

CALIFORNIA STATE SCIENCE FAIR 2011 PROJECT SUMMARY

Name(s)

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Project Number

S0421

Project Title

The Correlation of Cranial Circumference with the Cognitive Aptitude of Homo sapiens sapiens

Objectives/Goals

Abstract

The goal of this project is to delve into the potential association of cognitive aptitude, quantified in this study in the form of students' grade point average (GPA, with one's head size. Despite the fact that previous experiments have explored this subject, they did not strictly adhere to the scientific method and certainly did not utilize information that was readily available to them. We will take this experiment a step further by comparing body height and head circumference to GPA separately, as the well as ratio of the two in an attempt to discover a measurement that is most closely associated with GPA.

Methods/Materials

Ruler (12 inch, pen, level, tape measure, paper, flexible tape measure, students

- 1. Measure three centimeters above the location in the center between the eyebrows.
- 2. Wrap the flexible tape measure around the head quite snugly.
- 3. Measure two and a half centimeters above each ear and make certain that the tape measure represents a perfect circle.
- 4. Measure height.
- 5. Graph data and analyze results.

Recults

In this experiment we measured, calculated, graphed, and analyzed data in an attempt to draw a correlation between head circumference, body height, and the ratio of said measurements with GPA. We discovered that if one wished to guess one's GPA from one other piece of information, the body height would be the most efficient to carry out this requirement. Although none of our results were conclusive, we disproved the hypothesis that body height, head circumference, and ratio between these two calculations have any correlation to GPA.

Conclusions/Discussion

From our experimentation we discovered that there is essentially no correlation between head size, body height, and the ratio between these two measurements to one's GPA, thus disproving previous research done on this subject.

Summary Statement

The goal of this experiment was to prove or disprove whether head size, body height, and the ratio between these two measurements have any apparent correlation with one's GPA, and if so, which calculation best represents said GPA.

Help Received

N/A