Overview statistical tests

Analysis	Question	paired/ unpaired	Uni-/bi-/ multivariate	DV	IV	Type DV	Type IV	CV	Typ KV	parametric/non parametric	Method
one-sample Test	Compare group with hypothetical value		Univariate	1	0	dichotomic		0		np	**Binomial test**
										np	**Chi-squared "Goodness of fit" Test**
										np	**Wilcoxon signed-rank test (Wilcoxon T)**
										p	**one-sample t-test**
Test for significant differences of the mean	Comparison of two unpaired groups	unpaired	Univariate	1	1	nominal +	dichotomic	0		np	**Chi-squared test of Independency**
						nominal +				np	**Fischer's exact Test**
						ordinal +				np	**Wilcoxon Mann-Whitney U Test (Rangsummen Test)**
						interval				p	**unpaired sample t-Test**
	Comparison of three or more unpaired groups	unpaired	Univariate	1	1	Nominal +	nominal +	0		np	**Chi-squared test of Independency**
						ordinal +				np	**Kruskal-Wallis H-Test**
						interval				p	**ANOVA 1**
					>1	interval				p	**Factorial ANOVA**
	Comparison of two paired groups	paired/ unpaired	Univariate	1	1	dichotomic	dichotomic	0		np	**McNemar Test**
						ordinal +				np	**Sign test**
						ordinal +				np	**Wilcoxon signed-rank test (Wilcoxon T)**
						interval				p	**paired sample t-test**
	Comparison of thre or more paired groups	paired	Univariate	1	1	dichotomic	nominal +	0		np	**Cochran's Q-Test**
						ordinal +				np	**Friedmann ANOVA 2**
						interval				p	**ANOVA 1 with repeated measurements**
					>1	interval				p	**factorial ANOVA with repeated measurements**
Determine correlation	Quantifictaion of the association strength of two 2 variables		Bivariate	2	0	ordinal +		0		np	**Kendall rank correlation**
						ordinal +				np	**Spearman rang correlation**
						interval				p	**Pearson correlation**
						interval		1+	Interval	p	**Partial correlation**

DP dependent variable **IV** independent variable **CV** control variable

p parametric + means this or a higher scaling can be used

np non-parametric

Dr. Steven R. Talbot[2020], https://talbotsr.com