Attention Span Experiment: Do Racing Games Have Effects on Attentional Control?

Azmi, Mazyar (School: Horace Mann School)

A randomized controlled trial was run over the course of a 5 week period on 40 high school students to investigate the effects of simulation racing (SR) on attentional control. Prior research supported that action video games and sports increase attention, so the hypothesis was that subjects who engaged in SR would have more benefits to attention than subjects who did not. Attention, in this case, refers to someone's ability to stay focused and consistent in a task for a prolonged period of time. Subjects engaged in SR three times a week for one week, and Stroop Task results before and after the experiment were recorded. Nine main variables were recorded from each subject's first and final Stroop Task. Experimentation supported that subjects who engaged in SR had faster and more accurate test taking compared to controls. This result was statistically significant. Out of the eight other learning variables, all of which were not statistically significant, three trended towards the conclusion that SR improves attention, and five trended towards the conclusion that SR has a detrimental effect on attention. In this study, subjects who participated in SR showed faster and more accurate test taking compared to non-SR controls, and this was statistically significant. While other tested variables were not conclusive, this result may demonstrate that certain aspects of attention may improve with SR. To make any further conclusions, this effect needs to be tested on a larger scale.

Awards Won: