

Controlled Experiments: I want to conduct a controlled experiment to test whether the interaction style found in Interface A is better than the style found in Interface B for finding and clicking on a target in an application list for Mac OS X.

Interface A



When you mouseover entries in the application list, each stays the same size.

Interface B



When you mouseover entries in the application list, entries enlarge underneath the cursor.

What **hypothesis** would you recommend for this experiment?

What **null hypothesis** would you recommend for this experiment?

What **dependent variables** would you recommend for this experiment?

What **independent variables** would you recommend for this experiment?

List two **controlled variables** that you would recommend

Sketch out the interfaces that you would use for the study. Describe the task that you would have participants do with the interfaces.

You conducted the study and recorded the following data for the dependent variable you are assessing in your null hypothesis. Use Excel to do the following with the data:

- produce a graph that shows the mean and standard deviation for the data
- use a T-Test to assess your null hypothesis at a 95% confidence interval

Then decide whether you can reject your null hypothesis and what this means.

Data for Interface A	Data for Interface B
4	7
5	8
7	9
2	10
1	4
7	6
5	6
4	5
8	8
5	6