CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY

Name(s)
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Project Number
J0729

Project Title
Processing Patterns: Does Age Make a Difference?

Abstract

Objectives/Goals
The objective of the study is to determine if the age related differences in the neurological structures of the adults' and children's brains affect the way they see and process patterns. Specifically, to ascertain whether the more chaotic structure of adolescent brain will process asymmetrical patterns better that more organized adult brain.

Methods/Materials
4 cards and one set of cubes from the game Q Bitz, 20 people (10 children and 10 adults), stopwatch.

Results
80 sets of data were recorded and analyzed (4 sets per subject) with the objective to establish causal relationship between age of the test subject and time required to complete various types of patterns.

Conclusions/Discussion
The lowest time of both adults and the kids was for symmetrical pattern at 51.5 seconds for adults and 69 seconds for kids. My hypothesis was null. The data showed the kids did the best on symmetrical patterns but my hypothesis stated otherwise. For the adults though, they did best on symmetrical which lines up with my hypothesis. Some uncontrolled variables were the job of the adults, the age of the test subjects.

Summary Statement
As indicated by the test data, there is no correlation between age related changes in neurological structure of the brain and ability to process asymmetrical patterns.

Help Received
Ms. Bonita Hamilton, the science teacher, helped organize the project paper.