

Review of Key Terms

Ch. 2

Name: _____

Anecdotal evidence
Case study
Confounding of variables
Control group
Correlation
Correlation coefficient
Data collection techniques
Dependent variable
Descriptive statistics
Double-blind procedure
Experiment
Experimental group
Experimenter bias
Extraneous variables

Hypothesis
Independent variable
Inferential statistics
Journal
Mean
Median
Meta-analysis
Mode
Naturalistic observation
Operational definition
Participants
Placebo effects
Population
Random assignment

Replication
Research methods
Response set
Sample
Sampling bias
Social desirability bias
Standard deviation
Statistical significance
Statistics
Subjects
Survey
Theory
Variability
Variables

1. Any of the factors in an experiment that are controlled or observed by an experimenter or that in some other way affect the outcome.
2. A tentative statement about the expected relationship between two or more variables.
3. Precisely defines each variable in a study in terms of the operations needed to produce or measure that variable.
4. Persons or animals whose behavior is being studied; means the same thing as *participants*.
5. Differing ways of conducting research, which include experiments, case studies, surveys, and naturalistic observation.
6. A research method in which independent variables are manipulated and which permits causal interpretations.
7. A condition or event that an experimenter varies in order to observe its impact.
8. The variable that results from the manipulation in an experiment.
9. The group in an experiment that receives a treatment as part of the independent variable manipulation.
10. The group in an experiment that does not receive the treatment.
11. Any variables other than the independent variables that seem likely to influence the dependent measure in an experiment.
12. Distribution of subjects in an experiment in which each subject has an equal chance of being assigned to any group or condition.
13. A link or association between variables such that one can be predicted from the other.
14. The statistic that indicates the degree of relationship between variables.
15. A research method in which the researcher observes behavior in the natural environment without directly intervening.
16. An in-depth, generally subjective, investigation of an individual subject.
17. A questionnaire or interview used to gather information about specific aspects of subjects' behavior.

- _____ 18. Procedures for making empirical observations, including questionnaires, interviews, psychological tests, and physiological recordings.
- _____ 19. Mathematical techniques that help in organizing, summarizing, and interpreting numerical data.
- _____ 20. Statistics helpful in organizing and summarizing (but not interpreting) data.
- _____ 21. Statistical procedures used to interpret data in an experiment and draw conclusions.
- _____ 22. A statistical procedure that combines the results of many studies.
- _____ 23. A descriptive statistic and measure of central tendency that always falls in the exact half-way point of a distribution of data.
- _____ 24. The arithmetic average.
- _____ 25. The score that occurs most frequently.
- _____ 26. The spread or dispersion of data, including the extent to which scores vary from the mean.
- _____ 27. A measure of variability in data.
- _____ 28. A judgment inferred from statistics that the probability of the observed findings occurring by chance is very low.
- _____ 29. A repetition of a study to determine whether the previously obtained results can be duplicated.
- _____ 30. A group of subjects taken from a population.
- _____ 31. A larger group from which a sample is drawn and to which the researcher wishes to generalize.
- _____ 32. Exists when a sample is not representative of the population from which it was drawn.
- _____ 33. Also known as subjects, the individuals whose behavior is systematically observed in a study.
- _____ 34. Occurs when a researcher's expectations influence the results of the study.
- _____ 35. Effects that occur when subjects experience a change due to their expectations (or to a "fake" treatment).
- _____ 36. The tendency to respond in a particular way (e.g., agreeing) that is unrelated to the content of questions asked.
- _____ 37. Occurs when an extraneous variable makes it difficult to sort out the effects of the independent variable.
- _____ 38. The tendency to answer questions about oneself in a socially approved manner.
- _____ 39. A research strategy in which neither the subjects nor experimenters know which condition or treatment the subjects are in.
- _____ 40. A periodical that publishes technical and scholarly material within a discipline.
- _____ 41. A system of interrelated ideas used to explain a set of observations.
- _____ 42. Support for a particular point of view through the use of personal (and frequently vivid) stories.

Review of Key People

Neal Miller

Robert Rosenthal

Stanley Schachter

- _____ 1. Studied the effect of anxiety on affiliation.
- _____ 2. Studied experimenter bias, a researcher's unintended influence on the behavior of subjects.
- _____ 3. Asserted that the benefits of animal research (e.g., the resulting treatments for mental and physical disorders) far outweigh the harm done.

Self-Quiz

- Which of the following is a major assumption of science?
 - Events occur in a relatively orderly or predictable manner.
 - Cause and effect is indicated by correlational relationships.
 - In contrast to the behavior of lower animals, human behavior is in part a function of free will.
 - Events are largely randomly determined.
- An experimenter tests the hypothesis that physical exercise helps people's mood (makes them happier). Subjects in the experimental group participate on Monday and Tuesday and those in the control group on Wednesday and Thursday. What is the *independent* variable?
 - the hypothesis
 - day of the week
 - the exercise
 - the mood (degree of happiness)
- Regarding the experiment described in the previous question: What is the *dependent* variable?
 - the hypothesis
 - day of the week
 - the exercise
 - the mood (degree of happiness)
- Regarding the experiment described above: What is an *extraneous* (confounding) variable?
 - the hypothesis
 - day of the week
 - the exercise
 - the mood (degree of happiness)
- The major advantage of the experimental method over the correlational approach is that the experimental method:
 - permits one to make causal conclusions
 - allows for prediction
 - is generally less artificial than correlational procedures
 - permits the study of people in groups
- In looking through some medical records you find that there is a strong relationship between depression and chronic pain: the stronger the physical pain that people report, the higher their scores on an inventory that measures depression. Which of the following conclusions are justified?
 - Depression tends to produce chronic pain.
 - Chronic pain tends to produce depression.
 - Both chronic pain and depression result from some unknown third factor.
 - any of the above could be true
- What is the mode of the following data? 2, 3, 3, 3, 5, 5, 7, 12
 - 3
 - 4
 - 5
 - 6
- What is the median of the following data? 1, 3, 4, 4, 5, 6, 9
 - 3
 - 4
 - 4.57
 - 6

9. Researchers find a negative relationship between alcohol consumption and speed of response: the more alcohol consumed, the slower the response speed. Which of the following fictitious statistics could possibly represent that correlation?
- 4.57
 - .87
 - .91
 - .05
10. The term *statistical significance* refers to:
- how important the data are for future research on the topic
 - the conclusion that there are no reasonable alternative explanations
 - the inference that the observed effects are unlikely to be due to chance
 - the representativeness of the sample
11. An instructor wishes to find out whether a new teaching method is superior to his usual procedures, so he conducts an experiment. Everyone in his classes is quite excited about the prospect of learning under the new procedure, but of course he cannot administer the new teaching method to everyone, so some students are disappointed. A random half of the students receive the new method and the remaining half receive the old. What is the most obvious flaw in this experiment?
- Subjects should have been systematically assigned to groups.
 - The sample is not representative of the population.
 - Placebo effects or experimenter bias are likely to affect results.
 - Distortions in self-report will affect results.
12. What procedure helps correct for experimenter bias?
- extraneous or confounding variables
 - sleep learning or hypnosis
 - a higher standard for statistical significance
 - use of the double-blind procedure
13. With regard to the topic of deception in research with human subjects, which of the following is true?
- Researchers are careful to avoid deceiving subjects.
 - Some topics can not be investigated unless deception is used.
 - It has been empirically demonstrated that deception causes severe distress.
 - All psychological research must involve some deception.
14. Which of the following is one of the six standard parts of a psychological journal article?
- conclusions
 - bibliography
 - data summary
 - discussion
15. PsychINFO is a computerized database containing:
- standard diagnostic information for classifying behavior disorders
 - abstracts of and bibliographic references for journal articles
 - psychological profiles of known felons
 - names of authors who specialize in abstractions