts after having consumed caffeine or not.
- b) Develop hypotheses about caffeine consumption and cardiovascular endurance.
- c) Randomly give half of the male athlete's caffeine and the other half no caffeine and then test their cardiovascular endurance.
- d) Build a theory about caffeine's effect on the cardiovascular system.

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

64. Dr. Tse wants to use the scientific method to test whether vitamin C consumption improves resistance to stress. What is the first thing that she should do?

- a) Observe people in stressful situations who have and who have not consumed vitamin C.
- b) Develop hypotheses about vitamin C consumption and resistance to stress.
- c) Randomly give half of the participants vitamin C and the other half a placebo and then test their resistance to stress.
- d) Build a theory about vitamin C's effect on the stress response.

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

65. In using a scientific approach, what step would follow developing a hypothesis?

- a) building a theory
- b) testing the hypothesis
- c) reporting the findings
- d) making observations

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

66. Recall your text's discussion of the behaviourist perspective in Chapter 1. According to your text, "Skinner argued [that] empirical – observable – information should be gathered first, and then theories ... could be formulated from that." Skinner is endorsing ____ reasoning, promoted early on by ____.

- a) inductive; Bacon
- b) inductive; Descartes
- c) deductive; Bacon
- d) deductive; Descartes

Answer: a

Difficulty: Hard

Bloomcode: Synthesis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

67. Which of the following alternatives CORRECTLY identifies the order in which the goals of science are pursued using a given type of reasoning?

- a) deductive reasoning: observation – prediction – explanation
- b) hypothetico-deductive reasoning: prediction – observation – explanation
- c) hypothetico-deductive reasoning: observation – prediction – explanation
- d) inductive reasoning: explanation – prediction – observation

Answer: b

Difficulty: Hard

Bloomcode: Synthesis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

68. Jonathon conducted a research study that examined the influence of family history on juvenile delinquency. Based on the findings of his study, he concludes that adolescents whose parents have a criminal record are more likely to become juvenile delinquents than those whose parents do not have a criminal record. Jonathon's study

- a) has isolated family history as a crucial factor in juvenile delinquency.
- b) is flawed because family history cannot be directly observed.
- c) is flawed because it doesn't consider that family history might come together with other factors that may also contribute to juvenile delinquency.
- d) is valid because, like a physical science, it describes the contribution of one small factor on juvenile delinquency.

Answer: c

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

69. In which century did psychology move from a field based on philosophy and religion to one based on science?

- a) the 17th century
- b) the 18th century
- c) the 19th century
- d) the 20th century

Answer: c

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

70. Most likely, ____ was the driving force behind the shift in the focus of psychology from philosophy to being more scientific.

- a) advances in the field of biology and Darwin's theory of evolution
- b) Darwin's theory of evolution and eugenics
- c) eugenics and pseudopsychology
- d) pseudopsychology and the scientific method

Answer: a

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

71. What was the impetus for the shift in the focus of psychology from a philosophy toward becoming a science?

- a) Darwin's theory of evolution and advances in the field of biology
- b) advances in the field of biology and eugenics
- c) eugenics and pseudopsychology
- d) pseudopsychology and the scientific method

Answer: a

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

72. Prior to the 19th century, the field of psychology was based mainly on philosophy. What field is responsible for shifting psychology toward a science?

- a) religion
- b) pseudopsychology
- c) biological science
- d) eugenics

Answer: c

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

73. Which field is given credit for shifting the field of psychology away from philosophy toward becoming a science?

- a) religion
- b) pseudopsychology
- c) biological science
- d) eugenics

Answer: c

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

74. What problem do psychologists have in attempting to isolate fundamental elements of behaviour and mental processes?

- a) We don't have the technology required to isolate something as small as a neuron.
- b) Behaviour is determined by many factors that may change over time.
- c) We must rely on observable behaviour.
- d) Some research projects face ethical dilemmas.

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

75. In trying to isolate the fundamental elements of behaviour and mental processes, psychologists face some problems that other sciences do not. Which of these is one of these problems?

- a) We don't have the technology required to isolate something as small as a neuron.
- b) Many of the processes that form the focus of psychology cannot be directly observed.
- c) We must rely on observable behaviour.
- d) Some research projects face ethical dilemmas.

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

76. The field that suggests that genetics should be applied to human breeding to produce desired offspring is called

- a) genetic counselling.
- b) in vitro fertilization.
- c) natural selection.
- d) eugenics.

Answer: d

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

77. The field of psychology certainly wrestles with questions regarding how to ethically apply the knowledge it discovers. What other field would have a similar struggle, according to your text?

- a) biology
- b) philosophy
- c) physical sciences
- d) eugenics

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

78. Applying the knowledge discovered by psychologists can open up ethical problems about how to best use this knowledge. According to your text, what other field would have a similar struggle?

- a) biology
- b) philosophy
- c) physical sciences
- d) eugenics

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

79. Involuntary sterilizations were performed in Alberta between 1927 and 1972 on persons who were deemed unfit to reproduce. This is an example of

- a) genetics.
- b) natural selection.
- c) eugenics.
- d) in vitro fertilization.

Answer: c

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

80. Although psychology is a science, it differs in several key ways from other physical sciences. Which of the attributes listed below differs between psychology and other physical sciences?

- 1 – the focus of the subject matter isn't always directly observable
- 2 – it uses experimental methods
- 3 – how the findings are applied can have moral implications
- 4 – it attempts to isolate fundamental elements

- a) 1 & 4
- b) 2 & 3
- c) 1 & 3
- d) 2 & 4

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

81. Psychology's attributes compare with that of the physical sciences in several ways. Of the attributes listed below, which ones express key ways in which psychology differs from the physical sciences?

- 1 – how it pursues scientific goals
- 2 – it uses experimental methods
- 3 – its role in influencing personal and social values
- 4 – it attempts to isolate fundamental elements

- a) 1 & 4
- b) 2 & 3
- c) 1 & 3
- d) 2 & 4

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

82. Henrick has decided to go to University X for his graduate degree. Originally, he chose it because his girlfriend goes to University X, but then they broke up. Since then, he has learned that the graduate programme at University X is stellar, and he is sticking with his decision for this reason alone, even if he will have to see his ex from time to time. In what way does this example show how psychology as a field differs from the physical sciences in the pursuit of scientific goals?

- a) Many factors affect behaviour and these can change over time.
- b) Psychology has to deal with issues associated with morality.
- c) Psychological research is often misrepresented.
- d) Many of the processes that form the basis of psychology cannot be directly observed.

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

83. Ivy has decided to use a scientific approach to figure out how much her boyfriend loves her. She realizes that she cannot go based on her feelings alone because she is very likely to be biased, and she wants to know truthfully, once and for all, whether he really loves her or not. In what way does this example show how psychology as a field differs from the physical sciences in the pursuit of scientific goals?

- a) Behaviour can be influenced by many factors and these can change over time.
- b) Psychology must deal with issues associated with values and personal preferences.
- c) Psychological research is often misinterpreted and used to make broad claims.
- d) Many of the psychological processes that we want to study cannot be directly observed.

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

84. Which of the following examples shows how psychology differs from other sciences in that applying psychological findings entails issues associated with values and morality?

- a) Jacob and Justine decide not to spank their children because they read that physical punishment increases aggression in children.

- b) Kyle makes sure to sleep before his final exam because he read that sleep helps with memory consolidation.
- c) Lucy is a Gemini and as such she is prone to reacting in very different ways to the same situation.
- d) Dr. Mariner is isolating the variables that contribute to weight loss.

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

85. Which of the following examples shows how psychology can overcome the problem that mental functions cannot be directly observed?

- a) Nicole records running speed as a measure of athleticism.
- b) Omar observes memory for faces as a measure of social anxiety.
- c) Penelope counts the number of cigarettes she smokes in a day as a measure of addiction.
- d) Quincy times how long he can keep a thought in his head as a measure of mental control.

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

86. Roger is having a discussion with his roommates about whether psychology is a science. His roommates are calling psychology a 'soft science', and this is infuriating Roger, who is adamant that psychology is a science like any other. What is Roger likely to say to make his point?

- a) The focus of psychology is often not directly observable.
- b) Applying the research in psychology often has moral implications.
- c) Psychology uses the scientific method to gather information.
- d) Determining cause and effect is more difficult in psychology because multiple factors contribute to a behaviour.

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

87. Which of the following examples shows how the field of psychology faces the problem of

misrepresentation?

- a) Dr. Gerbach is launching his new therapy that can cure depression in anyone in less than 2 weeks.
- b) Dr. Hunt read an article that stated that some therapeutic techniques are more effective than others.
- c) Dr. Irving believes that to provide a cure for any problem, we must understand the root cause of the problem.
- d) Dr. Alves took credit for the development of a new therapy, when in fact it was her graduate student who perfected the therapy and deserved the credit.

Answer: a

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

88. Which of the following examples shows how psychology differs from other sciences in that applying psychological findings entails issues associated with values and morality?

- a) Cory makes sure that he eats a good meal before his final exam because he read that the nutrients will help his brain function better.
- b) Laurie decides to use time outs with her children as opposed to spanking them because she read that physical punishment increases aggression in children.
- c) Dr. Maury is investigating the factors that contribute to weight loss.
- d) Dory is a Virgo and as such she is very balanced and mild tempered.

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

89. Which of the following is one of the ways in which pseudopsychology differs from psychology?

- a) Psychology's main goal is description and explanation; pseudopsychology's main goal is prediction and control.
- b) Pseudopsychology is a small part of psychology that is based on Freud's work.
- c) Psychology is based on the scientific method; pseudopsychology isn't.
- d) Psychology focuses on the application of the knowledge gained from research; pseudopsychology focuses on classification and identification of mental disorders.

Answer: c

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

90. How do pseudopsychologists differ from psychologists?

- a) Psychologists are less likely to help people with their problems than are pseudopsychologists.
- b) As compared to pseudopsychologists, psychologists are less likely to make exaggerated claims.
- c) Pseudopsychologists are less likely to promote specific moral values than are psychologists.
- d) Pseudopsychologists address different topics than do psychologists.

Answer: b

Difficulty: Medium

Bloomcode: Comprehension

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

91. How is psychology different from pseudopsychology?

- a) Psychology tries to help people; pseudopsychology doesn't.
- b) Pseudopsychology is based on Freud's work; psychology is any work that looks at mental processes.
- c) Psychology focuses on research and experiments; pseudopsychology focuses on the application of this knowledge.
- d) Psychology is based on the scientific method; pseudopsychology isn't.

Answer: d

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

92. Sally's cousin is complaining of problems with anxiety and depression, so Sally does some research for some solutions. She finds one treatment that is proven effective in treating depression, anxiety, schizophrenia, obsessive-compulsive disorder, PTSD, and bipolar disorder. Not only that, but everyone given this treatment was cured within 2 weeks. Do you think Sally should recommend the treatment for her cousin?

- a) yes, since it is proven effective
- b) yes, since everyone who was treated was cured
- c) no, since it targets too many disorders and Sally's cousin only has a subset of these disorders
- d) no, since it sounds like pseudopsychology

Answer: d

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

93. Cindy's brother is addicted to cigarettes, so Cindy does some research to look for treatment options. She finds one treatment that is proven effective in treating all kinds of addictions, including cigarettes, alcohol, food, shopping, heroin, cocaine, sex, and marijuana. Not only that, but everyone given this treatment was cured of their addiction within 3 days. Do you think Cindy should get the treatment for her brother?

- a) yes, since it is proven effective
- b) yes, since everyone who was treated was cured
- c) no, since it targets too many addictions and Cindy's brother only has one addiction
- d) no, since it sounds like pseudopsychology

Answer: d

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

94. Which of the following examples shows how psychology can overcome the problem that mental functions cannot be directly observed?

- a) Anne records how far one can jump as a measure of athleticism.
- b) Dan examines how high he can count in his head before his thoughts wander to something else.
- c) Stan measures how long he can hold his hand over a candle flame before he has to pull it away.
- d) Fran counts the number of words she can remember from a list as a measure of memory capacity.

Answer: d

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

95. As much as the field of psychology has a scientific foundation, any researcher investigating a psychological phenomenon will be faced with the additional burden of

- a) extrapolating animal findings to human behaviour.
- b) objectively defining mental functioning.
- c) applying the scientific method to psychological questions.

d) competing with pseudopsychologists for research grants.

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

96. What will always be a challenging task for psychologists doing research?

- a) finding willing participants
- b) objectively defining mental functioning
- c) applying the scientific method to psychological questions
- d) competing with pseudopsychologists for research grants

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

97. "The process of observation is a challenging one for psychology, given its subject matter," offers Frederico. "That's why psychology should investigate only phenomena which are clearly observable," Grady responds. "But psychologists can use observable behaviour to make reliable statements about internal processes that can't be seen," counters Holly. "Not to mention, technology continues to expand the range of psychological processes we can actually observe," Indira notes. Which of these discussants is paired with the psychological perspective they most clearly reflect?

- a) Grady – psychodynamic perspective
- b) Holly – behaviourist perspective
- c) Indira – neuroscience perspective
- d) Grady – cognitive perspective

Answer: c

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

98. Recall the levels of analysis described in Chapter 1 of your text. If you were sympathetic to the notion that psychology should limit itself to clearly observable phenomena, on which level of analysis might you concentrate?

- a) the brain level

- b) the individual level
- c) the group level
- d) the social level

Answer: a

Difficulty: Hard

Bloomcode: Synthesis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

99. Why do many psychologists find current advances in brain imaging especially exciting, considering your text's discussion of the goals of psychology at the beginning of Chapter 2?

- a) These advances promise to expand the realm of that which is directly observable.
- b) These advances offer indirect ways to observe the mind.
- c) These advances validate the notion that psychology should limit itself to directly observable phenomena.
- d) These advances indicate that difficulties in observation do not necessary impede progress toward the goal of explanation.

Answer: a

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

100. You are writing a history of psychology, focusing on the major themes and perspectives that have dominated the field over the past 150 years. Which phrase below offers the most fitting completion to the partial title, The Story of Psychology: ____?

- a) Observing the Unobservable
- b) Predicting the Unpredictable
- c) Explaining the Inexplicable
- d) Controlling the Uncontrollable

Answer: a

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

101. A researcher observed the eating patterns of laboratory rats while manipulating the amount of sleep they received during a week-long study. In this example, what type of variable is "sleep"?

- a) observable
- b) dependent
- c) independent
- d) extraneous

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

102. Dr. Morris is studying how sleep deprivation affects semantic memory. He has each participant study a list of random facts and then undergo sleep deprivation for either 24 hours, 30 hours, or 36 hours. Then, following an additional 48-hour delay period, each participant's memory for the random facts is tested. In this study, what is the independent variable?

- a) number of random facts remembered
- b) number of hours of sleep deprivation
- c) 48-hour delay
- d) the amount of time spent trying to remember the random facts

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

103. Dr. Vesner is examining how exposure to Drug X affects levels of aggression in rats. She gives each rat one of four doses of Drug X: no drug (saline injection), low dose, medium dose, and a high dose. After 20 minutes so the drug has time to take effect, she measures aggression by the intensity with which the rat bites a probing rod that is entered into the apparatus. In this study, what is the independent variable?

- a) levels of aggression
- b) dose of Drug X
- c) 20-minute delay
- d) intensity with which the rat bites a probing rod

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

104. If Corby hypothesizes that sleep deprivation in university students results in lower GPAs, what are the variables in his hypothesis?

- a) amount of sleep deprivation
- b) scores on tests
- c) any factors other than sleep deprivation that affect student grades
- d) sleep deprivation and GPA

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

105. "Opposites attract." "Birds of a feather flock together." These aphorisms most closely resemble

- a) hypotheses.
- b) theories.
- c) variables.
- d) operational definitions.

Answer: a

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

106. Which of the following researchers is using an acceptable operational definition of a variable?

- a) Dr. Ziggy defines aggression as how angry one feels in different situations.
- b) Dr. Abrams defines embarrassment as the number of friends on Facebook.
- c) Dr. Byrne defines intelligence as one's score on the Wechsler Adult Intelligence Scale.
- d) Dr. Clay defines attraction to another as the desire to be liked by the other.

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

107. Which of the following researchers is using an acceptable operational definition of a variable?

- a) Dr. Pham defines intelligence as one's ability to problem solve.

- b) Dr. Selkirk defines aggression as the number of swear words spoken in an hour.
- c) Dr. Mellek defines social anxiety as the intensity of embarrassment in social situations.
- d) Dr. Nelson defines memory as the earliest childhood memory available.

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

108. A hypothesis is best defined as a(n)

- a) broad, general explanation of the phenomenon of interest.
- b) specific prediction concerning the relationship between variables.
- c) specification of a variable in terms of the procedures that will be used to measure it.
- d) behaviour, event, or other characteristic that can assume different values.

Answer: b

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

109. A behaviour, event, or other characteristic that can take on different values is termed a(n) ____.

- a) variable
- b) theory
- c) operational definition
- d) hypothesis

Answer: a

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

110. Helena proposes that the more impulsive a student is, the more likely he or she will be to change answers on a multiple-choice test. The variable(s) in this statement is/are

- a) impulsivity.
- b) answer-changing.
- c) both impulsivity and answer-changing.
- d) the student, impulsivity, and answer-changing.

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

111. Which of the following statements is the best operational definition of “test score”?

- a) feeling of success following the test
- b) feeling of failure following the test
- c) number of questions answered correctly
- d) number of questions answered confidently

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

112. Two research assistants are collecting data for a study examining child aggression on the playground by observing children as they are playing. The first research assistant measures aggression by counting the number of times children hit each other. When the second research assistant goes to the playground, he counts the number of times children push each other. What is the greatest flaw with this study?

- a) The research assistants are biased.
- b) The study is not a “true” experiment.
- c) The research assistants are working with different operational definitions.
- d) All data should be collected by the same person.

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

113. Psychologists operationalize the ____ in a ____.

- a) groups; experiment
- b) variables; hypothesis
- c) samples; population
- d) hypotheses; theory

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

114. When asked to define 'popularity,' Brianna offers, "It's when everyone likes you." Chrissy suggests, "It's basically the number of friends you have." In this example, an operational definition is being offered by

- a) both Chrissy and Brianna.
- b) neither Chrissy nor Brianna.
- c) Brianna.
- d) Chrissy.

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

115. Each of the following is an operational definition of 'happiness' EXCEPT

- a) a feeling of joy or contentment.
- b) the number of times a given individual smiles in an hour.
- c) an individual's self-rating on a 10-point happiness scale.
- d) a diffuse pattern of brain activation associated in past research with positive emotion.

Answer: a

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

116. Pollsters are conducting a survey to predict which candidate is going to win the next mayoral election in a large city. They decide to poll 5 of the 40 subdivisions in the city. How accurate is their poll likely to be?

- a) quite accurate as they are polling different areas
- b) not accurate as the pollsters did not use random selection
- c) not accurate as they need to poll everyone in the city
- d) quite accurate as polling 5 subdivisions suggests they used random selection

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

117. How can researchers control for the fact that they may inadvertently only accept participants for their study who are likely to confirm their hypothesis?

- a) random assignment
- b) random selection
- c) double-blind procedure
- d) demand characteristics

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

118. How can researchers control for the fact that experimental and control groups may come to the experiment with pre-existing differences that can affect the results of the study?

- a) random assignment
- b) random selection
- c) double-blind procedure
- d) demand characteristics

Answer: a

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

119. A popular women's magazine published a survey in their latest edition asking about the division of housework between men and women. Based on the results of the survey, they plan to publish an article in the *next* edition claiming that women are still responsible for 90% of household chores. This result demonstrates

- a) researcher bias.
- b) sampling bias.
- c) participant bias.
- d) demand characteristics.

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

120. How can researchers minimize sampling biases?

- a) random assignment
- b) random selection
- c) double-blind procedure
- d) Hawthorne procedure

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

121. How can researchers control for the Hawthorne effect?

- a) Choose participants who have volunteered for studies in the past.
- b) Observe for an extended period of time.
- c) Have multiple observers.
- d) Don't inform observers about the specific hypothesis under investigation.

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

122. What are the two primary types of research methods?

- a) descriptive and experimental
- b) sample and population
- c) naturalistic observation and surveys
- d) correlational and double-blind experiments

Answer: a

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

123. Which of the following is NOT a descriptive research method?

- a) case study
- b) experiment
- c) naturalistic observation
- d) survey

Answer: b

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

124. Which of the following is a disadvantage for ALL types of descriptive research?

- a) They suffer from participant bias.
- b) They have to control for the Hawthorne effect.
- c) They are too artificial and controlled to capture natural behaviour.
- d) They do not allow causal conclusions.

Answer: d

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

125. There are many types of descriptive research, and all of them share the disadvantage that they

- a) suffer from sampling bias.
- b) have to control for the Hawthorne effect.
- c) do not allow cause-effect conclusions.
- d) are too unnatural and controlled to capture true behaviour.

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

126. Which of the following is an important advantage of the descriptive/correlational research method?

- a) They reflect actual behaviour.
- b) They allow close control over variables.
- c) They explain cause and effect.
- d) There is less of a concern of researcher and participant biases.

Answer: a

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

127. Which of the following is a disadvantage of the descriptive/correlational research method?

- a) They are impractical in some situations.
- b) They do not reflect actual behaviour.
- c) They do not allow control over variables.
- d) They cannot infer relationships between variables.

Answer: c

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

128. Dr. Freckleton plans to study the relationship between drug abuse and minor illnesses such as colds and flu. Why might he be most likely to use a descriptive research method?

- a) Descriptive studies will allow him to draw conclusions about cause and effect.
- b) There is little concern about participant or researcher biases.
- c) He would have greater control over the variable of drug abuse.
- d) It would be unethical to manipulate the variable of drug abuse.

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

129. When a researcher is unable to control variables in a study, what research method are they likely to choose?

- a) experimental
- b) logical
- c) descriptive
- d) none of the above. Research requires that at least one variable be manipulated.

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

130. The two main types of research methods are

- a) sample and population.
- b) experimental and descriptive.
- c) applied and basic.
- d) correlational and observational.

Answer: b

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

131. Descriptive is to experimental as ____ is to ____.

- a) relationship; cause
- b) cause; relationship
- c) description; statistics
- d) statistics; description

Answer: a

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

132. Karen is a primatologist interested in studying the grooming behaviour of baboon troops.

To remain unobtrusive, she sat in a tree to watch the animals and counted the number of instances of grooming behaviour she observed. What research method did Karen use?

- a) naturalistic observation
- b) case study
- c) survey
- d) experiment

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

133. Which of the following does NOT address the problems associated with the natural observation method?

- a) the use of a single observer
- b) not informing observers of the hypothesis being investigated
- c) having the observer spend a lot of time in the setting they will be observing
- d) using multiple observers

Answer: a

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

134. A study conducted by Landsberger (1958) suggested that when workers knew they were being observed their productivity increased regardless of what changes were made to the workplace. This finding became known as the

- a) the Landsberger effect.
- b) the worker bias effect.
- c) the Hawthorne effect.
- d) the productivity effect.

Answer: a

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

135. Martha administered a survey about child abuse to 2000 anonymous new parents and found no reports of a parent exhibiting this type of behaviour. Knowing the number of incidences of child abuse reported each year, Martha suspected that some type of bias attributed to the erroneous results. Which type of bias most likely affected this study?

- a) researcher bias
- b) participant bias
- c) sampling bias
- d) experimental bias

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

136. Which of the following statements describes a case study?

- a) controlled observation in which experimenters manipulate variables
- b) when researchers directly observe people in a study
- c) a study focusing on a single person
- d) when participants are asked questions, either orally or written

Answer: c

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

137. If researchers were interested in studying individuals' attitudes toward the treatment of persons with mental illness in Canada, which of the following would they be MOST likely to use?

- a) a case study
- b) a survey
- c) a naturalistic observation
- d) an experiment

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

138. Which of the following statements describes a survey?

- a) controlled observation in which experimenters manipulate variables
- b) researchers directly observing people in a study
- c) researchers focusing on a single person
- d) researchers asking participants questions, either orally or written

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

139. How can researchers minimize demand characteristics?

- a) random assignment
- b) random selection

- c) double-blind procedure
- d) Hawthorne procedure

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

140. Dr. Nalling conducted a survey asking participants about their hygienic habits. She was very surprised to find that most of her participants reported exemplary hygienic habits. Which bias might account for this finding?

- a) researcher bias
- b) sampling bias
- c) participant bias
- d) demand characteristics

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

141. Dr. Unger is investigating the effects of sleep deprivation on memory for spatial locations. He decides to have three groups of participants each undergo different amounts of sleep deprivation (e.g., 24 hours, 30 hours, and 36 hours) and then perform a spatial memory task (e.g., remembering the locations of 10 hidden objects). What kind of research method is Dr. Unger using?

- a) naturalistic observation
- b) experiment
- c) survey
- d) case study

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

142. Dr. Mallette is studying the effects of toy choices on aggressive behaviour in preschool children. To do this, she has two groups of children that each have access to different types of toys. The Violent Group has access to violent toys (guns, wrestling dolls, handcuffs), and the

Non-Violent Group has access to non-violent toys (tea party set, colouring books, toy trucks). For each group, she records the number of aggressive acts performed. What kind of research method is Dr. Mallette using?

- a) naturalistic observation
- b) experiment
- c) survey
- d) case study

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

143. Grace conducted an experiment to study the incidence of birth defects in infants born of mothers who drank alcohol during their pregnancies. From the outset of the study, she had a poster located behind her desk in full view of study participants that stated, "Don't Drink" accompanied by a disturbing image of a newborn with multiple birth defects. What type of bias does this poster represent?

- a) researcher
- b) participant
- c) demand characteristic
- d) statistical

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

144. In an experiment, the researcher deliberately manipulates the ____ variable and measures the ____ variable.

- a) experimental; control
- b) control; experimental
- c) dependent; independent
- d) independent; dependent

Answer: d

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

145. In experimental research, presumed cause is to potential effect as ____ is to ____.

- a) dependent variable; independent variable
- b) independent variable; dependent variable
- c) experimental group; control group
- d) control group; experimental group

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

146. Dr. Warner is studying the effects of vitamin C consumption on the frequency of common colds. To do this, he gives a random half of his sample of participants a large dose of vitamin C to consume daily for one year, while the other group takes a placebo daily for one year. The frequency of colds is recorded for the duration of the year. In this study, what is the control group?

- a) the group that gets more colds throughout the year
- b) the group that consumes the vitamin C daily for one year
- c) the group that consumes a placebo daily for one year
- d) the group that gets fewer colds throughout the year

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

147. Dr. Austin is studying the effects of cardiovascular exercise on intelligence. To do this, he gives a random half of his participants a daily cardio exercise routine to complete while the other half of his sample is required to do a daily yoga routine. At the end of one year, he measures everyone's IQ by using the Wechsler Adult Intelligence Scale (WAIS). In this study, what is the control group?

- a) the group that has a higher IQ
- b) the group that does a daily cardio workout
- c) the group that does a daily yoga workout
- d) the group that has a lower IQ

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

148. Which of the following is a disadvantage of experimental research?

- a) Does not allow researchers precise control over variables.
- b) Cannot explain cause and effect.
- c) Cannot always use random assignment due to ethical concerns.
- d) It is impossible for control for demand characteristics.

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

149. At Folger University, Drs. 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 and their recall of items on a word list is later assessed. Which pair below 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

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

150. At Folger University, Drs. 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 and 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

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

151. Which of the following sequences best reflects the order of the steps in the scientific method as it is described and illustrated in your text?

- a) build theory – operationalize variables – develop hypothesis
- b) develop hypothesis – operationalize variables – build theory
- c) develop hypothesis – build theory – operationalize variables
- d) build theory – develop hypothesis – operationalize variables

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

152. What is the last step in the cycle of how psychologists conduct research?

- a) Develop a testable hypothesis.
- b) Identify questions of interest and review the literature.
- c) Build a theory.
- d) Seek scientific review, publish and replicate.

Answer: c

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

153. What step comes after analyzing the data and accept/reject the hypothesis in the cycle of how psychologists conduct research?

- a) Develop a testable hypothesis.
- b) Identify questions of interest and review the literature.
- c) Build a theory.
- d) Seek scientific review, publish and replicate.

Answer: d

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

154. 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 like a sample.
- d) A sample is separate from a population.

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

155. At a DUI checkpoint, some cars are stopped at random; many others are not stopped. Using the terminology of psychological research, the cars that are stopped may be considered a ____ of all the cars that pass by the checkpoint.

- a) sample
- b) subset
- c) population
- d) segment

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

156. Magazine surveys cannot be considered valid research methods because its readers are the only ones who will respond, and the readers may be predisposed to have a special interest in the hypothesis. This is an example of a

- a) random sample.
- b) sampling error.
- c) sampling bias.
- d) representative sample.

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

157. Amy is conducting a survey of dating attitudes and behaviours among young adults as part of her masters' 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 to whom she assumes her results will generalize are termed the _____.

- a) control group; population
- b) experimental group; population
- c) population; sample
- d) sample; population

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

158. Tiffany is conducting a survey on personality traits and binge drinking among college students as part of her masters' thesis work. Tiffany distributes questionnaires to students enrolled in her own section of an introductory psychology course, as well as those taught by her thesis advisor. Based on this information, it appears that Tiffany has failed to

- a) randomly select the participants.
- b) operationalize the variables.
- c) randomly assign the participants.
- d) debrief the participants.

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

159. Which of the following is a disadvantage of descriptive research?

- a) artificial lab conditions
- b) cannot explain cause and effect
- c) ethical concerns
- d) harder to collect data

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

160. Kayley is trying to decide whether to study the relationship between alcohol consumption using survey research techniques on the one hand, or experimental research methods on the

other. Which of the following alternatives most accurately identifies considerations Kayley should keep in mind as she plans her research?

- a) Survey responses are prone to biases, but survey work allows you to identify causes and effects. Experimental research is more artificial, but allows you to control variables.
- b) Both survey research and experimental methodology involve somewhat artificial conditions. However, both survey research and experimental research are fairly easy to conduct.
- c) Both survey research and experimental methodology allow you to identify causes and effects. However, experimental research usually involves artificial laboratory conditions, while survey responses may reflect biases.
- d) Experimental research usually involves artificial laboratory conditions, but it would allow you to identify causes and effects. Survey research does not allow cause-effect-conclusions, and survey responses may reflect biases.

Answer: d

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

161. Dr. Tanaka stumbled across Big Foot in the woods one day, and after some conversation (yes, Big Foot actually spoke English!), Big Foot agreed to be studied. Dr. Tanaka gave him all sorts of intelligence tests, personality tests, memory tests, empathy tests, and then observed him in his natural habitat. What type of research method is Dr. Tanaka using?

- a) experiment
- b) naturalistic observation
- c) case study
- d) survey

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

162. Dr. Peacock is investigating the effect of the amount of daycare fees on preschooler's language development. To do this, she finds a handful of daycares that differ according to their weekly fees (some are very expensive, and others are not), and she quietly sits and records the number of words spoken by random samples of children throughout the day in each daycare. What type of research method is Dr. Peacock using?

- a) experiment
- b) naturalistic observation
- c) case study
- d) survey

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

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

- a) naturalistic observation.
- b) experimental research.
- c) survey research.
- d) a case study.

Answer: a

Difficulty: Easy

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

164. Which of the following alternatives correctly identifies BOTH an advantage AND a disadvantage of naturalistic observation?

- a) Naturalistic observation is highly reflective of actual behaviour, but it is difficult to generalize results gained through the study of a single person.
- b) Naturalistic observation is highly reflective of actual behaviour, but it is prone to biases.
- c) Naturalistic observation allows cause-and-effect conclusions, but it can be highly artificial.
- d) Naturalistic observation allows control over variables, but it is prone to biases.

Answer: b

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

165. Experimental research requires that the responses of ____ group(s) be examined.

- a) at least 1
- b) 2
- c) at least 2
- d) 3 or more

Answer: c

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

166. Why are control groups included in experiments?

- a) to determine whether two variables are related
- b) to ascertain cause-and-effect relationships
- c) to ensure that participant characteristics are essentially the same in each group
- d) to ensure that the results may be generalized to the population

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

167. Random assignment

- a) guarantees the elimination of differences between the control and experimental groups.
- b) may not entirely eliminate differences between the control and experimental groups.
- c) does little to minimize differences between the control and experimental groups.
- d) ensures that a sample represents a population.

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

168. Research studies that in some way unintentionally communicate the results the researcher expects are said to reflect

- a) subject bias.
- b) researcher bias.
- c) the double-blind effect.
- d) demand characteristics.

Answer: d

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

169. Dr. McMillan is studying the effects of violent cartoon watching on aggressive play behaviour in school-aged children. She divides the children up into two groups: one group watches a violent cartoon for 20 minutes and the other group watches a non-violent cartoon for 20 minutes. Then, all the children play together in a large area, and researchers count the number of aggressive acts performed by each child. Most importantly, when the researchers are counting aggressive acts, they don't know which child watched which cartoon. What potential influence on the results is Dr. McMillan mindful of in collecting her data this way?

- a) sampling bias
- b) demand characteristics
- c) researcher bias
- d) participant bias

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

170. Dr. Yagushi is researching the effects of daily exercise on neurogenesis. To do this, she uses three groups of rats that vary in the amount of daily exercise: one group gets no access to a running wheel, another group gets 2 hours of access to the running wheel, and a final group gets 12 hours of access to the wheel. After 2 months on their respective exercise schedules, the rats are sacrificed, and Dr. Yagushi counts the number of neurons in a given region of the brain. Most importantly, when Dr. Yagushi is doing her neuron count on each brain slice, she doesn't know which brain received each exercise level. What potential influence on the results is Dr. Yagushi mindful of in collecting her data this way?

- a) sampling bias
- b) demand characteristics
- c) researcher bias
- d) participant bias

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

171. A pharmaceutical company wishes to test the efficacy of a new anti-depressant 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.

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

172. Which of the following research methods is CORRECTLY matched with a description?

a) naturalistic observation – behaviour is investigated in the environment in which it typically occurs

b) case study – a large sample is asked a set of questions

c) survey research – at least one variable is deliberately manipulated by the researcher

d) experimental research – a single individual is examined in detail

Answer: a

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

173. Which of the following research methods is CORRECTLY matched with an advantage?

a) naturalistic observation – rich source of hypotheses regarding a single individual's behaviour

b) case study – allows control over variables

c) survey research – lets researchers measure the strength of the relationship between variables

d) experimental research – highly reflective of actual human behaviour

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

174. What method do psychologists use to analyze study data?

a) logic

- b) induction
- c) statistics
- d) deduction

Answer: c

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

175. What do psychologists do to determine whether the variables in their research are related, or whether there is a true difference between their groups?

- a) They do a visual inspection of their data and see if there are any obvious trends.
- b) They rely in impressions or logic.
- c) They use statistics as a tool.
- d) They compare their findings to previous work in the area.

Answer: c

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

176. Researchers use statistics as a tool to

- a) compare their findings to previous work in the area.
- b) see if their work supports an existing theory or whether they have to revise the theory.
- c) determine whether the variables in their research are related, or whether there is a true difference between their groups.
- d) choose a representative sample of the population to serve in the experiment.

Answer: c

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

177. Which of the following values indicates that there is no relationship between two variables?

- a) -1.0
- b) $-.10$

- c) 0.00
- d) 1.0

Answer: c

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

178. Which term is most nearly synonymous with the term correlation?

- a) relationship
- b) explanation
- c) observation
- d) influence

Answer: a

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

179. The correlation coefficient ranges from

- a) 1 to 100.
- b) -1.00 to 1.00.
- c) 0 to 1.
- d) -100 to 100.

Answer: b

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

180. "Okay. What does a correlation coefficient tell us?" Zoe asks the members of her psychology study group. "The strength of a relationship between two variables," answers Yvonne. "The direction of the relationship between two variables," puts in Will. Who's right?

- a) Only Yvonne is right.
- b) Only Will is right.
- c) Both Yvonne and Will are right.

d) Neither Yvonne nor Will is right.

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

181. The direction of the relationship between two variables is given by a correlation coefficient's ____; the strength of the relationship is given by the coefficient's ____.

- a) absolute value; value
- b) sign; absolute value
- c) sign; value
- d) absolute value; sign

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

182. Which of the following defines a positive correlation?

- a) when the scores on one variable tend to decrease as the scores on another variable decrease
- b) when the scores on one variable tend to increase as the scores on another variable decrease
- c) when the scores on one variable tend to decrease as the scores on another variable increase
- d) where there is no relationship between two variables

Answer: a

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

183. Which of the following defines a negative correlation?

- a) when the scores on one variable tend to decrease as the scores on another variable decrease
- b) when the scores on one variable tend to increase as the scores on another variable increase
- c) when the scores on one variable tend to decrease as the scores on another variable increase

d) where there is no relationship between two variables

Answer: c

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

184. Between which pair of variables is one most likely to find a positive correlation?

- a) alcohol consumption and GPA
- b) GPA and height
- c) GPA and amount of studying
- d) GPA and depression

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

185. Velma found a positive correlation between self-reported alcohol and drug use and sick days taken in a study of white-collar workers. A graph of her results would show

- a) a diagonal line from the top left to the bottom right.
- b) a diagonal line from the bottom left to the top right.
- c) a horizontal line.
- d) a U-shaped curve.

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

186. A researcher finds a correlation of $-.51$. Which pair of variables is the researcher most likely investigating?

- a) GPA and alcohol use
- b) IQ and GPA
- c) GPA and height
- d) GPA and amount of studying

Answer: a

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

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

- a) $-.75$
- b) $.60$
- c) $.00$
- d) $.30$

Answer: a

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

188. A ____ correlation results when there is no relationship between two variables.

- a) negative
- b) inverse
- c) zero
- d) infinite

Answer: c

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

189. If there is a relationship between the amount of caffeine consumed and heart rate in that the more caffeine that is consumed the faster a person's heart beats, how would you describe the correlation between caffeine and heart rate?

- a) negative correlation
- b) positive correlation
- c) stable correlation
- d) unstable correlation

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

190. As a person ages they demonstrate lower rates of recall for words studied from a list. This suggests that the relationship between age and recall memory is a

- a) positive correlation.
- b) negative correlation.
- c) zero correlation.
- d) stable correlation.

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

191. In a survey project, Dr. Miyake finds a correlation of .60 between attachment security and the likelihood with which participants say they'd engage in various pro-social behaviours at work. Each of the following is consistent with this data EXCEPT

- a) attachment security leads people to behave pro-socially at work.
- b) behaving pro-socially at work can produce a feeling of attachment security.
- c) lower attachment security is associated with less pro-social work behaviour.
- d) there is a perfect relationship between attachment security and pro-social work behaviour.

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

192. 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 behaviour. Which of the following might Dr. Nguyen legitimately conclude?

- a) Uninvolved parenting causes juvenile delinquency.
- b) Parenting that is more uninvolved is related to a higher degree of delinquent behaviour.

- c) Uninvolved parenting is unrelated to delinquency.
- d) There is a negative relationship between uninvolved parenting and delinquent behaviour.

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

193. In a large correlational study, Grace finds a correlation coefficient of .15 between one pair of variables. She finds a coefficient of $-.65$ between two other variables. Which alternative below BEST describes these two correlations, respectively?

- a) weak positive relationship; strong negative relationship
- b) very weak positive relationship; strong negative relationship
- c) weak positive relationship; very strong negative relationship
- d) weak positive relationship; modest negative relationship

Answer: a

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

194. "I'm so pleased! I got a correlation between scores on my socio-sexual activity measure and scores on the anxious attachment scale, just like I predicted," enthuses Ahmed. Based on your text's discussion regarding correlations between complex behaviours and thoughts, the absolute value of Ahmed's coefficient should be

- a) at least .20.
- b) at least .30.
- c) at least .40.
- d) at least .60.

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

195. Dr. Denny has just discovered a perfect positive correlation between hours of studying and

grades in students who pay for their own education. Based on this, what can Dr. Denny conclude?

- a) Studying for more hours causes better grades.
- b) Getting better grades causes students to want to study more.
- c) The number of hours of studying and grades are both caused by a good work ethic.
- d) Causal conclusions are not possible here.

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

196. Correlational analysis is to experimental analysis as ____ is to ____.

- a) inferential statistics; descriptive statistics
- b) *t*-test; analysis of variance
- c) relationship; cause and effect
- d) cause and effect; relationship

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

197. Statistics which summarize data are termed ____ statistics. Those that indicate what might be concluded from research results are called ____ statistics.

- a) experimental; correlational
- b) correlational; experimental
- c) inferential; descriptive
- d) descriptive; inferential

Answer: d

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

198. What do inferential statistics allow researchers to do?

- a) Determine whether their findings can be applied to everyone in the population.
- b) Describe the patterns in the data.
- c) Determine how consistent each participant's score was relative to the group.
- d) Estimate whether the sample is representative of the population.

Answer: a

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

199. What type of statistics allows researchers to determine whether their findings can be applied to everyone in the population?

- a) descriptive statistics
- b) standard deviation
- c) correlation coefficient
- d) inferential statistics

Answer: d

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

200. The category of experimental analyses that assists researchers in making conclusions based on results is known as ____.

- a) correlation statistics
- b) inferential statistics
- c) probability statistics
- d) descriptive statistics

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

201. In a small study, a group of students in an Experimental Psychology course collected scores on two variables – Variables A and B – from five participants as follows: Participant 1: A

= 3, B = 10; Participant 2: A = 3, B = 9; Participant 3: A = 8, B = 4; Participant 4: A = 6, B = 6; Participant 5: A = 10, B = 1. "The mean score on Variable A is 6, and the variables are not correlated," Ivy notes. "The mean Variable B score is 5, and the variables are negatively correlated," John states. "No, the mean score on B is 6; but, yes, A and B are negatively correlated," Kenya remarks. "Wait. The mean score on A is 5," Lara adds. Which of these students is correct?

- a) Only John is correct.
- b) Kenya and Lara are correct.
- c) John and Lara are correct.
- d) Only Kenya is correct.

Answer: d

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

202. One statistic that tells researchers how much participants' scores vary from one another is the

- a) weighted mean.
- b) standard deviation.
- c) correlation coefficient.
- d) inferential statistic.

Answer: b

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

203. Which of the following statistical procedures can be used to determine to what degree participants' scores within a group vary?

- a) standard deviation
- b) mean
- c) *t*-test
- d) analysis of variance

Answer: a

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

204. "The average was 75," explains Dr. Cole, handing back the semester's first midterm. The lowest score was 32, and there were several in the 40s. But I had some 95s, 96s, and even a 98 – so it's not like it's impossible to do well." Handing back the second midterm, Dr. Cole notes, "The average was 75 again. There were a few in the low 60s, but I got a bunch in the high 80s and into the 90s. It's looking better!" Which of the following statements is TRUE?

- a) The means were the same on the two tests, but the standard deviation was lower on the first than on the second.
- b) The means were the same on the two tests, but the standard deviation was higher on the first than on the second.
- c) The mean was higher on the second test than on the first, but the standard deviation was lower on the second test.
- d) The means and standard deviations were the same on the two tests.

Answer: b

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

205. Dr. Ormson measures the calorie intake of a group of 20-year olds and finds that the average number of calories consumed per day is greater for males than it is for females. If he also wanted to know how much the number of calories consumed vary within each group, what statistic should he use?

- a) mean
- b) standard deviation
- c) correlation coefficient
- d) probability statistic

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

206. Dr. Cirella measures the throwing distance of a group of Grade 8 students, and finds that the average distance for the boys is greater than that for the girls. If he also wanted to know how much the scores vary within each group, what statistic should he use?

- a) mean
- b) standard deviation
- c) correlation coefficient
- d) probability statistic

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

207. In an experiment containing one experimental group and one control group, the performance of the participants in the two groups would be compared using a(n)

- a) *t*-test.
- b) standard deviation.
- c) analysis of variance.
- d) correlation coefficient.

Answer: a

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

208. Dr. Nash is reading Odette's thesis proposal. "Recovering cocaine addicts will view three types of words flashed briefly on the computer screen: cocaine-related words, words related to drugs the participants did not abuse, and neutral words unrelated to drugs," reads one sentence. Later, Dr. Nash encounters this sentence: "Mean reaction times to the three types of words will be analyzed using a *t*-test." Which piece of feedback is Dr. Nash most likely to give to Odette?

- a) "The proposed analysis seems fine."
- b) "I would suggest using analyses of variance, since you have three groups."
- c) "Correlational analyses such as *t*-tests aren't appropriate for experiments."
- d) "I would propose computing correlation coefficients for this type of study."

Answer: b

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

209. Dr. Bauer is investigating the effects of a new drug on the capacity of short-term memory. To do this, he uses four doses of drug on different groups of patients: some take a high dose, others a medium dose, others a low dose, and finally some take a placebo sugar pill. He then measures each participant's short-term memory capacity by seeing how many words they can remember immediately after hearing a list of 50 words. What statistic would Dr. Bauer use to determine if there was a significant difference between groups?

- a) correlation coefficient
- b) *t*-test
- c) analysis of variance
- d) standard deviation

Answer: c

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

210. Dr. Sadik is studying the effects of a new anxiety drug on the ability of obsessive-compulsive patients to ignore their obsessive thoughts and not need to carry out their compulsive behaviours. To do this, she uses three doses of drug on different groups of patients: some take a high dose, others a low dose, and others take a placebo sugar pill. She then measures the number of compulsive behaviours performed by each patient. What statistic would Dr. Sadik use to determine if she has a significant difference between groups?

- a) correlation coefficient
- b) *t*-test
- c) analysis of variance
- d) standard deviation

Answer: c

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

211. What does a psychologist usually mean when she says a specific experimental result is 'significant'?

- a) The result reflects a large difference between the mean scores of one participant group and the mean scores of another.
- b) The result is important in a practical sense.
- c) The result will allow psychologists to support one theory over alternative theories.
- d) The result is unlikely to have occurred solely because of chance.

Answer: d

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

212. What can statistics tell us about a research project?

- a) the importance of the findings
- b) the likelihood that the results would have been found by chance alone
- c) how much the dependent variable depends on the independent variable
- d) how often the findings have been replicated

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

213. What does it mean to say that research findings are 'statistically significant'?

- a) the findings are important
- b) the findings will be published
- c) the findings are not likely to be due to chance
- d) the findings are not likely to be found again

Answer: c

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

214. After a researcher has tested all their participants and they have their data, what information can statistics add to their knowledge?

- a) how many other researchers have found the same results
- b) the likelihood that the results will be published
- c) the extent that the dependent variable depends on the independent variable
- d) the likelihood that the results would have been found by chance alone

Answer: d

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

215. When the results of a research project have been found to be 'statistically significant', what does this really mean?

- a) The findings are original and have never been published before.
- b) The findings are very important, and the scientific community should know about them.
- c) The findings are not likely to be due to chance alone.
- d) The findings will be published in a reputable journal.

Answer: c

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

216. Which value indicates the greatest likelihood that a result occurred by chance alone?

- a) .005
- b) .05
- c) .5
- d) .001

Answer: c

Difficulty: Hard

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

217. Paulette encounters the following sentence in a psychology journal article she is reading: "Participants exposed to brief heat stress made more errors on the visual attention task than did participants not exposed to heat stress, $p < .05$." Paulette can conclude each of the following EXCEPT

- a) the difference between the groups in the number of errors most likely stems from heat stress.
- b) there was a significant difference between the groups in the number of errors.
- c) the number of errors was much larger in the heat stress group than it was in the other group.
- d) there is less than a 5% chance that random coincidence was responsible for the difference between the groups in the number of errors.

Answer: c

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

218. Why do the editors of psychology journals sometimes insist that psychologists include an estimate of effect size along with the probability statistic when they report a significant result?

- a) By itself, a probability statistic indicates only whether the difference in means between the groups in the study is unlikely to reflect chance. The effect size statistic indicates whether the difference is large.
- b) By itself, a probability statistic indicates only that the difference in means between the groups in the study is large. The effect size statistic indicates whether the difference is unlikely to reflect chance.
- c) The effect size statistic replicates the probability statistic, providing additional evidence that the result is significant.
- d) By itself, a probability statistic indicates only that there is a relationship between two variables. The effect size statistic gives some indication of cause and effect.

Answer: a

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

219. Redoing and expanding on a study to see if its results hold up in different conditions with new samples is termed ____.

- a) reproduction
- b) replication
- c) repetition
- d) restoration

Answer: b

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

220. What function does replication serve?

- a) It establishes causality.
- b) It ensures that the previous results achieved were not due to a coincidence.
- c) It is part of the scientific method.
- d) It verifies that the operational definitions don't need to be manipulated.

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

221. When researchers re-test a hypothesis to ensure that the previous results achieved were not due to a coincidence, this is called

- a) causality.
- b) replication.
- c) hypothesis re-evaluation.
- d) application of the scientific method.

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

222. Immediately after the title of a journal article in psychology, a brief overview of the research always appears before the introduction begins. This overview is called a(n) ____.

- a) synopsis
- b) preface
- c) precis
- d) abstract

Answer: d

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

223. Dr. Fillipe is investigating the effects of vitamin B consumption on stress levels. He

randomly gives half of his participants a daily dose of vitamin B for one month while the other half takes a sugar pill. Each day, the participants provide a saliva sample to measure stress hormones. If Dr. Fillipe wanted to determine whether the vitamin B group had significantly lower levels of stress hormones compared to the sugar pill group, which of the following pieces of information would he NOT need to know?

- a) the number of participants in each group
- b) the mean levels of stress hormones of each group
- c) the standard deviation for stress hormone levels of each group
- d) the correlation coefficient of each group

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

224. Dr. Jirandi is studying the effects of caffeine on road rage. He randomly gives half of his participants an espresso every morning for one month before their commute to work, while the other half consumes a decaffeinated coffee. After the daily commute, each participant provides a rating of how angry they felt during the drive, and stress levels are measured by taking a saliva sample. If Dr. Jirandi wanted to determine whether the caffeine group had significantly more road rage than the decaffeinated group, which of the following pieces of information would he NOT need to know?

- a) the number of participants in each group
- b) the mean anger ratings and levels of stress hormones of each group
- c) the standard deviation for anger ratings and stress hormone levels of each group
- d) the correlation coefficient of each group

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

225. Which of the following is true about the research ethics board (REB)?

- a) It is funded by the Natural Science and Engineering Research Council of Canada (NSERC).
- b) It is made up of elected government officials.
- c) It reviews each research project in an institution to protect the rights of participants in the study.
- d) It is a research grant agency.

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

226. Which group evaluates each research project to protect the rights of participants in the study?

- a) Natural Science and Engineering Research Council of Canada (NSERC)
- b) The Canadian Council on Animal Care (CCAC)
- c) The Canadian Psychological Association (CPA)
- d) the research ethics board (REB)

Answer: d

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

227. Which of the following universities conducted research exposing mentally ill patients to LSD and ECT to test the causes and effects of brainwashing?

- a) University of Toronto
- b) Harvard University
- c) McGill University
- d) Stanford University

Answer: c

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

228. What procedure at the end of an experiment provides participants with information regarding the full purpose and goals of the study?

- a) informed consent
- b) confidentiality review
- c) debriefing
- d) welfare review

Answer: c

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

229. When a research participant is supplied with full information about the study after their participation, this is called

- a) informed consent.
- b) debriefing.
- c) informed deception.
- d) incomplete disclosure.

Answer: b

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

230. Which of the following is the best definition of debriefing?

- a) when participants are told that they can end their participation at any time
- b) when participants are told about the study to help decide whether they want to participate or not
- c) when participants are reassured that their responses and identity will be protected and kept private
- d) when participants are given full information about the study after their participation

Answer: d

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

231. Which of the following is the best definition of informed consent?

- a) when a research participant is supplied with full information about the study after their participation
- b) when a participant is given information about the purpose of the study, the procedures, and any potential risks and benefits, to decide whether they want to participate or not
- c) when the researchers ensure that the participant's raw data and identifying information will be kept private
- d) when participants are told that they have the right to end participation at any point during the study

Answer: b

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

232. When a research participant is given information about the purpose of the study, as well as the procedures, and the potential risks and benefits of the study, to decide whether they want to participate or not, this is called

- a) protection of confidentiality.
- b) debriefing.
- c) informed consent.
- d) voluntary participation.

Answer: c

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

233. Trent, a doctoral student in psychology, is preparing his dissertation proposal. The research ethics board (REB) at his university will approve his research if

- a) the research promises at least some scientific benefit.
- b) participants will experience no risk or discomfort during the research.
- c) the scientific benefit of the research outweighs the risk to the participants.
- d) participants are fully informed of the study's true purpose before the session begins.

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

234. 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. Quick is providing a detailed explanation to participants who have just completed a study. Which of the following statements is TRUE?

- a) Dr. O'Connor is obtaining informed consent from his participants. Dr. Quick is debriefing her participants.
- b) Dr. O'Connor is debriefing his participants. Dr. Quick is obtaining informed consent from her participants.
- c) Both Dr. O'Connor and Dr. Quick are obtaining informed consent from their participants.
- d) Both Dr. O'Connor and Dr. Quick are debriefing their participants.

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

235. Which of the following sequences best reflects the order of events in a typical experimental session?

- a) informed consent – debriefing – experiment
- b) informed consent – experiment – debriefing
- c) debriefing – informed consent – experiment
- d) debriefing – experiment – informed consent

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

236. Which of the following would NOT be an ethical concern for research ethics boards?

- a) not telling a participant the true purpose of a study
- b) not paying participants for participating in a study
- c) disclosing the names of participants in a study
- d) pressuring participants to participate in a study

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

237. Dr. Kizliack is planning a research study where he will tell his participants that he is conducting an experiment on math ability in university students. In actuality, Dr. Kizliack will really be studying how readily students will cheat if given the opportunity. He will give participants a mock math test and leave them alone with a booklet that is labelled “ANSWERS”. He will measure cheating behaviour by secretly videotaping the participants and later checking to see if they opened the booklet. After the experiment, Dr. Kizliack will explain the true purpose of the experiment. Does Dr. Kizliack’s experiment violate research ethics?

- a) Yes, because Dr. Kizliack is using deception.
- b) Yes, because participants cannot give informed consent if they do not know the purpose of the study.
- c) Yes, because the study may cause harm to the participants.

d) No, it was necessary to deceive the participants to achieve the studies goals and he debriefs them at the end of the study.

Answer: d

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

238. Fabio is about to participate in a psychology research study. The first thing he is asked to do is read over a document that explains the purpose of the study, what he will be asked to do in the study, as well as the risks and benefits of the study. The document concludes by asking him if he is willing to participate. What type of document was this?

- a) a debriefing form
- b) a confidentiality form
- c) an informed consent form
- d) an ethics review form

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

239. Ginnie just finished participating in a study on the effects of alcohol on driving. She had to consume a nasty liquid that may or may not have had alcohol, and then she drove in a simulator for half an hour while the researchers measured her performance. Now, she is sitting down with the experimenter and is handed a document that explains the details of the study to a greater degree. She is further asked if she has any questions, and provided with contact information in case she thinks of a question later. What type of document was this?

- a) a debriefing form
- b) a confidentiality form
- c) an ethics review form
- d) an informed consent form

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

240. Jameson is meeting with a psychology researcher prior to participating in a study. The

psychologists explain the purpose of the study to him, let him know what he will be doing on a given trial, and goes over the potential risks and benefits of his participation. Finally, the researcher hands Jameson a form with all of this information on it, and asks him to sign if he is willing to participate. What kind of form did the researcher give to Jameson?

- a) a debriefing form
- b) a confidentiality form
- c) an informed consent form
- d) an ethics review form

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

241. Gerald just finished participating in a study on the effects of pornography on attitudes toward women. He was asked to watch 30 minutes of pornography (that may or may not have had violence toward women) and then he completed a lengthy questionnaire about his attitudes toward women. Now, Gerald is sitting down with the researcher and is handed a form that explains all the details of the study. He is then asked if he has any questions, and he's given the researcher's contact information in case he thinks of any questions in the future. What type of form was Gerald given?

- a) a debriefing form
- b) a confidentiality form
- c) an ethics review form
- d) an informed consent form

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

242. Which of the following examples shows how psychologists take care to protect the confidentiality of their participants?

- a) Henry explains to his participant after the study is over that he had to use deception in his research.
- b) Amanda stores the raw data from her participants under lock and key.
- c) Casey makes sure that each participant in his study has an equal chance of being assigned to the experimental or control group.
- d) Devon informs his participant that he has the right to withdraw at any time.

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

243. Horace is working in a lab that is researching personality types and dreams. In this research, participants fill out lengthy personality questionnaires and record the content of their dreams for one week. Horace's job is to make sure that each participant is given an identity number, and that this number is not stored with any identifying information about the participant. Furthermore, Horace oversees storing all the raw data under lock and key, so that only the compiled data is available for analysis. In what way does Horace's job show how psychologists take steps to protect human participants?

- a) The participation is voluntary.
- b) The participants are not deceived.
- c) The participants' confidentiality is protected.
- d) The participants are completely debriefed.

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

244. Which of the following examples shows how participation is voluntary?

- a) Isla is handed a form that asks her if she wants to participate in a study.
- b) Jayden chooses not to answer one of the questions on a questionnaire.
- c) Haysam is assured that his data is locked up in a cabinet.
- d) Lila learns that she was lied to in a study and the researchers are explaining why there was no other way.

Answer: b

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

245. Imogen is in the middle of participating in a research study when suddenly she remembers that she was supposed to babysit her little cousin. She immediately quits the study and goes to her cousin's house. In what way does this example show that psychologists take steps to protect their participants?

- a) Participants are fully debriefed.
- b) There was no deception involved in this study.
- c) Participation is voluntary.
- d) Participants' responses are kept confidential.

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

246. Janelle just found out that the researchers in the study she just participated in lied to her. She was told that she was consuming alcohol, but she really wasn't, and they were observing the effects of believing you had consumed alcohol on reaction times. She feels silly, because she did act as though she was drunk, and she thinks she will be very skeptical of researchers in the future. What is likely to be true about this study?

- a) It shouldn't have been given ethics approval.
- b) Janelle gave informed consent.
- c) The costs of this study outweigh the benefits.
- d) The debriefing phase should be much longer.

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

247. Jasper just participated in a study in which deception was used. What is likely to be true about this study?

- a) It never went through ethics review.
- b) Jasper gave informed consent.
- c) The debriefing phase would be much longer than in a study not using deception.
- d) The costs of this study must have outweighed the benefits.

Answer: c

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

248. Dr. Katawa just learned that his research proposal did not get approval by the ethics review board. He wanted to study the effects of a new relaxation technique on risk-taking behaviour, and he proposed to tell the participants all the details of the study at the outset. Furthermore, he was going to compensate each participant with \$1000 for only one hour of their time. What reason do you think the ethics review board rejected Dr. Katawa's proposal?

- a) The compensation was too high.

- b) It wasn't voluntary.
- c) She needed to do an animal study first.
- d) There is no such thing as a new memory strategy.

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

249. Kelsea is extremely upset that her research proposal was rejected by the ethics review board. She wanted to study the effects of a new memory strategy on grades, and she proposed to tell the participants all the details at the outset of the study. Furthermore, she was going to compensate them with a guaranteed A+ in the course. What reason do you think the ethics review board gave for rejecting Kelsea's proposal?

- a) The compensation was too high.
- b) It wasn't voluntary.
- c) She needed to do an animal study first.
- d) There is no such thing as a new memory strategy.

Answer: a

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

250. Dr. Price is proposing to study the effects of humiliation on the tendency of individuals to obey an authority figure. To do this, she plans on setting up a public embarrassment scene for a random half of the participants, and then measure how likely they are to obey a group leader who is telling them to cheat. Do you think Dr. Price would be given ethics approval?

- a) Yes, there is no other way to study this research question.
- b) Yes, this study involves minor costs and great benefits.
- c) No, a study like this would be impossible to pull off because it involves too many people.
- d) No, this study would cause discomfort to some participants.

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

251. Dr. Lillian is proposing to study the effects of social embarrassment on stress levels. To do

this, she plans on having participants perform an oral presentation and either face laughter from the audience or not. Following this, each participant would provide a saliva sample to measure stress levels. Do you think Dr. Lillian would be given ethics approval?

- a) Yes, there is no other way to study this research question.
- b) Yes, this study involves minor costs and great benefits.
- c) No, psychology is not allowed to collect biological samples from participants.
- d) No, this study would cause discomfort to some participants.

Answer: d

Difficulty: Medium

Bloomcode: Application

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

252. What is the difference between debriefing and informed consent?

- a) Debriefing happens after participation, informed consent happens before.
- b) Debriefing only happens with animal subjects.
- c) Debriefing is only necessary when deception is used, informed consent is always necessary.
- d) Debriefing usually provides less information than informed consent.

Answer: a

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

253. What is the difference between informed consent and debriefing?

- a) More information is given during informed consent than debriefing.
- b) Debriefing only happens with animal participants.
- c) Debriefing is optional, informed consent is mandatory.
- d) Informed consent happens before the study, debriefing after.

Answer: d

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

254. A research ethics board would be concerned with all of the following EXCEPT

- a) whether the benefits of the study outweigh the costs to the participants.
- b) whether the research will be published.
- c) whether deception is being used.

d) how confidentiality will be assured.

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

255. Which of the following would a research ethics board NOT be concerned with?

- a) costs and benefits of the study
- b) compensation offered to participants
- c) whether specific groups of participants are being treated differently
- d) the length of time the research project is expected to take

Answer: d

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

256. Do you think that the ethics review board would approve of a study that posed potentially large risks to their participants but immense benefits to the rest of humanity?

- a) Yes, because the benefits to most people are so great.
- b) Yes, if the study used animal subjects.
- c) Yes, if the study explains the risks to the participants without using deception.
- d) No, because there are potentially large risks to the participants.

Answer: d

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

257. What would happen if the potential risks of having someone participate in a study are large, but the benefits to humankind are even greater?

- a) The study would get ethics approval because the benefits are so great.
- b) The study would have to use animal subjects.
- c) The study would have to explain the risks to the participants without using deception.
- d) The study would not be allowed to move forward and test participants.

Answer: d

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

258. How does working with children as research participants differ from working with adults?

- a) It is easier to explain the purpose of the study because children ask fewer and simpler questions.
- b) The child must be legally protected during the study for insurance purposes.
- c) Consent is needed from both the child and the parent.
- d) Researchers can deceive children, as long as the parent knows ahead of time.

Answer: c

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

259. What additional ethical challenge do researchers have when their participants are children compared to adults?

- a) explaining the purpose of the study to them
- b) getting consent from both the parent and child
- c) having the child legally protected during the study for insurance purposes
- d) hiding the true purpose of the study from them

Answer: b

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

MATCHING QUESTION

260. Match the appropriate words in the left column to the definitions in the right column.

<u>Terms</u>		<u>Definitions</u>
A. Demand characteristics	_____	1. Identifying a sample in such a way that everyone in the population of interest has an equal chance of being involved in the study
B. Positive correlation	_____	2. When higher scores on one variable are related to lower scores on another variable
C. Independent variable	_____	3. Allow researchers to demonstrate a relationship between the variables of interest
D. Experimental group	_____	4. When each participant has an equal chance of being in either group in an experiment
E. Random selection	_____	5. When a researcher unintentionally conveys the desired outcome of the study to a participant
F. Sampling bias	_____	6. When higher scores on one variable are related to higher scores on another variable
G. Descriptive methods	_____	7. Reasoning process proceeding from small specific situations to more general truths.
H. Experimental methods	_____	8. Group that has not been or will not be exposed to the treatment
I. Deductive reasoning	_____	9. Condition or event that you expect to change because of changing a variable
J. Perfect correlation	_____	10. Condition or event that is thought to be a factor in changing another condition or event
K. Negative correlation	_____	
L. Control group	_____	
M. Dependent variable	_____	
N. Random assignment	_____	
O. Inductive reasoning	_____	

ANSWERS TO MATCHING QUESTION

1. E: Random selection
2. K: Negative correlation
3. G: Descriptive methods
4. N: Random assignment
5. A: Demand characteristics
6. B: Positive correlation
7. O: Inductive reasoning
8. L: Control group
9. M: Dependent variable
10. C: Independent variable

Difficulty: Easy

Bloomcode: Knowledge

FILL-IN-THE-BLANK

261. The natural law of ____ suggests that when something is set in motion, it influences other things.

Answer: cause and effect

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

262. Ideas that psychologists develop about the laws that govern processes and behaviour are called ____.

Answer: theories

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

263. The field of ____ is often credited with shifting psychology from a philosophy to a science.

Answer: biology

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

264. Forced sterilization and controlled breeding are two consequences of ____.

Answer: eugenics

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

265. In an experimental setting, the variable that is NOT manipulated is called the ____ variable.

Answer: dependent

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

266. A subset of a population is known as a(n) ____.

Answer: sample

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

267. A ____ study focuses on observing a single person.

Answer: case

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

268. The research methodology that asks participants to answer a series of questions is called a(n) ____.

Answer: survey

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

269. In more complex experiments, multiple experimental groups are exposed to varying amounts of the ____ variable.

Answer: independent

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

270. An unintentional factor that conveys what a researcher expects to find is known as a(n) ____.

Answer: demand characteristic

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

271. If a researcher chooses a sample that will all respond in the same way, it can alter the results of the study because the sample is not ____ of the population.

Answer: representative

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

272. Analyzing data using ____ allows researchers to describe and measure relationships between variables.

Answer: statistics

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

273. The value of a perfect positive relationship is ____.

Answer: +1.0

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

274. Researchers can conclude more broadly from their results through the use of ____ statistics.

Answer: inferential

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

275. A(n) ____ test can be used to compare the performance of more than two groups.

Answer: analysis of variance

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

276. To assess the strength of the relationship between variables, a(n) ____ can be calculated.

Answer: effect size

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

277. Before a researcher can test his or her hypotheses by collecting data, a(n) ____ must provide ethical oversight.

Answer: institutional review board

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

278. Protecting the identity and information collected from individual respondents in a research study refers to maintaining ____.

Answer: confidentiality

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

SHORT ANSWER ESSAY QUESTIONS

279. What logical process starts with broad, basic principles and applies them in specific situations to prove many smaller truths?

Answer: deductive reasoning

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

280. What term refers to personal beliefs or conventional wisdom that an individual thinker accepts as a broad, basic truth?

Answer: bias

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

281. What logical process uses direct observations to generate broad conclusions?

Answer: Inductive reasoning

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

282. What blended model is commonly used by psychologists to employ the best attributes of deductive and inductive reasoning?

Answer: hypothetico-deductive approach

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

283. What four goals does psychology share with other sciences?

Answer: Describe, explain, predict, control.

Difficulty: Easy

Bloomcode: Knowledge

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

284. Psychology distinguishes itself from other scientific fields by examining what three issues?

Answer: values, morality, and personal preference

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

285. What does it mean to operationalize a variable?

Answer: develop a working definition

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

286. Define random selection and why it is used.

Answer: All members of an identified population have an equal chance of being selected as part of the sample.

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

287. At what stage of research are case studies usually conducted?

Answer: during early investigations when psychologists are developing ideas

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

288. Describe a limitation associated with the use of naturalistic observation methodology.

Answer: Research subjects may change their behaviour if they know they are being observed; researcher bias may influence what researchers do and do not record.

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

289. In an experiment, what names are given to the variable that is manipulated and the variable that is measured?

Answer: Independent variables are manipulated, and dependent variables are measured.

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

290. What term is used to describe the process in which everyone in a sample has an equal chance of being placed in either the control or experimental group?

Answer: random assignment

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

291. Name two benefits of a study that uses a double-blind procedure.

Answer: Reduces researcher bias; reduces subject bias.

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

292. What statistic is used to describe the relationship between two or more variables?

Answer: correlation coefficient

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

293. Interpret the meaning of a strong positive correlation found in a study that measured abusive parenting and childhood aggression.

Answer: High incidences of abusive parenting are related to high incidences of childhood aggression.

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

294. What is the mean of a data set?

Answer: The mean is a calculation of the arithmetic average of the numerical data in the data set.

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

295. Define “statistically significant.”

Answer: Performance in two or more groups varies more than could be expected by chance alone.

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

296. Describe what replication means?

Answer: Replication means that the findings of a study were the same or very similar to those of previous studies performed on the same topic.

Difficulty: Easy

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

297. What is the ethical goal of psychologists who are conducting research?

Answer: to protect research participants from physical and emotional harm during the study

Difficulty: Medium

Bloomcode: Analysis

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

298. Identify three pieces of information that are often included on a research study consent form?

Answer: details regarding purpose of the study, procedures to be used, disclosure of risks and benefits of participation, responsibility of participants

Difficulty: Medium

Bloomcode: Evaluation

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

ESSAY QUESTIONS

299. What are the two essential beliefs that science has regarding the world?

Answer: The universe operates according to natural laws and that such laws are discoverable and testable.

Difficulty: Hard

Bloomcode: Comprehension

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

300. Define the term “hypothesis” and provide an example.

Answer: A hypothesis is a testable statement that can objectively be proven false. Hypotheses are typically in the form of an if/then statement; applicable example must be provided.

Difficulty: Hard

Bloomcode: Application

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

301. Describe the four steps used in the scientific approach to study behaviour.

Answer: making observations, developing a hypothesis, testing the hypothesis, and developing a theory

Difficulty: Hard

Bloomcode: Knowledge

Learning Objective: List two core beliefs of science, and describe the steps in the scientific method.

Section Reference: What Is a Science?

302. Describe a key difference between the goals of psychology and the physical sciences.

Answer: Although psychologists attempt to isolate the fundamental elements of behaviour, they realize that these factors may be temporary or permanent combinations that vary by individual.

Difficulty: Hard

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

303. What is the difference between psychology and pseudopsychology?

Answer: Pseudopsychology argues that psychological principles can provide answers to all of life's major questions; has no basis in the scientific method.

Difficulty: Medium

Bloomcode: Knowledge

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

304. What difficult balance, in regards to using psychology and pseudopsychology, must psychologists maintain?

Answer: They must encourage people to seek guidance for how to live effectively while simultaneously distancing themselves from the non-scientific approaches used by pseudopsychology.

Difficulty: Hard

Bloomcode: Analysis

Learning Objective: Compare and contrast psychology with other natural sciences, such as biology, chemistry, and physics, and with pseudosciences, such as astrology.

Section Reference: Is Psychology a Science?

305. Stanley wanted to determine whether hunger influenced his performance on his history exams. For the first exam, he ate 1 hour before the exam. For the second exam, he ate immediately after the exam. Identify the independent and dependent variables in this study.

Answer: The independent variable is the manipulation of when he ate (before/after the exam). The dependent variable is his performance on the test.

Difficulty: Hard

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

306. A political scientist wanted to study the prevalence of racism in Canada. Unknowingly, her sample included a disproportionate number of racist individuals. Name a methodological criticism of her research.

Answer: Sampling bias occurred. Individuals in the sample were more likely to confirm her hypothesis which decreases the validity of her findings.

Difficulty: Hard

Bloomcode: Application

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

307. Explain the Hawthorne Effect. What type of study was conducted to show this effect?

Answer: People who are observed during a study or at their workplace will change or improve their behaviour if they know they are being watched. This was shown in a naturalistic observation study.

Difficulty: Medium

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

308. Name two disadvantages of using a case study methodology.

Answer: Results may not generalize to larger populations; researcher bias may occur.

Difficulty: Medium

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

309. Describe three different means by which surveys can be conducted.

Answer: in-person, telephone, electronic (email), written questionnaire dissemination, etc.

Difficulty: Medium

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

310. In an experiment, how does an experimental group vary from a control group?

Answer: The control group is not exposed to the independent variable; the experimental group is.

Difficulty: Medium

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

311. Describe the characteristics of a double-blind study.

Answer: Neither the researcher nor the participants know who is assigned to the control and experimental groups.

Difficulty: Medium

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

312. Define and provide an example of a demand characteristic.

Answer: Any unintentional factor that conveys what a researcher expects to find such that participants may change their behaviours, therefore compromising the validity of the results. Provide an applicable example.

Difficulty: Hard

Bloomcode: Knowledge

Learning Objective: List steps in the research process and key characteristics of descriptive and experimental psychological research methods.

Section Reference: How Do Psychologists Conduct Research?

313. Describe the difference between a negative and positive correlation.

Answer: Positive correlations indicate that variables change in the same direction (e.g., both get larger or smaller) whereas a negative relationship indicates an inverse relationship (e.g., one increases while another decreases).

Difficulty: Hard

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

314. Provide an example of a negative correlation.

Answer: Example should reflect an inverse relationship between two variables.

Difficulty: Medium

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

315. Make a distinction between descriptive and inferential statistics.

Answer: Descriptive statistics summarize data and include measures such as the mean and standard deviation. Inferential statistics are used to interpret the meaning of results and determine whether study results support or refute hypotheses.

Difficulty: Hard

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

316. What is the purpose of calculating a probability statistic?

Answer: to set a criterion for determining what a significant difference in scores would be

Difficulty: Hard

Bloomcode: Knowledge

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

317. Why is experimental replication necessary?

Answer: Replication ensures that experimental methodology is being used effectively and that findings are consistent across a variety of locations and time periods. Robust findings eventually grow into theories which in turn, may become laws.

Difficulty: Hard

Bloomcode: Comprehension

Learning Objective: Tell what information is conveyed by statistics, including correlation coefficients, means, and standard deviations, and explain how psychologists draw conclusions about cause and effect.

Section Reference: How Do Psychologists Make Sense of Research Results?

318. What special considerations must researchers give to participants such as children or the elderly?

Answer: These populations are protected because they may not be able to give informed consent on their own. Caregivers or parents must give permission for them to participate.

Difficulty: Medium

Bloomcode: Comprehension

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

319. Evaluate the following statement: Animal testing has not benefited our understanding of human behaviour. Is this an accurate statement? Why or why not?

Answer: Much of the knowledge we have regarding the brain and nervous system has and will continue to be derived from animal research.

Difficulty: Hard

Bloomcode: Evaluation

Learning Objective: Tell what ethical steps psychologists take to protect the rights of human research participants.

Section Reference: What Ethical Research Guidelines Do Psychologists Follow?

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