





Principles of experimental design

Control the effect of independent variable on the response

Randomize the impersonal chance mechanism to assign subjects to treatment

Use enough subjects in each group to reduce chance variation in the results

E2 Compare and Contrast with sampling error!

Statistical significance

Question: Is this result/relation due to pure chance?

The relation is statistically significant ~

Possible but rare! unusual/unlikely!

#1 + 10' ser*ational Studies

Best, second best but still informative

Good, but not ideal

Comparative treatment vs. Control Baseline

Comparison with matching

Outcome measures and adjust for confounding variables

