**Psy 230 Lab Assignment 3
10 points
Descriptive Statistics in SPSS & z-scores**

***Part 1—Re-visiting the Descriptives, Explore Command.*** This exercise uses hypothetical data from a social interaction study with toddlers. The study asked whether toddlers as young as 33 months were sensitive to whether their same-age playmate is of the same or a different sex. Pairs of toddlers were placed together in a playroom setting and given a desirable toy to play with. The question of interest is whether the amount of social interaction between the two is different, depending on whether they are the same sex or different sexes. The question might be answered by observing paired infants and recording how often they interact with each other.

 The data are given below, for each of two conditions. In one condition, the 30 pairs of toddlers are the same sex; in the second condition, there are another 30 different-sex pairs. The dependent variable is the number of social interactions that occurred in a 30-minute period.

SAME-SEX PAIRS

                                        29 25 37 37 34 28 29 25 35 30 28 32 29 30 27

                                        33 22 30 28 31 28 27 22 33 32 36 32 27 32 39

DIFFERENT-SEX PAIRS

                                        24 21 28 22 20 20 24 15 26 13 27 29 22 22 26

                                        26 26 21 22 19 22 18 17 16 20 29 24 23 19 19

1. Use SPSS to create a data file.
Note: There are two levels of the independent variable. We want to obtain descriptive statistics for each level of the independent variable (same-sex pairs vs. different-sex pairs). Therefore, use the **Analyze, Descriptive Statistics, Explore** command. Request descriptives and outliers. Also request a histogram for each group. For each histogram, enter chart editor mode and show the normal distribution curve.

1. **For same-sex pairs vs. different –sex pairs of toddlers, compare and contrast
a) measures of central tendency (mean, median, mode)
b) measures of variability (range and standard deviation)
c) shape of the distributions (skewness and kurtosis)**
2. **For each group, explain which measures of central tendency and variability are most appropriate to report in this situation. Be sure to explain why.**
3. **What do descriptive statistics suggest about whether there are any differences between the two conditions. In other words, what are your tentative conclusions?**

***Part 2--Z-score transforms in SPSS.*** The Statistics Unit 1 Exam at State College had 40 points available. Bill earned x = 30. Sally earned x = 15. Jackie earned x = 20. Jonathon earned x = 22.5. Use SPSS to compute the z-scores for these students. **Analyze, Descriptive Statistics, Descriptives…..Save standardized values as variables.**

**5. a) List the z-scores for each student.**

**b)** **Describe the relative performance for the students in relation to the mean and standard deviation of the distribution.**