**Introductory Statistics Assignment:**

Use the basic data set file posted for this assignment to answer the following questions (you can work with others! Come ask for help if you get lost!). This data file contains a set of “personality” characteristics and 369 people’s ratings of those personality characteristics. Use p<.05 for all of these tests.

*Descriptive Statistics*

Pick three variables (any three!) and find the following: mean, mode, median, variance, and standard deviation. Paste the SPSS descriptives table.

*Z-Scores/Z-Tests*

The average score on the cheerful characteristic for a college sample is 5.81 with a standard deviation of 1.06. One person selected scored their cheerfulness as 3. Is their score significantly different from the average?

* List z-score for person:
* List cut off z-score:
* List the p-value for the z-score:
* Are they different from average (is it significant)?

The average truthful score in a college sample is usually fairly high at around 6.23 points with a standard deviation of 1 point. Is this college sample of 369 people different than the average?

* First find the mean:
* Then find the z-score:
* List the cut off z-score:
* List the p-value for the z-score:
* Are they different from average (is it significant)?

**For the following, paste the SPSS output. Be sure to fill in the answers to the questions, so it’s clear you also can read the output.**

*Single Sample t*

All of these characteristics are expected to have an average score of around 4.5 points, which is the middle of the scale. Pick any ONE characteristic and tell if this college sample is different from the predicted average score.

* List your chosen characteristic:
* Paste the single sample t-test box and descriptives (that comes with single sample t):
* List your mean and standard deviation:
* List your p-value:
* Is your characteristic different from average (i.e. is the p-value significant)?

*Dependent t*

Is there a difference in rating between the variables of “loves children” and “uses foul language”?

* Paste the dependent t-test box only:
* List the mean difference and standard deviation of the differences:
* List the p-value:
* Why would this test be a dependent test?
* Is there a difference in the ratings?

*Independent t*

Many researchers argue that there is a difference between students who take research studies at the beginning of the semester and students who rush to take research studies at the end of the semester. Using the semestertime variable as your groups, is there a difference in how students rate the helpful variable?

* Paste the descriptives and independent t-test box:
* List your means and standard deviations for each group:
* List the p-value:
* Is there a difference in the ratings?

*Correlation:*

Is there a significant correlation between the femininity and masculinity variables?

* Paste the correlation table:
* List the correlation:
* List the p-value:
* Is there a significant correlation?

*Chi-Square*

You expect that there should be an equal spread of the answers across the variables (i.e. there should be the same number of 1s, 2s, 3s, 4s, etc). However, the loyal average appears quite high (*M*=6.59) to have the same number of low scores versus high scores. Is the spread of the scores the same across all category options?

* Create a category table from SPSS (frequency table):
* Is the spread of the scores equal?
* Which rating appears to be chosen most often?
* Include a chi-square analysis.