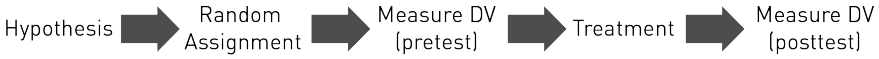
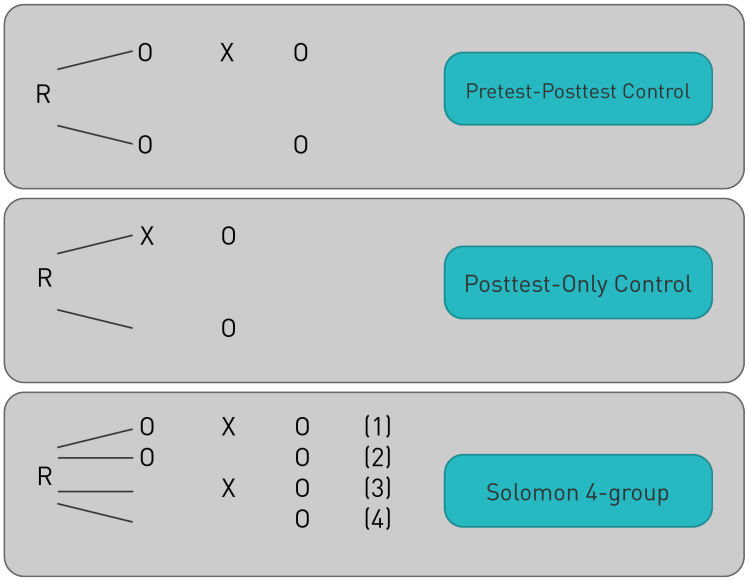
Pretest-Posttest Design



- Pretest: checks group equivalence before the intervention X is introduced
- Experimental manipulation/treatment: an independent variable (X) that the experimenter manipulates
- Posttest: checks group equivalence after intervention X has been introduced

Common Types of True Experiments



R = random assignment
O = observation point
X = treatment

Three Major Types of Experiments

1. True experiments:
    - Subjects are randomly assigned to treatment and control groups.
    - The treatment (independent variable) is active.
2. Quasi-experiments:
    - Though the independent variable is active, subjects are not randomly assigned to treatment and control groups.
3. Associational nonexperiments:
    - Independent variable is not active.
    - Subjects cannot be randomly assigned to treatment and control groups because the groups *contain* the attribute of interest.

Example: Pen Study

- Question: Do individuals in the United States and Japan make different choices about "unique" versus "less unique" items when given a choice?
- Independent variables:
    - Cultural difference (Japanese students compared to U.S. students)
    - Pen layout (4 pens of one color, 2 pens of another color)
- Assignment:
    - Subjects were not randomly assigned because they already fell into one of the two societies.
- Dependent variable:
    - Would they choose the "common" pen or the "unique" one?
- This is an associational nonexperiment.

Example: Website Credibility Study

- Question: Do people infer different amounts of credibility in websites with slightly different designs?
- Independent variables:
  - Amateur vs. professional graphics accompanied by standard text content
- Assignment:
  - Put both websites online, wait for enough individuals to visit each site, and respond to a credibility questionnaire.
- Dependent variable:
  - Credibility rating (a series of questionnaire items)
- This is a quasi-experiment.