



# CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

<b>Name(s)</b>  <b>Arwen Louie</b>	<b>Project Number</b>  <b>J0410</b>
<b>Project Title</b>  <b>The Color of Personalities: Introversion, Extroversion, and the Surprising Effect of Gender on Artistic Expression</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives</b> This project explores how personality, specifically introversion versus extroversion, affects a person's artistic expression. I hypothesized introverts would 1) utilize lighter, duller, more muted colors 2) color the entire coloring page and 3) be more detail oriented, while extroverts would 1) utilize bolder, brighter colors 2) not color the entire coloring page and 3) be less detail oriented. This project was prompted by my interest in art and fascination with the Myers-Briggs Personality Categorizations.</p> <p><b>Methods</b> The materials I used in this study were Myers-Briggs style personality tests, colored pencils, coloring pages, demographic surveys, and participant rubrics. My procedure included 92 participants who each completed a Myers-Briggs style personality test and short demographic survey and colored a presented picture. I analyzed each participant's completed image with the rubric, which measured amount of space covered, color intensity, and detail, then compared and correlated results from introverts to extroverts.</p> <p><b>Results</b> My hypothesis was partially correct. While introverts color lighter and cover more space, extrovert images are more detailed, which I did not expect. Though my hypothesis was partially validated, variance between introverts and extroverts were small. Because of this, I expanded my study to investigate other factors including gender and the three other Myers-Briggs Personality categories. I surprisingly found that gender plays the most significant role. Not only are introverted males significantly less detailed than everybody else, but all males also color lighter and cover much less space than females.</p> <p><b>Conclusions</b> While introversion and extroversion affect artistic expression, the data indicates that other factors play a larger role. The other three categories from Myers Briggs yielded greater impact than introversion and extroversion and gender turned out to be the biggest factor.</p>	
<b>Summary Statement</b>  I found that while Introversion and Extroversion affect artistic expression, a participant's gender plays a much larger role.	
<b>Help Received</b>  I devised the study, including creating the surveys and rubric and selecting the personality test site and coloring page. My teacher and parents assisted with identifying subjects to approach to participate in the experiment.	