Correlations

Paired Samples Statistics

CI % : 95

Group	N	M	SD	SE	Lower	Upper
Time 1	4	2.000	2.449	1.225	-1.898	5.898
Time 2	4	6.000	2.449	1.225	2.102	9.898

These statistics were obtained using same formulas as in the previous section on Frequencies and Descriptives. Note that they are calculated separately for each variable.

Correlations

		Time 1	Time 2
Time 1	r	1.000	0.500
	SCP	18.000	9.000
	COV	6.000	3.000
Time 2	r	0.500	1.000
	SCP	9.000	18.000
	COV	3.000	6.000

These matrices represent the conjunction of both variables and therefore present the statistics relevant to the relationship between the two variables.

The Sum of Cross Products ("SCP") is not easily determined from the summary statistics of the output, but rather from the data (and the calculations are therefore not shown here).

The Covariance ("COV") is a function of the Sum of Cross Products and the sample size:

$$COV = \frac{SCP}{(N-1)} = \frac{9.000}{(4-1)} = 3.000$$

The Correlation coefficient ("r") is a function of the covariance and the standard deviations of both variables:

$$r = \frac{COV}{(SD_X)(SD_Y)} = \frac{3.000}{(2.449)(2.449)} = .500$$