

# CALIFORNIA STATE SCIENCE FAIR 2005 PROJECT SUMMARY

Name(s)

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**Project Number** 

**S0323** 

### **Project Title**

# **Effect of Distractions on Reaction Times of High School Students**

# Abstract

### **Objectives/Goals**

To analyze how various auditory, visual, and vocal distractions effect the reaction times of high school students between the ages of 14-18. Then comparing these results to teenage drivers versus adult drivers on the road on the road.

#### Methods/Materials

A student-designed computer program was used to measure each student's reaction time to the one-hundredth of a second.

A Laptop computer was used for all student testing.

Students were always tested in an isolated environment.

#### Results

Student's reactions times were slowed down by an average of 44% by all three distractions. Each distraction alone, had a significant effect on slowing a student's reaction time down. Yet there was no significant difference between each distraction on a students reaction time.

#### **Conclusions/Discussion**

Auditory, visual, and vocal distractions significantly affected the students' reaction times. This slowed reaction time most likely takes place inside of an automobile also. This could contribute to the reason why young drivers are more frequently invovled in present day car accidents.

### **Summary Statement**

The effect of various auditory, visual, and vocal distractions on the reaction times of high school students.

#### Help Received

Mount Miguel High School provided laptop; A student designed the reaction time computer program; Teacher provided testing environment.