



One-tail test for T-test of independent samples

Troubleshooting

Problem

I would like to run test of independent samples in SPSS for Windows. I am interested in doing a one-tailed test. How can I do this?

Resolving The Problem

SPSS has no specific procedure or dialog box to run a one-tailed test for differences of means. The procedure for the one-tailed test is the same as for the two-tailed test. There are two issues here, though. First is to have an idea of which direction you want the t-statistic to go. If you expect that group 1 has a higher mean than group 2, you will be looking for a positive t-statistic (since SPSS will use the mean of group 1 minus the mean of group 2 as the numerator in computing the t statistic). Make sure that you know which direction the t statistic is going and what that direction indicates.

The significance for this test is the displayed significance divided by two. Since the t statistic has a symmetrical distribution, the "significant" tails will have the same probability (e.g. in a two-tailed test, a .05 criteria reflects that the .025 tails will reflect significance). Since we are looking at only one of those tails, we would divide the significance in half to determine if the t statistic is significant or not

Related Information

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Historical Number

Document Information

More support for:

[IBM SPSS Statistics](https://www.ibm.com/mysupport/s/topic/OTO500000001yjtGAA) (<https://www.ibm.com/mysupport/s/topic/OTO500000001yjtGAA>)

Software version:

Not Applicable

Document number:

417783

Modified date:

16 April 2020