



CALIFORNIA STATE SCIENCE FAIR 2014 PROJECT SUMMARY

Name(s) Rachel F. Kanevsky	Project Number J0418
Project Title Correlation of the "Marshmallow Test" and Children's Response to Advertising	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals This project was inspired by the Stanford Marshmallow Experiment, which tested children's ability to delay gratification by not eating a marshmallow treat for a while, and earning a second one. I investigated whether outcome and/or timing of this kind of a test would correlate with desire to own an advertised product, and whether there would be gender or age differences.</p> <p>Methods/Materials I performed two tests, the Treat Test and the Ad Test, on 204 students in grades 1-6 in a classroom setting, with privacy partitions. The Treat Test consisted of selecting a subject's preferred treat, providing one serving of that treat, and asking the subject to wait in order to get a second serving. If the subject did not consume the treat before five minutes passed, he or she would receive a second serving. For the Ad Test, I showed subjects in grades 1-3 an ad for ModularToys and in grades 4-6 an ad for an iPhone 6. The subjects then rated on a 5-point scale how much they wanted the product. For half of the classes, I first conducted the Treat Test followed by the Ad Test. I reversed the test order for the other half of the classes.</p> <p>Results Only 6 subjects did not wait for the second treat. However, the subjects who were in the Ad First condition wanted the advertised product more than the subjects who were in the Treat First condition. The average rating of product desirability (how much a subject wanted the product) was 15% higher in the Ad First condition in grades 1-3 and 18% higher in grades 4-6. The differences between the conditions were significantly higher for boys than for girls. In grades 1-3, the average ratings difference for girls was 2% compared to 22% for boys. The average rating differences in grades 4-6 were only 6% for girls compared to 22% for boys.</p> <p>Conclusions/Discussion I was unable to determine a direct correlation between delayed gratification and impulsivity in response to advertising, most likely because of the group testing conditions. However, the results reveal that subjects in the Treat First condition appeared to exhibit greater self-control with regards to desiring an advertised product than the subjects in the Ad First condition. This result may indicate that exercise of self-control (such as during the Treat Test) may condition respondents to exercise more self-control in a following enticement.</p>	
Summary Statement This project investigated whether outcome and/or timing of a delayed gratification test would correlate with desire to own an advertised product.	
Help Received Mother helped obtain materials, make graphs, and print report; classroom teachers helped manage their students and allowed them to participate	