CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY

Name(s)
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Project Number
J1211

Project Title
The Eyes Have It: Peripheral Vision

Abstract

Objectives/Goals
My project was to determine if I tested subjects with brown, green/hazel, and blue eyes on their ability to identify motion, shapes, and colors, the subjects with the blue colored eyes will see the test objects earliest.

Methods/Materials
A peripheral-vision testing protractor was constructed. Test objects were made to identify motion, shapes (circle, square, and triangle), and color (red, blue, and yellow). Each subject was tested on all the objects by slowly moving the sticks from zero degrees on each side toward the center at 90 degrees. The subject focused on an object straight ahead (90 degrees) on the testing protractor. The results were recorded at the degree mark where the subject first identified the stick.

Results
There was a total of 22 test subjects ranging in age from 13 to 74. The eye colors tested were brown, blue, and green/hazel. In the 13 to 14 age group , almost every eye color had consistent scores except for the ability to recognize a triangle with the left eye. The 28 to 45 year-olds did not have the brown eye color, but the green/hazel and blue eyes had many similarities. However, the blue eyes could see the color yellow better than the green/hazel eyes. Then the two eye colors switched when they saw the color blue with their right eye. The final age group was 58 to 74. Their scores were all over the grid and noticeably higher than the other age groups.

Conclusions/Discussion
After all the teenagers and adults were tested with their varying eye colors, the results turned out to be inconclusive. None of the eye colors was more successful in identifying the test objects. Instead of eye color making a difference in how well someone can see using their peripheral vision, age was mainly a factor. As eyes age, peripheral vision narrows. This leads to the hypothesis being incorrect.

Summary Statement
My project tested to see if eye color affected peripheral vision.

Help Received
My mother helped with the typing and taking me to test subjects. My grandmother helped with making the testing protractor.