

Writing Experimental Hypotheses

Directions: For the following scenarios, write an experimental hypothesis.

1. A psychologist takes two groups: one that is given a painkiller for migraine headaches, and one that is given a placebo. Neither group knows about the presence of the placebo. The psychologist tests the patients after two hours to see if the headache still remains.
2. Researchers compared mental hospital admission rates for ten days before and after a full moon.
3. One group of subjects flies across five time zones. Another group flies a long distance, but through only one time zone. Researchers examine both groups for symptoms of jet-lag.
4. Researchers study four groups of people, each differing in age by 10 years. Each group is given a test to measure political and social attitudes.
5. A psychologist takes a group of serial killers and gives them personality tests to see if a pattern of childhood behavior is evident.

Writing Operational Definitions

Directions: Come up with appropriate operational definitions for the highlighted word or phrase in each of the following descriptions. Keep in mind that an operational definition is one that makes it clear how the researcher should go about measuring the process, activity, behavior, or emotion.

1. The experimenter wants to figure out how different jokes affect a person's *sense of humor*.
2. The teacher wants to find a way to help make Billy *act more friendly* toward the other children.
3. A psychologist wants to know if a new form of psychotherapy will make people *less depressed*.
4. You will test these two fertilizers to determine which one helps *plants grow faster*.

5. College athletes are not as *smart* as regular students.
6. Overall, senior girls are *prettier* than junior girls.
7. People who make over \$300,000 a year tend to be *snobs*.
8. The *school spirit* is at an all-time low.
9. The Rolling Stones are the *best rock group ever*.
10. *On a cold day*, let the water in the pan freeze outdoors.
11. Rearrange the list of zoo animals in order of their size, *with the biggest ones first*.
12. People who take a driver's education course are probably *better drivers* than drivers who do not.

Identifying Independent and Dependent Variables

Directions: For the following experiments, identify the independent and dependent variables.

1. Developmental psychologists want to know if exposing children to public television improves their reading skills.
IV: _____
DV: _____
2. Behavioral psychologists want to know whether reinforcing comments will make people work harder on an assembly line.
IV: _____
DV: _____
3. Comparative psychologists study whether a young monkey will prefer to spend time with a pretend monkey made of wire that also provides milk or a pretend monkey that is covered with cloth but provides no milk.
IV: _____
DV: _____
4. A clinical psychologist wants to know whether people who have psychotherapy are more or less likely to have problems in the future.
IV: _____
DV: _____

5. A social psychologist wants to know whether being polite or rude to people tend to make them more cooperative.

IV: _____

DV: _____

6. A personality psychologist explores whether extroverted people have more fun at parties.

IV: _____

DV: _____

Identifying Independent and Dependent Variables and writing Operational Definitions:

Directions: For the following scenarios, identify the independent and dependent variables, and create an operational definition for the dependent variable.

1. A group of scientists believe that women find men without earrings more attractive than men with earrings.
 - a. What is the independent variable? _____
 - b. What is the dependent variable? _____
 - c. Propose an operational definition for the dependent variable. _____

2. A team of scientists is testing the hypothesis that young women look in the mirror more than older women.
 - a. What is the independent variable? _____
 - b. What is the dependent variable? _____
 - c. Propose an operational definition for the dependent variable. _____

Identifying Hypotheses, Independent and Dependent Variables, Control Group, and Experimental Group

Directions: For the following experiments, identify the hypothesis, independent and dependent variables, as well as the control and experimental group.

1. One-half of the general psychology students complete computer simulations. The remaining half of the students spent an equal amount of time reviewing the text and their lecture notes. Both groups were then tested on the course information.
 - a. What is the hypothesis? _____
 - b. What is the control group? _____
 - c. What is the experimental group? _____
 - d. What is the independent variable? _____
 - e. What is the dependent variable? _____
2. Two groups of rats are run in a maze with a food reward. The time that it takes for each rat to reach the goal box is recorded. One groups of rats is deprived of food for 24 hours before being run on the maze. The other group is fed 1 hour before the maze trials. All other conditions for the two groups are the same.
 - a. What is the hypothesis? _____
 - b. What is the control group? _____
 - c. What is the experimental group? _____
 - d. What is the independent variable? _____
 - e. What is the dependent variable? _____