

Psychology 210: Elementary Statistics  
Two Factor ANOVA lab

Lab Objective:

- Differentiate between main effects and interactions
- Generate hypothetical statistical data to establish main effects and a two-factor interaction
- Graph an interaction effect
- Write up results in APA style

In lecture, we discussed the difference between main effects and interactions. Provide the definition of each here:

Main Effect of Factor A:

Main Effect of Factor B:

Interaction Effect (A x B):

In pairs, come up with two variables that may have an interaction. For example, while exercise and diet may have an effect on weight individually (main effects), they would also be expected to have a combined effect as well (interaction). List two variables that you believe may interact here: \_\_\_\_\_ and \_\_\_\_\_. In the table below, generate cell means that would show two main effects and an interaction. Calculate the marginal means.

	Factor B1:	Factor B2:
Factor A1:		
Factor A2:		

Graph your interaction below:

Write up the hypothetical results in APA style: