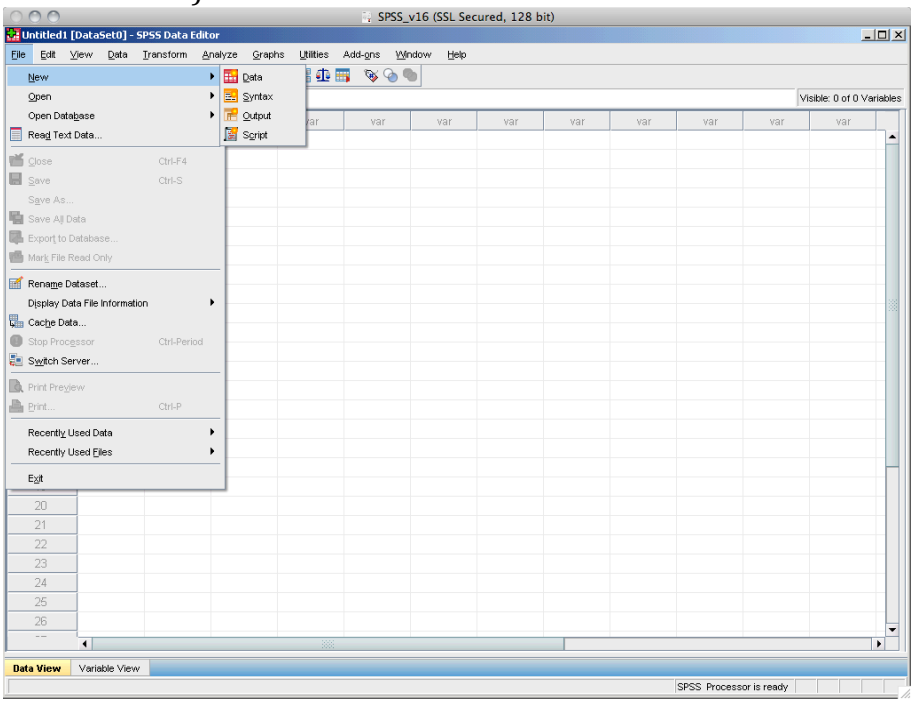
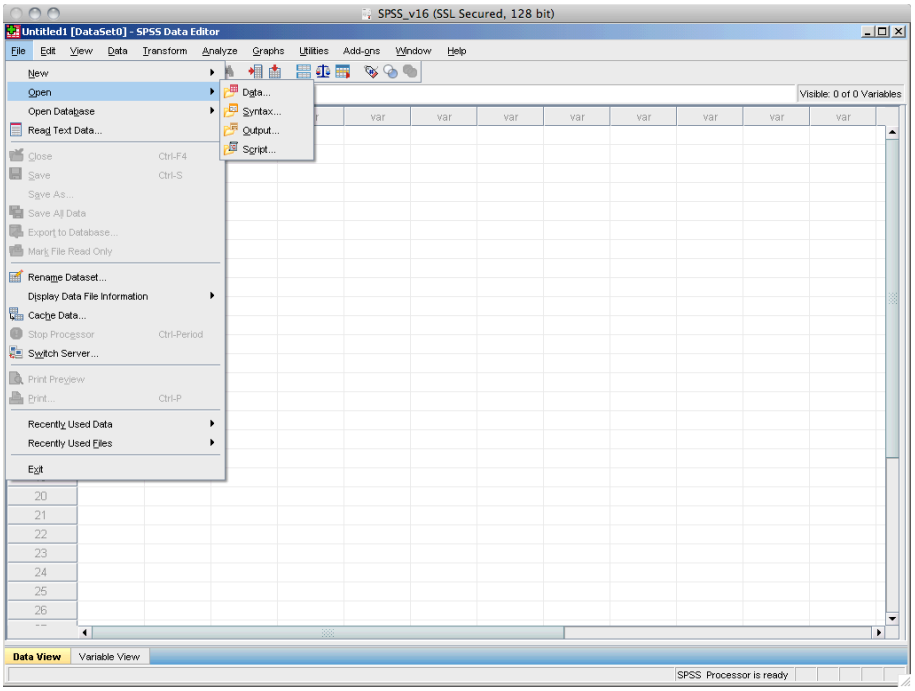
Calculating *cronbach alpha* reliability statistics in SPSS v.16

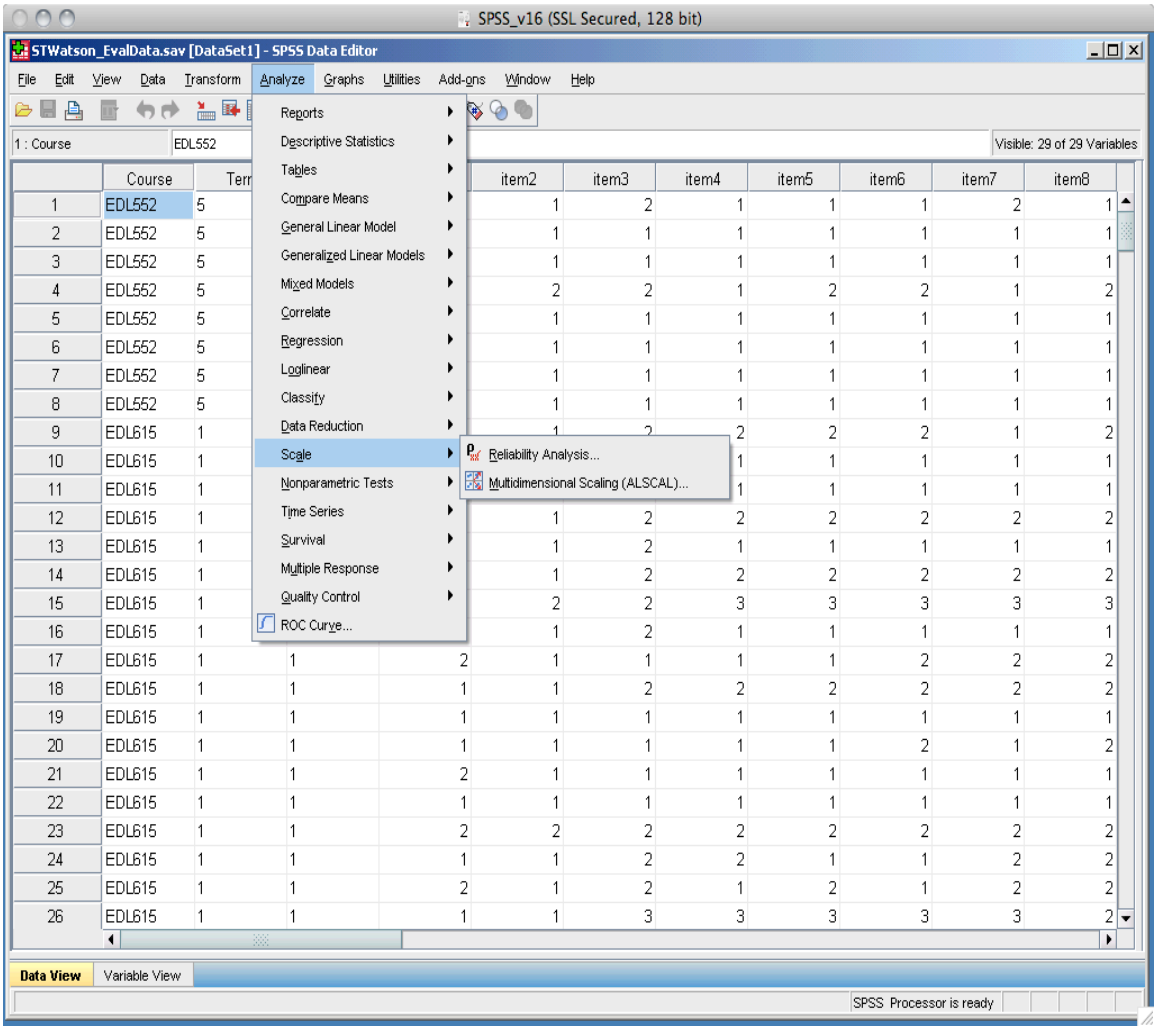
After opening SPSS follow this sequence of steps to obtain your *cronbach alpha* analysis:

1. Enter new data (if you have not done so yet) or open your existing data source).

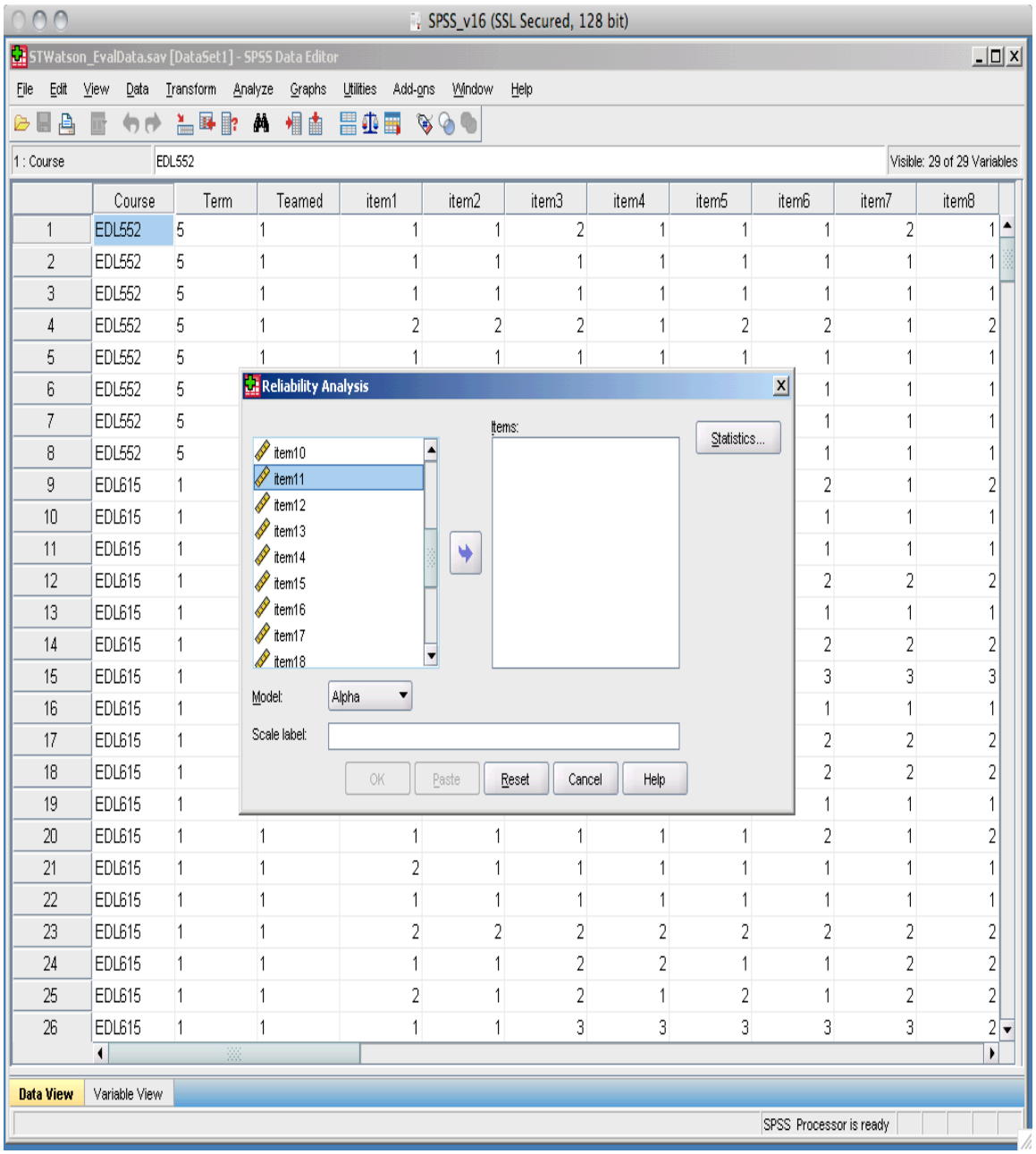




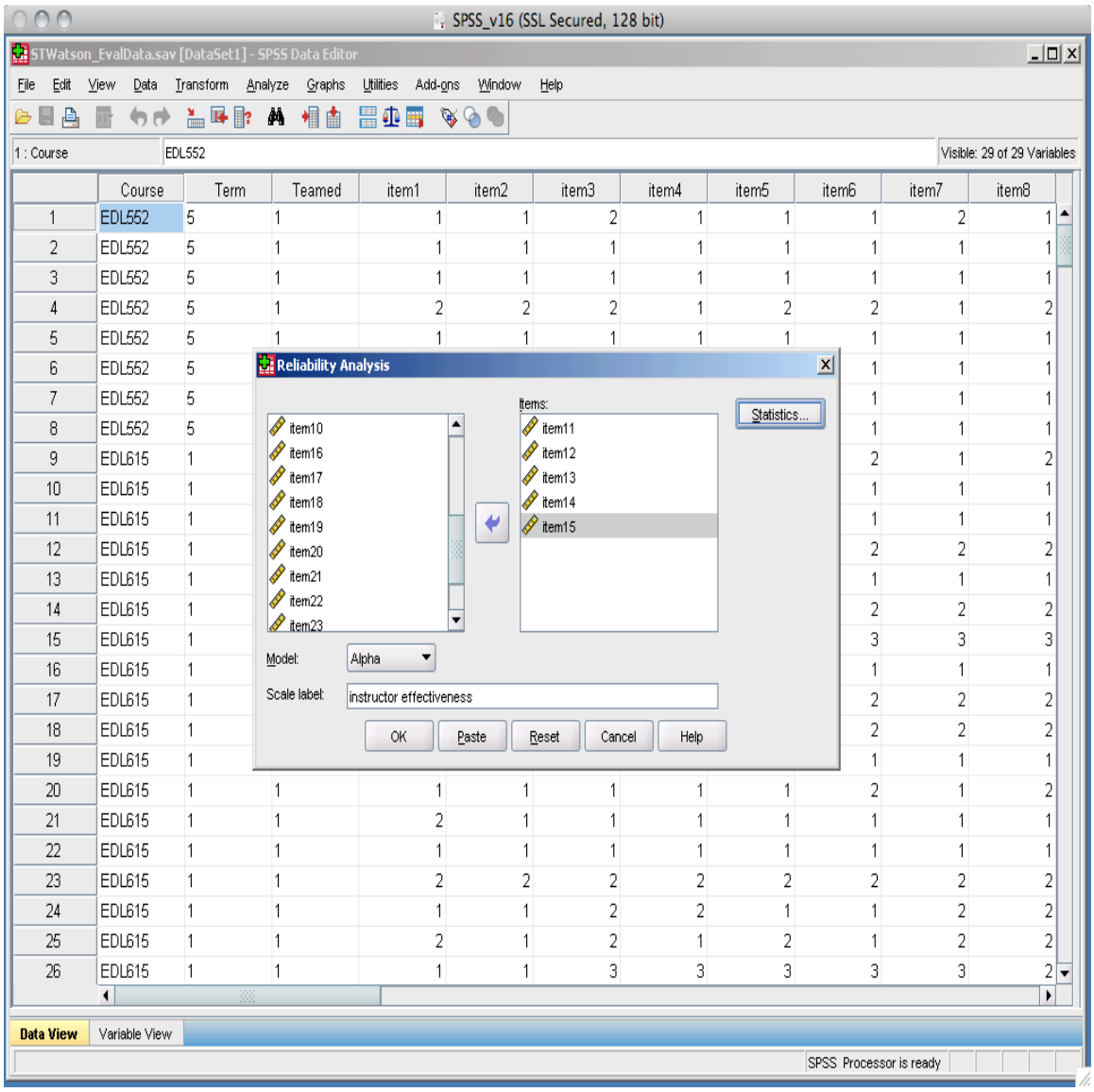
2. When your data is ready, then select {Analysis}/{Scale}/{Reliability Analysis} to access the *cronbach alpha*, and other, reliability functions.



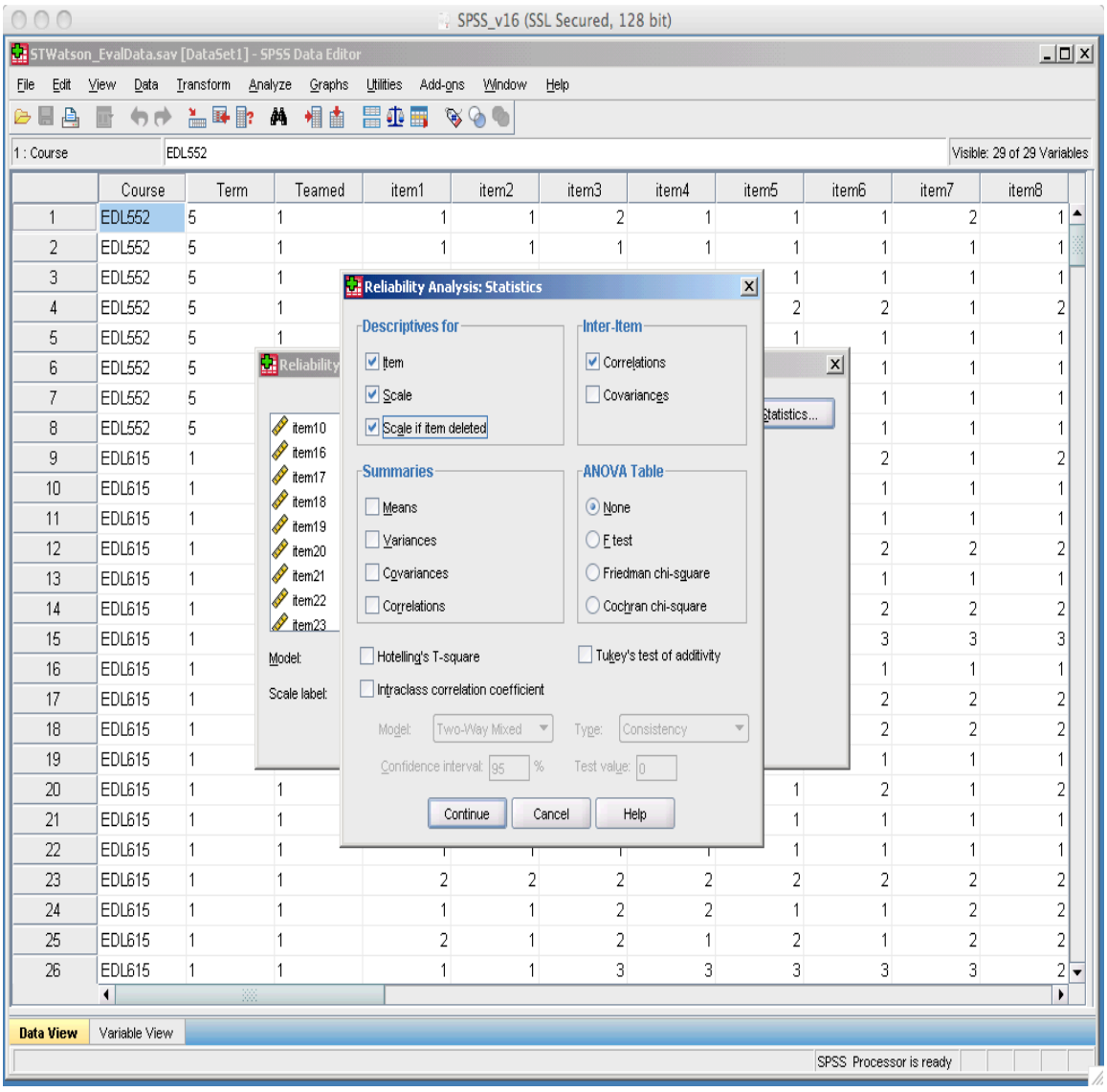
3. Select each variable for the scale, click the arrow in the middle of the dialog box, and it will move to the right side. Do this for all relevant variables.



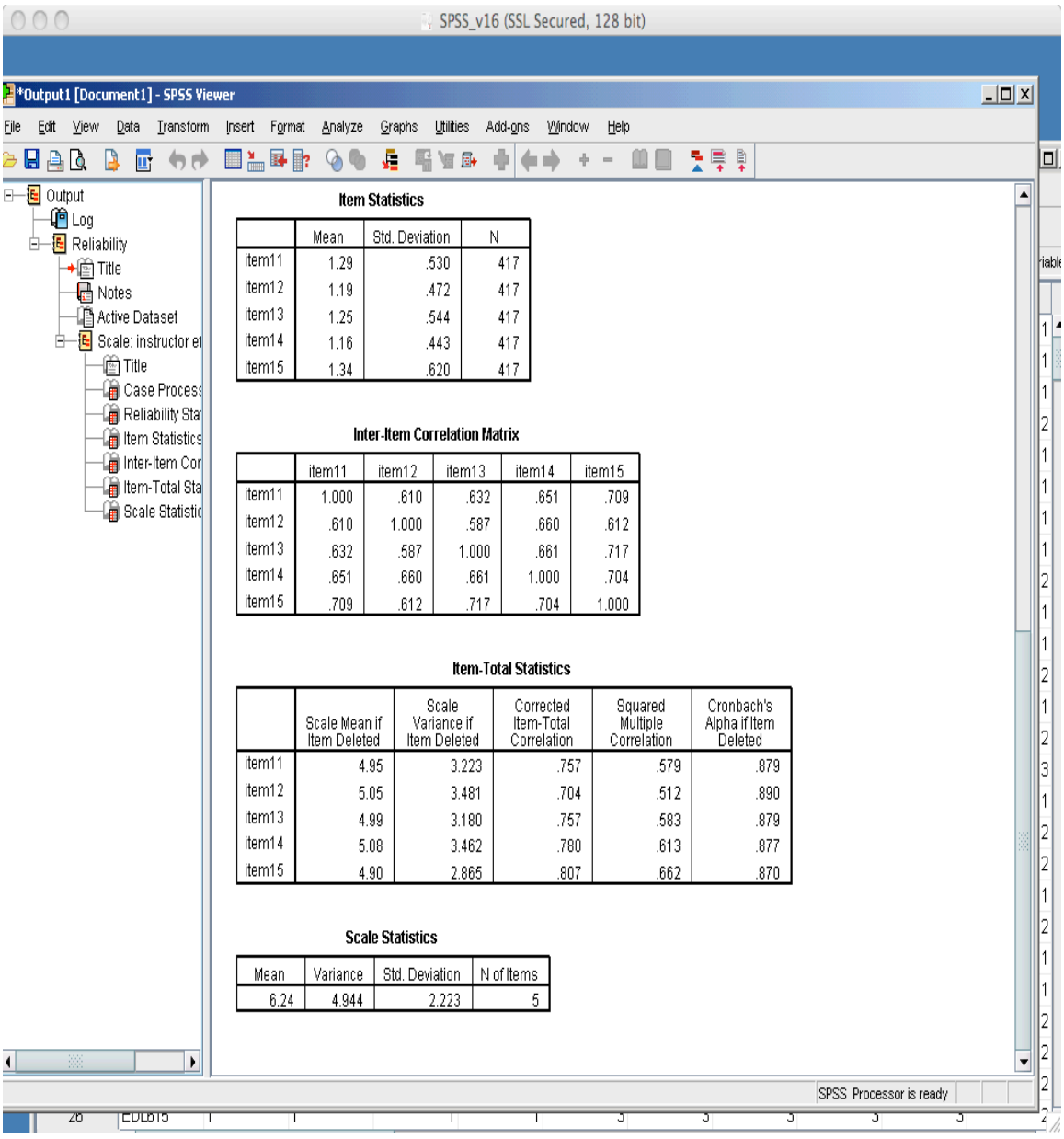
4. You should now see all your items selected for analysis, and you can label your scale in the box at the bottom that says Scale Label.



5. Click on {Options} and make sure the following selections are checked. Under "Descriptives for…" the selection called Scale if item deleted is particularly important for us. This will give us a re-calculated alpha based upon each individual item being removed. We then see how each variable impacts the overall alpha for the scale/construct.



6. Click {Ok} and your Output will be generated. You will see your overall *cronbach alpha* first (use the first number). Scroll down and you will see summary statistics including inter-item correlations, and then a box called item-total statistics. Look to the right of the box and you will see a *cronbach alpha* for the scale if each corresponding item were deleted. You can use this information to identify weaker or stronger items in the scale.



Item Statistics

	Mean	Std. Deviation	N
item11	1.29	.530	417
item12	1.19	.472	417
item13	1.25	.544	417
item14	1.16	.443	417
item15	1.34	.620	417

Inter-Item Correlation Matrix

	item11	item12	item13	item14	item15
item11	1.000	.610	.632	.651	.709
item12	.610	1.000	.587	.660	.612
item13	.632	.587	1.000	.661	.717
item14	.651	.660	.661	1.000	.704
item15	.709	.612	.717	.704	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
item11	4.95	3.223	.757	.579	.879
item12	5.05	3.481	.704	.512	.890
item13	4.99	3.180	.757	.583	.879
item14	5.08	3.462	.780	.613	.877
item15	4.90	2.865	.807	.662	.870

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
6.24	4.944	2.223	5

7. Intepreting alphas: remember that the general standard is that an alpha needs to be greater that .70 to be considered highly reliable. Over .80 is even better.