



**CALIFORNIA STATE SCIENCE FAIR  
2015 PROJECT SUMMARY**

<b>Name(s)</b> <b>Atif U. Khan</b>	<b>Project Number</b> <b>J0411</b>
<b>Project Title</b> <b>No Pain, Lots of Game</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective is to test if video games can prove to be a strong enough mental distraction to help improve an individual's ability to tolerate discomfort. My hypothesis is that during video game play, volunteers would experience lowered discomfort levels and increased tolerance time relative to their control trials, with no video game distraction.</p> <p><b>Methods/Materials</b> The materials for this experiment include a bucket of ice water (35°F), two towels, a thermometer, a stopwatch, a video game and the Flacc Behavioral Pain Assessment Scale. Tolerance to discomfort was tested during the control by placing the volunteer's right foot toes in ice water set to 35°F and seeing how long they would be able to withstand the pain and at what level they experienced pain (based on the Flacc Behavioral Pain Assessment Scale). During the experimental, the volunteers were asked to start a video game and after five minutes of play, they were asked to place their left foot toes into the ice water and measured tolerance time and level.</p> <p><b>Results</b> All the participants showed increased tolerance time from their control to experiment trials, and decreased discomfort levels from the control to experiment trials.</p> <p><b>Conclusions/Discussion</b> Through the study, my hypothesis was proven to be true. The results illustrated a correlation between playing video games and tolerance. In fact, during each video game play, there was an observed increase in tolerance time and decrease in discomfort levels among the participants relative to their control trials. With gaming increasing, there seems to be a growing concern of individuals becoming heavily immersed in the technology that it has caused a desensitization and dismissal of instinctual behavioral responses. This leaves the question of in what ways mental distractions have affected humans throughout history. Are these disturbances so strong that they can cause negative consequences for those involved?</p>	
<b>Summary Statement</b> An Analysis of Discomfort Tolerance During Video Game Play	
<b>Help Received</b>	