

## CHAPTER 12: EXPERIMENTS AND OBSERVATIONAL STUDIES

### Observational Studies

Retrospective Study:

Prospective Study:

### Experiments

Levels:

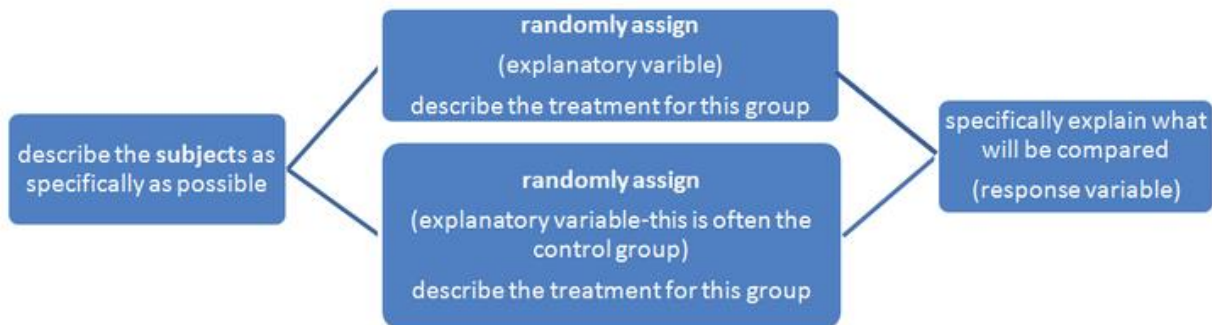
Treatment:

Blinded:

Placebo:

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## Outline for an Experimental Design



**Mention other elements of the experimental design:**

Blocking?

Blind?

Double-Blind?

Placebo controlled?

Length of time of the treatment?

Example: Suppose that a group of scientists have developed a medication that they believe will cure mean-ness. They are calling it Kind At Last (KAL). There are 520 mean people who are willing to participate in this study (300 males and 220 females). This pill needs to be taken twice daily and it may take a few weeks to be fully absorbed into a person's system. Identify the following and outline a completely randomized experiment.

- a. Subjects
- b. Treatment
- c. Response Variable
- d. Will it be blind? Double-blind? Placebo controlled? Is a pre-test necessary?
- e. Outline a complete randomized experiment.