



**CALIFORNIA STATE SCIENCE FAIR  
2012 PROJECT SUMMARY**

<b>Name(s)</b> Maya Mundada	<b>Project Number</b> <b>J0724</b>
<b>Project Title</b> <b>Effects of Sensory Distraction on Online Learning</b>	
<b>Abstract</b> <b>Objectives/Goals</b> Online education such as Khan Academy is a new method of study and very different from traditional classroom settings. I wanted to verify which of our 5 senses (sight, sound, taste, touch and smell) is most sensitive to distraction when using an online education method. My hypothesis was that the distraction of all five senses will affect accuracy, but visual distraction will affect it the most. This is because online computer education requires the child to be attentive to the computer screen. <b>Methods/Materials</b> I obtained Informed consent from parents of 24 kids. My material included six computers with access to Khan Academy, an iPad for playing a movie with subtitles, an iPod for music, butter popcorn, ice cream, and a cold room to distract the 5 senses. I made 24 kids each take a total of 36 Khan Academy tests while undergoing distractions of all 5 senses and one baseline reading without distraction. Then, I computed averages. To guarantee precision, I repeated the experiment four times, with group of 6 kids each. <b>Results</b> The results showed that the average results were the worst with sight distraction. The results also showed two other unexpected findings; both sound and taste distractions average results were better than baseline results. Given the large sample size of 864 readings, my experiment is statistically significant assuming normal distribution and the findings are quite conclusive. <b>Conclusions/Discussion</b> Sight did produce the worst distraction. Thus, part of my hypothesis was correct. However, I had also hypothesized that all distractions would produce worse than baseline results. That part of the hypothesis was incorrect. Both sound and taste produced better results than the baseline results. This means that kids should avoid visual distraction during online education. The results also indicate that sound and taste distraction improve results. I would suggest a follow-up experiment to determine the effects of those.	
<b>Summary Statement</b> My project provides conclusive evidence on distraction of human senses during online learning.	
<b>Help Received</b> 24 anonymous kids for taking 36 tests each	