



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Kavi S. Arora	Project Number J0604
Project Title The Stroop Effect: Validity and Gender Differences	
Abstract	
Objectives/Goals Does the process of reading the word affect the task of naming the color of the ink the font was written in and is there a gender difference?	
Methods/Materials <ul style="list-style-type: none">o Stop watch with minutes, seconds, and millisecondso Pen or pencilo Computer generated words for testing, in coloro a computer generated chart to record my resultso 82 subjects: 41 males & 41 females with minimum reading skills of Grade 3 <ol style="list-style-type: none">1. First I decided that I want to test a total of 82 people with equal number of males and females.2. I made 2 test charts and I tested and timed everyone with them using a stopwatch. For Test 1 the subjects read the words as written. For Test 2 they were asked to name the ink color of the fonts and not read the words.3. I made sure that the subjects understood the task to be done. All questions were answered before the test was started. The subjects were tested in a comfortable environment.4. Data recorded included the age and gender of the subjects and the time it took to read each chart.5. Average time was calculated for both tests and rounded off to the second decimal place.6. I made a graph to show the results.	
Results <p>Test 1 was just reading the words. Test 2 was reading the color ink instead of the word. In Test 1 males averaged 7.99 seconds and performed better than females by 0.41 seconds. In Test 2 males averaged 20.59 seconds and performed better than females by 0.84 seconds. The average score for all subjects combined for Test 1 was 8.2 seconds and 21.01 seconds for Test 2.</p>	
Conclusions/Discussion <p>It was easier for people to read the word than just read the color. When you look at one of the words, you see both its color and its meaning. If those two pieces of evidence are in conflict, you have to make a choice. Because experience has taught that word meaning is more important than ink color, interference occurs while paying attention only to the ink color. The interference effect suggests you're not always in complete control of what you pay attention to. Contrary to my hypothesis males scored better for both tests but the difference was minimal and I do not think that it was a significant gender difference. A larger sample size may help in my future project.</p>	
Summary Statement <p>The human brain works more efficiently for automatic processes than for controlled ones.</p>	
Help Received <p>Father audited my calculations and graphs. Sister drove me to test subject's homes.</p>	