



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Ryan M. Chung	Project Number J0307
Project Title Experience the Stroop! Does the Stroop Effect Change with Gender and Age?	
Abstract Objectives/Goals The Stroop Test measures reaction time in identifying the color of the word versus reading the name of the color. The purpose of my science project is to test the Stroop Effect on gender and age. My hypothesis is that females will be quicker than males at completing the Stroop Test. Children will complete the Stroop Test the fastest out of young people and adults. Methods/Materials 30 index cards with xxx written in different colors (Control Color) 30 index cards with the names of colors written in the same color ink (Control Word) 30 index cards with the names of colors written in different color ink (Say Color and Read Word) Four different color and word tests (Control Color, Control Word, Say Color and Read Word) were conducted on 30 males and 30 females in three different age groups (ages 10-20, 21-40, 41-65) to measure reaction time after reading words or saying color on 30 index cards. Results In the gender category, the female group had a faster reaction time in all of the tests. Females were quicker at reacting to the Stroop Tests than the males. Age group 10-20 had the fastest reaction time in the control color, control word and say color tests. Age group 41-65 had the slowest reaction times. The Say Color test always had a longer reaction time than the Read Word test. Conclusions/Discussion Females and children were quicker at reacting to the Stroop Tests. Females may have an advantage in color recognition. People were much slower to recognize a color than to recognize a word because reading is automatic. Say Color clearly demonstrated the Stroop Effect because test subjects experienced interference in their brain when they saw an index card with a color word written in a different color. The interference slowed their brain down to focus on concentrating on saying the color.	
Summary Statement My science project is to test the Stroop Effect on gender and age.	
Help Received My mother assisted me in setting up the experiment. My little brother helped me during some of the experiment with the stopwatch.	