Bivariate (Pearson) Correlation

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Data Analysis Plan: Bivariate (Pearson) Correlation

Copy and paste the following into a word document to use as your data analysis plan template.

Research Question:

RQ: Is there a statistically significant relationship between variable 1 and variable 2?

H_0: There is no statistically significant relationship between variable 1 and variable 2.

H_a: There is a statistically significant relationship between variable 1 and variable 2.

Data Analysis

To investigate the research question, a Pearson product-moment *r* correlation will be conducted to assess the relationship between variable 1 and variable 2. Pearson *r* correlation is a bivariate measure of association (strength) of the relationship between two variables. Given that all variables are continuous (interval/ratio data) and the hypotheses seek to assess the relationships, or how the distribution of the z scores vary, Pearson *r* correlations are the appropriate bivariate statistic.

Correlation coefficients, *r*, vary from 0 (no relationship) to 1 (perfect linear relationship) or -1 (perfect negative linear relationship). Positive coefficients indicate a direct relationship, indicating that as one variable increases, the other variable also increases. Negative correlation coefficients indicate an indirect relationship, indicating that as one variable increases, the other variable decreases. Cohen's standard will be used to evaluate the correlation coefficient, where 0.10 represents a weak association between the two

variables, 0.30 represents a moderate association, and 0.50 represents a strong association.

Reference

Statistics Solutions. (2013). Data analysis plan: Bivariate (Pearson) Correlation [WWW Document]. Retrieved from http://www.statisticssolutions.com/academic-solutions/member-resources/member-profile/data-analysis-plan-templates/data-analysis-plan-bivariate-pearson-correlation/