

Chapter 10
Multiple Choice Questions
(The answers are provided after the last question.)

1. A researcher does a study examining the effects of a preschool program. He uses a nonequivalent comparison group design. He finds that the cognitive growth of his experimental group is greater than that of his control. Unfortunately, he later finds that in general children who live in the area where he drew his experimental group tend to grow faster cognitively than children who were from the area where he drew his control group. When he discovered this problem, he discovered what threat to the internal validity of his study?
 - a. Selection-maturation effect
 - b. History effect
 - c. Selection-instrumentation effect
 - d. Testing effect

2. For a treatment to be deemed effective when used in the context of an A-B-A single case design, what has to occur?
 - a. Behavior should change as the treatment is implemented
 - b. Behavior should return to baseline levels when the treatment is removed
 - c. When the treatment is removed, behavior should stay at the level that was created by the treatment rather than revert back to the baseline
 - d. Both a and b

3. In a changing-criterion design, changes in criterion are best done:
 - a. As soon as the prior criterion is met
 - b. When the previous criterion is met and the behavior has stabilized
 - c. Regardless of the previous criteria
 - d. After a fixed number of trials

4. The non-equivalent comparison group design is a quasi-experimental design in which, for reasons of practicality, we cannot insure that the control and experimental groups are equivalent to each other when the experiment begins. The major interpretational difficulty imposed by this design is:
 - a. Measuring whether the two groups are different from each other on the posttest
 - b. Deciding how much each group has gained
 - c. Determining when enough data points are collected
 - d. Being sure that any differences between groups at the end of the experiment are due to the independent variable's influence and not due to preexisting group differences

5. A treatment effect is demonstrated in the regression discontinuity design by:
 - a. A discontinuity in the regression line
 - b. A significant difference in the pretest and posttest scores
 - c. Analysis of covariance
 - d. The demonstration of an interaction

6. Which of the following is a primary threat to the interrupted time-series design?
- History effect
 - Selection-history
 - Selection-maturation
 - All of the above
7. A design consisting of an experimental and a control group but participants are not randomly assigned to the groups is which of the following?
- Interrupted time-series design
 - Nonequivalent comparison-group design
 - Single case design
 - A-B-A-B design
8. A form of the nonequivalent comparison-group design is recommended when ____.
- It is not possible to control for a basic history effect
 - It is not possible to randomly assign participants to groups
 - It is not possible to identify two groups
 - All of the above
9. A threat to internal validity in the nonequivalent comparison-group design is the ____ effect.
- Selection-maturation effect
 - Selection-history effect
 - Selection-regression
 - All of the above are threats
10. A threat to internal validity in the nonequivalent comparison-group design is the ____ effect.
- Maturation effect
 - Selection-history effect
 - Failure to revert to baseline
 - All of the above
11. How many variables should be changed at a time when conducting a single-case design?
- 4
 - 3
 - 2
 - 1
12. In quasi-experimental research designs, causal interpretations can be made _____.
- Only when rival explanations have been shown to be plausible
 - Only when rival explanations have been shown to be implausible
 - Only when the participants have been randomly selected
 - Only when there is a single participant in the experiment
13. In single-case research, “baseline” refers to _____.

- a. The beginning point of the treatment condition
- b. The end point of the treatment condition
- c. The rate of response established prior to the experimental intervention
- d. The time during which a treatment condition is administered

14. Which type of design can be used when the goal is to create a step-by-step increase (or decrease) in the amount, accuracy, or frequency of some behavior over a period of time?

- a. Nonequivalent comparison-group design
- b. A-B-A-B
- c. Changing-criterion design
- d. A-B design

15. Which of the following occurs in a comparison group design when one of the two groups of participants grows or naturally develops faster than the other group?

- a. Main effect
- b. Sequencing effect
- c. Order effect
- d. Selection-maturation effect

16. An observation of a dependent variable response prior to any attempt to change this response is known as the _____.

- a. Flat line
- b. Baseline
- c. Variance
- d. Reverse

17. The most frequently used quasi-experimental design is the _____ design.

- a. Nonequivalent comparison-group
- b. Interrupted time-series
- c. Changing-criterion
- d. Regression discontinuity

18. A baseline _____.

- a. Is used as the standard against which change induced by the treatment is assessed
- b. Is the occurrence of a response in its freely occurring or natural state
- c. Is first obtained prior to the administration of a treatment
- d. All of the above are true

19. A single-case experimental design in which the response to a treatment is compared to baseline occurring before and after the treatment is called what?

- a. A-B-A design
- b. Single-case design
- c. Multiple-baseline
- d. Changing-criterion

20. In a single-case design, you hope that the behavior of the participants prior to the administration of a treatment condition is _____.
- Not highly variable
 - Highly variable
 - Moving at a steep rate of change
 - None of the above
21. The _____ design rules out history by demonstrating that the dependent variable response reverts back to the baseline when the treatment is withdrawn.
- Changing-criterion design
 - A-B
 - A-B-A design
 - Interrupted time-series design
22. Which design would use analysis of covariance during data analysis?
- Nonequivalent comparison-group design
 - Interrupted time-series design
 - Changing criterion design
 - A-B-A-B design
23. The interrupted time-series design can also be viewed as a(n):
- A-B design
 - A-B-A design
 - A-B-A-B design
 - Control-group design
24. Why is it important to change one variable at a time in single case designs?
- Changing one variable allows isolation of the cause of the change
 - Changing more than one variable at a time confounds those independent variables
 - Both a and b are true
 - None of the above
25. What is the difference between A-B-A design and A-B-A-B design?
- Both designs end on the treatment condition
 - Neither design ends on a treatment condition
 - Baseline conditions are only established in the A-B-A-B design
 - A-B-A-B allows the reintroduction of the treatment condition during the last phase
26. Which of the following is not a phase in the A-B-A design?
- Baseline measurement
 - Introduction of treatment
 - Introduction of a second treatment
 - Removal of treatment

27. Researchers can attempt to eliminate the threat of bias from the selection-maturation effect in the nonequivalent comparison-group design by matching experimental and control participants on important variables.

- a. True
- b. False

28. Group comparison designs are always superior to single-case designs.

- a. True
- b. False

Answers:

- 1. a
- 2. d
- 3. b
- 4. d
- 5. a
- 6. a
- 7. b
- 8. b
- 9. d
- 10. b
- 11. d
- 12. b
- 13. c
- 14. c
- 15. d
- 16. b
- 17. a
- 18. d
- 19. a
- 20. a
- 21. c
- 22. a
- 23. a
- 24. c
- 25. d
- 26. c
- 27. a
- 28. b