



**CALIFORNIA STATE SCIENCE FAIR  
2008 PROJECT SUMMARY**

<b>Name(s)</b> Cheryl E. Wilson	<b>Project Number</b> <b>J0632</b>
<b>Project Title</b> <b>What Affects an Illusion?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective of my project was to determine whether varying the size and color of the inducing circles will affect the perception of the relation in size between the standard and comparison(variable) circles.</p> <p><b>Methods/Materials</b> I tested 40 people, both girls and boys, ages 12-14. I tested each subject with four tests administered in all. The first test, following my hypothesis, with large and white inducing circles, the next with small and white inducing circles, the third with large gray inducing circles, and the fourth with small and gray inducing circles.</p> <p><b>Results</b> I found there was a direct correlation between the size of the inducing circles and the perceived size of the standard circle compared to the comparison circle. 68% of the subjects who took the tests got test one wrong, 20% of subjects got test two wrong, 37% of subjects got test three wrong, and 25% of subjects got test four wrong.</p> <p><b>Conclusions/Discussion</b> I concluded that the large inducing circles produced the largest illusion, especially when white, but still produced a partial illusion when colored gray. In this experiment I tried to control all factors that i was able to, however some uncontrollable factors would be the subjects vision, the subjects cultural background and any previous exposure or understanding of the illusion.</p>	
<b>Summary Statement</b> Changing variables in the Ebbinghaus Illusion to find their affect on the perceived relation in size between the standard and comparison circles.	
<b>Help Received</b> Dr. Loomis helped find a focus for my project.	