**PCES 715 Multivariate Statistics**

**Assignment 4 – 20 points Discriminant Analysis (TF Ch.9)**

Please, follow the example in Tabachnick and Fidell, Section 9.7 when completing this assignment. Please, also note, that your BKS (ch.11) and Green and Salkind (Unit 8, Lesson 35) both give instructions on how to run Discriminant Analysis with SPSS.

1. Use the dataset provided for this assignment. It matches T & F’s example.
2. State one research question that would match direct discriminant analysis (DDA) performed (2 pts.)
3. Perform evaluation of assumptions following the example, paste all necessary graphs and outputs as recommended by T&F in Section 9.7.1. Please, also follow the checklist for performing the DDA described in Table 9.15. Also, use full sentence descriptions to explain how your data is meeting the assumptions. (6 points)
4. Perform major DDA:
   1. State significance of discriminant functions, If significant:
      1. Variance accounted for and confidence limits for each significant function. Please refer to the posted Syntax file in the assignment folder for this portion of the assignment (1 point)
      2. Plot(s) of discriminant functions (1 point)
      3. Structure matrix (1 point)
   2. Effect size and confidence limits for solution. (2 points)
   3. Variables separating each group with effect sizes and confidence intervals. (2 points)
5. Run one of the additional analyses described in table 9.15. Paste your outputs and describe results in full sentences. (2 points)
6. Write up the results of your analysis following the example of T&F in Section 9.7 (3 points).