



# CALIFORNIA STATE SCIENCE FAIR 2015 PROJECT SUMMARY

<b>Name(s)</b> Samishka Narasimhan; Puja Oak	<b>Project Number</b>  35566
<b>Project Title</b> Stress: A Help or Hindrance?	
<b>Objectives/Goals</b> Our objective was to find out whether being pressured affects the ability of the human brain to strategically think, and by knowing this we hope to find a more efficient way for students and adults to excel at school, jobs, and other day-to-day tasks. <b>Abstract</b> <b>Methods/Materials</b> 1) 3-4 classes of 10-20 children aged 10-13 2) Two Microsoft PowerPoint tests on memory, action recall, intuition, logic, and attention 3) A computer with Windows Live Movie Maker and Microsoft PowerPoint on which to design the test 4) Permission slip for every student asking participation in experiment  First, permission slips were given to students in 4 classes requesting their voluntary participation in the experiment. The first test was given to the students while making the students feel stressed, and the second was given one week later while making the students feel at ease. This was repeated for 3 other classes. <b>Results</b> The data gathered from the experiment shows that stress does not impact student average test scores in a significant way. Although in this experiment, the tests administered to students under stress had a lower average percent score, the difference in scores between stressed and not stressed students was not significant enough to be able to say that stress does, in fact, negatively impact student test scores. The main trend that was seen in the data was that in all trials except for Trial 3, students scored higher when not under stress. All of the visual representations made using data gathered from this experiment can be used to some extent to help different students perform better under stress. <b>Conclusions/Discussion</b> The experiment hypothesis predicted that the particular students tested on the particular topics of the administered tests would score higher when not under stress. The data collected from the experiment supports this conjecture, however weakly it does so. Stress did negatively impact student test scores in this experiment, but only by a very small margin. Males tend to score higher on tests when under stress than females do. These analyses all support the claim that stress does not have as much of a negative impact on student test scores as many perceive it does. To improve the accuracy of the results in a similar experiment, the students could be of different ages, and the tests could be administered by people of higher authority as to increase the level of stress.	
<b>Summary Statement</b> This experiment uncovers the REAL truth behind stress, and whether it is a help, or a hindrance to students during tests.	
<b>Help Received</b> 4 teachers - Mrs. Deborah Robinson, Mrs. J. Engberg, Mrs. Britt Petersen, Mrs. Kirsten Souza - provided their AP classes for experimental testing.	