



**CALIFORNIA SCIENCE & ENGINEERING FAIR  
2018 PROJECT SUMMARY**

<b>Name(s)</b> <b>Braden Nucum</b>	<b>Project Number</b> <b>J0418</b>
<b>Project Title</b> <b>Excessive Use of Social Media: Do Teenagers Excessively Use Social Media More than Younger Children and Older Adults?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective of my project is to determine whether people are excessively using social media. I hypothesized that teenagers would excessively use social media more than younger children and adults because younger children are monitored more than teens and adults have more responsibilities. Furthermore there are possible neurobiological reasons why teenagers could be excessively using social media. One study conducted in teenagers at UCLA showed that the nucleus accumbens, which is part of the reward circuitry, is activated during social media use. A different study found that during adolescence the nucleus accumbens becomes highly sensitive and the prefrontal cortex, which controls impulses, is not fully developed.</p> <p><b>Methods/Materials</b> I made a questionnaire based off of the nine criteria for a proposed Internet Gaming Disorder in DSM-5. I simplified the wording of the criteria so that younger children could understand the questions. I tested my questionnaire's validity with a think-aloud test. After obtaining informed consent, I surveyed 426 participants in the community from the different age groups (12 and younger, 13-18 years old, 19 and older). If any participant answered yes to five or more of the criteria, I considered them an excessive user of social media.</p> <p><b>Results</b> I found that 21.5% of the younger children, 27.5% of the teenagers, and 20% of the adults excessively used social media. I performed an ANOVA test to determine if the differences between my groups weren't by chance. With the ANOVA test I found that my data was statistically significant (p-value = 0.000151)</p> <p><b>Conclusions/Discussion</b> My results support my hypothesis that teenagers excessively use social media more than younger children and older adults. My data supports the creation of a Social Media Disorder and spreads awareness of how social media could be used excessively. This study may prompt people to monitor their children's and their own social media use.</p>	
<b>Summary Statement</b> I found that teenagers excessively used social media more than younger children and adults.	
<b>Help Received</b> My mom and brothers helped me recruit participants to complete the surveys. My dad helped me analyze my data.	