

1. Forming beliefs based on observations about the world is to _____ as forming beliefs based on authority is to _____.
 - A) dogmatism; empiricism
 - B) dogmatism; operationalism
 - C) empiricism; method
 - D) empiricism; dogmatism

2. Testing a hypothesis might result in _____ a theory.
 - A) falsifying
 - B) proving
 - C) answering
 - D) observing

3. A second-grade teacher seeks help from a school psychologist because a child in the teacher's class is particularly unruly. The school psychologist visits the class one day to observe the child. Knowing that she is being watched, the child decides to be on her best behavior. This scenario BEST illustrates _____ as a reason for why human behavior is difficult to study.
 - A) complexity
 - B) reactivity
 - C) reliability
 - D) variability

4. You decide to use a person's eye color as a measure of intelligence. Which statement is true?
 - A) The measure is reliable but lacks validity.
 - B) The measure is valid but lacks reliability.
 - C) The measure is reliable and valid.
 - D) The measure is neither reliable nor valid.

5. A reliable measure is one that:
 - A) produces a consistent result if the same thing is measured twice.
 - B) measures what it was intended to measure.
 - C) predicts actual behavior.
 - D) co-varies with the independent variable.

1. Contrast how a dogmatist and an empiricist might react to the statement that drug addiction is a “disease of the brain.”
2. A psychologist theorizes that depression is caused by low levels of the neurotransmitter serotonin in the brain. Generate a hypothesis based on this theory.
3. Develop an operational definition that could be used to measure the terms happiness and shyness.
4. Without both, the results of a psychological study are meaningless. Explain the concepts of validity and reliability.
5. Generate your own example of a measure that is (a) reliable but not valid, and (b) neither reliable nor valid.
6. What are demand characteristics? Give at least three examples of how to control demand characteristics.
7. What is the third-variable problem, and how does it relate to correlational research in psychology? Give examples.
8. A true experiment is defined as having certain characteristics. Deconstruct an experiment into its two essential characteristics, and note how each helps to achieve the overall goal of internal validity.
9. Self-help guru, Louise Hay, claims that her self-help DVDs can cure cancer. Describe how you would design an experiment to test this claim. To get you started, suppose that the participants in the experiment are individuals recently diagnosed with cancer who have provided informed consent to participate in a study investigating the power of positive thinking. From here, describe how you would use random assignment and manipulation to test Hay's claim. Be sure to identify the independent and dependent variables.
10. Generate your own unique example of an experiment. First, generate a hypothesis. Next, state the independent and dependent variables. Also, specify how participants will be assigned to the treatment and control groups.

1. _____ involves making direct observations of the world, whereas _____ involves relying on assumptions and beliefs about the world.
 - A) Methodology; empiricism
 - B) Dogmatism; empiricism
 - C) Empiricism; dogmatism
 - D) Empiricism; methodology

2. The belief that accurate knowledge of the world requires observations of it is called:
 - A) empiricism.
 - B) methodology.
 - C) dogmatism.
 - D) pragmatism.

3. The belief that one can obtain accurate knowledge about the causes of human behavior by observing people behaving in different situations exemplifies:
 - A) pragmatism.
 - B) dogmatism.
 - C) empiricism.
 - D) parsimony.

4. Margot wonders if people behave more aggressively when there is a full moon. To attempt to find out, she categorizes arrest records and emergency room admissions by the cycle of the moon. Margot is taking a(n) _____ approach to the question.
 - A) empirical
 - B) dogmatic
 - C) hypothetical
 - D) deductive

5. Throughout most of human history, people have tended to trust _____ to answer important questions.
 - A) logic
 - B) science
 - C) authority
 - D) philosophers

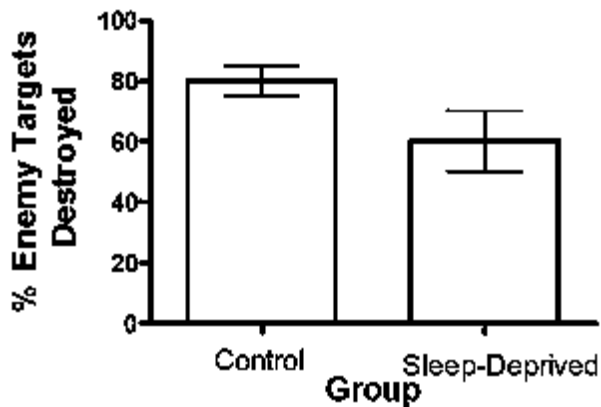
Use the following to answer questions 1-5:

Scenario I

A psychologist was interested in the effects of sleep deprivation on performance on a vigilance task. Forty college students served as participants and were placed in either the sleep-deprivation group or the control group by a coin flip. Both groups spent the night before the study in a sleep laboratory, but only the control group was allowed to sleep. By the next morning, the sleep-deprived group had been awake for the last 24 hours. At this time, both groups were provided a nutritious breakfast and, shortly thereafter, testing began in sound-attenuating cubicles, each equipped with a computer. The vigilance task consisted of monitoring the computer screen. Participants were instructed that red dots represented allied space crafts and green dots represented enemy space crafts. Throughout the 2-hr hour long task, red dots moved across the screen in irregular patterns. Occasionally and unpredictably, a green dot would quickly move across the screen in a haphazard pattern. When a green dot appeared, the task of the participant was to move a stylus over the green dot and press a button, “destroying” the enemy craft.

The results of this fictitious experiment are shown in Figure 2.1.

Figure 2.1.



1. (Scenario I) Vigilance was measured as the percentage of “enemy targets” destroyed. As a measure of vigilance, this illustrates:
 - A) an operational definition.
 - B) reliability.
 - C) statistical significance.
 - D) a construct.

1. Empiricists believe that accurate knowledge about the world requires observation of it.
A) True
B) False

2. Dogmatism is a desired characteristic of science.
A) True
B) False

3. A theory is a testable prediction made by a hypothesis.
A) True
B) False

4. With respect to why people are difficult to study, variability refers to the fact that people behave differently when they are being studied.
A) True
B) False

5. An operational definition is a description of a property in measurable terms.
A) True
B) False

6. Defining and detecting are the two tasks that allow us to measure physical and psychological properties.
A) True
B) False

7. Measuring intelligence in terms of eye color lacks reliability.
A) True
B) False

8. It is possible for a measure to be reliable but not valid.
A) True
B) False

1. _____ use specific rules and techniques for observation, known as a _____, to observe and understand natural phenomena.
 - A) Dogmatists; measure
 - B) Empiricists; method
 - C) Dogmatists; method
 - D) Humanists; measure

2. A scientist theorizes that several billion years ago, a large asteroid collided with the Earth, knocking tons of rock into space and creating the Moon. Which statement constitutes a research hypothesis that follows from this theory?
 - A) The universe was created by a Big Bang.
 - B) It is possible to someday inhabit the Moon.
 - C) Moon rock should be made of the same elements as Earth rock.
 - D) The Moon will itself someday collide with the Earth.

3. A psychologist observes that some people exposed to a traumatic childhood experience develop anxiety disorders later in life, while others do not. This illustrates which reason why human behavior is a challenging subject matter for science?
 - A) validity
 - B) variability
 - C) complexity
 - D) reactivity

4. An operational definition of a psychological construct that is conceptually unrelated to the construct results in the measure NOT being:
 - A) valid.
 - B) reliable.
 - C) empirical.
 - D) powerful.

5. Professor Knice gives his introductory psychology class of 300 students an exam, and everyone earns an A. The exam lacks the _____ to detect which students studied and which did not.
 - A) sample size
 - B) reliability
 - C) power
 - D) significance