

## CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

Name(s)

Parima Shah

**Project Number** 

**S0318** 

#### **Project Title**

# The Effects of Breathing Techniques on Test Anxiety

## Objectives/Goals

#### **Abstract**

It has been found that various breathing techniques have increased immune system functioning, lowered depression, and changed in metabolism, heart rate, etc, basically combating the symptoms of test-anxiety. Meditative and breathing techniques have yet been used to battle test anxiety and so it is only natural that this research project, whose sole quest is to help students reduce this stress of their life, take upon this technique to help students perform to their highest level and receive an education they deserve.

#### Methods/Materials

1.Hand out the first form, which measures the intelligence of the students in the class.2.Administrate the test. It took ten minutes.3.A second form was given out to the class. It is based off the Test Anxiety Inventory developed by Spielberger. It was shorten, however, to fifteen questions. This administration took about 10 minutes. The purpose of this test was to diagnosis for test-anxiety.4.On the day of test, through random numbering of students, the class was separated into two groups.5.The first group, the experimental group was taken into another room where they were given breathing exercises.6.The second group, the control group, would be given the opportunity to review information for the test for these ten minutes.7.After the ten minutes were up, the two groups were reunited and given another test of ten minutes (Form 3 or Intelligence Test 2).

#### Recults

There were 4 profiles developed: test-anxiety and no breathing techniques, no test-anxiety and breathing tech., test-anxiety and breathing tech, and no test anxiety and no breathing tech.

#### **Conclusions/Discussion**

Because of these intelligence tests, four types of persons are developed Group 1:Test-anxiety and no breathing techniques. They showed large decreases in scores from the first intelligence test and the second. Group 2:Test-anxiety and breathing techniques: Students in this category had an increase in score, although they had test-anxiety. This is not in accordance with the hypothesis because they did better than expected. Group 3:No test anxiety and no breathing techniques. There was no statistical difference in scores proving they were truly the control group. Group 4:No test anxiety and breathing techniques. These students also increased their scores dramatically after taking the breathing techniques, proving this technique truly reduces any level of stress.

### **Summary Statement**

I used breathing techniques to reduce test anxiety in high school students.

#### Help Received

No one helped me with my project but students and teachers volunteered to be a part of my experiment.