

Name(s)

Activity: Experimental Design

What competing system or design alternative do you want to compare against?

Part 1: Design

1. State a lucid and testable hypothesis

2. Identify independent and dependent variables

Independent:

Dependent:

Controls: (list three variables you may want to control)

1:

2:

3:

3. Design the experimental protocol

Task:

between subject, within subject

Name(s)

4. Choose the user population

Who?

How to sample?

Part 2: Run Experiments

5. Apply for human subjects protocol review (IRB)
6. Run some pilot participants
7. Modify and finalize the experimental protocol
8. Run the experiment

Part 3: Analyze Results

9. Perform statistical analysis

Suppose you are going to run t-test on your data. State the null and alternative hypotheses.

Null Hypothesis (H_0):

Alternative Hypothesis (H_1):

10. Draw conclusion
11. Communicate results