

CALIFORNIA STATE SCIENCE FAIR 2005 PROJECT SUMMARY

Name(s)

Karen E. Ball

Project Number

J0301

Project Title

Right Eye vs. Left Eye

Abstract

Objectives/Goals

I did this project to find out how isolated eyes within a set of eyes process information. I thought the isolated eyes would process information differently because when I am doing vision therapy, my eyes react differently from each other.

Methods/Materials

Sixteen people, ranging from the ages of 8 to 49, were asked to do 4 activities with an eye patched, beginning with their right eye. The following 2 activities timed each eye with a stop watch. With Alphabet Tracking, people followed a line of letters & circled the alphabet in order. With the Hart Chart, First & Last, people stood 10' from the chart & read the first & last columns, then the second columns from each side, & kept going until the people reached the center 2 columns. The following 2 activities counted the number of successes out of 10 tries. With the Tootie Launcher, people launched a bean bag into the air & tried to catch it. With the Bean Bag Toss, people tossed a bean bag into a bucket from 10' away.

Results

The overall results from the 4 activities showed that the people did process the information differently with each eye.

Conclusions/Discussion

Most did better with their left eye with the Alphabet Tracking as it was near activity. Some favored either eye with the Hart Chart, First & Last since it was a far activity. Some people reported blurriness while reading the chart & came closer to see it more clearly. Perhaps the ability to keep the chart in focus at a distance made a difference on how quickly they could read the letters. With the Tootie Launcher, some people had the same amount of catches with each eye, while others had more catches with the left eye. With the Bean Bag Toss, people made more baskets with their left eye. The majority of the people made 4 or less baskets with each eye, as the bucket had no wall in the back for rebounding.

Summary Statement

This project was to see if people processed information differently with each eye.

Help Received

Mom helped with: creating prompts to help student with writing; creating forms to record info during the activities; locating background info from internet; putting together the science board after student created the info cards; filling out CSSF forms. Used equipment from the N. B. Dev. Optometry Group.