



# CALIFORNIA STATE SCIENCE FAIR 2015 PROJECT SUMMARY

<b>Name(s)</b> Andrew E. O'Rourke	<b>Project Number</b>  35399
<b>Project Title</b> ADHD vs. Non-ADHD Reaction Time	
<b>Objectives/Goals</b> People diagnosed with Attention Deficit/Hyperactivity Disorder ("ADHD") tend to be more hyperactive than those who do not have ADHD. Unfortunately, ADHD is often thought of in a negative light. Rarely is the condition seen as a positive attribute, but studies show there are interesting advantages associated with ADHD. My goal was to test for and determine if people diagnosed ADHD has faster reaction times than those without this diagnosis. <b>Abstract</b> <b>Methods/Materials</b> I ran three tests, three times each on 5 ADHD and 5 non-ADHD subjects. Each volunteer was measured using a visual, an auditory, and a motor skills test so a broad range of different types of reactions could be measured and recorded  Materials Table; Chair; Ruler; Computer; Wi-Fi access; Access to website <a href="http://www.cognitivefun.net">www.cognitivefun.net</a> ; Pen/pencil; Notebook; React-o-Meter (Measures hand-eye reaction time) made by Loncrain Broxton. <b>Results</b> My hypothesis was people diagnosed as having ADHD will have a faster reaction time than those without ADHD. I believed this to be true as many people with ADHD seem more hyperactive than the average person. I think that will translate over to reaction time.  After reviewing the data, my experiment is inconclusive and certainly did not support my hypothesis. Neither the ADHD or non-ADHD subjects showed a significant difference in reaction times. This was true across the board whether the reaction test given was visual, physical, or auditory. <b>Conclusions/Discussion</b> In thinking about the experiment further, the results may have been impacted by the fact my ADHD subjects could have been on prescribed medications to help with their condition. Presuming this is the case, these subjects were not able to go off their prescription just to aid in my testing. In two out of the three types of tests, the non-ADHD participants had a higher average score, but it was by a small margin and did not vary enough for me to state they clearly had better reaction times than those diagnosed with ADHD.	
<b>Summary Statement</b> Testing to see if people diagnosed with ADHD has faster reaction times than those who aren't ADHD	
<b>Help Received</b> Kamau Norman-Terrence for helping me find test subjects for my experiments. Mr. Chris Donohoe for helping me with graphs and almost every technical aspect of my project. My father and mother for helping me proof read my papers and so much more.	