



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

Name(s) Yesica Cisneros	Project Number S1206
Project Title Comparison between Female and Male Exposure to Four Shades of a Hue	
Objectives/Goals The basis of this research project is to determine whether the female eye can more efficiently distinguish the darker shade of a hue then a male.	
Methods/Materials The computer program Pantone will be set up to show two shades of 4 hues red,blue,yellow and black. 40 human subjects 20 female and 20 male all containing 20/20 vision around the ages of 16 and 17 will be shown 2 shades of hue and will be asked to choose the darker shade.	
Results The experiment was conducted to determine whether the female eye can more efficiently distinguish which shade of a hue is darker then the male eye.Comparing graphs 1 and 2 all 20 females and males correctly choose the darker shade between black and white.Comparing Graph's 1 and 2 both males and females did poorly on choosing the correct darker shade of yellow meanwhile females did better on red then males. Males did better on choosing the darker shade of blue then females. However overall the female subjects did distinguish the darker shade of a hue better then a male.	
Conclusions/Discussion The experiment proved that the female eye can more efficiently differentiate the darker shade of a hue then a male. To furthermore continue this experiment the number of test subjects and color should be increased to more efficiently back up the results. The light waves in the room should be measured to be able to know what color waves are being translated by the cones.Another way to better the experiment is to increase the range of the subjects age. Will a color blind person distinguish the two shade differently then a person who is not colorblind?​	
Summary Statement A female and male are both exposed to observe two shades of a hue to determine whether the female eye can differentiate the correct darker shade of the hue than that of the male eye.	
Help Received Ms. Valero helped to form the idea on this project.	