

Chapter 01

Multiple Choice

1. In a single-subject design, the _____ variable is used to encourage (or maintain) change in behavior.

- a. dependent
- b. independent
- c. extraneous
- d. confounding

ANSWER: b

2. What is the name of the phase in a study that measures the target behavior before implementation of an intervention?

- a. baseline phase
- b. follow-up phase
- c. changing phase
- d. intervention phase

ANSWER: a

3. In a single-subject design, the _____ variable is used to determine the changes in the target behavior.

- a. dependent
- b. independent
- c. extraneous
- d. confounding

ANSWER: a

4. What phase is intended to measure the effects of the independent variable on the dependent variable over time and following the achievement of the criterion for the dependent variable?

- a. starting phase
- b. follow-up phase
- c. superlative phase
- d. baseline phase

ANSWER: b

5. What refers to a believable demonstration that events controlled by the researcher account for the presence or absence of the behavior in question?

- a. behavioral
- b. applied
- c. target
- d. analytic

ANSWER: d

6. What are notations used for in a single-subject design?

- a. to demonstrate how an intervention works
- b. as decoration for the phases
- c. to label certain phases or aspects of a design
- d. to denote changes in the dependent variable

ANSWER: c

7. What does IDEA stand for?

- a. Individuals with Disturbances Education Act
- b. Infants who are Disabled Education Act
- c. Individuals with Disabilities Education Act
- d. Individuals with Direct Education Act

ANSWER: c

8. What do broken vertical lines depict in a graph?

- a. a change in independent variable
- b. a complete phase change
- c. the end of the phases
- d. a change in the dependent variable

ANSWER: a

9. What type of graph is more typically used to depict the quantitative data collected in single-subject research?

- a. intervention graph
- b. x-y line graph
- c. bar graph
- d. pictogram

ANSWER: b

10. How does a follow-up phase strengthen a study?

- a. demonstrates the effectiveness of an intervention over time
- b. gives the researcher ideas to implement in their next design
- c. provides social and ecological validities for the study
- d. demonstrates the effectiveness of an intervention over time and provides social and ecological validities for the study

ANSWER: d

11. Which of the following is NOT one of the socially important behaviors identified by Baer et al (1968)?

- a. applied
- b. behavioral
- c. replication
- d. analytic

ANSWER: c

12. Replication refers to the ability to:

- a. generalize results and demonstrate the robustness of any behavior change procedures.
- b. get the same results in trials with different individuals.
- c. have participants understand the purpose of a study.
- d. to show the emergence of unrelated behaviors.

ANSWER: a

13. When notating a study, what would a combination of letters indicate?

- a. a combination of dependent variables is under study
- b. a combination of independent variables is being simultaneously applied
- c. a combination of dependent variables is applied over time
- d. a combination of independent variables is being simultaneously applied and an overlap of different phases of study

ANSWER: b

14. Data paths are:

- a. indicative of positive or negative trends.
- b. created where the x- and y- axes lines meet.
- c. not possible to replicate using a graphing software program.
- d. lines that connect each data point plotted along the x-y axes.

ANSWER: d

15. A legend:

- a. is important as a line graph becomes more complicated.
- b. allows the researcher to abbreviate and to use alphabetic notations instead of whole words.
- c. can be used in situations with multiple data paths or use of several independent variables are depicted.
- d. All of these answers are correct.

ANSWER: d

Objective Short Answer

16. Based on the Baer et al. (1968) journal article, define the terms applied, behavioral, and analysis.

ANSWER: Suggested answer points: Applied refers to the interest of society in the problems being studied; there is a close relationship between the stimuli, behavior, and individual being studied Behavioral refers to the pragmatic nature of the study; emphases are on what behaviors that people do rather than what they say; behaviors that are reliably measurable/quantifiable; whose behavior changes during a study must also be identified Analytic refers a believable demonstration that the events controlled by the researcher account for the presence or absence (or changes in) the behavior in question

17. Differentiate among dependent, independent, and extraneous (confounding) variables.

ANSWER: Suggested answer points: Dependent variable is used to measure changes in the target behavior. Independent variable is the intervention used to encourage change in the target behavior (dependent variable). Extraneous (confounding) variables are any elements of a study that may confuse or obscure the functional relationship between the independent and dependent variables.

18. Differentiate among the baseline, intervention, and follow-up phases of a study.

ANSWER: Suggested answer points:

19. Explain the significance of phase change lines in a study. What do these lines indicate?

ANSWER: Suggested answer points: Phase change lines are drawn parallel to the y-axis and they are used to depict a change, or variation, in the study, typically from examining one variable to another variable, or one observation to another observation.

20. Identify an example of a situation in which a teacher might create a single subject research study in the classroom. Using the concepts and methods highlighted in this chapter, design one such study and explain its rationale.

ANSWER: Suggested answer points: Answers will vary, but should indicate a working knowledge and application of concepts such as dependent, independent and extraneous variables, baseline intervention and follow-up phases, x-y axes, phase change lines and data paths.