



**CALIFORNIA STATE SCIENCE FAIR  
2009 PROJECT SUMMARY**

<b>Name(s)</b> <b>Alexandra L. Bollman</b>	<b>Project Number</b> <b>J0399</b>
<b>Project Title</b> <b>Seeing Is Believing: Eye Improvement by Motivation of the Human Mind</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> It is my hypothesis that the mind has the ability, to a certain extent, to overcome limitations of the body. In this experiment there were two groups of subjects, proven and might work. I predict that the people who are told that the eye exercises will definitely improve their vision will improve. Those who are told that they might improve will remain the same.</p> <p><b>Methods/Materials</b> In order to conduct this experiment I used the following materials: Snellen eye chart, two small rubber balls, Presbyopia Reduction exercise sheet, Pencils, Measuring tape (at least 10ft), Surveys (proven and might work). My Method was to gather subjects and give them one of the two surveys. Subjects were alternated between proven and might work, except when two or more subjects were tested together they would receive the same survey. Subjects eyesight was tested with a Snellen chart. Subjects were stopped at the end of the first line read imperfectly. The number of correct characters was recorded. Subjects then performed three vision exercises: Tromboning, Presbyopia Reduction and Tension Reduction Ball Toss. Then each subject was retested with the Snellen chart. The Snellen chart was out of sight during the exercises. These steps were repeated for over 42 test subjects. There were also 15 test subjects that scored 100% on the first snellen test, these subjects were discarded from the experiment, as they had no room for improvement.</p> <p><b>Results</b> Of the 23 proven test subjects, 20 improved and 3 did not. This means 86% of this group improved their vision. The proven group averaged an improvement of 5.6 letters. Of the 19 might work subjects tested, 8 stayed the same, 2 became worse and nine showed some improvement. The might work subjects improved an average of 2.6 letters. In the might work group 53% either stayed the same or got worse and 47% charted some improvement.</p> <p><b>Conclusions/Discussion</b> The majority of my test subjects in both groups confirmed my prediction. The data I collected shows the might work group, who were told that the results of the exercises were inconclusive, did not improve at the same rate as the proven group. This supports the hypothesis, showing the power of a person's mind to influence the body's actions. The mind can perform extraordinary tasks and in the case of my experiment, believing really is seeing.</p>	
<b>Summary Statement</b> Can motivation of the human mind effect eye improvement	
<b>Help Received</b> Mother drove me to test subjects houses and helped assemble the board	