**Research Question:**

Does the Supplemental Instruction program help students raise their final course grade? This data is from the summer months, where SI was offered to traditionally hard classes (BMS 110, 307, 308 – anatomy and physiology). The SI program is an academic assistant program that offers study sessions during the week to review course material and help students prepare for exams. Leaders are hired that have previously performed well in the course and are paired with their previous instructor. We want to show students that attending SI consistently, instead of only review sessions, improves final course grades. Therefore, we expect the yes going a lot group to have higher scores than both somewhat going and not going groups. The somewhat going groups may have higher final grade scores than the not going groups, but since good students may not need to go to sessions, they may also be the same.

**IV:**

SIatall: Coded if participants went to SI sessions:

* 1 = no, they went to no sessions during the summer months.
* 2 = some, they only went to review sessions during the summer months (1-4 times).
* 3 = yes, they went to review and regular sessions, consistently throughout the summer (5-16 times).

**DV:**

SIgradeGPA: Final grades were coded by GPA points (A = 4, B = 3, C = 2, D = 1, F/W = 0).

Include the following SPSS boxes:

1. Data screening:
   1. Accuracy – show the data is accurate with a descriptives box.
      1. If any inaccurate data are present, then delete those particular data points and make them missing.
   2. Missing data – show if there are any missing data with a descriptives box.
      1. If so, delete the missing data.
   3. Outliers
      1. What are the top five Malanobis scores?
      2. What is the cut off for Mahalanobis (df and X2)?
      3. Delete any multivariate outliers.
   4. Multicollinearity – does not apply to this dataset.
   5. Normality
      1. Include output that shows skew and kurtosis values for the DV.
      2. Are the skew/kurtosis values within the normal range?
      3. Include the multivariate normality chart.
      4. Is the data normal?
   6. Linearity
      1. Include the PP plot.
      2. Is the data linear?
   7. Homogeneity
      1. Include the residuals graph.
      2. Is the data homogeneic?
2. ANOVA
   1. Include the descriptives box.
   2. Include Levene’s test.
   3. Include the ANOVA box.
      1. Was the test significant?
      2. Write the omnibus *F* value in APA style.
   4. Include your post hoc comparison (correction) box.
      1. Which pairwise combinations were significantly different?
   5. Calculate Cohen’s d for your post hoc tests.
3. Chart
   1. Make a graph of the means of each SI group.
   2. Be sure to have:
      1. Error bars
      2. X axis labels
      3. X axis group labels
      4. Y axis labels
      5. Y axis length
4. Write up:
   1. Short description of the study and variables.
   2. Data screening and assumptions – be sure to include a short description of the following.
      1. Missing data
      2. Outliers
      3. Normality
      4. Linearity
      5. Homogeneity + Levene’s Test
   3. Descriptive statistics: you can use the graph created and reference that figure (aka See figure 1 for means and confidence intervals).
   4. Inferential statistics
      1. The *F*-test result
      2. The post hoc results
      3. Effect sizes
   5. A short description of what the results practically mean (who’s doing the best? Based on the results, what would you recommend?).