SPSS
Instructions for Descriptive Statistics and Univariate Graphs

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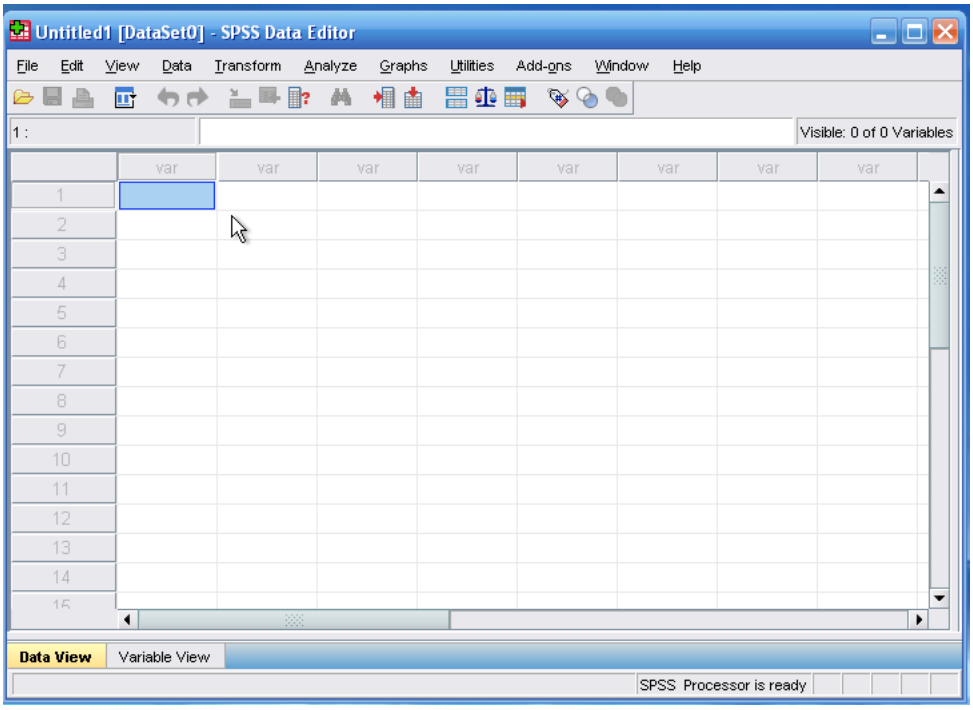
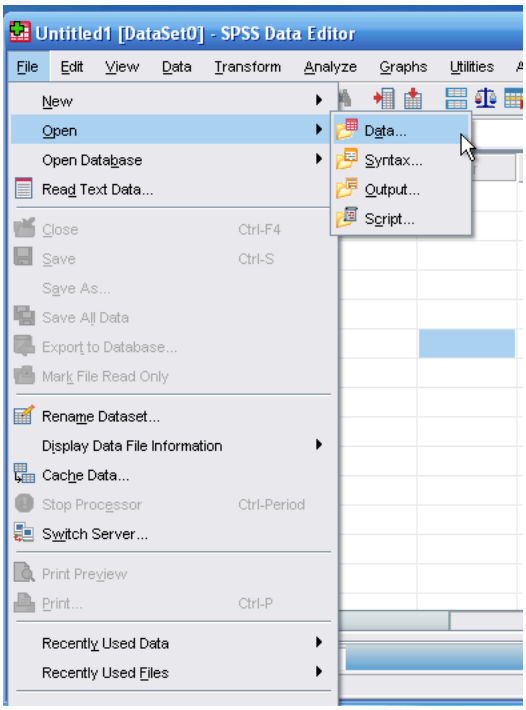
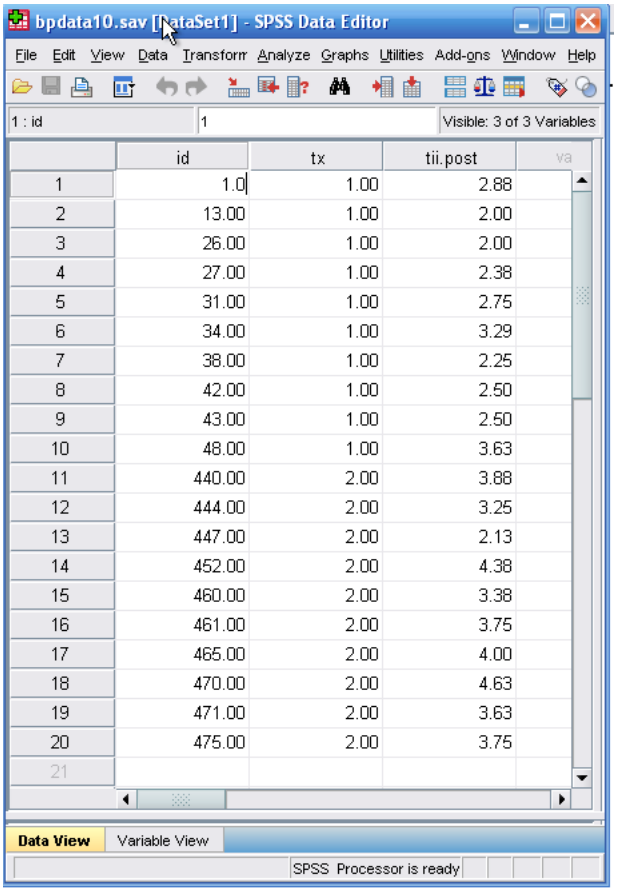
1. Open SPSS. You will see an empty SPSS Data Editor.



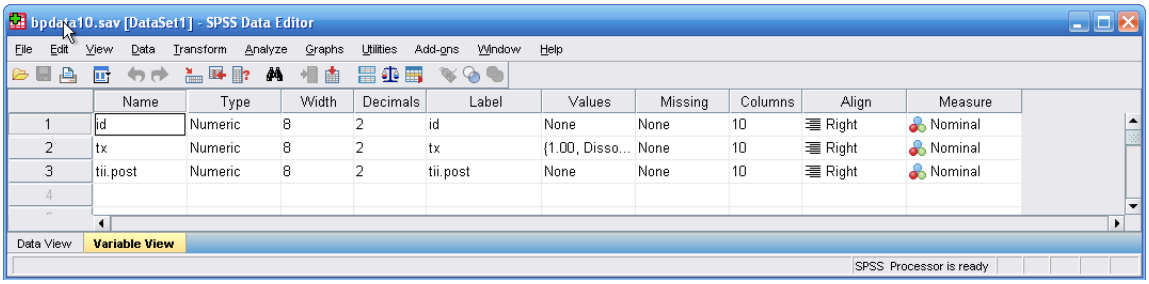
2.Go to the file menu, go to Open → Data and click. Navigate to the SPSS file you would like to open and open it. The file will be on your computer or most likely on a flash drive. You can also just double-click on the SPSS data file and it should open SPSS.



3. There are two ways to view data in SPSS. The first is "Data View"

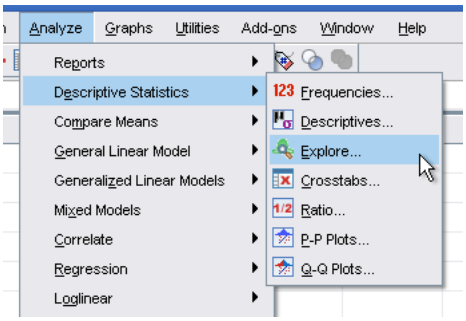


4. The second is "Variable View"

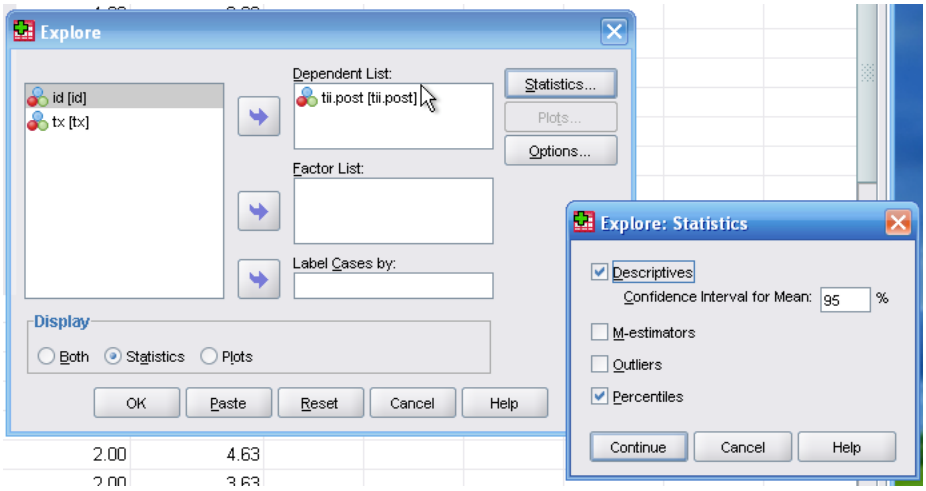


Finding the Mean, Median, Standard Deviation, Variance, and Interquartile Range

To find the mean, median, standard deviation, variance, and interquartile range we will use the "Explore" function in the **Analyze** menu.



Once you've clicked **Explore**, move the variable or variables you are interested in into the area called "Dependent List." Under the section labeled "Display" click Statistics (defaults to Both). Also, click the Statistics button on the top right and make sure "Descriptives" and "Percentiles" are selected. Click continue and then click OK.

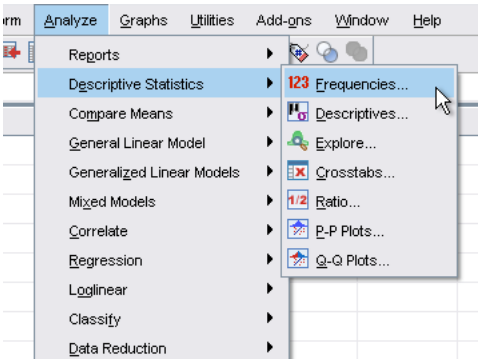


The output you are interested is entitled **Descriptives**. On it you will find the Mean, Median, Standard Deviation, Variance, and Interquartile Range (as well as some other nice things).

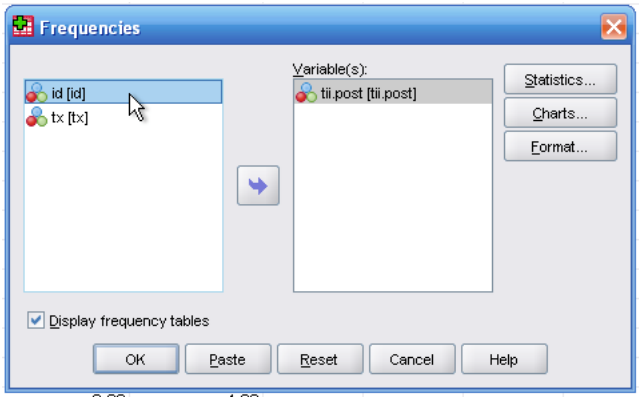
			Statistic	Std. Error
tii.post	Mean		3.1455	.18036
	95% Confidence Interval for Mean	Lower Bound	2.7680	
		Upper Bound	3.5230	
	5% Trimmed Mean		3.1270	
	Median		3.2679	
	Variance		.651	
	Std. Deviation		.80659	
	Minimum		2.00	
	Maximum		4.62	
	Range		2.62	
	Interquartile Range		1.34	
	Skewness		.103	.512
	Kurtosis		-1.121	.992

Finding the Mode

To find the mode we use the **Frequencies** function in the **Analyze** menu.



Once youve clicked on **Frequencies** move the variable or variables you are interested in into the area called "Variable(s)." Make sure "Display frequency tables" is clicked and click OK.



You are interested in the frequency table. The mode is the most frequent number. In this case there are multiple modes (i.e., the distribution is multi-modal).

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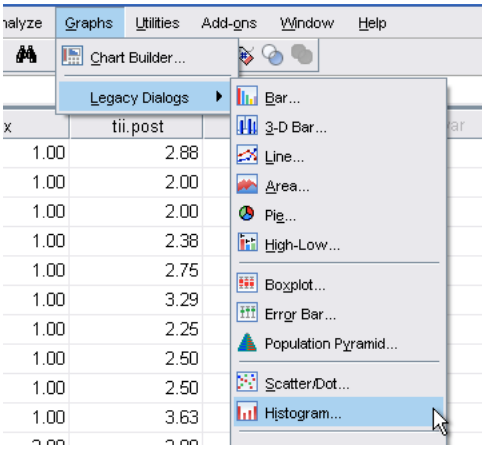
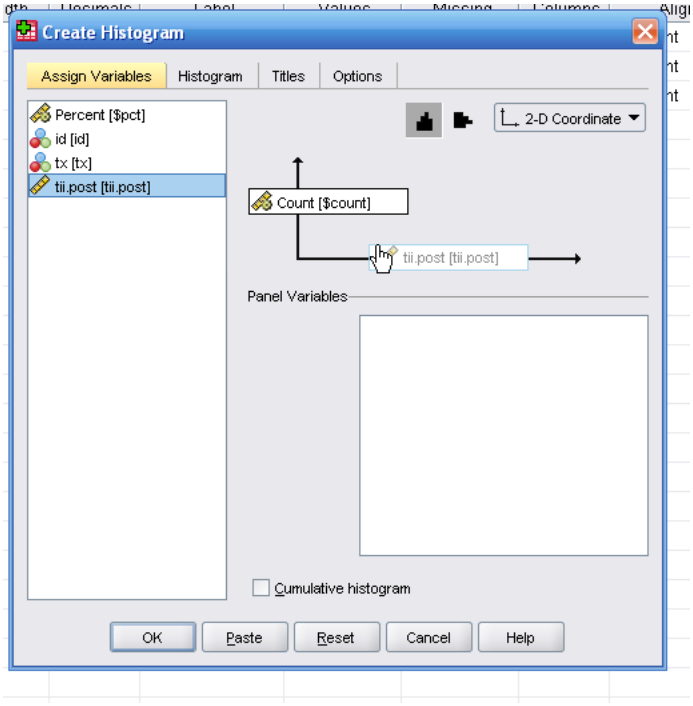
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	10.0	10.0	10.0
	2.125	1	5.0	5.0	15.0
	2.25	1	5.0	5.0	20.0
	2.375	1	5.0	5.0	25.0
	2.5	2	10.0	10.0	35.0
	2.75	1	5.0	5.0	40.0
	2.875	1	5.0	5.0	45.0
	3.25	1	5.0	5.0	50.0
	3.28571438789368	1	5.0	5.0	55.0
	3.375	1	5.0	5.0	60.0
	3.625	2	10.0	10.0	70.0
	3.75	2	10.0	10.0	80.0
	3.875	1	5.0	5.0	85.0
	4	1	5.0	5.0	90.0
	4.375	1	5.0	5.0	95.0
	4.625	1	5.0	5.0	100.0
	Total	20	100.0	100.0	

Creating Histograms

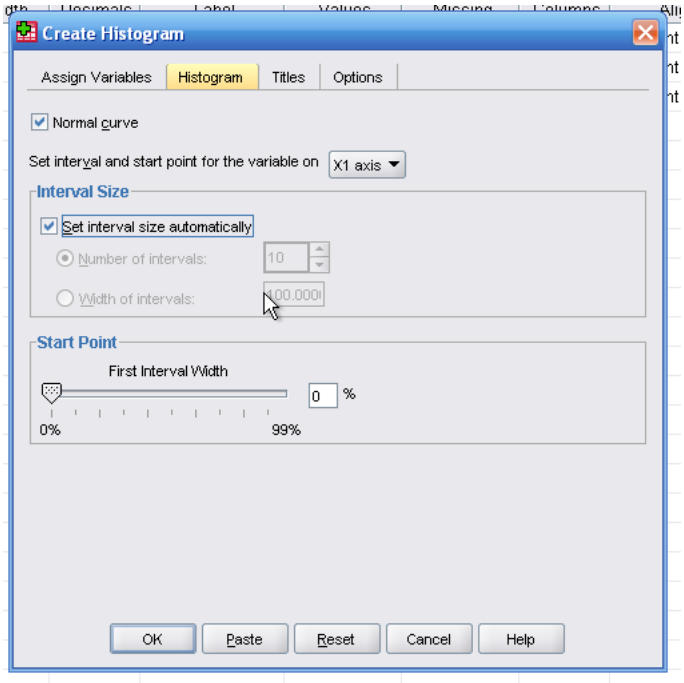
To create histograms go to the **Graphs** → **Legacy Dialogs** → **Interactive** → **Histogram**. There is another **Histogram** function but it does not allow you to control the number of bins in the histogram (which you will need to do on your homework).



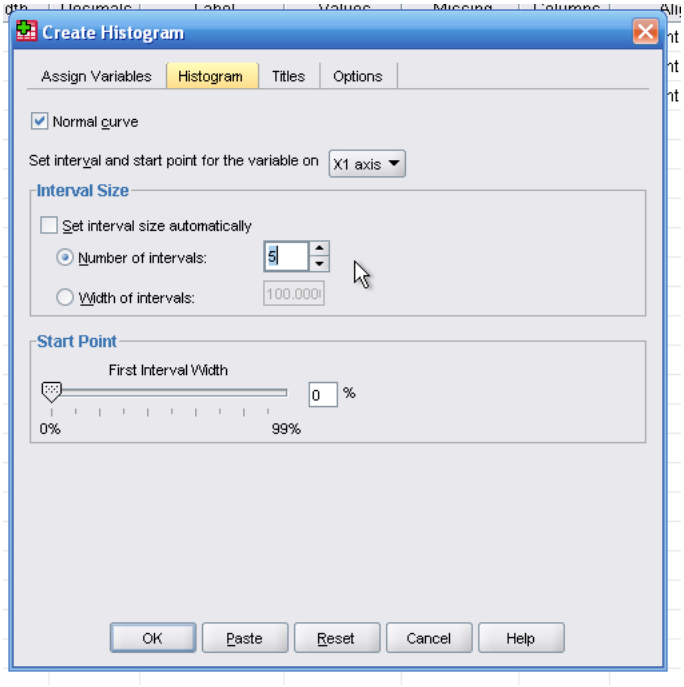
Once you have clicked on Histogram there are three steps. First, move (click and drag) the variable you are interested into into the blank box.



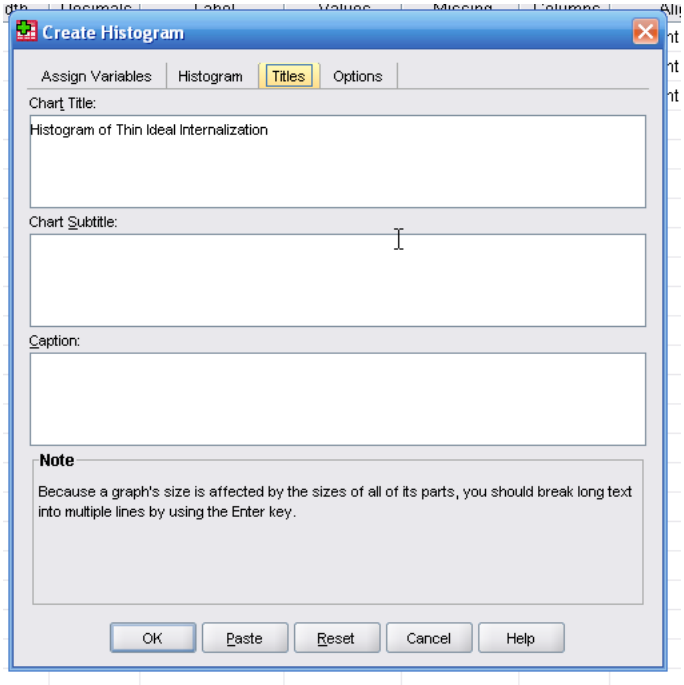
Second, click on the histogram tab. Make sure the box for "Normal Curve" is checked. If you want SPSS to determine the number of bins automatically, leave the "Set Interval Size Automatically" box checked.



If you uncheck the box "Set Interval Size Automatically", you will be able to determine the number of bins yourself by increasing or decreasing the number in the box below. Try this out and see how your graph is affected.

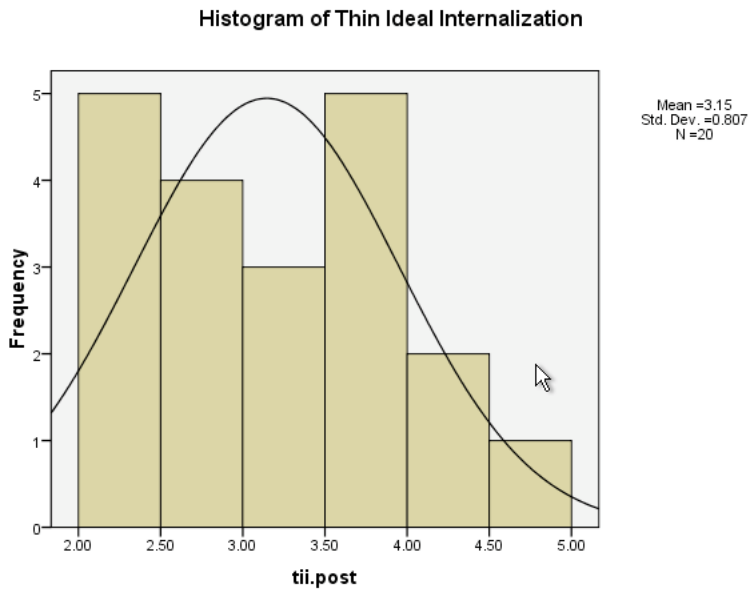


The third step is to click on the **Titles** tab and provide a Chart Title for your graph.

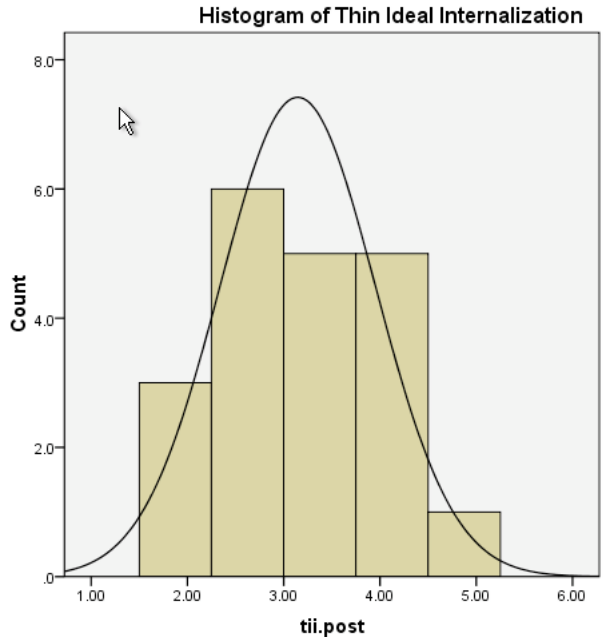


Click on OK and your histogram will be created.

Default number of bins.

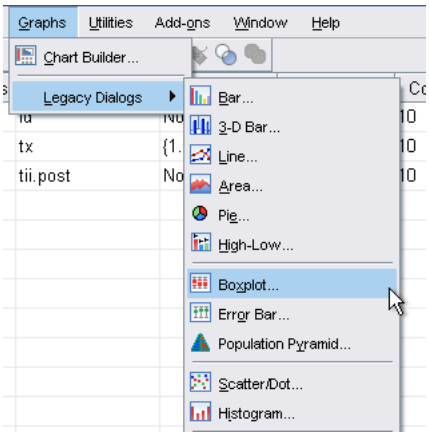


Manually setting the number of bins to 5.

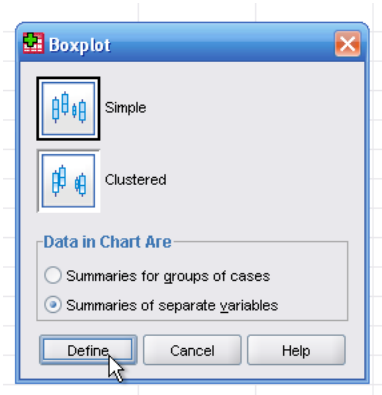


Creating Boxplots

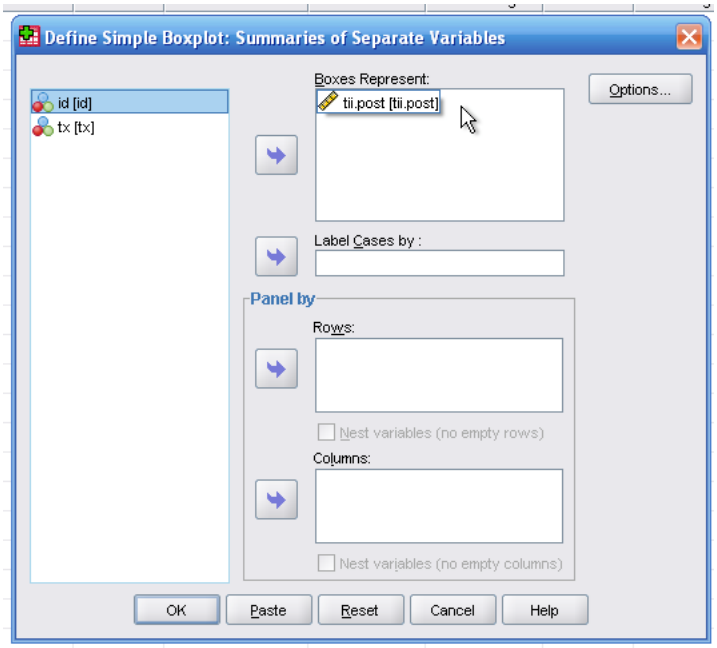
To create boxplots we are going to use the **Boxplot** menu in the **Legacy Dialogs** menu, which itself is under the **Graphs** Menu.



Once you have clicked on **Boxplot** you will see the following box. Click on "Simple" and make sure the circle next to "Summaries for Separate Variables" is clicked. Then click "Dene."



After clicking “Dene” you will get the following box. Move the variable or variables you are interested in into the “Boxes Represent” box. Then click OK.



You will now have a beautiful boxplot. Yes!