In a Stroop task, participants are presented with a list of words, with each word displayed in a color of ink. The participant's task is to say out loud the color of the ink in which the word is printed. The task has two conditions: a congruent words condition, and an incongruent words condition. In the congruent words condition, the words being displayed are color words whose names match the colors in which they are printed: for example RED, BLUE. In the incongruent words condition, the words displayed are color words whose names do not match the colors in which they are printed: for example PURPLE, ORANGE. In each case, we measure the time it takes to name the ink colors in equally-sized lists. Each participant will go through and record a time from each condition.

I use independent two-sample t-test(two-tailed).

Null hypothesis(H0): there is no difference for acting time between congruent group and incongruent group.

Alternative hypothesis(H1): there is difference for acting time between congruent group and  incongruent group.

Based on the statistics results, I reject Null hypothesis.  These results are statistically significant.