CHAPTER 1: Psychology Is a Way of Thinking

LEARNING OBJECTIVES

Learning Objective 1.1: Articulate how the roles of consumers and producers of psychological research are similar and how they differ.

Learning Objective 1.2: Explain how theories and data interact to form empirical inquiry.

Learning Objective 1.3: Identify examples of basic and applied research and describe the interactions between the two kinds of research.

Learning Objective 1.4: Describe the role of the peer-review process in science.

Learning Objective 1.5: Give examples of ways that researchers dig deeper by doing more than just one study on a research question.

Learning Objective 1.6: Describe the differences between empirical journals and popular journalism; describe the goals of each format and give examples of ways that journalists can write better stories about scientific news.

**MULTIPLE CHOICE**

1. Which of the following is an example of being a producer of research?

a. Administering an anxiety questionnaire

b. Applying a new therapy technique

c. Writing an opinion article about a psychological study

d. Undergoing a brain scan

ANS: A DIF: Medium REF: 1.1 Research Producers, Research Consumers: Why the Producer Role Is Important OBJ: Learning Objective 1.1 MSC: Understanding

2. Which of the following is an example of being a consumer of research?

a. Administering a questionnaire of PTSD symptoms

b. Consenting to participate in a research study

c. Attending a psychological conference

d. Measuring dopamine levels in patients with schizophrenia

ANS: C DIF: Medium REF: 1.1 Research Producers, Research Consumers: Why the Consumer Role Is Important OBJ: Learning Objective 1.1 MSC: Applying

3. Students who are interested in being consumers of, but not producers of, research might choose which of the following professions?

a. A clinical psychologist

b. An intervention program evaluator

c. A political pollster

d. An advertising executive

ANS: D DIF: Medium REF: 1.1 Research Producers, Research Consumers: Why the Consumer Role Is Important OBJ: Learning Objective 1.1 MSC: Analyzing

4. Dr. Smitherman insists that all his research assistants know how to be producers of research. All of the following relate to this requirement EXCEPT:

a. He wants to make sure they understand how to write in APA style.

b. He wants to make sure they understand why anonymity is important.

c. He wants to make sure they understand how to interpret study results and graphs.

d. He wants to make sure they have previously been participants in research studies.

ANS: D DIF: Medium REF: 1.1 Research Producers, Research Consumers: Why the Consumer Role Is Important OBJ: Learning Objective 1.1 MSC: Understanding

5. Elliott is double majoring in English and psychology. He plans on being a high school English teacher and is only majoring in psychology because he finds the classes interesting. Which of the following is an important reason for him to be a good consumer of research?

a. His psychology advisor may ask for his help in copy-editing a research article.

b. He will likely need to be a participant in research studies as part of his psychology major.

c. He will probably want to read research related to enhancing his teaching.

d. He will have to produce research before he can consume it.

ANS: C DIF: Easy REF: 1.1 Research Producers, Research Consumers: Why the Consumer Role Is Important OBJ: Learning Objective 1.1 MSC: Applying

6. In the theory-data cycle, theories first lead to .

a. questions

b. answers

c. data

d. research

ANS: A DIF: Easy REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Understanding

7. Another word for hypothesis is a(n) .

a. theory

b. observation

c. prediction

d. outcome

ANS: C DIF: Easy REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Remembering

8. Another word for data is a(n) .

a. theory

b. observation

c. prediction

d. outcome

ANS: B DIF: Easy REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Remembering

9. RESEARCH STUDY 1.1: Deci and Ryan (1985, 2001) have proposed that there are three fundamental needs that are required for human growth and fulfillment: relatedness, autonomy, and competence. Susan predicts that students who have these needs met in their psychology class feel happier and more satisfied with the class. She collects data and finds that students who feel more related and competent do feel happier but that feeling more autonomous does not seem to matter. Susan thinks that maybe autonomy is only necessary when people are in situations in which they are not being evaluated.

Deci and Ryan’s general statement of how the three needs are related to growth and fulfillment is an example of which of the following?

a. A theory

b. A hypothesis

c. Data

d. Research

ANS: A DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Applying

10. RESEARCH STUDY 1.1: Deci and Ryan (1985, 2001) have proposed that there are three fundamental needs that are required for human growth and fulfillment: relatedness, autonomy, and competence. Susan predicts that students who have these needs met in their psychology class feel happier and more satisfied with the class. She collects data and finds that students who feel more related and competent do feel happier but that feeling more autonomous does not seem to matter. Susan thinks that maybe autonomy is only necessary when people are in situations in which they are not being evaluated.

Susan’s prediction that students who have all three needs met will experience greater satisfaction with their psychology class is an example of which of the following?

a. A theory

b. A hypothesis

c. Data

d. Research

ANS: B DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Applying

11. RESEARCH STUDY 1.1: Deci and Ryan (1985, 2001) have proposed that there are three fundamental needs that are required for human growth and fulfillment: relatedness, autonomy, and competence. Susan predicts that students who have these needs met in their psychology class feel happier and more satisfied with the class. She collects data and finds that students who feel more related and competent do feel happier but that feeling more autonomous does not seem to matter. Susan thinks that maybe autonomy is only necessary when people are in situations in which they are not being evaluated.

After Susan collects and analyzes her data, which of the following is the next logical step?

a. Susan writes a paper challenging Self-Determination Theory because only some of her data supported it.

b. Susan ignores the data that did not fit the theory.

c. Susan recalculates her data to fit the theory.

d. Susan alters or amends the theory to fit her data.

ANS: D DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Applying

12. RESEARCH STUDY 1.1: Deci and Ryan (1985, 2001) have proposed that there are three fundamental needs that are required for human growth and fulfillment: relatedness, autonomy, and competence. Susan predicts that students who have these needs met in their psychology class feel happier and more satisfied with the class. She collects data and finds that students who feel more related and competent do feel happier but that feeling more autonomous does not seem to matter. Susan thinks that maybe autonomy is only necessary when people are in situations in which they are not being evaluated.

Susan’s hypothesis was not completely supported by her data. What does this mean?

a. Susan must have collected the data incorrectly.

b. Susan must have analyzed the data incorrectly.

c. The theory may need to be amended.

d. The theory is completely wrong.

ANS: C DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Applying

13. is the approach of collecting data and using it to develop, support, and/or challenge a theory.

a. Falsifiability

b. Theorizing

c. Empiricism

d. Application

ANS: C DIF: Easy REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Remembering

14. Occam’s razor states that the simplest solution is the best, all things being equal. This speaks to a theory’s:

a. parsimony.

b. falsifiability.

c. theorizing.

d. empiricism.

ANS: A DIF: Easy REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Analyzing

15. Benjamin is a social psychologist who studies marriage. He believes that marital satisfaction has two components: the ability to trust one’s partner and a belief that one can be a good spouse. This is known as:

a. a theory.

b. a hypothesis.

c. data.

d. research.

ANS: A DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Applying

16. Benjamin is a social psychologist who studies marriage. He believes that marital satisfaction has two components: the ability to trust one’s partner and a belief that one can be a good spouse. He conducts a study to test his ideas. Assuming that his data match his theory, which of the following statements should he make?

a. “The data prove my theory.”

b. “My theory is generalizable.”

c. “The data provide support for my theory.”

d. “The data complicate my theory.”

ANS: C DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Applying

17. Which of the following is true of the relationship between hypotheses and theories?

a. Hypotheses are used to determine if a theory is accurate.

b. Theories are used to determine if a hypothesis is accurate.

c. Multiple theories are needed to test whether a hypothesis is accurate.

d. Hypotheses and theories are synonymous terms.

ANS: A DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Analyzing

18. Both James and Thomas have theories that explain why listening to classical music while reading is associated with increased recall of the material. James’ theory is much simpler than Thomas’. Thomas created his theory a few months before James did. Which of the following is true?

a. James’ theory would be considered better because it is more parsimonious.

b. James’ theory would be considered better because it was thought of more recently.

c. Thomas’ theory would be considered better because he thought of it first.

d. Thomas’ theory would be considered better because it is more complex.

ANS: A DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Applying

19. Which of the following is an example of applied research?

a. A social psychologist who is interested in the components of self-concept

b. An educational psychologist who looks for a way to increase math skills in 8-year-olds

c. A personality psychologist who studies the difference between introverts and extroverts

d. A cognitive psychologist who looks at the difference in problem-solving abilities of men and women

ANS: B DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Tackle Applied and Basic Problems OBJ: Learning Objective 1.3 MSC: Applying

20. Which of the following is an example of translational research?

a. An industrial-organizational psychologist who is interested in the components of job satisfaction

b. A clinical psychologist who examines the effectiveness of art therapy in decreasing symptoms of ADHD

c. A sports psychologist who uses information on how we emotionally process victory to design an intervention for improving mental stamina during athletic performance

d. A cognitive psychologist who examines people’s ability to distinguish between colors based on light exposure

ANS: C DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Tackle Applied and Basic Problems OBJ: Learning Objective 1.3 MSC: Applying

21. Which of the following is an example of basic research?

a. An industrial-organizational psychologist who is interested in the components of job commitment

b. A clinical psychologist who examines the effectiveness of drama therapy in helping children who have been abused

c. An educational psychologist who examines how mindset (“intelligence is innate” or “intelligence can be achieved”) affects academic performance

d. An experimental psychologist who examines people’s ability to perceive a “sweet” taste

ANS: D DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Tackle Applied and Basic Problems OBJ: Learning Objective 1.3 MSC: Applying

22. Research that is done specifically to solve a practical problem, like increasing memory ability or decreasing symptoms of depression, is known as:

a. basic research.

b. applied research.

c. empirical research.

d. translational research.

ANS: B DIF: Easy REF: 1.2 How Scientists Approach Their Work: Scientists Tackle Applied and Basic Problems OBJ: Learning Objective 1.3 MSC: Remembering

23. Research that is done specifically to add to our general understanding of psychology, like distinguishing the components of extraversion or predicting the time it takes a person to determine whether an object is a face or another object, is known as:

a. basic research.

b. applied research.

c. empirical research.

d. translational research.

ANS: A DIF: Easy REF: 1.2 How Scientists Approach Their Work: Scientists Tackle Applied and Basic Problems OBJ: Learning Objective 1.3 MSC: Remembering

24. Which of the following is true of the difference between basic and applied research?

a. Basic and applied research have different goals.

b. Applied research is more important than basic research.

c. Basic research is more difficult to conduct than applied research.

d. Applied research is done by consumers of research.

ANS: A DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Tackle Applied and Basic Problems OBJ: Learning Objective 1.3 MSC: Analyzing

25. Vinai learns that people with schizophrenia have a problem labeling their emotions. Using this information, he designs a research study to examine whether teaching patients with schizophrenia to label the emotions of people they see in movie clips helps them to better label their own emotions. Vinai hopes that the findings of this research could then be used to create an intervention to treat schizophrenia. Vinai’s study is an example of:

a. basic research.

b. applied research.

c. empirical research.

d. translational research.

ANS: D DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Tackle Applied and Basic Problems OBJ: Learning Objective 1.3 MSC: Applying

26. According to the text, the bridge between basic and applied research is known as:

a. empirical research.

b. practical research.

c. translational research.

d. compound research.

ANS: C DIF: Easy REF: 1.2 How Scientists Approach Their Work: Scientists Tackle Applied and Basic Problems OBJ: Learning Objective 1.3 MSC: Remembering

27. Scientific journals and magazines are similar in which of the following ways?

a. Both are written for the general public.

b. Both tend to be written by scientists.

c. Both tend to publish peer-reviewed articles.

d. Both are trying to inform their readers.

ANS: D DIF: Easy REF: 1.2 How Scientists Approach Their Work: Scientists Make It Public: The Publication Process | 1.2 How Scientists Approach Their Work: Scientists Talk to the World: From Journal to Journalism OBJ: Learning Objective 1.4 MSC: Analyzing

28. Which of the following is the reason that scientific journals use peer review?

a. It is cost effective.

b. It is more efficient/faster.

c. It encourages collaboration among researchers.

d. It ensures that the studies published are of the highest quality.

ANS: D DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Make It Public: The Publication Process OBJ: Learning Objective 1.4 MSC: Remembering

29. Nadia submits her article to a scientific journal for publication. Who makes the final decision on whether her article is published in that scientific journal?

a. The editor of the journal

b. Nadia, the author of the article

c. A panel of experts

d. The publisher of the journal

ANS: A DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Make It Public: The Publication Process OBJ: Learning Objective 1.4 MSC: Applying

30. Which aspect of the peer-review cycle allows for the greatest amount of honesty in reviews?

a. The number of peer reviewers

b. The anonymity of the peer reviewers

c. The possibility of rejection

d. The frequency of publication

ANS: B DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Make It Public: The Publication Process OBJ: Learning Objective 1.4 MSC: Remembering

31. Dr. Gonzalez is a peer reviewer for a manuscript submitted to a journal. He is likely to provide comments on which of the following?

a. How well the general public will understand the study

b. How well the research was conducted

c. The prestige/reputation of the author

d. Previous studies from the same research group

ANS: B DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Make It Public: The Publication Process OBJ: Learning Objective 1.4 MSC: Applying

32. Dr. Stewart is an editor of a psychology journal. She wants to ensure that reviewers give honest reviews of the papers they are asked to read. Which of the following could she do to increase the likelihood of honest feedback?

a. Increase the number of peer reviewers

b. Use reviewers from fields other than psychology

c. Make sure the peer reviewers are anonymous

d. Give reviewers a longer amount of time to read papers

ANS: C DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Make It Public: The Publication Process OBJ: Learning Objective 1.4 MSC: Applying

33. Articles that could be considered journalism:

a. are typically written by scientists.

b. are typically written for scientists.

c. are hard to access.

d. do not require specialized education to read.

ANS: D DIF: Easy REF: 1.2 How Scientists Approach Their Work: Scientists Talk to the World: From Journal to Journalism OBJ: Learning Objective 1.6 MSC: Remembering

34. The quality of journalists’ coverage of a science story will be determined by two factors:

a. the importance and accuracy of the story.

b. the length and source of the story.

c. the education and experience of the journalist.

d. the education and experience of the scientist.

ANS: A DIF: Easy REF: 1.2 How Scientists Approach Their Work: Scientists Talk to the World: From Journal to Journalism OBJ: Learning Objective 1.6 MSC: Remembering

35. Salma conducts a study and finds that her data do not completely support her theory. Which of the following statements should she avoid saying?

a. “My data are inconsistent with my theory.”

b. “My data disprove my theory.”

c. “My theory needs amending.”

d. “I may need to collect more data.”

ANS: B DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Analyzing

36. Translational research is best thought of as basic research and applied research.

a. superior to both

b. inferior to both

c. a bridge between

d. another word for

ANS: C DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Tackle Applied and Basic Problems OBJ: Learning Objective 1.3 MSC: Understanding

37. Which of the following is a reason psychological scientists publish their research in scientific journals?

a. To get money from the journals where their work appears

b. To share their findings with the general public

c. To have their results reviewed by other psychologists

d. To gain attention by journalists

ANS: C DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Make It Public: The Publication Process OBJ: Learning Objective 1.4 MSC: Understanding

38. Which of the following is a reason that a journalist may misrepresent a psychology study in a magazine?

a. The peer-review process for journalists sometimes makes them miss important facts.

b. Journalists may count on their readers to check the original scientific journal.

c. Journalists may not personally have the scientific background to understand the study.

d. Journalists are unethical.

ANS: C DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Talk to the World: From Journal to Journalism OBJ: Learning Objective 1.6 MSC: Understanding

39. Your friend Gaby loves reading articles about psychology studies in her monthly women’s magazine. Which of the following would you tell her?

a. “Stop reading those articles because they are never accurate.”

b. “Peer-reviewed journals are much easier to read than magazines.”

c. “Be careful about reading those articles because they may not present findings accurately.”

d. “Reading those magazines is just as good as reading the peer-reviewed journals.”

ANS: C DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Talk to the World: From Journal to Journalism OBJ: Learning Objective 1.6 MSC: Applying

40. RESEARCH STUDY 1.2: Dr. White reads about a new theory that states that depression is caused by increased levels of estrogen in the womb. To test this theory, she conducted a study comparing the level of estrogen in amniotic fluid in individuals who were later diagnosed with depression with the level of those who did not develop depression. Dr. White found no differences between the groups in estrogen levels in the amniotic fluid.

Based on these results, Dr. White should conclude that:

a. she has disproved the previous theory.

b. her study was probably flawed in some way.

c. previous studies that support the theory are probably flawed.

d. there may be factors influencing the results that haven’t yet been examined that contributed to the results of studies on this topic.

ANS: D DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Dig Deeper OBJ: Learning Objective 1.5 MSC: Analyzing

41. RESEARCH STUDY 1.2: Dr. White reads about a new theory that states that depression is caused by increased levels of estrogen in the womb. To test this theory, she conducted a study comparing the level of estrogen in amniotic fluid in individuals who were later diagnosed with depression with the level of those who did not develop depression. Dr. White found no differences between the groups in estrogen levels in the amniotic fluid.

What should Dr. White do next?

a. Evaluate the ways in which her study differed from previous studies that supported this theory

b. Work with a journalist to write a magazine article claiming they have disproved the previous theory

c. Develop a new theory of what causes depression

d. Start altering treatments for depression based on her findings

ANS: A DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Dig Deeper OBJ: Learning Objective 1.5 MSC: Analyzing

42. RESEARCH STUDY 1.2: Dr. White reads about a new theory that states that depression is caused by increased levels of estrogen in the womb. To test this theory, she conducted a study comparing the level of estrogen in amniotic fluid in individuals who were later diagnosed with depression with the level of those who did not develop depression. Dr. White found no differences between the groups in estrogen levels in the amniotic fluid.

Another depression researcher reads Dr. White’s findings. This new researcher is LEAST likely to:

a. conduct a similar study with improved research design.

b. design a new study to ask a slightly different research question.

c. reject the theory of what causes depression.

d. conduct the same study in a different sample of depressed patients.

ANS: C DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Dig Deeper OBJ: Learning Objective 1.5 MSC: Analyzing

43. RESEARCH STUDY 1.2: Dr. White reads about a new theory that states that depression is caused by increased levels of estrogen in the womb. To test this theory, she conducted a study comparing the level of estrogen in amniotic fluid in individuals who were later diagnosed with depression with the level of those who did not develop depression. Dr. White found no differences between the groups in estrogen levels in the amniotic fluid.

In this study, “depressed individuals will have higher estrogen levels” was the .

a. theory

b. research question

c. hypothesis

d. data

ANS: C DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Dig Deeper OBJ: Learning Objective 1.2 MSC: Applying

44. RESEARCH STUDY 1.2: Dr. White reads about a new theory that states that depression is caused by increased levels of estrogen in the womb. To test this theory, she conducted a study comparing the level of estrogen in amniotic fluid in individuals who were later diagnosed with depression with the level of those who did not develop depression. Dr. White found no differences between the groups in estrogen levels in the amniotic fluid.

In this study, estrogen levels in participants were the .

a. theory

b. research question

c. hypothesis

d. data

ANS: D DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Dig Deeper OBJ: Learning Objective 1.2 MSC: Applying

45. RESEARCH STUDY 1.2: Dr. White reads about a new theory that states that depression is caused by increased levels of estrogen in the womb. To test this theory, she conducted a study comparing the level of estrogen in amniotic fluid in individuals who were later diagnosed with depression with the level of those who did not develop depression. Dr. White found no differences between the groups in estrogen levels in the amniotic fluid.

Dr. White publishes her findings in a scientific journal. Who is most likely to read her article?

a. Depressed patients

b. Clinical researchers

c. Journalists

d. Social workers

ANS: B DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Talk to the World: From Journal to Journalism OBJ: Learning Objective 1.6 MSC: Applying

46. Which of the following is a benefit of the peer-review process?

a. Reviewers’ names are made public so they can defend their critiques of an article.

b. The journal editor provides input on study design to ensure rigorous scientific methods.

c. Reviewers’ names are kept anonymous so they can be open in their critiques of an article.

d. Non-significant results are not considered for publication to ensure interesting research.

ANS: C DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Make It Public: The Publication Process OBJ: Learning Objective 1.6 MSC: Understanding

47. How can you ensure that a popular media article accurately reflects the original research of a scientific study?

a. Find and read the original scientific article

b. Determine whether the results fit within the theories you learned in your psychology classes

c. Check that the popular media article includes the statistical significance of the results

d. Research the credentials of the author of the popular media article

ANS: A DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Talk to the World: From Journal to Journalism OBJ: Learning Objective 1.6 MSC: Understanding

48. Which of the following is a reason why it is important to be a knowledgeable consumer of research?

a. It is important to know how to write in APA style.

b. It is important to understand how to design an effective study.

c. It is important to know why researchers protect the anonymity of participants.

d. It is important to understand whether the information you read is accurate.

ANS: D DIF: Medium REF: 1.1 Research Producers, Research Consumers: Why the Consumer Role Is Important OBJ: Learning Objective 1.1 MSC: Understanding

49. Which of the following is a reason why it is important to be an effective producer of research?

a. It is important to be able to synthesize previous research findings.

b. It is important to know how to interpret the results and graphs of your study.

c. It is important to understand whether the information you read is accurate.

d. It is important to know how to write in APA style.

ANS: B DIF: Medium REF: 1.1 Research Producers, Research Consumers: Why the Producer Role Is Important OBJ: Learning Objective 1.1 MSC: Understanding

50. A research consumer scientific results.

a. analyzes

b. produces

c. reads

d. graphs

ANS: C DIF: Easy REF: 1.1 Research Producers, Research Consumers OBJ: Learning Objective 1.1 MSC: Remembering

**SHORT ANSWER**

1. Name three types of research data or information that people are exposed to every day, even if they are not psychologists.

ANS:

Several answers are acceptable, including political polling data, websites (e.g., WebMD), advice columns in newspapers and magazines.

DIF: Easy REF: 1.1 Research Producers, Research Consumers: Why the Consumer Role Is Important OBJ: Learning Objective 1.1 MSC: Understanding

2. Provide two reasons why it is beneficial to be a good consumer of research, even if you are not a psychologist.

ANS:

Several answers are acceptable, including using findings from research to help one’s profession, to help one’s everyday life (e.g., techniques to improve relationships, improve study skills), to save money and time (e.g., by not spending time and money on things that are not effective).

DIF: Easy REF: 1.1 Research Producers, Research Consumers: Why the Consumer Role Is Important OBJ: Learning Objective 1.1 MSC: Understanding

3. Although not all psychology majors become producers of research, name two benefits of learning how to become a producer of research.

ANS:

The benefits of learning how to become a producer of research can include learning to write in APA style, gaining skills necessary to work in a professor’s research lab, gaining skills necessary to complete a class assignment, and becoming a more informed consumer.

DIF: Easy REF: 1.1 Research Producers, Research Consumers: Why the Producer Role Is Important OBJ: Learning Objective 1.1 MSC: Understanding

4. Paul wakes up on Tuesday morning and none of the lights or the appliances in his apartment are working. What theory might explain why this is happening? What could Paul do to test this theory? How is this an example of the theory-data cycle in science?

ANS:

Answers may vary, but in each response, students should propose a theory for why the lights/appliances do not work. Possible theories could be that Paul did not pay his electric bill, there was an electrical storm, or a fuse to his apartment was blown. Students should then propose a way for Paul to test the theory. For example, if students theorize that the lights/appliances are off because he did not pay the bill, they should state that he should pay his bill and see if the lights come back on. Students should then explain how Paul has a theory, then collects data, and then uses the data to evaluate the theory.

DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Applying

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

ANS:

A hypothesis is a prediction about what a researcher says should happen. Answers may vary, but students may say that a hypothesis is an if-then statement, such that if something happens, then they predict something else will then happen. In each response, students should say that a theory is a statement that explains why various variables/concepts are related. Some students may say that hypotheses are used to test theories.

DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Understanding

6. What are the three components of a good theory?

ANS: A good theory is falsifiable, supported by data, and parsimonious.

DIF: Easy

REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.2 MSC: Understanding

7. Explain why we do not say that a single study proves a theory or that a single study disproves a theory.

ANS:

A single study does not prove a theory because although a study today may find support for a theory, a study done tomorrow may not find support for that theory. A single study cannot disprove a theory because the single study may have been poorly conducted. Further, students may also mention that a disconfirming study may mean that the theory may need to be amended or altered rather than completely dismissed.

DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Test Theories: The Theory-Data Cycle OBJ: Learning Objective 1.5 MSC: Understanding

8. Explain why the relationship between applied and basic research can best be thought of as interrelated.

ANS:

These two types of research are best thought of as interrelated because they both inform each other. Specifically, basic research can be used later to conduct applied research and inform basic research. Students may also mention translational research in their responses.

DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Tackle Applied and Basic Problems OBJ: Learning Objective 1.3 MSC: Understanding

9. The Harlow study described in the text is an example of basic research. It found that attachment to a caregiver is important in the early months of life. How might a researcher use this study as inspiration for an applied research study?

ANS:

Answers may vary, but in each response, students should provide an example applying the concept of attachment in early life to an applied domain. For example, a student could include studying foster children who may not be with their caregivers in early life and their later attachment. Another example could involve examining different techniques used in hospitals to teach parents-to-be how to form close attachments with their children.

DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Tackle Applied and Basic Problems OBJ: Learning Objective 1.3 MSC: Applying

10. Imagine that you are a clinical researcher who studies depression. Provide an example of basic research and applied research that you might conduct.

ANS:

Answers may vary, but in each response, students should provide an example of a basic study—frequency of depressive symptoms, type of depressive symptoms, how people who have depression function in daily life, and so on. Students should also provide an example of an applied study—a treatment designed to decrease depressive symptoms, a method to increase the social interactions of depressive patients, and so on.

DIF: Difficult REF: 1.2 How Scientists Approach Their Work: Scientists Tackle Applied and Basic Problems OBJ: Learning Objective 1.3 MSC: Applying

11. Name three ways that articles published in scientific journals are different from journalistic articles.

ANS:

Answers may vary, but in each response, students should mention any three of the following: peer-reviewed articles are written by scientists, whereas journalism articles are not; peer-reviewed articles are written for other scientists, whereas journalism articles are not; peer-reviewed articles are harder to access/acquire, whereas journalism articles are not; peer-reviewed articles require special education to read, whereas journalism articles do not; and peer-reviewed articles are of course peer-reviewed, whereas journalism articles are not.

DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Make It Public: The Publication Process OBJ: Learning Objective 1.6 MSC: Understanding

12. Explain how the peer-review process ensures that only quality science is published.

ANS:

Answers may vary, but in each response, students should say that peer reviewers act as gatekeepers or monitors of quality science by evaluating research that is submitted and ensuring that only good research is published. They may also state that peer reviewers comment on what is good and what is bad about the research and provide suggestions for improving the research before it is published.

DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Make It Public: The Publication Process OBJ: Learning Objective 1.4 MSC: Understanding

13. Dr. Mendoza sends a paper to a journal. The editor sends the paper to four experts in the field for peer review. Name three things that the peer reviewers should comment on in evaluating Dr. Mendoza’s paper.

ANS:

Peer reviewers should comment on three of the following: (a) how interesting the work is, (b) how novel the research is, (c) how well the research was done, and (d) how clear the results are.

DIF: Medium REF: 1.2 How Scientists Approach Their Work: Scientists Make It Public: The Publication Process OBJ: Learning Objective 1.4 MSC: Applying

14. Name the two aspects that improve the publication process from journal to journalism.

ANS:

Journalists should choose studies that are important (and not just eye-catching or sensational), and they should accurately report on/describe the research study, ensuring that they fairly describe the study.

DIF: Easy REF: 1.2 How Scientists Approach Their Work: Scientists Talk to the World: From Journal to Journalism OBJ: Learning Objective 1.6 MSC: Understanding

15. The text mentions two important questions to ask about a popular media story. What are these two questions, and why are they important to consider as you evaluate a story?

ANS:

The two important questions to ask are “Is the story important?” and “Is the story accurate?” The first question is important to consider because some popular media stories only report on stories that are sensational or eye-catching rather than those that are really adding to our understanding of science. The second question is important to ask because the journalist might have omitted details or aspects of the study that are key to understanding the study.

DIF: Easy REF: 1.2 How Scientists Approach Their Work: Scientists Talk to the World: From Journal to Journalism OBJ: Learning Objective 1.6 MSC: Understanding