

## Common Statistical Tests

<b>Type of Test:</b>	<b>Use:</b>
<b>Correlational</b>	These tests look for an association between variables
<b>Pearson correlation</b>	Tests for the strength of the association between two continuous variables
<b>Spearman correlation</b>	Tests for the strength of the association between two ordinal variables (does not rely on the assumption of normal distributed data)
<b>Chi-square</b>	Tests for the strength of the association between two categorical variables
<b>Comparison of Means: <i>look for the difference between the means of variables</i></b>	
<b>Paired T-test</b>	Tests for difference between two related variables
<b>Independent T-test</b>	Tests for difference between two independent variables
<b>ANOVA</b>	Tests the difference between group means after any other variance in the outcome variable is accounted for
<b>Regression: <i>assess if change in one variable predicts change in another variable</i></b>	
<b>Simple regression</b>	Tests how change in the predictor variable predicts the level of change in the outcome variable
<b>Multiple regression</b>	Tests how change in the combination of two or more predictor variables predict the level of change in the outcome variable
<b>Non-parametric: <i>are used when the data does not meet assumptions required for parametric tests</i></b>	
<b>Wilcoxon rank-sum test</b>	Tests for difference between two independent variables - takes into account magnitude and direction of difference
<b>Wilcoxon sign-rank test</b>	Tests for difference between two related variables - takes into account magnitude and direction of difference
<b>Sign test</b>	Tests if two related variables are different – ignores magnitude of change, only takes into account direction

Courtesy of CYFAR.ORG <https://cyfar.org/sites/default/files/Common%20Statistical%20Tests.pdf>