
1. In a social science experiment, the condition which is manipulated by the experimenter is called the
   a. dependent variable
   b. independent variable
   c. experimental effect
   d. none of the above

2. Which of the following is a key feature of a social science experiment?
   a. a laboratory setting
   b. subjects' awareness of the experimenter's expectations
   c. the experimenter's control over the experimental conditions
   d. all of the above

3. Tests of statistical significance determine whether
   a. randomization produced similar experimental & control groups
   b. the measurement of the dependent variable is valid
   c. the manipulation was interpreted correctly by subjects
   d. chance is a reasonable explanation of the results
   e. both a and c

4. When an observed relationship between two variables disappears when a causally prior third variable is controlled, the relationship is said to be
   a. spurious
   b. non-spurious
   c. causal
   d. not statistically significant

5. In order to prove that variable X is a cause of variable Y, one must, among other things,
   a. show that X and Y both occurred within one year of one another
   b. show that X preceded Y in time
   c. show that the X-Y relationship isn't due to other variables
   d. show that Y preceded X in time
   e. both b and c

6. By randomly assigning subjects to experimental and control groups, an experimenter can
   a. assume that the two groups are similar only on variables known to affect the dependent variable.
   b. assume that the two groups are similar on all variables, both known and unknown
   c. assume that the results can be generalized to a larger population
   d. both a and c
Part Two--Based on Baker, Doing Social Research, pp.182-185, and lecture. For each study described below, identify the most likely serious threat(s) to internal validity, and briefly explain how each threat might account for the results of each study.

7. The marketers of Smith-Corona typewriters recently put out an advertisement stating, among other things, that students who type their papers usually receive better grades than those who do not. The evidence for this assertion came from a national survey of 400 high school and college instructors. Each of the 400 instructors was asked to give one of five responses (agree strongly, agree somewhat, have no opinion, disagree somewhat, disagree strongly) to a number of statements. Over 50% of the sample agreed in some form (either strongly or somewhat) to the following statement: “Students who type usually get better grades”. Thus, the implication is that a cause and effect relationship exists: typed papers causes higher grades. (Adapted from Schuyler Huck and Howard M. Sandler, Rival Hypotheses: Alternative Explanations of Data Based Conclusions.) Can you think of any other explanations for why typed papers tend to receive better grades than those than hand-written papers?

8. Researchers wish to study the effects of a new treatment program on the frequency of deviant behavior in a psychiatric ward. Observers first record the frequency of deviant behavior, the program is put into effect, and then the observers again record the incidence of deviant behavior. Would a decrease in deviant behavior from Time 1 to Time 2 necessarily be due to the program?
9. A campus lecturer advocating the benefits of transcendental meditation (TM) presents data showing that persons who have done TM for 24 months or longer perform better on recall tests and learn more quickly than a group of randomly selected non-meditators. According to the lecturer, these data show that TM directly improves the ability to learn. What threat to internal validity makes this claim doubtful, and how might the threat account for the results of this research?

10. To test the effects of the children's television series "Sesame Street," viewers are tested for various preschool skills (e.g. recognizing letters of the alphabet) both before and after a season of viewing. It is found that children with the lowest initial test score showed the greatest amount of improvement in skills. Which threat to internal validity is operating here, and how does it account for the gains made by the children with the lowest initial scores?

Part Three--Based on Bruce C. Straits, Paul L. Wuebben, and Anthony J. Crowle, "Confession of Prior Knowledge about Experimental Procedures as a Function of Evaluation Apprehension and Commitment".

11. State the hypotheses tested in this study, identifying the independent variable(s) and the dependent variable.
12. How do the researchers in this study operationalize each of the variables you mentioned in question #11?

13. Do you see any potential problems with the research design used in this study? How might you design this study differently?

Part Four--Based on Cook, et al., "Media and Agenda Setting: Effects on the Public, Interest Group Leaders, Policy Makers, and Policy".

14. Identify the independent and dependent variable in this study.

15. Before answering the following questions, please review the research design involving the general public (pp. 18-21).

A. What was the sampling frame used for selecting respondents? What are the limitations of such a procedure?
B. Do you think this sampling procedure might limit the extent to which the findings can be generalized to the population? Explain any possible limitations.

C. How do you think this experiment compares to typical laboratory experiments in terms of external validity?

D. Why were the respondents randomly assigned to the experimental and control groups?

E. Do you see any serious threats to internal validity in this experiment? Please explain.
16. What type of sampling procedure was used to sample the policy makers? Is this sample representative of all policy makers? Why or why not?