APPLIED STATISTICS INSTRUCTION SHEET

BIVARIATE CORRELATIONS IN SPSS AND PSPP

Instructions

Bivariate correlations provide measures of association between two variables. The capabilities of each software package differ.

Instructions for SPSS
- The path to the procedure is Analyze>Correlate>Bivariate.
- Toggle at least two variables in the Variables box. More than two variables can be entered into the procedure.
- The default setting is for Pearson's r. The dialog box allows the procedure to be reset for Kendall's tau-b or Spearman's rho.
- The null hypothesis is that the value of the correlation is zero. The procedure is set by default to a two-tailed test, but the dialog box allows the procedure to be reset for a one-tailed test.

Instructions for PSPP
- The path to the procedure is Analyze>Bivariate Correlations.
- Toggle at least two variables in the Variables box. More than two variables can be entered into the procedure.
- The procedure runs only Pearson's r.
- The null hypothesis is that the value of the correlation is zero. The procedure is set by default to a two-tailed test, but the dialog box allows the procedure to be reset for a one-tailed test.

Key Statistics
- The output provides a correlation matrix that includes for the requested correlation statistic, the p-value, and the valid number of observations for each variable combination.
- The direction of the relationship is the sign of the correlation statistic, e.g., positive or negative.
- The effect size is the absolute value of the relationship. The interpretation of the effect size is based on the following ranges: weak relationships correlation between .10 and .29, medium or moderate relationship are between .30 and .49, and strong relationships equal or exceed .50.

Written Interpretation

Written comments highlight the direction and effect size of statistically significant results. Statistics can be included in the text parenthetically when accompanied by a statement that conveys the key result in plain English (r=.38, p<.01). If there is no significant effect, this fact should be stated in the text.