

CALIFORNIA STATE SCIENCE FAIR 2004 PROJECT SUMMARY

Name(s)

Lindsey M. Wrape

Project Number

Project Title

Reaction Time and How Much It Is Affected by Age

Objectives/Goals

For my project I wanted to see how much age affects one's reaction time, and to see if there was a certain point in one's life at which reaction time starts to dramatically increase.

Abstract

Methods/Materials

I created a computer program that would be used to conduct my experiments by measuring each person's reaction time. I tested people between the ages of 6-85 and divided them into 8 age groups. Each subject was tested 5 times. I tested a total of 120 people on my laptop computer.

Results

The slowest group of people I tested were ages 76-85 & older, with an average of 0.75 seconds. There were two fast groups, both with averages of 0.45 seconds. The first group was ages 26-35, the second group was ages 56-65.

Conclusions/Discussion

I hypothesized that between the ages of 65-85 & older there would be at least a 10% increase in reaction time over the quickest reaction time measured. The second to last oldest age group had an average reaction time of 0.66 seconds. The oldest group had an average reaction time of 0.75 seconds. The quickest time measured was 0.34 seconds. There is more than a 10% increase between these times, therefore validating my hypothesis. I have concluded that reaction time does slow with age, although as one gets older it doesn't just start increasing. It goes in a up-down pattern and once one reaches their mid 60's it steadily increases from there.

Summary Statement

How much age affects human reaction time.

Help Received

Dad: Creating computer program, Dad/Mom: Driving me to get test subjects.