CALIFORNIA SCIENCE & ENGINEERING FAIR
2019 PROJECT SUMMARY

Name(s)

Reeya Singh

Project Number

J1224

Project Title

The Effect of Temporary Blindness on Hearing

Abstract

Objectives

The objective of this study was to test if blinding people temporarily would cause a measurable improvement in hearing.

Methods

I used The Mimi Hearing app to to test participants hearing, an iPad was used to facilitate the test, a blindfold to temporarily blind the participants and an over-ear headphone to hear the test.

Results

My data shows an overall improvement in hearing for both left and right ears and both age groups (over 40 and under 40). I tested 17 people in each age group. Finally, in order to ensure the applicability of my results I ran a p-test over the data and found that all p-values were less than .05, showing statistical significance. Thus, we can stipulate that even in a larger population temporary blindness should result in an increase in both left and right ear hearing level at all ages.

Conclusions

My study confirms the hypothesis that when subjects are temporarily blinded, their ability to hear will improve. The study demonstrated a significant improvement in hearing after subjects were temporarily blinded, compared to their hearing at baseline.

Summary Statement

I was able to show an increase in hearing level when one was temporarily blinded vs. normal sight.

Help Received

I designed, built and performed the experiment myself. I asked an E.N.T how to measure hearing. After calculating my p-values, my cousin taught me more in depth about statistical significance.