

CALIFORNIA STATE SCIENCE FAIR 2015 PROJECT SUMMARY

Name(s)

Mihai C. Tudor

Project Number

J0429

Project Title

The Unseen Labyrinth

Abstract

Objectives/Goals

The goal of this project is to see if it is possible to create a video game for blind people and if they will get the same amount of entertainment from the game as people who can see. I was also trying to see what the difference was between people who could see and people with blindfolds, and therefore find out how much we actually rely on sight.

Methods/Materials

In this project, I used Scratch 2 Offline Editor (a program that allows beginning programmers to make easy and fun games using base ideas from Java), on an Acer brand laptop.

Results

The participants that were blindfolded in my project all managed to complete my game in under 16 minutes, with varying degrees of difficulty, and with times ranging from six minutes and forty-five seconds to fifteen minutes and twenty-six seconds. The average time to finish the game was eleven minutes and seventeen seconds. Eight people tested the game, and four people also played the game without blindfolds, three of which had also played it with blindfolds. Their average time was three minutes and fifty seconds.

Conclusions/Discussion

In general, I believe my project was a success because it shows that you can easily make a game that is very fun to play without sight. However, the results of the blindfolded testers compared to people who can see, show that blind people will most likely progress slower than people who can see because they have to rely on sounds to discover the maze while those who can see can avoid the walls instead of running into them

Summary Statement

I used Scratch 2 Offline Editor to program a simple maze game that played a sound every time the player hit a wall and another sound when they completed a level, with 18 total levels, and I had a number of people play the game while recordi

Help Received

I received help from my mother with the project abstract, and my friends and family all helped by testing the game for me and letting me record their playthroughs.