**Assignment 5: Moderation Analysis**

The purpose of this assignment is to re-familiarize you with moderation analysis by using Mplus to analyze data. I would like you to obtain basic descriptive statistics, including central tendency indices, variability indices and distribution information on three variables of your choosing. ***The three variables you pick should be new. Do not select variables that you have used in past assignments.*** Pick one of the variables to be the outcome variable (continuous) and the other two variables (both continuous or treated as continuous variables) to be your predictor variables. Please complete the following tasks:

1. Get descriptive statistics and create an interaction term with the predictors
2. Use MPlus to test the interaction and simple slopes (Model 1)
   1. If the interaction is significant, then interpret the interaction and simple slopes and write up your results
   2. If the interaction is not significant, then re-fit the model with just the main effects and no interaction (Model 2)
   3. If one or both of the main effects are not significant, then re-fit the model with just the significant predictor or the predictor that is “most” significant (Model 3)
3. Evaluate the models and pick one to write about. You will need to justify the model selected in the writing.

The submitted assignment should consist of:

1. A three-page max (not including table) APA formatted paper that includes:
   1. Brief introduction paragraph with identification of the research hypothesis and justification for the study (explain why you think these variables and the *interaction* should be related).
   2. A paragraph on the basic descriptive statistics for the three variables (best measure of central tendency and variability and also the skewness statistic).
   3. A paragraph identifying the models tested.
   4. A paragraph on the results of the model that best fits the data. You should indicate why you think it best fits the data and include the relevant inferential statistics. Report *and* interpret the regression coefficients, test statistic between the variables, *p*-value, *R*2, confidence intervals, and simple slopes if the interaction is significant.
   5. A brief concluding paragraph. Give a brief restatement of your findings (one sentence; no stats) and then interpret your findings. The interpretation is the “why” part of the assignment. Why do you think there is a relationship or lack of a relationship? Briefly explain.
2. A table for models. Remember that tables follow the text in APA format and should not be imbedded in the text. Make sure to refer to the table in text.
3. A word document with the syntax and codebook (variables in order of columns in spreadsheet and syntax for the analysis)
4. A .csv spreadsheet for the variables that is ready to use in MPlus