

Type I and Type II errors and example

If the null hypothesis is true and you don't reject it, or if the null hypothesis is false and you do reject it, you make right decisions. But if the null hypothesis is true and you decide to reject it or if the null hypothesis is false and you decide not to reject it you make wrong decisions. The first wrong decision is what we call a **Type I error** and the second one is what we call a **Type II error**. If you decrease the probability of making a Type I error, you increase the probability of making a Type II error and vice versa. In the first video in this section we'll discuss these types of error and we'll also introduce the concept of **power**. The power of a test is the probability of rejecting the null hypothesis given that it is false.

In the final video of this section, module and course we'll practice with what we've learned about significance tests.

