# SPSS Tutorial

## - How to do a Pearson's Product Moment Correlational Analysis -

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The Pearson's correlation is used to find a correlation between at least two continuous variables. The value for a Pearson's can fall between 0.00 (no correlation) and 1.00 (perfect correlation). Other factors such as group size will determine if the correlation is significant. Generally, correlations above 0.80 are considered pretty high.

I will use for this example the data file created in the first part of this tutorial. You can download it here if for some reason you want it. Of course, you'll probably be doing this on a data file of your own.

1) Select Statistics: Correlate: Bivariate (**Figure 1**). This will cause the menu in **Figure 2** to be displayed.
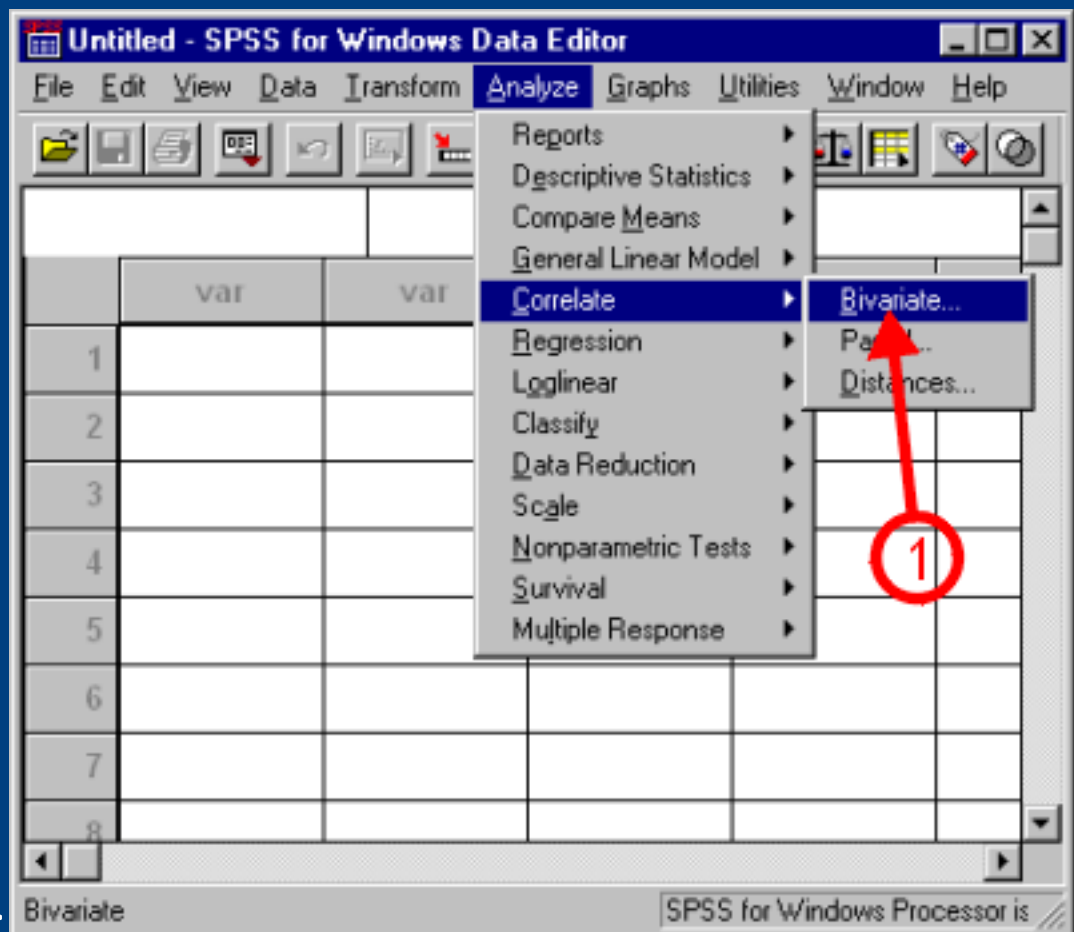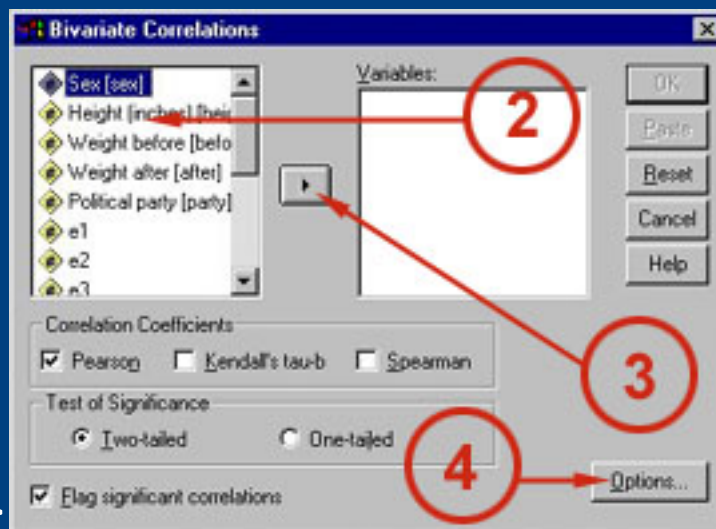


Figure 1:

Figure 2: 

**2)** For this particular example I will be correlating "Sex" with "Weight (before)." Of course, you can correlate lots of variables at the same time, but I'm just doing two for simplicity's sake. Select "Sex" in the column at the left.

**3)** Move the variable to the column on the right by clicking on that arrow button once. Repeat the process with the "Weight (before)" variable.

**4)** Click on the options button to bring up a menu like the one in **Figure 3**.
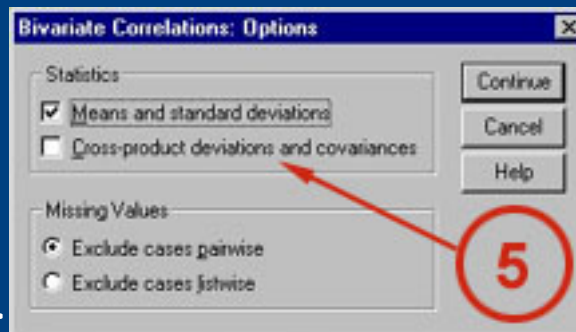
Figure 3: 

**5)** I've checked the "Means and Standard Deviations" box in the "Statistics" area so that I can see some descriptive statistics in the output, although these options (and, hence, the term) are not needed to run the actual Pearson's. Click on Continue for this when you're done, and click on OK to run the correlation.

Output should be generated similar to that in **Figure 4**.

## ➡ Correlations

Figure 4:



6) These are your descriptive statistics; as you can see, SPSS will give you the mean, standard deviation, and number of each variable.

7) This is the main matrix of the Pearson's output. Variables have been arranged in a matrix such that where their columns/rows intersect there are numbers that tell about the statistical interaction between the variables. Three pieces of information are provided in each cell -- the Pearson correlation, the significance, and number of cases. When a variable interacts with itself, the correlation will obviously be 1.00. No significance is given in these cases.

8) Notice that the -.774 has asterisks by it. As is indicated at the bottom of the output this is how SPSS indicates significant interactions for you. Notice the significance is under 0.05 (.003).

That's it for Pearson's