Descriptive statistics for univariate numeric data  
(The Explore tool)

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1. Start SPSS and enter your data or open your data file. Make any necessary adjustments in the Variable View. Pay particular attention to the Measurement level(s) of your variable(s). After all, if the data aren’t scale, we shouldn’t be calculating their mean, etc.

2. Return to the Data View and follow this mouse trail: Analyze → Descriptive Statistics → Explore.... The Explore dialog will appear.

3. Decide which variable(s) you want statistics on. Move the name(s) of your chosen variable(s) to the Dependent List: box.

4. You now have choices:
   - You can choose whether SPSS will display plots, statistics, or both.
     - If you want statistics, but no plots, click the radio button for Statistics, beneath the word Display.
     - Clicking the radio button for Plots will get you plots, but no statistics.
     - If you want both plots and statistics, click the radio button for Both.
   - If you want to choose the statistics that get calculated, click the Statistics button. The Explore: Statistics dialog will appear.
     - Make your selection(s) by putting (a) check mark(s) in the appropriate box(es). (Note: M-estimators are not appropriate for introductory courses such as FDMath 221, FDMath 222, and FDMath 223. Also, do not select Outliers unless otherwise instructed.)
     - Click Continue. SPSS will return you to the Explore dialog.
   - If you want to choose the graphs that get plotted, click the Plots... button. The Explore: Plots dialog will appear.
     - Select either Stem-and-leaf (which is the default choice) or Histogram (or both) by clicking to put (a) check mark(s) in the appropriate boxes.
     - If you don’t want a boxplot, click the radio button for None, underneath the word Boxplots. If you do want (a) boxplot(s), click the radio button for Factor levels together (which is the default) unless you teacher instructs you to do otherwise.
     - If you want a Q-Q plot, put a check mark in the box for Normality plots with tests.
     - Click Continue. SPSS returns you to the Explore dialog.

5. Click OK. SPSS opens the PASW Statistics Viewer and displays your statistics and/or graphs.
   - The first table that appears is the Case Processing Summary. This table tells you which variable(s) you used, how many valid cases there were and how many missing, and gives percentages of each. Always check the case processing summary to make sure all your data were valid.

1 Or a Q-P plot, or a P-Q plot, or a P-P plot; they’re all similar.
• If you calculated descriptive statistics, next is the **Descriptives** table, which gives your mean, standard deviation, and so on.

• If you calculated percentiles, the **Percentiles** table is next. In FDMath 221, FDMath 222, and FDMath 223, read your percentiles from the **Tukey’s hinges** row, unless your instructor tells you otherwise.

• The next table is the **Tests of Normality** table, if you asked for a Q-Q plot. Your instructor will tell you what (if anything) to do with this table.

• If you asked for a histogram, it comes next.

• Next is the stem-and-leaf plot, if you asked for one.

• The Q-Q plot and “detrended” Q-Q plot are next. (If your instructor has not told you to use the detrended Q-Q plot, then don’t. It’s more sensitive than the Q-Q plot, and can be challenging to read.)

• Finally, the boxplot(s) appear(s), if you asked for (a) boxplot(s).

As always, if you have questions, please ask them!