

Planning an Experiment

COMM 4940
Kennedy Hall 213



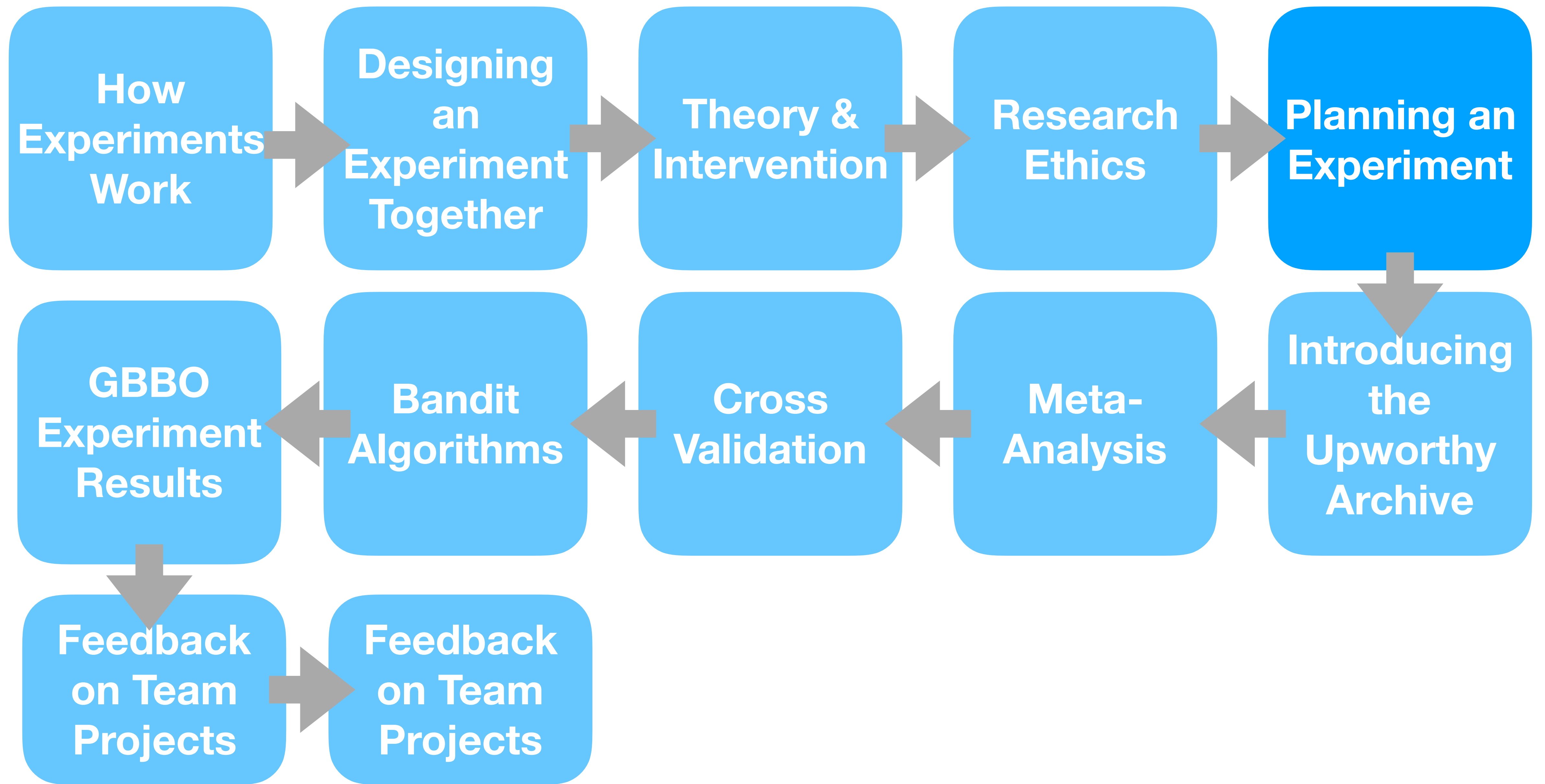
J. Nathan Matias

@natematias

citizensandtech.org

natematias.com





Choosing a Sample Size

- **DeclareDesign example**

github.com/natematias/design-governance-experiments/tree/master/assignments/4-design-diagnosis

- **eGap Power Calculator**

egap.shinyapps.io/Power_Calculator/

Power Calculator

This calculator can help you understand the power of your experimental design to detect treatment effects. You can choose between a standard design in which individuals are randomly assigned to treatment or control and a clustered design, in which groups of individuals are assigned to treatment and control together.

- ☐ Clustered Design?
- ☒ Binary Dependent Variable?

Significance Level

Alpha = 0.05

Proportion (DV = 1) in Control Group

0.10

Proportion (DV = 1) in Treatment Group

0.15

Power Target

0

0.8

1

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

Power Analysis: Hypothetical Treatment Effect = 0.05 Percentage Points

