

CALIFORNIA STATE SCIENCE FAIR 2009 PROJECT SUMMARY

Name(s)

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Project Number

Project Title What's Your Math "Add"itude?

Abstract

Objectives/Goals My objective was to learn if there is a correlation between a parent's attitude towards math and their child's attitude towards math.

Methods/Materials

I created a survey on excel that had 4 questions each for parent and child pairs worth a total of 20 points. I recorded the parent and child scores in an excel spreadsheet and made a graph of the total scores from each parent/child survey pair. I calculated the absolute value of the difference of the parent/child scores and recorded this value on a scatter plot. I created a line plot from this data to show how many pairs had a particular point difference. I then interpreted the data with the following criteria:

If the difference of the parent/child score was 4 or less there was a correlation between the parent#s attitude and the child#s attitude. If the difference was greater than 4, there was no correlation between those samples.

Results

Forty six surveys were collected. Thirty eight out of the forty six (38 out of 46) parent/child pairs tested were within a 4 point differential of each other, and thus showed correlation. Eight parent/child pairs did not have a close final score and thus did not correlate.

Conclusions/Discussion

My hypothesis was proved because, based on my criteria, there was a correlation between the parent and child attitudes towards math. I think there was a correlation because if a parent communicates their feelings about math with their child, the child will most likely share the same feelings.

I took my project a step further and looked at the data to see if there was a positive or negative correlation between the parent/child attitudes toward math. I found out that there was a 67% positive correlation, which meant that when the parent had a positive attitude the child had a positive attitude. I also learned that there was a 15% negative correlation which meant that when the parent had a negative attitude. This project could be really helpful to parents because if they treat their children with a positive Math #Add#itude#, their children will most likely reflect this positive attitude and do better in math.

Summary Statement

This project investigates if there is a correlation(negative or positive) between a parent's attitude towards math and their child's attitude towards math.

Help Received

mother helped print out the graphs, mother discussed methods for determining correlation.