

Section 1.4

PART III

Random Sampling & Random Assignments

POPULATION

Controlled Experiment

Treatment and control groups are "experimental blocks."

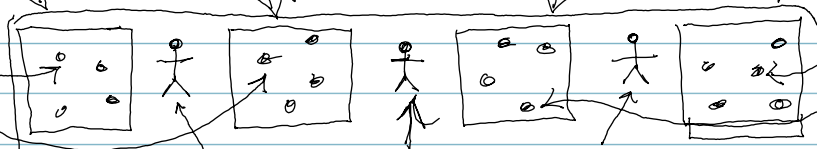
Sample is divided into similar groups called experimental blocks.

When groups are created by random assignment we employ randomized block design.

Some members' blocks get a treatment at varying levels. Other blocks get no treatment, possibly a placebo.

Blinding
↓
members don't know if they get treatment or placebo.

Group members
↓
experimental units.



Double blinding → when people who work with members don't know who gets treatment or placebo.

These guys know!

When an experimental block that receives a treatment is significantly different from control group blocks, then we infer that the treatment is effective.

Replication - If independent researchers can replicate the result, the study is validated.