Hypothesis Test Flow Chart

Type of data
Interval/ordinal or nominal

Interval/Ordinal
Test Relationship or difference?

Nominal
Chi-square Test

Relationship

How many variables do you have?

Two
Bivariate regression & correlation (Pearson)

More than 2
Multiple Regression & Correlation

If Nonparametric
*Spearman’s correlation

Nonparametric

Related samples?

No
Mann-Whitney U-test

Yes
Wilcoxon signed rank test

Parametric or nonparametric?

Parametric
Parametric or nonparametric?

Parametric

One or two independent variables?

One
1-way ANOVA

Two
2-way ANOVA

Nonparametric

Kruskal-Wallis Test

Related samples?

No

Yes
Friedman’s test

*The only non-parametric regression/correlation we will study is Spearman’s correlation coefficient, but other methods are available for non-interval data.