

SEARCH



RESOURCES

CONCEPTS

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13. Quiz: Types of Errors - Part III

14. Common Types of Hypothesis ...

15. Quiz: More Hypothesis Testing...

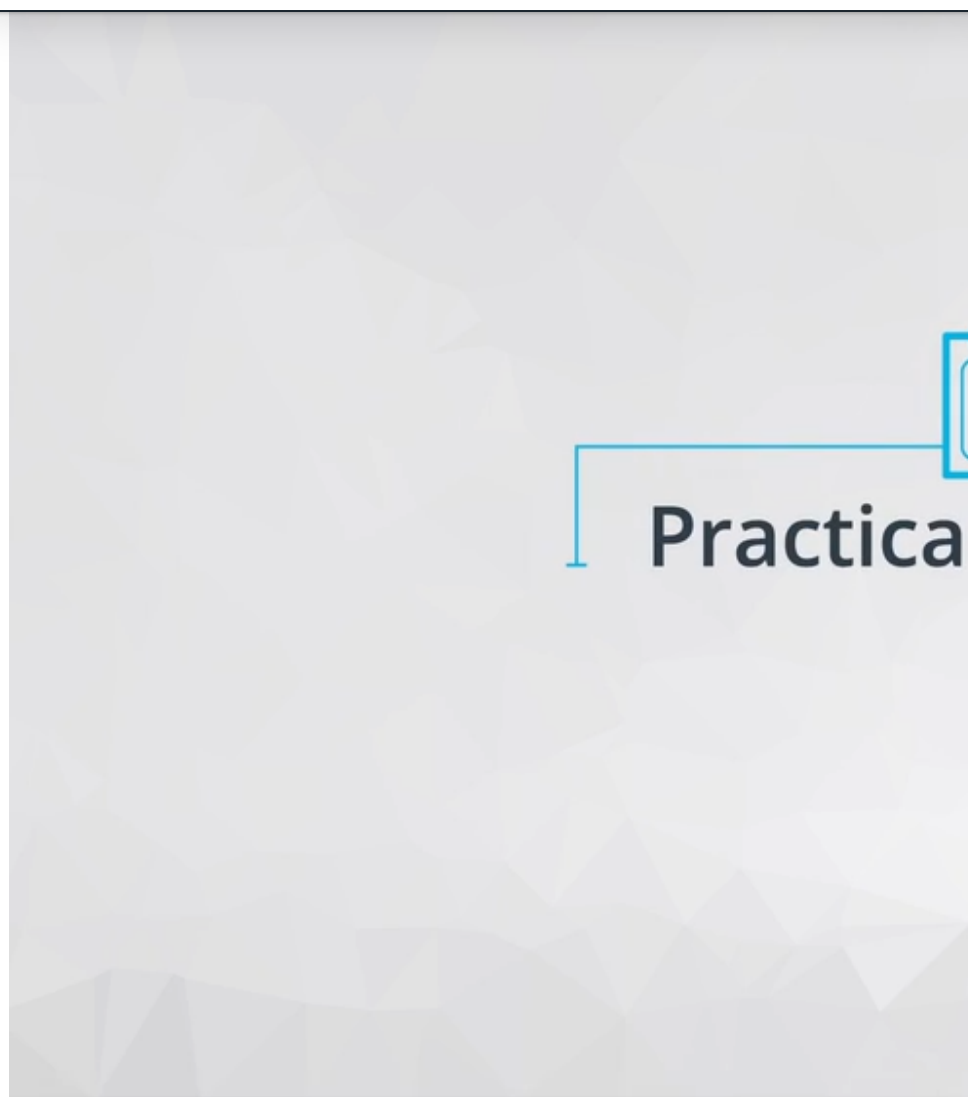


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Type I Errors

Type I errors have the following features:

1. You should set up your null and alternative hypotheses, so that the worse type I error.
2. They are denoted by the symbol α .
3. The definition of a type I error is: **Deciding the alternative (H_1) is true, when the null (H_0) is true.**
4. Type I errors are often called **false positives**.

Type II Errors

1. They are denoted by the symbol β .
2. The definition of a type II error is: **Deciding the null (H_0) is true, when the alternative (H_1) is true.**
3. Type II errors are often called **false negatives**.

In the most extreme case, we can always choose one hypothesis (say always choose the null hypothesis) to ensure that a particular error never occurs (never a type I error assuming we always choose the null hypothesis). However, more generally, there is a relationship where with a single set of data the chance of one type of error, increases the chance of the other error occurring.