**Dependent t-test**

1. Working with the TA, enter the data from our first class lecture on the dependent t-test into SPSS. Conduct a dependent t-test in SPSS on the data to check our computations and results.
2. Enter the brother and sister authoritarian rating data into SPSS and conduct a dependent t-test on the data to check your hand computations. The rating data can be found on the homework you are turning in today.

Using Microsoft Word, write up the results in APA style. Follow the example template posted on the course website.

3. A researcher believes that his IQ-boosting program can, on average, raise intelligence among college students. He randomly samples 12 students and administers the WAIS. He then delivers his twelve-week program to boost their IQs and administers the WAIS again at the end of the program. Do the data below support the researcher's hypothesis?

Pre Post-Program Gender

102 120 M  
 105 115 M  
 110 95 F  
 100 110 M  
 107 90 F  
 110 100 M  
 95 110 M  
 106 92 F  
 110 98 F  
 96 107 M  
 100 90 F  
 105 95 F

Why are these Pre and Post data suitable for a dependent t-test?

Conduct a dependent t-test using NHST on the pre and post variables. Use an **alpha level of .01** and work through the steps in NHST, being sure to show all of your work, including the hypotheses, critical values, effect size, and confidence interval. Use the online calculator to compute pobs for your tobs value.

Eyeball the difference scores and relate their magnitudes to the gender variable. Do you see a pattern in the values for males compared to females?

Using Microsoft Word, write up the results in APA style. Follow the example template posted on the course website.