An example

✳ Imagine the case where we want to test the difference between two group means. Imagine also that we expect the difference to be about 5 points. From past research, we know that the standard deviation (σ) is about 10.

$$d = \frac{(\mu 1 - \mu 2)}{\sigma} = \frac{5}{10} = 0.5$$

d = 0.5 is a moderate effect size.

What is the power of our experiment with 25 people in each of our two groups?

For two-sample designs, we define δ as:

$$\delta = d\sqrt{\frac{n}{2}}$$

Where n is the number of cases in any one sample. We are assuming equal sample sizes here btw.