

1. When a researcher randomly assigns treatments to different individuals, the treatment which has no effect (e.g., a sugar pill), but does have the same power of suggestion as a treatment which may actually have an effect (e.g., a real medication) is called a

- A. lurking variable
- B. response variable
- C. placebo
- D. explanatory variable

2. True or False: association does not imply causation.

- A. True
- B. False

3. You are concerned about the effects of texting on driving performance. Design a study to test the response time of drivers while texting and while driving only. How many seconds does it take for a driver to respond when a leading car hits the brakes?

What should you the researcher consider when selecting participants?

- A. The researcher must consider health issues of certain drivers before allowing them to participate.
- B. The researcher should consider that some participants might not use cell phones.
- C. The researcher should always consider how to draw a random sample which is representative of the population of drivers.
- D. The researcher must make sure that all participants are licensed to drive.

4. Describe the unethical behavior, if any, in the example below, and describe how it could impact the reliability of the resulting data. Explain how the problem should be corrected.

A study is commissioned to determine the favorite brand of fruit juice among teens in California.

Twenty-five percent of participants prefer Brand X, 33% prefer Brand Y and 42% have no preference between the two brands. Brand X references the study in a commercial saying “Most teens like Brand X as much as or more than Brand Y.”

- A. Since 67% of participants either prefer Brand X or have no preference (i.e., they like both products equally), Brand X’s claim is true. Therefore, there is no breach of ethics in this case.
- B. Although it is true that 67% of the participants either fall in the “Brand X” or “no preference” category, their claim is ethically unsound since it assumes that “no preference” has the same meaning as “likes just as much.” Moreover, by this same reasoning, Brand Y could make the very same claim which renders Brand X’s claim useless.

5. The Nurses Health Study has interviewed a sample of more than 100,000 female registered nurses every two years since 1976. The study finds that light-to-moderate drinkers had a significantly lower risk of death than either nondrinkers or heavy drinkers. The Nurses Health Study is

- A. a double-blind experiment.
- B. an observational study.
- C. a randomized comparative experiment.
- D. cannot say without more information.
- E. an uncontrolled experiment.

6. A marketing class designs two videos advertising an expensive Mercedes sports car. They test the videos by asking fellow students to view both (in random order) and say which makes them more likely to buy the car. Mercedes should be reluctant to agree that the video favored in this study will sell more cars because

- A. this is an observational study, not an experiment.
- B. the study used a matched pairs design instead of a completely randomized design.
- C. results from students may not generalize to the older and richer customers who might buy a Mercedes.

7. In a \_\_\_\_\_ experiment, neither the subjects nor the people who interact with them know which treatment each subject is receiving.

- A. randomized comparative
- B. block design
- C. matched pairs
- D. double-blind

8. Just knowing that a treatment (effective or not) is being administered can have an effect. This is called

- A. the Rothschild effect
- B. the persuasion effect
- C. the double-blind effect
- D. the placebo effect