



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Celine A. Fausto	Project Number S0309
Project Title The Improvement of Attention Network Scores as a Result of Visual Training	
Abstract Objectives/Goals My hypothesis is six to seven year old children in the first grade will show an improvement from their initial Attention Network Test (ANT) scores after two sessions of visual attention training. Methods/Materials Materials: 28 children; 14 control group; 14 experimental group; 28 computers; 2 visual attention game websites; "Catch the Lady Bug"; http://www.happy-neuron.com/games/ads.php?gameid=141&screen=1024x768 ; "Secret Files" http://www.happy-neuron.com/games/ads.php?gameid=77&screen=1024x768 ; 2 decks of playing cards; "Card Color Call"; Notecards. Methods: Day 1: Administer ANT to all 28 children (control + experimental) 30 minutes; Collect % mean accuracy. Day 2: Administer "Catch the Ladybug" (game #1) to experimental group 15 minutes; Collect # of ladybugs caught & average response time; Administer "Secret Files" (game #2) to experimental group 10 minutes; Collect % accuracy. Day 3: Administer "Card Color Call" (game #3) to experimental group 10 minutes; Collect # of correct answers. Day 4: Administer ANT to all 28 children (control + experimental) 30 minutes; Collect % mean accuracy. Results From the data collected, 71% (10 out of 14 children) of the experimental group, those who received attention training, scored the same or higher in their ANT. In the control group, only 50% (7 out of 14 children) scored the same or higher in their ANT. Moreover, the average percent change of the experimental group was +3.49 while the average percent change of the control group was -0.21. Conclusions/Discussion The data analysis and results prove that 6-7 year old children in the 1st grade do show an improvement from their initial ANT score after 2 sessions of visual attention training. The attention training exercises proved to be both helpful as well as entertaining for the children in the experimental group. To further this experiment, different variables can be changed. These variables include age, amount of visual attention training given, amount of time given visual attention training, and time between the initial and final ANT. There could also be a study of the relationship in the percent change in the scores based on the initial scores. A second experiment using the same procedure, but with a different age group could be used to see a comparison of scores based on age. This comparison can also be used to see if attention network increases as age increases.	
Summary Statement This project is to see if children who go through visual attention training for two sessions will show an improvement from their Attention Network Test (ANT) scores after three sessions of visual attention training.	
Help Received Pt. Vicente Elementary School for use of the school's computer lab during school hours; Principal of Pt. Vicente Mrs. Betty Cash for allotment to ask the parents' permission to test their children; First grade teachers of Pt. Vicente: Mrs. Lynda Lubow & Ms. Liz Quinlan for the allotment to use school time in	