

CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

Name(s)

Ayan B. Kusari

Project Number

S0311

Project Title

The Effect of Breakfast Consumption on Test Results

Objectives/Goals Abstract

The effect of ingesting a morning meal was measured quantitatively on mathematic performance. While the subject matter was simple, consisting of elementary arithmetical operations. Folk knowledge has lauded the virtues of breakfast consumption in the past, but at University High, many students starve themselves in the morning. I wanted to see the true effect of breakfast on something that affected all of us in school: math test grades.

Methods/Materials

The materials used in this project were kept to a minimum. The most important element of this project, the quantitative math test, was simple to design and was triple checked with a calculator to ensure accuracy: Elementary Self-Made Arithmetic Worksheets (20), Pencils .

Procedures

- 1. I decided to create an arithmetic worksheet which was difficult enough so that changes in speed and accuracy would be clear.
- 2. I included long addition and varying degrees of multiplication and division.
- 5. After stapling packets of the tests, I handed ten packets of one first test and one second test. I decided to keep the gender ratio 1:1 in case it would cause any distortions.
- 6. I instructed my subjects to complete one packet on a day they did not choose to eat breakfast. For those who regularly eat breakfast, I suggested they complete one packet before eating breakfast and the other packet after eating.
- 7. I made an answer key and graded everything.

Results

Breakfast was conclusively proven to bring a consistently faster and more accurate result in the test.

Conclusions/Discussion

University High is in the center of Irvine, a small thousand by thousand roughly square grid of land surrounded by mauve buildings from the seventies. But inside the campus, trends rage on a monthly basis, brewing in the hearts of unsettled and curious teenagers unknown to the very counselors who guide them. Academic performance is key. We were once the highest scoring high school in the county. Is it so implausible that mass misconception of this fundamental morning meal is the cause of our decreased performance?

Summary Statement

The Effect of Breakfast consumption on math test speed and accuracy was tested.

Help Received

My mother helped me buy the backboard and my father drove me several places.