

## **Effect Sizes - Cohen's Rules of Thumb**

## Effect Sizes – Cohen's Rules of Thumb

Effect sizes are typically provided in the Results section of a research paper and/or a separate table. Don't let yourself be taken in by the huge amount of numbers and symbols – just scan through the text and see if you can identify one of the effect sizes listed in the table below.

Effect size	small	medium	large
Standardized mean difference: d, g, $\Delta$	≤ .20	.50	≥.80
ANOVA: η²	≤ .01	.06	≥.14
Chi-square: $\omega^2$	≤ .01	.06	≥.14
Ch-square: V, φ	≤ .10	.30	≥ .50
Correlation: r, ρ	≤ .10	.30	≥ .50
Correlation: r <sup>2</sup>	≤ .01	.09	≥ .25
Simple regression: $\beta$	≤ .10	.30	≥ .50
Multiple regression: β	≤ .20	.50	≥.80
Multiple regression: R <sup>2</sup>	≤ .02	.13	≥ .26
Odds ratio: OR	≤ 1.5	2.5	≥4.0
Hazar ratio: HR	≤ 1.3	1.7	≥ 2.5

## PLEASE NOTE!

Note that Cohen's rules of thumb were meant to be exactly that – rules of thumb – and are for many reasons arbitrary. For example, a d of .20 may be regarded as small when the outcome concerns job satisfaction but large when the outcome concerns fatal medical errors. When assessing impact, we need to relate the effect size directly to the outcome measured and its relevance, importance, and meaning in each specific context.