

CHAPTER OVERVIEW

8: Independent Samples t-Tests

The **independent samples t-test** is an inferential test used when you want to test whether the means of two unrelated groups are significantly different. This is sometimes referred to as a two sample *t*-test, a between samples *t*-test, an unpaired *t*-test, or a student *t*-test (that last name has an interesting origin). The independent samples *t*-test is a bivariate test used when there are two separate groups to compare. The two groups are compared on a single quantitative variable which is measured the same way for both groups. Thus, you should use this technique if you want to compare the means of exactly two independent groups on a variable measured on the interval or ratio scale. Other techniques are needed when there is one group (such as the one sample *t*-test covered in Chapter 7) or three or more groups (such as the one-way ANOVA which will be covered in Chapter 10).

[8.1: Variables, Data, and Hypotheses that Fit the Independent Samples t-Test](#)

[8.2: Experimental Design and Cause-Effect](#)

[8.3: The Independent Samples t-Test Formula](#)

[8.4: Example of how to Test a Hypothesis by Computing t.](#)

[8.5: Addressing Violations to Assumptions](#)

[8.6: Using SPSS](#)

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