



# CALIFORNIA STATE SCIENCE FAIR 2013 PROJECT SUMMARY

<b>Name(s)</b> Shruti Aggarwal	<b>Project Number</b>  33980
<b>Project Title</b> Effect of Construal Levels on Academic Procrastination	
<b>Objectives/Goals</b> To determine whether construal levels (abstract/concrete) affect procrastination. Based on Construal-Level Theory (CLT), I hypothesized that students would perceive a longer time for an abstract or "High-level" task, as compared to a concrete or "Lower-level" task. I also hypothesized that this effect would be independent of the students' inherent tendency to procrastinate. <b>Abstract</b> <b>Methods/Materials</b> 135 high school students participated in the study to measure their tendency to procrastinate by taking a PASS test (Procrastination Assessment Scale for Students). 36 of these students filled in questionnaires designed to estimate time associated with activities at "Lower-level" construal (Objects / Concrete) -15 questions, and at "Higher-level" construal (Traits / Abstract) -15 questions. Tests were given during class. Construal tests were administered a week apart, and a week after the PASS Test. Students were split into 2 groups - A&B. Groups were counter-balanced by reversing the sequence of the questionnaires ( $p > 0.05$ , 30 values ranging from 0.0861 to 0.9986). <b>Results</b> PASS test data was normally distributed ( $n=129$ , $mean=19.233$ ). Students with higher scores were designated "Procrastinators (Pro)" ( $n=19$ , $mean=15.158$ , $s=2.651$ ) and those below "Non-procrastinators (Non)" ( $n=17$ , $mean=23.412$ , $s=2.765$ ). The highest endorsed reasons for procrastination were: "too many things to do" -54.3%, "too lazy to complete" -51.9%, and "overwhelmed..." -39.5%. Paired t-tests were run for each student and a significant difference was observed - Objects vs. Traits ( $p < 0.05$ , 9 values from 0.0002 to 0.0454), Concrete vs. Abstract ( $p < 0.05$ , 5 values ranging from 0.007 to 0.0496). 2 variable t-tests were applied to the Pro vs. Non, for Objects, Traits, Concrete and Abstract data. No significant difference was observed ( $p > 0.05$ , 28 values ranging from 0.0520 to 0.9543). <b>Conclusions/Discussion</b> My hypothesis was completely validated. The effect of construal level on temporal distance was found to be independent of the students' inherent tendency to procrastinate. Interestingly, the students estimated more time for themselves than for others. These findings allow teachers to devise methods to address procrastination by their own actions, rather than by only addressing student behavior. On abstract projects, teachers should instruct students to create shorter sub-assignments that build on one another, while regularly consulting the teacher.	
<b>Summary Statement</b> This project evaluates the effect of construal levels on temporal distance in the context of a students' inherent tendency to procrastinate.	
<b>Help Received</b> My teachers allowed me to administer the test in class. My dad helped me with the statistical analysis.	