

Assignment #2: Investigating Continuous Variable Interactions

Assignment Due: **Beginning of Class October 17th**

Available for download is a data set that includes one dependent variable (DEPEND) and three independent measures (INDEP1, INDEP2, and INDEP3). Do the following:

1. Explain your hypotheses. Give the dependent variable and independent variables names that reflect your hypotheses (rename the variables).
2. Conduct a regression analysis that establishes the presence of a two way interaction.
3. Use the techniques described in class to plot and analyze the obtained interaction.
4. Referring to the plot and analyses, characterize the nature of the interaction.
5. Use the “left over” independent variable to test for a three way interaction. How might you derive the techniques used in #3 to characterize the nature of the three way interaction? Show your proof. Next, explore the nature of the three way interaction.

It is assumed that you will conduct all appropriate data screening and diagnostic procedures (as should always be the case). So, there is no need to give a detailed report of what you found when you used those procedures. Your write-up for this and future assignments should be *concise* (three pages maximum of text, as stated in the course outline). Please focus only on what would normally be reported in a “Results and Discussion” section of a journal article. You will be marked on your use of appropriate statistical procedures and your interpretation of them (three quarters of your mark), as well as clarity and organization in writing (one quarter of your mark). Be sure to include your output. Use APA style (5th Edition) when reporting your results. Feel free to consult with your fellow classmates when necessary but complete the assignment on your own.