

Summary of tests – Summer 2022		
Test	Variable types	Comments
Two-sample t-test	One Quantitative Response Variable; One categorical variable with only two categories	Corresponding non-parametric test – Rank-Sum test (Wilcoxon Rank Sum Test).
One-way ANOVA	One Quantitative Response Variable; One categorical variable with more than two categories (at least three)	Paired t-test (unadjusted or with Bonferroni correction) or Tukey's HSD is used for multiple comparison
Two-way ANOVA	One Quantitative Response Variable; Two categorical variables	Most commonly use to examine the interaction effect of two categorical variables a quantitative response variable
Simple Linear Regression	One Quantitative Response variable (Y) Only one Explanatory or independent Quantitative variable (X)	Eg: Y – Breath holding time X - Height
Multiple Linear Regression	One Quantitative Response variable (Y) More than one Explanatory or independent variables – Can be quantitative or categorical	Eg 1 Y – Breath holding time X ₁ – Height and X ₂ - Weight Eg 2 Y – Breath holding time X ₁ – Height and X ₂ - Sex Eg 3 Y – Breath holding time X ₁ – Height, X ₂ - Weight and X ₃ - Sex
Logistic Regression	One Binary Response variable. More than One Explanatory or independent variables – Can be quantitative or categorical	Response variable (Yes/No) or (True/False)
Chi-square test for independence	Two categorical variables	

In addition, we used one sample t-test to test for a single mean.

Also, compared two population proportions.