



**CALIFORNIA STATE SCIENCE FAIR  
2014 PROJECT SUMMARY**

<b>Name(s)</b> <b>Christian Garcia; Kellen Gerig; Rhett Rhodes</b>	<b>Project Number</b> <b>S0411</b>
<b>Project Title</b> <b>Video Games: The Next Sport Performance Enhancing Drug?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> Our science project investigates the effects of video games on athletic ability, specifically hand-eye coordination. We don't predict that video games have an impact on natural athletic ability, but we do hypothesize that playing video games will have a positive impact on hand-eye coordination. We chose baseball as the sport to test because it requires much hand-eye coordination.</p> <p><b>Methods/Materials</b> Our experiment involved a pre-test and post-test to calculate our hand-eye coordination before and after the manipulation. We tested two group members, one representing a naturally athletic person (A) and the other representing an athlete with less talent for baseball batting (B). Subject A is not a "video gamer", whereas Subject B can be classified as a "video gamer". Each batter received twenty pitches from a live pitcher per treatment. About fifteen hours elapsed between treatments. We played Wii Sports Baseball as our video game for roughly ten minutes right before the second treatment.</p> <p><b>Results</b> In the pre-test, Subject A hit fifteen out of twenty pitches and Subject B hit thirteen out of twenty. During the manipulation, Subject A beat B 5-0 both times. In the post-test both batters showed improved scores. Subject A improved to seventeen out of twenty, and Subject B increased to fourteen out of twenty.</p> <p><b>Conclusions/Discussion</b> We were able to conclude that our hypothesis was correct; video games do positively affect human motor skills, but not significantly. Playing video games does not affect athletic ability, but it does slightly improve hand-eye coordination. This is important in the world today because lack of physical activity is a growing epidemic. More and more youth in America are giving up sports and outdoor activities to be inside. This study proves that video games do not take the place of the physical play recommended by doctors for proper health.</p>	
<b>Summary Statement</b> This project explores how relationship between video games and hand-eye coordination in sport.	
<b>Help Received</b> Teacher helped guide project and gramatically revise. Baseball teammate pitched for pre/post-test.	