

# Operational Definitions Worksheet

Name \_\_\_\_\_

MA-WS1-092005-15

Hour \_\_\_\_\_

In this assignment, your task is to try to come up with operational definition for emotions, behaviors and states of being. For each of the following statement, please provide an operational definition for the underlined words. While you are doing this keep in mind that an operational definition is one that makes it clear how the researcher should go about measuring the process, activity, or thing.

1. The experimenter wants to determine how recreational drugs 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 his new form of psychotherapy will make people less depressed.
4. I have to find a way to study more efficiently.
5. Does this drug help people overcome their tiredness?
6. Boys show more affection towards their father than toward their mother.
7. People dream more if they have eaten a big meal three hours before going to sleep.
8. College athletes are not as smart as regular students.
9. Overall, the sophomore girls are prettier than the freshman girls.
10. People who make over \$100,000 a year tend to be snobs.
11. The school spirit is at an all-time low.
12. Homosexual men tend to be very effeminate.
13. Overall, blacks are better athletes than whites.
14. The Rolling Stones are the best rock group ever.
15. Germantown High School is a better school than Homestead High School.

# Experimental Design Work Sheet

Name \_\_\_\_\_

IS-WS3-092005-H-10

Hour \_\_\_\_\_

1. An investigator wished to study the influence of moderate hunger on the activity level in the white rat. He placed a group of fifty rats on a food deprivation schedule and housed each animal in a running wheel or revolving drum apparatus. In this apparatus the activity of the animal is recorded in terms of number of revolutions of the drum. Each revolution in either direction is recorded on a counter. After one week under these conditions, the experimenter noted that the average running wheel activity level for all subjects was 187 revolutions per hour. He concluded that an increase in hunger results in an increase activity level in the white rat.
  - a) What is the independent variable in this study?
  - b) What is the dependent variable in this study?
  - c) What are some problems with the design of this experiment?
  
2. A drug company developed a pill to prevent air sickness and asked a researcher to test its effectiveness. For this purpose, the researcher obtained 200 volunteer subjects at a large airport terminal and asked them to participate in his study, testing the pill's effectiveness under rough flying conditions. Half of the volunteers on every trip were given the pill and the other half were not. Thus, the two groups were treated alike except that the subjects in the experimental group received a pill for air sickness and the control group did not receive a pill. Since 18% of the experimental group became air sick, and 76% of the control group became air sick, the investigator concluded that the pill was generally effective.
  - a) Identify the independent variable in the study.
  - b) Identify the dependent variable in the study.
  - c) Is the investigator's conclusion warranted? Explain your decision and suggest a way the experiment could be changed or improved.
  
3. A high school teacher wanted to discover whether there is a relationship between muscular tension and success in learning. He asked 60 English speaking students to memorize a list of Russian words while sitting still at a desk. This was the control condition. After a rest period, he provided an experimental situation by asking the same students to memorize a similar list of Russian words while lifting weights of several pounds. Thus, the experimental subjects acted as their own controls. Then the performance of each subject under experimental (lifting weights) conditions was compared with his performance under the control procedure. In almost all cases, the number of Russian words correctly recalled was better under the experimental condition. The experimenter concluded that learning improved under conditions of moderate muscular tension.
  - a) Identify the independent variable.
  - b) Identify the dependent variable.
  - c) Cite an important defect or problem in the method of this experiment.
  - d) Suggest an improved experimental design to the above experiment.