

## Research Designs and Inferential Statistical Procedures

Name: \_\_\_\_\_

Date: \_\_\_\_\_

For items 1-6, select the letter from the lists below (A – M) that answers the question or is the best correspondence to the statement.

Experimental Designs:A. Design 1. The One-Shot Case Study: X    OB. Design 2. The One-Group Pretest-Posttest Design: O    X    OC. Design 3. Static-Group Comparison: -----X    O  
OD. Design 4. Pretest-Posttest Control Group Design: R    O    X    O  
R    O            OE. Design 5. Solomon Four-Group Design: R    O    X    O  
R    O            O  
R            X    O  
R                    OF. Design 6. Posttest-Only Control Group Design: R            X    O  
R                    OThreats to Internal Validity:

G. History

H. Maturation

I. Testing

J. Instrumentation

K. Regression

L. Selection

M. Mortality

1. These three experimental designs are considered *pre-experimental designs*:

  **A**  ,   **B**  , and   **C**  .

2. These three experimental designs are considered *true experimental designs*:

  **D**  ,   **E**  , and   **F**  .

3. This threat to internal validity refers to events that occur between the pretest and posttest, in addition to the treatment, that could affect the posttest scores.   **G**  .

4. This threat to internal validity refers to the test or testing process being different at posttest than it was at pretest.   **J**  .

5. Which experimental design is the most used design and sometimes called the classical experimental design?   **D**  .

6. This is a design that *does not* control for the effects of history and maturation.   **A or B**    
(More than one answer is possible.)

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7. Posttest scores in an experimental design involving experimental and control groups with random assignment of subjects to groups assures that the threats to internal validity are not only controlled, but eliminated.      True  False

8. Retaining the null hypothesis is consistent with inferring that the treatment, X, had no effect on posttest scores.  True False

9. Inferential statistical procedures allow us to conclude that either the treatment was effective or it was not.      True  False

10. The basic experimental inference we wish to make after we've concluded our research is that

- A. the posttest mean is higher than the pretest mean.
- B. the null hypothesis is true.
- C. the treatment, X, caused or was directly related to the observations made.
- D. the treatment, X, was one possible cause for the difference between the pretest and posttest means.