

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:
- basic research.
 - applied research.
 - empirical research.
 - 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:
- empirical research.
 - practical research.
 - translational research.
 - 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?
- Both are written for the general public.
 - Both tend to be written by scientists.
 - Both tend to publish peer-reviewed articles.
 - 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?
- It is cost effective.
 - It is more efficient/faster.
 - It encourages collaboration among researchers.
 - 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