

Two-Way ANOVA Effect Sizes

For each main effect and interaction:

$$\eta_p^2 = \frac{SS_{\text{between}}}{SS_{\text{between}} + SS_{\text{within(error)}}$$

$$\eta_p^2$$

.01 = small

.06 = medium

.14 = large

For pairwise comparisons:

$$d = \frac{M_1 - M_2}{\sqrt{SD_p^2}}$$

$$d$$

.2 = small

.5 = medium

.8 = large

$$SD_p^2 = \frac{(n_1 - 1)SD_1^2 + (n_2 - 1)SD_2^2}{(n_1 - 1) + (n_2 - 1)}$$