



**CALIFORNIA SCIENCE & ENGINEERING FAIR  
2019 PROJECT SUMMARY**

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| <b>Name(s)</b><br><b>Paige Collom</b>  | <b>Project Number</b><br><b>J0702</b> |
| <b>Project Title</b><br><b>Does Right Brain Stimulation Affect Reading Comprehension for Dyslexic Students?</b>  |                                       |
| <p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives</b><br/>The objective of my project was to determine if stimulating the right brain improved reading speed and comprehension, for Dyslexic and non-Dyslexic students.</p> <p><b>Methods</b><br/>The experiments involved having the test subject read a passage aloud to get a baseline. Then, I had them go through a series of right brain stimulation activities.</p> <p><b>Results</b><br/>The results of my experiment supported my hypothesis that stimulating the right hemisphere would improve reading fluency with both Dyslexic and Non-Dyslexic students.</p> <p><b>Conclusions</b><br/>When the right hemisphere is stimulated, it opens up neural pathways. When this happens, connections formed by axons improve their ability to make synapses or connections to other locations. In this case, stimulating the right hemisphere, involved with reading, improves the connections or quality of signals being sent from the brain to the eye. In other words, the flow of information is smoother, and faster since there are more synapses taking place. When Dyslexia is included in the process of reading it s even more difficult to process letter combinations and word correlation. So, without the stimulation the Dyslexia will make the person with Dyslexia just function as if not the whole brain is working.</p> |                                       |
| <b>Summary Statement</b><br>I timed Dyslexic and non-Dyslexic students before simulating the right brain and after to see if the stimulation improved the reading.   |                                       |
| <b>Help Received</b><br>My science teacher helped me with my research and my binder, my mom and dad helped me with my display board. And E.V. Cain and Loomis Gateway Academy allowed me to work with the students.  |                                       |