THINK Psychology 2e / **Baird**
Chapter 2 – Research Methods

Multiple Choice Questions

1. Which of the following is not one of the questions that a researcher should ask themselves before conducting a research study
   a. "How can I use statistics to analyze my results?"
   b. "Will I definitely be able to confirm my hypothesis?"
   c. "What research strategies should I use to test my idea?"
   d. "How can I guarantee that I obtain objective results?"
   Answer: B
   Page ref: 18
   Skill: Conceptual
   Moderate

2. Which of the following questions regarding the treatment of research participants is the most important for a psychologist to consider prior to beginning his/her research?
   a. "Is it okay to required Psychology 101 students to be research participants so that I know that I will have enough data for my study?"
   b. "How can I ensure that people participating in my study are treated fairly?"
   c. "Is there some way of getting people to participate in my research without actually having to pay them?"
   d. "How much discomfort am I permitted to cause my participants before my research will be considered an ethical violation?"
   Answer: B
   Page ref: 18
   Skill: Conceptual
   Easy

3. "Oh MAN," you complain! "I knew that I should have sold my stock in Google when it was over $600 a share! Now it is under $400 a share and I lost all of my profits." This kind of statement that suggests that we knew the right path to take after it is too late is what researchers call _____ bias.
   a. extraneous
   b. observer
   c. hindsight
   d. double-blind
   Answer: C
   Page ref: 18
   Skill: Applied
   Moderate

4. Which of the following sports metaphors most aptly demonstrates the concept of hindsight bias?
   a. Serving an ace
   b. Monday morning quarterback
   c. Hole-in-one
   d. Grand slam
   Answer: B
   Page ref: 18
   Skill: Conceptual
   Moderate

5. After the disaster of Hurricane Katrina in 2005, many people come forward and said that they knew that the

levees in New Orleans should have been built stronger, and that they just *knew* that a catastrophe like this was coming. In research this is known as the _____.

a. false consensus effect
b. hindsight bias
c. critical error
d. empirical fallacy

Answer: B
Page ref: 18
Skill: Applied
Moderate

6. Which of the following is a true statement about psychologists' susceptibility to hindsight bias?
   a. Even properly trained psychologists can be biased when they interpret their data, and so they must be as careful as possible not to let bias affect their conclusions.
   b. Properly trained psychologists are very aware of the possibility of hindsight bias impacting their research, and thus are able to eliminate this problem from their studies.
   c. Proper statistical manipulation can offset the effects of any hindsight bias in research, so as long as a psychologist is properly trained in the use of statistics, hindsight bias becomes insignificant.
   d. Hindsight bias does not refer to the errors that researchers make. It is a type of error that research participants make.

   Answer: A
   Page ref: 18
   Skill: Conceptual
   Difficult

7. During the months prior to the last presidential election, Wynn spent most of his free time at events supporting the republican candidate. He participated in the campaigning, went door to door in support of this candidate, and fully immersed himself in his goal to have the republican candidate elected. The day before the election he told his wife, "I just know that our candidate is going to win. **Everyone** says they are going to vote for him!" Wynn is very surprised the next day, however, when his candidate loses. Which of the following tendencies explains why Wynn was so sure his candidate would win?
   a. The hindsight bias
   b. The false consensus effect
   c. The A-not-B error
   d. The nature/nurture mistake

   Answer: C
   Page ref: 18
   Skill: Applied
   Difficult

8. The false consensus effect occurs when a person overestimates _____.
   a. the extent to which other people share his or her beliefs and behaviors.
   b. a researcher's ability to accurately anticipate what is going to happen in the future.
   c. the importance of using random assignment to groups in a formal experiment.
   d. the frequency with which we use an inappropriate research design to explore the question we are investigating.

   Answer: A
   Page ref: 18
   Skill: Factual
   Moderate

9. According to the principles of critical thinking, which of the following statements is the most accurate?
   a. Good researchers do not blindly accept theories even when they seem obvious. They use scientific methods to question and examine those theories.
   b. Research is only as good as the statistics used, so the research design we select is less important than the

statistics we use to evaluate our data.
c. Research outcomes that are contrary to expectations do not add anything to the science of psychology, and therefore can legitimately be discarded.
d. The importance of our own opinion in research should not be underestimated, and it has a legitimate place as we interpret the data that we collect.

Answer: A
Page ref: 18
Skill: Conceptual
Easy

10. The belief that people should accept the word of an authority figure without questioning or debating that word is called _____.
a. dogmatism
b. consensus
c. empiricism
d. cynicism

Answer: A
Page ref: 18
Skill: Factual
Easy

11. What is the main difference between dogmatic beliefs and empirical beliefs?
a. Empirical beliefs are the result of experimental research, while dogmatic beliefs are the results of correlational research.
b. Dogmatic beliefs are the result of experimental research, while empirical beliefs are the result of correlational research.
c. Empirical beliefs require absolute acceptance without questioning, while dogmatic beliefs encourage consideration of one's own experiences.
d. Dogmatic beliefs require absolute acceptance without questioning, while empirical beliefs encourage consideration of one's own experiences.

Answer: D
Page ref: 18
Skill: Conceptual
Moderate

12. "When a researcher correctly employs the principles of empiricism, (s)he guarantees that the information they acquire will be completely accurate." Which of the following is true of this statement?
a. This statement is true, because the use of empiricism helped eliminate all of the research errors caused by the use of dogmatism.
b. This statement is false because there is no way to guarantee with certainty that the information one gathers is accurate.
c. This statement is only true when you gather data from a very small sample of research participants, because then the chance of research error drops.
d. This statement is only true when you use a correlational design, but it is not true when you use an experimental design.

Answer: B
Page ref: 19
Skill: Conceptual
Difficult

13. The rules or techniques that provide a framework for our observations are referred to as a _____.
a. strategy
b. construct
c. method
d. statistic

Answer: C
Page ref: 19
Skill: Factual
Moderate

14. When it comes to studying human beings, there are several empirical challenges that must be considered. Which of the following is one of the challenges mentioned in the textbook?
    a. People are different, making it hard to generalize about behavior.
    b. People are simple, making the use of advanced statistics useless.
    c. People can be dishonest, making it difficult to know if you are getting real information..
    d. People react to situations identically, making it difficult to determine variations in behaviors.
    Answer: A
    Page ref: 19
    Skill: Conceptual
    Moderate

15. The fact that human beings have various thoughts and feelings that affect their behavior demonstrates which empirical challenge related to studying people?
    a. People are different
    b. People react to situations differently
    c. People are complex
    d. People make mistakes.
    Answer: C
    Page ref: 19
    Skill: Conceptual
    Difficult

16. It is difficult for psychologists to make generalizations about our behaviors from one person to another. This limitation of research describes which of the empirical challenges of studying people?
    a. People react to situations differently
    b. People are complex
    c. People have hidden agendas
    d. People are different
    Answer: D
    Page ref: 19
    Skill: Conceptual
    Moderate

17. The fact that our responses to certain stimuli are not consistent – that on a day to day basis people may not be as predictable as you'd expect them to be – illustrates which of the empirical challenges related to studying people?
    a. People are different
    b. People are biased
    c. People are complex
    d. People react to situations differently
    Answer: D
    Page ref: 19
    Skill: Conceptual
    Moderate

18. One famous story from the history of psychology describes a horse whose trainer claimed that he could do simple arithmetic problems and had learned to spell words. What was the name of that horse?
    a. Magical Ed
    b. Clever Hans
    c. Wondrous Wilhelm

d. Little Albert
Answer: B
Page ref: 19
Skill: Factual
Easy

19. Which of the following types of questions was too challenging to Clever Hans?
a. Simple arithmetic calculations
b. Spelling words
c. Calculating square roots
d. Geography questions
Answer: D
Page ref: 19
Skill: Factual
Easy

20. _____, a German mathematics teacher, bought Clever Hans in 1888.
a. Wilhelm Wundt
b. Max Wertheimer
c. Wilhelm von Osten
d. B.F. Skinner
Answer: C
Page ref: 19
Skill: Factual
Easy

21. After extensive investigation into the amazing abilities of Clever Hans, it was determined that he was not actually responding to the questions he was being asked, but rather was responding to the subtle facial and body gestures of his owner. Which psychologist made this determination?
a. Wilhelm Steckel
b. Oskar Pfungst
c. Sigmund Freud
d. Edward Titchener
Answer: B
Page ref: 19
Skill: Factual
Difficult

22. After the amazing case of Clever Hans was given a thorough investigation, a psychologist determined that there was a very simple explanation why this horse was able to demonstrate such amazing cognitive abilities. What was this conclusion?
a. Clever Hans had a genetic abnormality that had actually given him cognitive abilities never before seen in a stallion.
b. Clever Hans was not actually answering the questions he was being asked, but was responding to subtle unconscious gestures made by his owner.
c. Clever Hans had learned to answer questions as a result of rigorous training and tutoring, and was, in fact, answering the questions he was asked correctly.
d. Clever Hans was really a myth that people had come to believe even though nobody had ever seen him. This demonstrated the power of "word of mouth" when it comes to incredible stories.
Answer: B
Page ref: 19
Skill: Factual
Moderate

23. Which of the following statements with regard to the story of Clever Hans is a fact?

a. Clever Hans was a horse.
b. Clever Hans had amazing abilities to solve complex mathematical problems.
c. Clever Hans's skills were the result of properly applied learning techniques.
d. Clever Hans's owner pulled off one of the greatest "scams" in the history of psychology.
Answer: A
Page ref: 19
Skill: Factual
Moderate

24. An objective statement that is made as a result of direct observation is a _____.
a. hypothesis
b. speculation
c. theory
d. fact
Answer: D
Page ref: 19
Skill: Factual
Easy

25. _____ are ideas that help us explain existing facts.
a. Theories
b. Hypotheses
c. Correlations
d. Empiricals
Answer: A
Page ref: 19
Skill: Factual
Easy

26. When a scientist makes predictions about new facts based on existing theories, (s)he has created a new _____.
a. theory
b. fact
c. speculation
d. hypothesis
Answer: D
Page ref: 19
Skill: Factual
Moderate

27. Which of the following statements is true regarding the use of the scientific method?
a. The scientific method uses hypotheses to generate theories, but facts are not relevant because there is no such thing as a true fact. All facts are merely relative, and so they are not important in the scientific method.
b. The scientific method is concerned with facts and hypotheses, as we use the gathering of data to confirm or refute hypotheses. Theories are not relevant to the scientific method.
c. The scientific method is only concerned with facts, as anything else is merely a form of a guess.
d. Facts, theories and hypotheses all have very important functions in the use of the scientific method.
Answer: D
Page ref: 19
Skill: Conceptual
Moderate

28. Which concept is used in research to make sure that different scientists who are exploring the same concept are able to conduct a true replication of the original experiment?

a. Theories
b. Observer-expectancy controls
c. Operational definitions
d. Null hypotheses
Answer: C
Page ref: 20
Skill: Factual
Difficult

29. Dr. Fishkill is conducting a research study investigating racism among high-school students. His research method involves sitting down with volunteer students whose parents have given consent, and asking them questions about their beliefs regarding race. Whenever he asks a question that might reveal some level of racism, he unconsciously cocks one eyebrow and lowers his voice slightly. As a result, his research showed that virtually none of his participants held any racist beliefs. What error has Dr. Fishkill made in his method?
a. He has allowed observer-expectancy effects to cloud his results.
b. He has failed to carefully observe his participants.
c. He has failed to control the environment in which the study was taking place.
d. He has failed to use random assignment of his participants.
Answer: A
Page ref: 20
Skill: Applied
Difficult

30. In order to test the effects of social pressure on conformity, Dr. Solomon Asch placed a research participant in a room with four other individuals. Those four other people worked for Asch, even though the real participant did not know this. In research terms, people who pose as research participants but are really working for the researcher are called _____.
a. independent associates
b. confederates
c. manipulators
d. participant-observers
Answer: B
Page ref: 20
Skill: Factual
Moderate

31. In an experimental research design, the variable or condition that is manipulated by the researcher is called the _____ variable.
a. independent
b. dependent
c. subject
d. between-group
Answer: A
Page ref: 20
Skill: Factual
Moderate

32. In an experimental research design, the variable or condition that is affected by the independent variable is called the _____ variable.
a. within-group
b. manipulated
c. response
d. dependent
Answer: D

Page ref: 20-21
Skill: Factual
Easy

33. Dr. Martinez is doing a research study examining the effects of a new headache medication on migraine pain. He decides to divide his participants up into four subject groups, each one of which will receive a different amount of medication to take when they have a migraine. He will ask them to write down their assessment of how much the pain has dropped on a ten-point scale an hour after taking the medication. What is the dependent variable in this study?
    a. The intensity of the migraine each participant has before taking the medication.
    b. The level of pain reduction reported by each participant.
    c. The amount of medication each participant takes.
    d. The number of people who are assigned to each of the subject groups.
    Answer: B
    Page ref: 20-21
    Skill: Applied
    Difficult

34. Dr. Martinez is doing a research study examining the effects of a new headache medication on migraine pain. He decides to divide his participants up into four subject groups, each one of which will receive a different amount of medication to take when they have a migraine. He will ask them to write down their assessment of how much the pain has dropped on a ten-point scale an hour after taking the medication. What is the independent variable in this study?
    a. The intensity of the migraine each participant has before taking the medication.
    b. The amount of medication each participant takes.
    c. The level of pain reduction reported by each participant.
    d. The number of people who are assigned to each of the subject groups.
    Answer: B
    Page ref: 20-21
    Skill: Applied
    Difficult

35. Dr. Martinez is doing a research study examining the effects of a new headache medication on migraine pain. He decides to divide his participants up into four subject groups, each one of which will receive a different amount of medication to take when they have a migraine. The participants in group one receive a pill with 10 milligrams of the experimental medication, while the participants in group two receive a pill with 20 milligrams. Those assigned to group three receive a pill with 30 milligrams, while those in group four receive a placebo pill that has zero milligrams of the medication. Which of the subject groups is the control group in this study?
    a. Group one
    b. Group two
    c. Group three
    d. Group four
    Answer: D
    Page ref: 21
    Skill: Applied
    Easy

36. Dr. Martinez is doing a research study examining the effects of a new headache medication on migraine pain. He decides to divide his participants up into four subject groups, each one of which will receive a different amount of medication to take when they have a migraine. The participants in group one receive a pill with 10 milligrams of the experimental medication, while the participants in group two receive a pill with 20 milligrams. Those assigned to group three receive a pill with 30 milligrams, while those in group four receive a placebo pill that has zero milligrams of the medication. How many experimental groups are in this research study?

a. 1
b. 2
c. 3
d. 4
Answer: C
Page ref: 21
Skill: Applied
Difficult

37. A study in which each participant is exposed to several different independent variables is referred to as a _____-group experiment.
a. single
b. between
c. within
d. repeated
Answer: C
Page ref: 21
Skill: Factual
Moderate

38. A study in which different groups of participants are exposed to different independent variables is referred to as a _____-group experiment.
a. single
b. between
c. within
d. repeated
Answer: B
Page ref: 21
Skill: Factual
Moderate

39. Why is it important to make sure that different participant groups are roughly equivalent in terms of personal characteristics (e.g., age, gender) before any independent variable is introduced?
a. Because it is important to treat all research participants equally so that they feel that they are not being manipulated.
b. Because research ethics forbid any experiment to take place when the participant groups are fundamentally different from each other.
c. So that no major differences between the groups unduly bias the results of the experiment.
d. Because it threatens the integrity of a within-group experimental design.
Answer: C
Page ref: 21
Skill: Conceptual
Difficult

40. What procedure can a researcher use to make sure that the various participant groups are kept roughly equivalent before exposure to an independent variable?
a. Snowball sampling
b. Double-blind assignment
c. Random assignment
d. Single-blind sampling
Answer: C
Page ref: 21
Skill: Factual
Difficult

41. In a formal experiment, the participants who are given no treatment or a treatment that is believed to have no effect make up the _____ group.
    a. experimental
    b. comparison
    c. control
    d. outcome
    Answer: C
    Page ref: 21
    Skill: Factual
    Easy

42. In a formal experiment, the participants who are subjected to an independent variable make up the _____ group.
    a. comparison
    b. control
    c. experimental
    d. outcome
    Answer: C
    Page ref: 21
    Skill: Factual
    Easy

43. What is the main difference between an experiment and a correlational study?
    a. A correlational study involves the manipulation of variables, while an experiment does not.
    b. An experiment looks at the relationship between independent and dependent variables, while a correlational study looks at the relationship between within-group and between-group variables.
    c. An experiment involves the manipulation of variables, while a correlational study does not.
    d. A correlational study looks at the relationship between independent and dependent variables, while an experiment looks at the relationship between within-group and between-group variables.
    Answer: C
    Page ref: 21
    Skill: Conceptual
    Difficult

44. Dr. Kochkodin wants to do a research study where he will be able to determine if changes in room temperature *cause* changes in exam score among undergraduate psychology students. What sort of research design is he most likely to use?
    a. A correlational study
    b. An experimental study
    c. A case study
    d. Naturalistic observation
    Answer: B
    Page ref: 21
    Skill: Applied
    Moderate

45. _____ studies allow us to make predictions about one variable based on the knowledge of another.
    a. Case
    b. Experimental
    c. Natural
    d. Correlational
    Answer: D
    Page ref: 21
    Skill: Factual
    Easy

46. Dr. Ayers conducts a correlational study examining the relationship between ice cream consumption and death by drowning. She finds that there appears to be a strong relationship between these two variables. Which of the following conclusions would be inappropriate for Dr. Ayers to make?
    a. Eating more ice cream causes people to drown.
    b. When people eat more ice cream there appears to be an increased risk of drowning.
    c. When people do not eat ice cream, their risk of drowning tends to decrease.
    d. It appears that the variables of eating ice cream and drowning are related to each other.
    Answer: A
    Page ref: 21
    Skill: Applied
    Difficult

47. Experimental research studies are more likely to be conducted in the _____, while descriptive and correlational studies are usually performed in the _____.
    a. hospital setting; university setting
    b. laboratory; field
    c. university setting; hospital setting
    d. field; laboratory
    Answer: B
    Page ref: 21-23
    Skill: Factual
    Easy

48. In order to eliminate the third-variable problem in correlational research, which of the following techniques can a researcher employ?
    a. Case studies
    b. Placebo techniques
    c. Random assignment
    d. Matched samples
    Answer: D
    Page ref: 22
    Skill: Conceptual
    Moderate

49. In order to counteract the _____variable problem that affects correlational research, a psychologist might use the matched samples or matched pair technique.
    a. construct
    b. extraneous
    c. third
    d. random
    Answer: C
    Page ref: 22
    Skill: Conceptual
    Difficult

50. What is the main distinction of using a descriptive research design as compared to a correlational or experimental design?
    a. Descriptive studies allow researchers to use different types of statistics, which opens the field of psychology up to research questions that cannot be explored with other designs.
    b. Descriptive studies enable researchers to observe and describe behaviors without investigating the relationship between specific variables.
    c. Descriptive studies allow researchers to gather data from far fewer participants so that cause and effect relationship can be determined in less time.
    d. Descriptive studies, unlike correlational or experimental designs, do not require actual human

participants for data gathering.
Answer: B
Page ref: 22
Skill: Conceptual
Difficult

51. Famed primatologist Jane Goodall earned international notoriety for her studies of chimpanzees. Much of her research was spent observing the animals from afar without interfering with their day to day lives. This type of research, called _____ observation, is important because it allows observation of behaviors without interfering with or changing those behaviors.
    a. case
    b. naturalistic
    c. laboratory
    d. external
    Answer: B
    Page ref: 22
    Skill: Applied
    Moderate

52. Russell is conducting a study that employs naturalistic observation of teenagers at a local shopping mall food court. He is observing their "flirting" behaviors, and hypothesizes that the better clothes a teenager wears, the more likely he or she is to be flirted with. As he makes his observations, one of his research partners notices that he does not pay attention to the teenagers who have less "nice" clothing nearly as much as he does to those kids who have a lot of trendy, fashionable clothing. Russell is falling prey to which disadvantage of naturalistic observation?
    a. Blind bias
    b. Observer bias
    c. Hindsight bias
    d. Double-blind bias
    Answer: B
    Page ref: 22
    Skill: Applied
    Moderate

53. What is a technique that a researcher can use to avoid the observer bias effect when engaging in naturalistic observation?
    a. Using matched observers
    b. Using blind observers
    c. Using counter-balanced observers
    d. Using random observers
    Answer: B
    Page ref: 22
    Skill: Factual
    Difficult

54. The best way to conduct descriptive research in a highly controlled setting is to use _____ observation.
    a. correlational
    b. naturalistic
    c. laboratory
    d. experimental
    Answer: C
    Page ref: 22
    Skill: Factual
    Easy

55. When research participants are involved in laboratory observation, they often know that they are being observed. Why is this a potential problem for the results of the study?
    a. It is impossible to be able to draw cause and effect conclusions about participants who know they are being observed. In order to draw cause and effect conclusions, the observation must take place in a naturalistic setting.
    b. People may behave differently when they know they are being watched, and thus the results in the laboratory may be artificial
    c. Participants' awareness of the fact that they are being observed is not, in fact, a problem for laboratory observation. It is a problem for naturalistic observation.
    d. If people know they are being watched, they will make sure to do exactly what they think the experimenter wants. This is called *demand bias*.

    Answer: B
    Page ref: 22
    Skill: Conceptual
    Moderate

56. All but which of the following are examples of descriptive research designs?
    a. Naturalistic observation
    b. Case study
    c. Surveys
    d. Experimentation

    Answer: D
    Page ref: 22-23
    Skill: Factual
    Easy

57. Developmental psychologist Jean Piaget conducted rigorous observations of his own children as they grew up, and that is what formed the basis for his stage theory of cognitive development. From a research perspective, Piaget conducted a(n) _____.
    a. laboratory observation
    b. experiment
    c. correlational study
    d. case study

    Answer: D
    Page ref: 22-23
    Skill: Applied
    Easy

58. If you were interested in studying the impact that child abuse has on people later in life, you would probably be unable to use an experiment because this is an independent variable that could not be ethically manipulated. Instead, you might find a small number of people who had suffered abuse as children, and gather as much information as you could about them (with their consent, of course). This kind of research that involves gathering a lot of information about one or a few participants is called a _____ study.
    a. case
    b. retrospective
    c. protagonistic
    d. survey

    Answer: A
    Page ref: 22-23
    Skill: Applied
    Moderate

59. A single participant is to a(n) _____ as a large number of participants is to a(n) _____.
    a. survey; experiment

b. laboratory observation; case study
c. experiment; naturalistic observation
d. case study; survey
Answer: D
Page ref: 22-23
Skill: Conceptual
Easy

60. If you wanted to get information from a very large number of college students about their drinking habits in a non-intrusive manner, which descriptive research method would probably be your best bet?
a. Naturalistic observation
b. A survey
c. A laboratory observation
d. A case study
Answer: B
Page ref: 23
Skill: Conceptual
Moderate

61. Why is it difficult to make generalizations based on the results of case study research?
a. Because a case study involves only one or a few participants, their actions may be atypical and not representative of a larger group of people or population.
b. Because case study research is, by definition, immune to the error of making generalizations. That is its greatest strength.
c. Because case studies involve far too many people to allow for generalizations. You would be better off using a research design that uses fewer participants.
d. Because the statistics involved in case study research do not allow one to draw larger conclusions about a population.
Answer: A
Page ref: 23
Skill: Conceptual
Moderate

62. Dr. Hobbes is conducting research that investigates the frequency with which people eat at fast food restaurants. He asks 250 different participants a series of 45 questions, some of which have words like "unhealthy," "fat-containing," and "high-cholesterol" in them. What is a potential problem with Dr. Hobbes's study?
a. Some participants may answer questions dishonestly if the questions are worded in a way that makes them feel like their true answers are socially unacceptable.
b. Dr. Hobbes should not be the one asking the questions, since there is too much room for observer bias. He should have a graduate student ask the questions instead.
c. Surveys can only be conducted on 10 or fewer participants, so Dr. Hobbes's use of 250 participants is a violation of survey design rules.
d. Surveys must have a minimum of 50 questions in order to be statistically sound.
Answer: A
Page ref: 23
Skill: Applied
Moderate

63. The Minnesota Multiphasic Personality Inventory (MMPI-II) is a 567-question self-report assessment tool that psychologists use to gather information about various parts of an individual's character and psychological make-up. The MMPI-II could best be described as what type of research tool?
a. An experiment
b. A survey
c. A laboratory observation

d. A case study
Answer: B
Page ref: 23
Skill: Applied
Easy

64. In order to conduct survey research in a way that will give the best chance to make generalizations beyond those surveyed, a researcher should give their survey to a wide sample of people from a larger population. _____ sampling is a technique that helps ensure the variety within a sample that helps ensure that it is representative of a larger population.
a. random
b. distributed
c. snowball
d. selective
Answer: A
Page ref: 23
Skill: Factual
Moderate

65. Which of the following research studies would take place "in the field?"
a. Dr. Spinnozza has participants come to his laboratory so that he can ask them questions about the pictures of faces of different individuals.
b. Dr. Buchman shows participants a short video of a television commercial in his office, and then asks them questions about their memory of the products advertised.
c. Dr. Martino watches children through a two-way mirror, and makes observations about their aggressive and cooperative behaviors.
d. Dr. Adeshak observes students in the local university "union," and makes a study of the hours when students are likeliest to be drinking coffee.
Answer: D
Page ref: 23
Skill: Applied
Moderate

66. Which of the following statements about laboratory studies and field studies is the most accurate?
a. Laboratory studies are always better because of their ability to control extraneous variables. The only time a field study should be used is if it is unethical to use a laboratory setting.
b. Some research questions can be explored in both a field study and a laboratory study to enhance confidence in the results that are obtained.
c. Laboratory studies and field studies each have certain advantages and disadvantages, which is why each research question can be explored in only one of the two types of settings.
d. Field studies are always better than laboratory settings because they give a more accurate assessment of people's behaviors. The only time a laboratory setting should be used is if a research question *cannot* be explored with a field study.
Answer: B
Page ref: 23
Skill: Conceptual
Difficult

67. A _____-report method is a form of data collection in which people are asked to rate or describe their own behavior or mental state. They are usually conducted in the form of questionnaires or interviews.
a. self
b. reflective
c. interactive
d. first-person
Answer: A

Page ref: 23
Skill: Factual
Moderate

68. One problem that exists when a researcher uses surveys and questionnaires is that the data they collect may not be accurate. As your author points out, even if a respondent is "unfailingly honest" and has no intent to provide answers that are untrue, why might their responses still be inaccurate or incomplete?
    a. Because there are some questions that cannot be asked via the use of a survey or questionnaire.
    b. Because all questionnaires and surveys, regardless of their purpose, are biased against certain types of respondents.
    c. Because the people assessing the answers provided on a survey or questionnaire may make mistakes in how the score the responses.
    d. Because even very honest people don't have completely objective views of their own behaviors.

    Answer: D
    Page ref: 24
    Skill: Conceptual
    Difficult

69. Which of the following is one of the two types of statistics that researchers use to analyze the data that they collect?
    a. Inferential statistics
    b. Referential statistics
    c. Binomial statistics
    d. Cyclical statistics

    Answer: A
    Page ref: 24
    Skill: Factual
    Moderate

70. Which of the following is one of the two types of statistics that researchers use to analyze the data that they collect?
    a. Predictive statistics
    b. Conscriptive statistics
    c. Descriptive statistics
    d. Computational statistics

    Answer: C
    Page ref: 24
    Skill: Factual
    Moderate

71. Which measure of central tendency refers to the arithmetic average of a group of numbers or values?
    a. Mode
    b. Mean
    c. Variance
    d. Median

    Answer: B
    Page ref: 24
    Skill: Factual
    Easy

72. Melissa's car has a really cool electronic readout that tells her the car's fuel economy. The readout says "Average Miles per Gallon." In statistical terms, this feature is telling Melissa the _____ miles per gallon that her car gets.
    a. mode
    b. maximum

c. median
d. mean
Answer: D
Page ref: 24
Skill: Applied
Moderate

73. Lakisha's 5th grade class is having an election to decide who will be the new "class president." There are five students running for the office. Out of 25 students, 9 vote for Lakisha, 6 vote for Mary, 6 vote for Michael, 2 vote for Allison, and 2 vote for Barry. In statistical terms, which student received the "mode" votes?
a. Mary
b. Lakisha
c. Allison
d. Barry
Answer: B
Page ref: 24
Skill: Applied
Moderate

74. Professor Spiegelman's introduction to psychology class has 19 students. On the first exam, the students produce the following set of scores: 100, 100, 97, 97, 92, 86, 86, 85, 81, 80, 76, 72, 72, 72, 71, 68, 62, 59, and 48. What is the mode score on this exam?
a. 72
b. 48
c. 100
d. 80
Answer: A
Page ref: 24
Skill: Applied
Moderate

75. What is the median in a set of scores?
a. The average of all of the scores in the data set.
b. The most frequently appearing score in the data set.
c. The middle score in a data set.
d. The difference between the highest and lowest score in the data set.
Answer: C
Page ref: 24
Skill: Factual
Easy

76. Professor Spiegelman's introduction to psychology class has 19 students. On the first exam, the students produce the following set of scores: 100, 100, 97, 97, 92, 86, 86, 85, 81, 80, 76, 72, 72, 72, 71, 68, 62, 59, and 48. What is the median score on this exam?
a. 100
b. 92
c. 80
d. 72
Answer: C
Page ref: 24
Skill: Applied
Difficult

77. The measure of _____ refers to the degree to which the numbers in a data set differ from one another

and from the overall average (or mean) of that data set.
a. extremeness
b. outliers
c. difference
d. variability
Answer: D
Page ref: 24
Skill: Factual
Easy

78. Your textbook presents three different types of descriptive statistics. Which of the following is, in fact, an example of an inferential statistic?
a. Measures of normal and skewed distributions
b. Measures of central tendency
c. Measures of variability
d. Frequency distributions
Answer: A
Page ref: 24-26
Skill: Factual
Moderate

79. Professor Spiegelman's introduction to psychology class has 19 students. On the first exam, the students produce the following set of scores: 100, 100, 97, 97, 92, 86, 86, 85, 81, 80, 76, 72, 72, 72, 71, 68, 62, 59, and 48. What is the range on this exam?
a. 52
b. 100
c. 100.48
d. 0
Answer: A
Page ref: 24-25
Skill: Applied
Easy

80. The difference between the highest and lowest numbers in a data set is referred to as the _____.
a. deviation score
b. standard deviation
c. range
d. variance
Answer: C
Page ref: 25
Skill: Factual
Easy

81. Although the range is a good measure of variation in a data set because it gives us information about the distance between the most extreme values, it does have one peculiar drawback. What is that concern?
a. The range cannot be used on data sets that do not have at least ten different values.
b. The range is easily distorted by extreme values in a data set.
c. The range is distorted when a data set has the same value that appears more than once.
d. The range is changed when the standard deviation of the data set turns negative.
Answer: B
Page ref: 25
Skill: Conceptual
Difficult

82. Histograms and bar graphs are two ways of displaying a _____.

a. frequency distribution
b. normal distribution
c. measure of central tendency
d. standard deviation
Answer: A
Page ref: 25
Skill: Factual
Moderate

83. A graphical representation of a data set with an even distribution of results is called a _____ curve.
a. symmetrical
b. skewed
c. normal
d. vaulted
Answer: C
Page ref: 25-26
Skill: Factual
Moderate

84. A graphical representation of a data set where the scores cluster on one end rather than in the middle is known as a _____ distribution.
a. skewed
b. normal
c. abnormal
d. asymmetrical
Answer: A
Page ref: 25-26
Skill: Factual
Moderate

85. In a normal distribution, which of the following statements is true with regard to the mean, median, and mode of the data set?
a. The mean, median, and mode are the same.
b. The mean is highest, the median is in the middle, and the mode is the lowest.
c. The mean and median are the same, but a normal distribution is bimodal.
d. The mode is the highest, the median is in the middle, and the mean is the lowest.
Answer: A
Page ref: 26
Skill: Conceptual
Difficult

86. What is meant when the results of a research study are said to have "statistical significance?"
a. It means that the data can be analyzed with multiple statistical methods, and do not have to be assessed using a single statistical calculation.
b. It means that the results have practical significance in the real world.
c. It means that the results are likely to reflect reality, and did not occur by chance.
d. It means that random chance is the best explanation for the outcomes.
Answer: C
Page ref: 26
Skill: Conceptual
Moderate

87. What letter is used to represent the level of significance of a statistical effect, and what does that letter stand for?
a. "s", significance

b. "d", distribution
c. "p", probability
d. "e", effect
Answer: C
Page ref: 26
Skill: Factual
Difficult

88. What is the relationship between the *p*-value of a study and its statistical significance?
a. The higher the *p*-value, the greater the statistical significance.
b. The *p*-value is unrelated to the level of statistical significance.
c. The *p*-value is equal to the statistical significance.
d. The lower the *p*-value, the greater the statistical significance.
Answer: D
Page ref: 26
Skill: Conceptual
Difficult

89. Traditionally, what probability level is needed in order to consider the results of a study to be statistically significant?
a. Less than 0.05 (5%)
b. Less than 0.01 (1%)
c. Greater than 0.05 (5%)
d. Greater than 0.10 (10%)
Answer: A
Page ref: 26
Skill: Factual
Easy

90. If the probability level of a study is greater than 5%, then what do researchers begin to get concerned about?
a. That there is too much statistical significance to consider the results useful.
b. That the results occurred by chance and do not reflect reality.
c. That the participant pool that was used might have been tainted in some way that they did not control for.
d. That the coefficient of determination will be infinite and therefore unusable.
Answer: B
Page ref: 26
Skill: Conceptual
Difficult

91. Which of the following factors needs to be taken into consideration after a study's results are statistically significant?
a. The time it took to achieve the observed effect.
b. The measure of interpolation within each group.
c. The number of variables investigated.
d. The number of subjects or observations.
Answer: D
Page ref: 26
Skill: Factual
Difficult

92. If a study is found to have statistical significance, what is true of that study's practical significance?
a. The statistical and practical significance of a study two ways of reporting the same thing.
b. The study cannot be practically significant.

c. The study may or may not be practically significant.
d. The study must be practically significant.
Answer: C
Page ref: 26
Skill: Conceptual
Moderate

93. Bess conducts a study about the effects of a new weight loss program for women. She finds that the new program helps a significant number of her participants lose between one and three pounds over the first six months. Her statistical analysis reveals that the results of her study are statistically significant. What can be said about the practical significance of her study?
a. The study did not use a long enough timeframe to be able to demonstrate practical significance, regardless of the statistical significance.
b. Because the study only used female participants, it does not have practical significance in the real world.
c. Even though the results are statistically significant, the relatively minimal weight loss shown by the participants reveals that her program is not practically significant.
d. Because her study showed better results for those in the program than those not in the program, her study shows strong practical significance.
Answer: C
Page ref: 26
Skill: Applied
Moderate

94. Why is it impossible to completely eliminate error from psychological research?
a. Because all of the available research methods are fundamentally flawed.
b. Because it is impossible to control every variable that might influence the behavior under investigation.
c. Because no matter how hard we try to prevent it, some participants in research studies are dishonest and therefore bring error into the study.
d. Because statistics can be manipulated to show any outcome that is desired, and even the most honest researcher will invariable force the data to show the outcomes that they desire.
Answer: B
Page ref: 26
Skill: Conceptual
Easy

95. What basic research technique can be used to avoid biased samples?
a. Blind assignment to groups
b. Double-blind assignment to groups
c. Two-way ignorant assignment to groups
d. Random assignment to groups
Answer: D
Page ref: 27
Skill: Conceptual
Moderate

96. Which of the following words is the best synonym for the term *reliability*?
a. Accuracy
b. Trustworthiness
c. Error-proof
d. Consistency
Answer: D
Page ref: 27
Skill: Conceptual
Moderate

97. Which of the following is a type of validity with which researchers must be concerned?
    a. Split-half
    b. Inter-rater
    c. Criterion
    d. Test-Retest
    Answer: C
    Page ref: 27
    Skill: Factual
    Moderate

98. Moira checks her weight several times a day. One evening she steps on her bathroom scale and she is surprised when it is 6 pounds higher than her mid-day weigh-in. She steps on the scale again, but this time the weight is 2 pounds less. Puzzled, she steps on the scale again, only to find that she is 5 pounds lighter! Which of the following statements is true with regard to Moira's scale?
    a. It lacks face validity
    b. It lacks criterion validity
    c. It lacks internal validity
    d. It lacks reliability
    Answer: D
    Page ref: 27
    Skill: Applied
    Moderate

99. _____ validity is the extent to which a study superficially measures what it is intended to measure.
    a. Reliable
    b. Criterion
    c. Surface
    d. Face
    Answer: D
    Page ref: 27
    Skill: Factual
    Easy

100. Zelda is given an intelligence test and scores in the high-average range. To make sure that this particular intelligence test has high _____ validity, her results are compared to her performance on the SAT, which is known to be related to intelligence.
    a. internal
    b. face
    c. construct
    d. criterion
    Answer: D
    Page ref: 27
    Skill: Applied
    Difficult

101. _____ validity is an indication of how closely a measurement correlates with another measure of the characteristic being studied.
    a. Internal
    b. Construct
    c. Face
    d. Criterion
    Answer: D
    Page ref: 27
    Skill: Factual

Difficult

102. Did you enjoy taking the SAT when you neared the end of high school? Perhaps you thought it was a waste of time. Maybe you'd be interested in reading some research that suggests people who score higher on the SAT tend to earn better grades in college. The ability of this test to anticipate what will happen in the future is called _____ validity.
a. descriptive
b. predictive
c. external
d. anticipatory
Answer: B
Page ref: 28
Skill: Applied
Easy

103. Which of the following is one important type of criterion validity?
a. Reliable validity
b. External validity
c. Predictive validity.
d. Construct validity
Answer: C
Page ref: 28
Skill: Factual
Easy

104. _____ validity uses a specific procedure that measures or correlates with a theoretical or intangible concept.
a. Face
b. Construct
c. Internal
d. External
Answer: B
Page ref: 28
Skill: Factual
Difficult

105. Dr. Subing conducted a research experiment investigating the effect of ceiling fans on water consumption in laboratory rats. She was able to control for almost every factor that would influence the rats' desire to drink water, so in the end she had a lot of confidence that the dependent variable (water consumption) was caused exclusively by the independent variable (ceiling fans). In statistical terms, this project has high _____ validity.
a. Internal
b. Construct
c. Predictive
d. Criterion
Answer: A
Page ref: 28
Skill: Applied
Moderate

106. A test has _____ validity if the researcher is able to control all extraneous variables so that the only variable influencing the results of the study is the independent variable.
a. continuous
b. internal
c. face

d. external
Answer: B
Page ref: 28
Skill: Factual
Easy

107. In terms of validity, which quality of a study gives us the greatest confidence that the results discovered were due strictly to the relationship between the independent and dependent variables?
a. external
b. construct
c. predictive
d. internal
Answer: D
Page ref: 28
Skill: Conceptual
Difficult

108. Which type of bias or error most thoroughly explains the phenomenon of Clever Hans?
a. The placebo effect
b. The observer-expectancy effect
c. The double-blind effect
d. The subject expectancy effect
Answer: B
Page ref: 28
Skill: Conceptual
Easy

109. Dr. Zelman conducts research that explores the relationship between alcohol consumption and driving ability. He runs participants through a driving obstacle course after they consume various amounts of alcohol. He concludes that the more alcohol a person consumes, the more impaired their driving will be. Because his results can be generalized to the larger population from which his sample was drawn, his study would be described as having high _____ validity.
a. applicable
b. general
c. external
d. criterion
Answer: C
Page ref: 28
Skill: Applied
Moderate

110. _____ validity indicates that a test can be generalized to the rest of the population.
a. Face
b. External
c. Construct
d. Internal
Answer: B
Page ref: 28
Skill: Factual
Easy

111. Keeping a participant unaware of the purpose of the study in which they are participating is one way to help reduce the _____ effect in research.
a. placebo
b. observer-expectancy

c. subject-expectancy
d. demand
Answer: C
Page ref: 28
Skill: Conceptual
Moderate

112. Dr. Muhammed wants to know if people will rate facial photographs more or less favorably based on the skin color and facial features of the pictures. He digitally alters photographs and mixes the features on each picture, so that participants in his study do not know exactly what they are looking at. Keeping participants unaware of the exact nature of the study in which they are participating helps reduce _____ effects.
a. criterion
b. subject-expectancy
c. placebo
d. observer bias
Answer: B
Page ref: 28
Skill: Applied
Moderate

113. In a _____ experiment, both the research and participants are kept unaware of which participants are assigned to which participant group.
a. single-blind
b. double-blind
c. unaware
d. placebo
Answer: B
Page ref: 28
Skill: Factual
Easy

114. Dr. Baxter conducts an experiment investigating the effectiveness of a new antacid on reducing stomach pain. He recruits 100 chronic sufferers of acid indigestion, and places them in four groups, each receiving a different amount of medication. The first group receives a sham pill because it contains none of the new antacid whatsoever. He is very surprised, however, when he finds that group one reports a statistically significant reduction in stomach pain after taking their pill. Which of the following best explains why the participants in group one showed a response to the pill, even when it had no active ingredient?
a. The subject-expectancy effect
b. Demand characteristics
c. The placebo effect
d. The observer-expectancy effect
Answer: C
Page ref: 28
Skill: Applied
Easy

115. “Sometimes we experience a change just because we expect to experience a change.” This statement best summarizes the _____ effect.
a. retrospect
b. demand
c. validity
d. placebo
Answer: D
Page ref: 28
Skill: Conceptual

Moderate

116. The most extreme example of the power of suggestion is seen in the _____ effect.
a. placebo
b. demand
c. bias
d. sham treatment
Answer: A
Page ref: 29
Skill: Conceptual
Moderate

117. In 1971, a now famous experiment was conducted by psychologist _____, who assigned some participants to be mock prisoners and others to be mock prison guards. The project had to be discontinued within 5 days because of the unforeseen results that lead to extreme emotional and physical distress among the "prisoners."
a. Carl Rogers
b. B.F. Skinner
c. Stanley Milgram
d. Philip Zimbardo
Answer: D
Page ref: 29
Skill: Factual
Moderate

118. To give research participants a verbal description of the true nature and purpose of a study after the study has occurred is called _____.
a. deception
b. informed consent
c. research ethics
d. debriefing
Answer: D
Page ref: 29
Skill: Factual
Easy

119. Which of the following important issues are not among those that are of concern to a researcher who wants to conduct his/her project in an ethical manner?
a. A participant's right to privacy
b. The possibility of causing a participant discomfort or harm
c. A participant's right to be treated with respect
d. The use of deception
Answer: C
Page ref: 29
Skill: Factual
Difficult

120. Dr. Lafferman conducts a research experiment that explores the use of different classroom techniques for helping students earn better grades. After the research is fully complete, he posts a list of all of the students' grades on his office door, along with a description of which of the participant groups each student was in. Which rule of ethical behavior has Dr. Lafferman forgotten to consider?
a. A participant's right to fair and just compensation for participation
b. A participant's right to privacy
c. A participant's right to be involved with research that does not include deception
d. A participant's right to give informed consent

Answer: B
Page ref: 29
Skill: Applied
Easy

121. Which of the following statements is true with regard to the ethical consideration that addresses causing harm or discomfort to research participants?
a. The potential of causing harm or discomfort to participants is only permitted when the participants are animals and not human beings.
b. If a research participant could be caused harm or discomfort, then (s)he must be informed of the *full* nature of the research before it is conducted.
c. Research participants who are placed at risk for harm or discomfort have the right to know, ahead of time, that they will not be permitted to discontinue their participation in the project.
d. A research project may run the risk of causing harm or discomfort as long as such potential is outweighed by the potential human benefits of the project.
Answer: D
Page ref: 29
Skill: Conceptual
Moderate

122. Which of the following is true with regard to using animals as research subjects?
a. Many of the basic biological mechanisms underlying animal behaviors are significantly different than those underlying human behaviors.
b. Animal protection organizations have suggested that the only way to ethically study animals is to observer them in their natural environments rather than in laboratory settings.
c. It is possible to obtain informed consent when using animal subjects.
d. Animal suffering is a variable that does not need to be considered when designing an experiment because animals' brains are not capable of registering pain or discomfort in a way that interferes with legitimate research questions.
Answer: B
Page ref: 29
Skill: Conceptual
Easy

123. A(n) _____ is an ethics review panel established by a publicly funded institution to evaluate all proposed research by that institution.
a. psychological review consortium
b. institutional review board
c. research ethics panel
d. human considerations committee
Answer: B
Page ref: 29
Skill: Factual
Easy

124. The _____ has established a code of ethics that governs psychological research.
a. United States Research Propriety Board (USRPB)
b. International Ethics Committee (IEC)
c. American Psychological Research Board (APRB)
d. American Psychological Association (APA)
Answer: D
Page ref: 29
Skill: Factual
Easy

125. What does an IRB do if a proposed research project is found to violate the rules governing ethical research practices?
   a. It would turn down that study.
   b. It would suggest that the study be conducted in a different country where research ethics rules are less stringent.
   c. It would insist that the researcher show a greater potential for human gain before approving the project.
   d. It would only approve the research if the institution for which the board worked stood to gain serious financial benefits as a result of the unethical research.

   Answer: A
   Page ref: 29
   Skill: Conceptual
   Easy

True/False Questions

1. People who use hindsight bias are often of the incorrect belief that they knew what was going to happen all along. T F
   Answer: True
   Page ref: 18

2. The false consensus effect suggests that people are overly confident in their knowledge of an event after the event has already taken place. T F
   Answer: False
   Page ref: 18

3. Dogmatism is an essential component of critical thinking. T F
   Answer: False
   Page ref: 18

4. Clever Hans was the young boy who was taught to be afraid of white, furry animals by Rosalie Reyner and John B. Watson T F
   Answer: False
   Page ref: 19

5. Hypotheses and theories are synonymous terms for the same thing – an educated guess. T F
   Answer: False
   Page ref: 19

6. It is very important for a researcher to be skeptical in order to make sure that all possible explanations for a research outcome are considered. T F
   Answer: True
   Page ref: 20

7. A value that can change is called a *constant*. T F
   Answer: False
   Page ref: 20

8. When the data produced by one group of participants is compared to the data produced by a different group of participants, it is called a within-group experiment. T F
   Answer: False
   Page ref: 21

9. Random assignment is an important technique to remember when doing descriptive T F

research.
Answer: False
Page ref: 21

10. Jean Piaget did a case study of his own children, and that study formed the basis of his theories on cognitive development. T F
Answer: True
Page ref: 22

11. The most efficient way to get a large amount of data from a large number of participants is to conduct a survey. T F
Answer: True
Page ref: 23

12. A standard deviation is the most useful type of inferential statistic to calculate. T F
Answer: False
Page ref: 24-25

13. A normal distribution is a symmetrical, bell-shaped curve. T F
Answer: True
Page ref: 25-26

14. Because research benefits humanity as a whole, researchers do not have to be concerned with causing pain or discomfort to a few research participants. T F
Answer: False
Page ref: 29

15. The American Psychological Association (APA) has established a uniform code of ethics that governs the research of all psychologists who want to submit their work to journals published by the APA. T F
Answer: True
Page ref: 29

Short Answer Questions

1. What is the false consensus effect? Can you give an example of how you may have seen this occur in your life? Page ref: 18

2. Briefly define the terms *independent variable* and *dependent variable*. What is the relationship between the two in an experiment? Page ref: 20-21

3. Why do researchers use random assignment when conducting an experiment? Page ref: 21

4. Discuss why it is impossible for a correlational study to produce cause-and-effect conclusions. Page ref: 21-22

5. Why do researchers have to think long and hard about the wording they use on the questions contained in surveys? Page ref: 23

6. What are the two primary types of research settings, and what benefits and limitations do both offer a researcher? Page ref: 23

7. List and define the three measures of central tendency. Page ref: 24

8. What are the primary difference between a normal distribution and a skewed distribution? Page ref: 25-26

9. List and briefly describe three ethical considerations that must be addressed by a psychologist conducting a research project. Page ref: 29

10. What is an Institutional Review Board? What purpose does it serve? Do you think any research should be immune to IRB consideration? Why or why not? Page ref: 29

Essay Questions

1. List and discuss the three empirical challenges of studying people. Why are they important as you gather data and draw conclusions about people's behaviors? Page ref: 19

2. Describe a research study that you might be interested in conducting that would most benefit from the use of a naturalistic observation design. Why would this be the preferred design for your study over another technique? Are there disadvantages to using naturalistic observation for your particular study? Page ref: 22

3. Choose four of the following terms, one of which must be reliability. Compare and contrast them. Discuss which you think is the most important in a research study. Page ref: 27-28
   Reliability
   Face validity
   Criterion validity
   Construct Validity
   Internal Validity
   External Validity

4. If you were conducting a study on the relative effectiveness of a new medication designed to treat a serious, painful illness in children, would you be more interested in achieving practical or statistical significance? Would your answer change if this medication was used to treat some relatively innocuous condition? Would it make a difference if this medication was used to treat a disease of the elderly? Support your answer with information from the textbook. Page ref: 26

5. Discuss the Stanford prison experiment of Philip Zimbardo. What did we learn about the ethics of research from this event? Page ref: 29