

Study Design

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19-02-2019

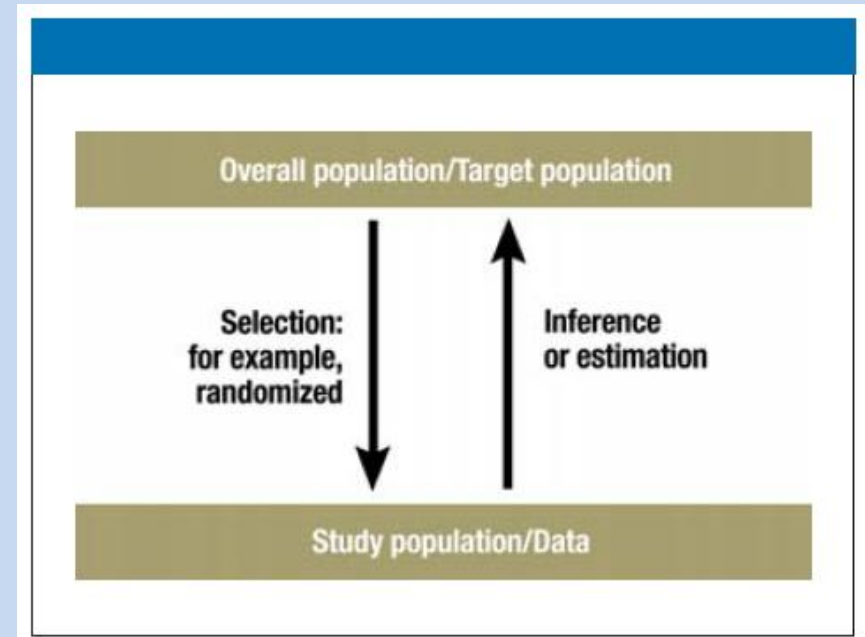
Study Design

- 1. Research Question
- 2. Type of Study.
- 3. Study Population.
- 4. Sample Size.
- 5. Unit of Observation.
- 6. Measuring Tool & Technique.



Study Population

- Inclusion & Exclusion Criteria
- Period of Observation



Sample Size

Questions:

How large should
my sample be?

Answer:

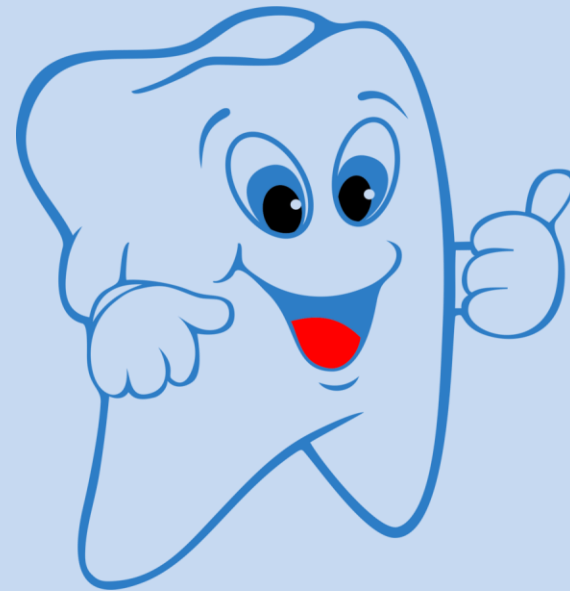
It depends...

- ...large enough to be an accurate
representation of the population*
- ...large enough to achieve
statistically significant results*



Unit of Observation

- Patient
- Population
- Cell
- Organ
- System
- Model
- Instrument

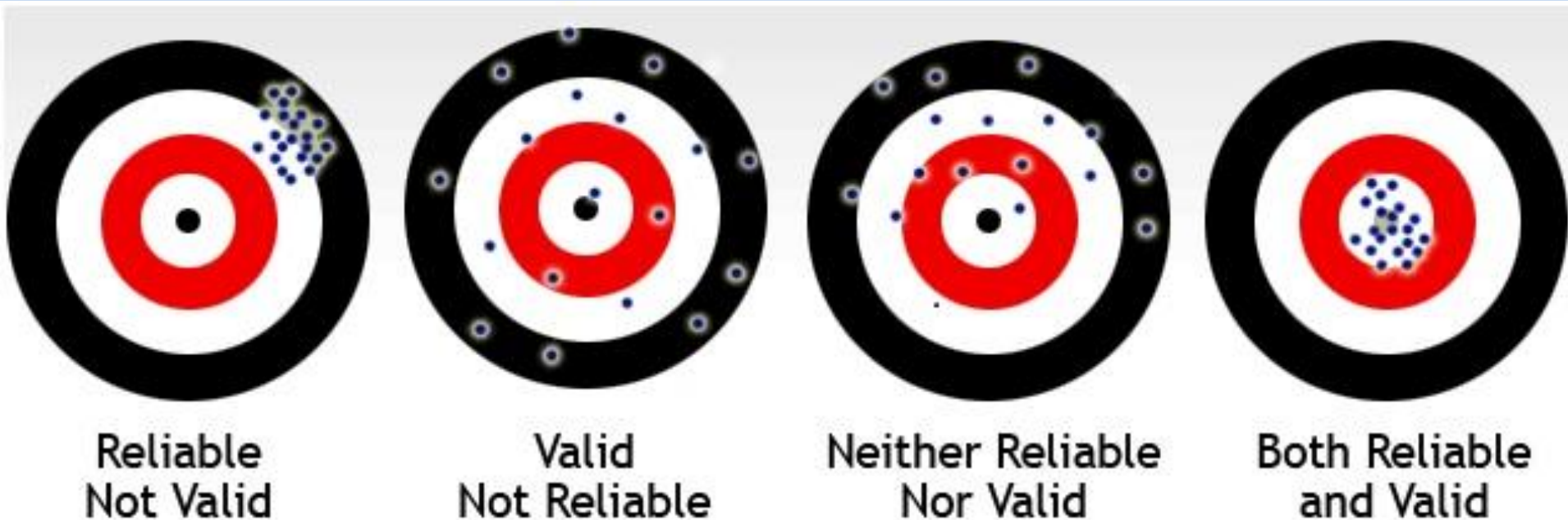


Measuring Technique

- Measuring Instrument
- Reliable & Valid

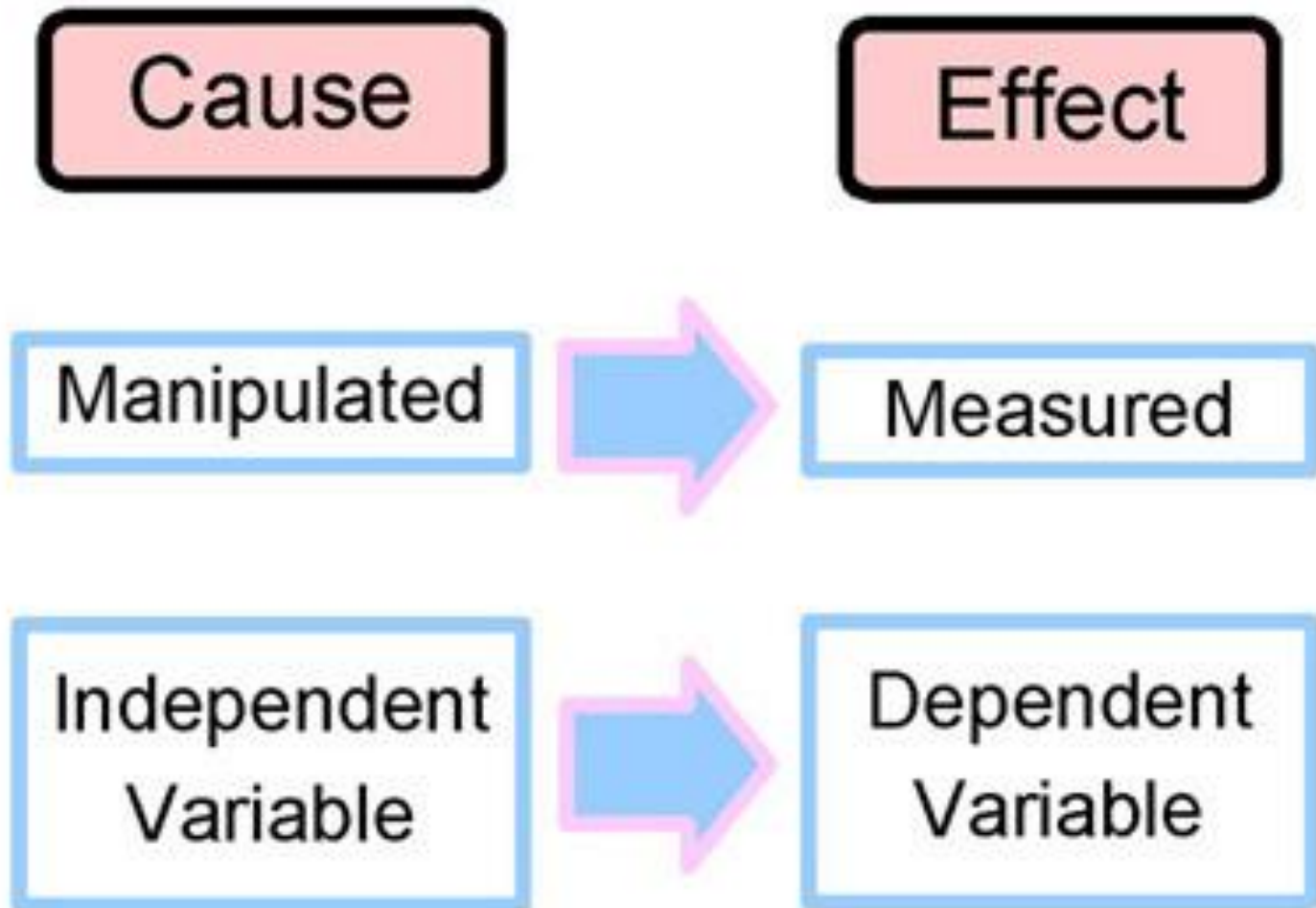


Reliability & Validity



Which one is more important?
Reliability or Validity?

Variables



Types of Variables

Independent

The one thing you change.
Limit to only one in an experiment.

Example:
The liquid used to water each plant.

Independent Variable



Dependent

The change that happens because of the independent variable.

Example:
The height or health of the plant.

Dependent Variable



Controlled

Everything you want to remain constant and unchanging.

Example:
Type of plant used, pot size, amount of liquid, soil type, etc.

Controlled Variables

