SPSS24 HELP SHEET: Pearson Correlation

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1. How to enter data to do a Pearson correlation.
For general advice on data entry see the "**How to enter data into SPSS**" help sheet.

Data used in correlations are related: Data from the one variable go in one column and data for the other variable in another column. Related data points must be in the same case (i.e., row). In this example, one variable is *eye* and the other variable is *blood*. *Eye* (variable label = Intraocular pressure) is measured in microlitres per minute and is a scale level of measurement. *Blood* (variable label = Pulsatile ocular blood flow) is measured in microlitres per minute. *ID* indicates the identity of the person from whom the data were collected.

Variable View

Data View (Value Labels on and off)

2. How to do a Pearson Correlation.

To get SPSS to conduct a Pearson correlation:
Open your data file.
Select: Analyze – Correlate – Bivariate…

This will bring up the **Bivariate Correlations** window:
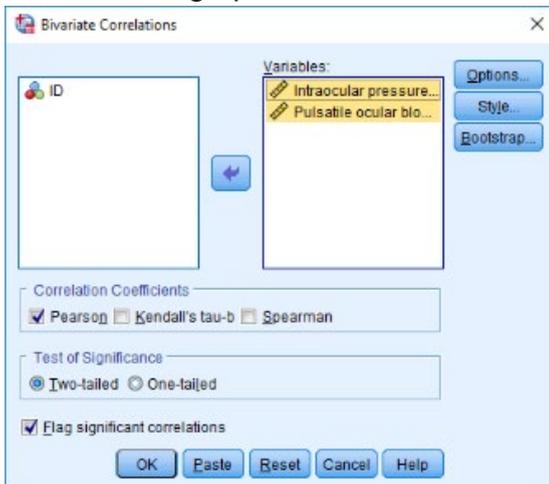
Select the variables that you want to analyse, and send them to the **Variables** box (in this example *Intraocular pressure* and *Pulsatile ocular blood flow*). Make sure that the **Pearson** option is selected. (NB: You can do a Spearman and/or Kendal's correlation at the same time by also selecting these options). Click **OK**.

The key elements of the output are:

Correlations

		Intraocular pressure, IOP (mmHg)	Pulsatile ocular blood flow, POBF (microlitres/min)	
Intraocular pressure, IOP (mmHg)	Pearson Correlation	1	-.642**	← Statistic (r)
	Sig. (2-tailed)		.002	← P
	N	20	20	← Number of objects (N)
Pulsatile ocular blood flow, POBF (microlitres/min)	Pearson Correlation	-.642**	1	Note: Degrees of Freedom = N-2
	Sig. (2-tailed)	.002		
	N	20	20	

**. Correlation is significant at the 0.01 level (2-tailed).

In summary the key information from the test is
$r_{18} = -0.642$, *P* = 0.002