CHAPTER OVERVIEW

13: Power

Power is defined as the probability of correctly rejecting a false null hypothesis. For example, it can be the probability that given there is a difference between the population means of the new method and the standard method, the sample means will be significantly different. The probability of failing to reject a false null hypothesis is often referred to as β. Therefore power can be defined as:

$$\text{power}=1-\beta$$

It is very important to consider power while designing an experiment. You should avoid spending a lot of time and/or money on an experiment that has little chance of finding a significant effect.