**Psy 633  
Lab 2: Single Factor Between-Subjects & Within-Subjects ANOVA  
Points Available: 10**

The data given in the spreadsheet is a collection of mock data made to mimic data that might be obtained by test writers while norming their cognitive test. The data include (columns from left to right) Sex (male or female), Age Group (13-17, 18-25, 26-35, or 36+), Region (Midwest, West Coast, South, or East Coast), Socio-Economic Status (Low, Middle, or High), Race (Black, White, Asian, or Latino), and standard scores for each of the 5 clusters (Working Memory, Processing Speed, Verbal Comprehension, Fluid Reasoning, and Visual Spatial) on the WJ-IV Cognitive test including a Full IQ score. The final two columns are mock data as if the writers had test-takers self-report scores for their self-confidence before (Pre\_Conf), during (Dur\_Conf), and after (Post\_Conf) taking the test.

Use the data given to answer the following questions:

1. Use a one-way, between-subjects ANOVA to determine if there is a difference in the IQ scores (Full\_IQ) across different ages (Age\_Grp). You may use K&F Ch. 10 to help walk you through the process in SPSS. Be sure to run the Tukey HSD post-hoc test that follows up on a significant result.  Use a two-tailed test with alpha = .05.*Please type the results in APA format.*

2. Use a one-way, within-subjects ANOVA to determine if there was a difference in self-reported confidence scores before (Pre\_Conf), during (Dur\_Conf), and after (Post\_Conf) taking the WJ Cognitive test. You may use K&F Ch. 12 to help walk you through the process. Use a two-tailed test with alpha = .05 for the overall analysis.Be sure to run the appropriate pair-wise t-tests to follow up on a significant result.  *Please type the results in APA format.*

Reminders:

Dunn test = alpha per comparison / number of comparisons

*η2*=SSbetween/SStotal

Cohen’s categories for *η2*: .01 small,.09 medium , .25 large