CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY

Name(s)
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Project Number
S0301

Project Title
Do People Perform on Tests the Way They Think Is Expected of Them?

Abstract

Objectives/Goals
My objective was to determine whether people#s belief about what is expected of them affects their performance on a test. Specifically, I was testing the hypothesis that when given a test, people who are told that the test is difficult will score lower on the test than those who are told that the test is easy.

Methods/Materials
The test, consisting of 14 SAT questions, selected for medium difficulty, was given to three groups of 20 9th graders of similar socio-economic background from my high school. Only verbal SAT questions were used because 9th graders may have different math backgrounds since some have completed Algebra I and others have not. The SAT was chosen because it is designed to be an unbiased test. An equal number of boys and girls were tested in each group. One group was told that the test was extremely hard and that people scored poorly; another that it was very easy and that people did well; the third group, the control, was told nothing about the difficulty of the test.

Results
The results: for the hard test, the median was 6 correct; the average correct was 43.57%; for the easy test, the median was between 8 and 9 correct; the average correct was 63.21%; for the neutral test the median was 7 correct, the average correct was 51.07%. I analyzed the data using an Excel software program. That analysis showed the difference between the test results were statistically significant with P values much less than .05.

Conclusions/Discussion
These results support my hypothesis that when given a test, people who are told that the test is difficult will score lower than those who are told that the test is easy. This experiment has important implications for both teachers and parents. For example, if teachers knew that what they said about students# performance could have such an impact on their school work, they might be more careful to remain positive and encourage students to study and do well. It might also help parents to know that setting high expectations, statistically speaking, may benefit their children#s performance.

Summary Statement
This experiment was designed to test whether people#s belief about what is expected of them affects their performance.

Help Received
My father helped me edit the final report; my mother helped with the computer graphics; my advisor helped me run the Excel program.