



**CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY**

Name(s) Greg J. Hudgens	Project Number J0613
Project Title Can "Wii" Make You Smarter?	
Abstract Objectives/Goals The purpose of the performed experiment was to prove or disprove the statement that exercise could help people remember objects on a cognitive test, and to help educators understand that exercise and learning go hand-in-hand. Methods/Materials 25 objects were placed on each of two trays. Volunteers walked in to take the test. All tests were taken in a constant environment. The first tray of objects was uncovered, and volunteers had 20 seconds to memorize as many objects as they could. After writing down all recalled items, subjects exercised on Wii Fit for 5 minutes. Following this exercise, the subjects had 20 seconds to memorize the objects the objects on Tray 2, then wrote down all they could remember from this tray as well. Results In the end, the scientist was amazed to find that 74% of volunteers improved after exercising. Test subjects remembered up to 5 more objects on the second test, after exercise. Although some did not improve, the difference shown between tests was usually +2 or +3 on the post-exercise test. Additionally, when the number of correct responses on the first test was divided by the number of correct responses on the second test, a number with two decimal places at the end was the answer. By moving the decimal place to the right, the scientist found the percentage of cognitive gain or loss. One of the volunteers had a 66% cognitive gain. Conclusions/Discussion The hypothesis stated that if volunteers took two cognitive tests, one before and one after exercising on Wii Fit, then they will perform better on the test after exercise. After examining the results, the scientist found that the hypothesis was proven, and with mountains of evidence. This finding helps educators know that exercising is helpful to students, and students should have an opportunity to do so. That way, they can not only have fun, but reach their full potential as scholars.	
Summary Statement Physical exercise improves one's ability to succeed on a cognitive test.	
Help Received used teacher's room for tests	