

A Basic Guide to Choosing Statistical Test

What design or arrangement is your variables?	What type?		Shape of distribution		How many levels has the categorical variable?	Which test to use?
	Categorical	Continuous	Parametric (normal)	Non-parametric (skewed)		
	2	-	-	-	-	Chi-square
	1	1 (test variable)	✓	-	2	Independent Sample T-test
	1	1 (test variable)	-	✓	2	Mann-Whitney U test
	1	1	✓	-	3	ANOVA between subjects
	1	1		✓	3	Krusal-Wallis
Independent	-	2	✓	-	-	Pearson correlation
Independent	-	2		✓	-	Spearman correlation
Paired, measured twice	-	2	✓	-	-	Related T-test
Paired, measured twice	-	2	-	✓	-	Wilcoxon Sign-rank test
Paired, measured three times	-	2	✓	-	-	ANOVA within subjects
Paired, measured three times	-	2	-	✓	-	Friedman test