An experiment was conducted to examine the differences between people’s ability to make judgments about the relationship between word pairs. For example, they were given the word pair “cigarette – ashtray” and then asked to judge the strength of the relationship between them.

Associative condition: How many people out of a hundred would list ashtray to cigarette?

Semantic condition: How many features do ashtray and cigarette share in common?

Everyone did both a semantic and associative judgment condition on different word pairs. Then, their judgments were compared (correlated) to normed values for each word pair (how many people *actually* said ashtray to cigarette as opposed to the number you thought). In the data set there are four dependent variables:

assocFSG – associative judgments correlated to associative database norms (match)

assocJCN – associative judgments correlated to semantic database norms (no-match)

semFSG – semantic judgments correlated to associative database norms (match)

semJCN – semantic judgments correlated to semantic database norms (no-match)

For the manipulation (independent variables), we either put them one of two different conditions:

Blocked – they received all the word pairs in a specific order

Mixed – they received word pairs in a random order

You should use a profile analysis to analyze this dataset. In your write up, you are answering the following hypotheses:

Levels – do the different conditions (mixed v blocked) have different patterns of judgments?

Flatness – are the judgment correlations all the same across judgment type and word pair relationship?

Parallelism – is there an interaction between judgment type /word pair correlation and which condition the participant received?

Make sure you use the “appropriate” follow up test given the significance of each test.

Include the following SPSS boxes:

1. Data screening:
   1. Accuracy/Missing data (you can assume the scores are accurate) – show if there are any missing data.
      1. Fix/list what you did with the missing data.
   2. Outliers
      1. What are the top 5 Mahalanobis scores?
      2. What is the cut off for Mahalanobis (df and X2)
      3. Delete any outliers.
   3. Multicollinearity – are the DVs too correlated?
      1. Include a correlation table.
   4. Normality
      1. Show skew and kurtosis for the DVs.
      2. Include the multivariate normality chart.
      3. Is the data normal?
   5. Linearity
      1. Include the PP Plot.
      2. Is the data linear?
   6. Homogeneity
      1. Include the residuals graph.
      2. Is the data homogeneic?
2. Profile
   1. Include the descriptives box.
   2. Include Box’s Test.
   3. Include the multivariate box.
   4. Include the Sphericity box.
   5. Include Levene’s Test.
   6. Include the Between Subjects box.
   7. Include the post hoc test.
3. Write up
   1. Be sure to include data screening information.
   2. Multivariate F-values for all three effects (parallelism, levels, and flatness).
   3. ANOVA effects for post hocs.
   4. Graph for means for DVs.