Assignment #1: Unique and Shared Variance in Regression Analysis

Assignment Due: **Beginning of Class October 3rd**

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

1. Come up with an interesting (but <u>BRIEF</u>) description of the dependent and independent variables. Change the variable names accordingly.

2. Next, justify two different regression approaches (e.g., simultaneous entry, hierarchical entry) based on plausible hypotheses involving the variables.

3. Conduct the two regression analyses. Briefly report what you found.

4. Make note of any unusual findings.

5. I use the random variable functions in SPSS to create the data sets that you analyze. Use those same functions to generate a dependent variable and two independent variables. The two independent variables should be related to the dependent variable at the zero order level but unrelated to each other. Provide a detailed account (including the equations that you used) of how you went about creating the variables. Also, attach the following output: a correlation matrix of the three variables and a simultaneous entry regression analysis in which both independent variables were entered.

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.