CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY

Name(s)

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Project Number

33575

Project Title

Impact of Playing Video Games vs. Doodling on Tests

Abstract

Objectives/Goals

The objective of this experiment is to find out if playing video games vs. doodling has a negative impact on student test performance. My hypothesis was if students doodle rather than play video games prior to a test, then they will achieve higher test scores.

Methods/Materials

I used paper, pencils, iPads, a laptop and the Jetpack Joyride iPad App. I first obtained an informed consent from eighty # one sixth grade parents. Next, I designed three separate academic tests for the students, each with ten questions and similar formats. On the first day, the students doodled for fifteen minutes and then took a test which were then collected and graded. Video games were played on the second day, prior to the next test, which were then collected and graded. Finally, on the third day, the students were given the last test without any activity beforehand, which were again, collected and graded. This was the baseline test or control group. I then entered all the data into Microsoft Excel and analyzed them.

Results

The comparison of scores between testing after video and doodle with the baseline test when no prior activity was performed showed that 51% of all students improved their test scores after playing video games, while only 48% of all students improved their test scores after doodling; 28% did not show any change. Of these students, 42% of boys improved their scores after playing video games compare to 59% of the girls. The comparison of scores between testing after video play and testing after doodle showed that 43% of all students improved their test scores after playing video games, 25% did not show any change, while 32% of students did worse after playing the video game. 39% of boys improved their test scores after playing video, 28% did not show any change, while 33% of boys did poorly after playing video games. 46% of girls improved their test scored after playing video games, 23% did not show any change, while 31% did worse.

Conclusions/Discussion

From my experiment, it appears most sixth graders scored better on their academic tests after playing 15 minutes of video games than doodling and that doing an activity before a test is helpful and improves students# test scores. Girls seemed to focus and score better on their tests than boys. Overall my original hypothesis was incorrect and seems to favor playing video games over doodling prior to a test.

Summary Statement

It seems that consuming the mind with a fun activity before a test, such as doodling or video games, improves test scores, but, playing fifteen minutes of a fun, non # violent game brings up the test scores by a larger margin.

Help Received

My teacher provided me with class time in order to perform the experiments. I also had a initial meeting with Dr. Porche, a professional psychologist, to discuss my ideas on tests# design.

Preliminary