

CALIFORNIA STATE SCIENCE FAIR 2004 PROJECT SUMMARY

Name(s)

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Project Number

J0324

Project Title

Racing for the Answer: The Effects of Video Games on Concentration

Abstract

Objectives/Goals

I tested the effects of video games on an elemetary student's ability to concentrate. My hypothesis was that of five different categories of video games, the "action" category would have the greatest negative impact on the concentration.

Methods/Materials

To test these effects, I had each student take a test of 100 math problems, and then a test of 15 definitions, each of which lasted 5 minutes. The second test revolved around looking up the words given in a dictionary. (See appendix A for tests) Afterwards, each child played the video game of their choice for 30 minutes, and immediately afterwards took two tests comparable to the previous ones, still only lasting five minutes.

Results

After analizing my data, I discovered that most (34 out of 50) of the students' math scores increased regardless of genre. Vocabulary scores, however, decreased or stayed the same. The "action" category overall, fell in the middle. The "adventure" catagory had the worst scores. The "racing" had the best overall average scores.

Conclusions/Discussion

In the end, my hypothesis was incorrect. Not only was the "action" catagory not the worst overall, on average the math scores rose overall. I had predicted that the scores would drop overall, on both tests. I figured that the "action" video games would have the worst scores, because of the high levels of violence. I believe that the "adventure" genre had the lowest scores because the games do not reward concentration as much as the others do.

Summary Statement

My project was testing how playing video games would affect an elementary student's ability to concentrate on school work.

Help Received

Mother drove to elementary school; School provided game systems