



**CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY**

Name(s) Jonathan J.P. Lee	Project Number J0321
Project Title Oscitancy: Is It Contagious?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of the experiment was to determine whether yawning (oscitancy) is contagious in children.</p> <p>Methods/Materials Informed consent from each participant in the experiment was obtained by means of an assent form. Participants who were aware of the nature of the experiment were excluded from the study. To test my hypothesis, I made two DVDs from a selected series of MPEG video files of three children (friend, brother, and myself). The first DVD showed children yawning followed by smiling (Y-S), and the second DVD showed children smiling followed by yawning (S-Y). Both of the DVDs were identical in duration (5 minutes 38 seconds) and were specifically made for the experiment.</p> <p>The first DVD was shown to a group of 12 sixth graders, and the second DVD was played to another group of 12. The response of both groups was recorded while each DVD was played. The recording was viewed, and the frequency of yawning during each section of the DVDs was recorded by two independent observers.</p> <p>Results Descriptive statistics showed that yawning occurred more often during the yawning than the smiling section when each DVD was being played. The yawning means were 6.22 and 2.39, and the medians were 6.5 and 1.5 respectively. Analysis using the Wilcoxon Paired Samples Signed Ranks Test showed statistically significant differences in yawning between both sections in both DVDs (p less than or equal to 0.01 in Y-S and p less than or equal to 0.03 in S-Y), confirming the findings in the descriptive statistics.</p> <p>Conclusions/Discussion In summary, yawning occurred 2.6 times more often when the sixth graders were watching the yawning compared than the smiling section. The difference was clinically and statistically significant. Yawning was shown to be contagious in these children.</p>	
Summary Statement Yawning was scientifically proven to be contagious in sixth graders.	
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