



CALIFORNIA STATE SCIENCE FAIR 2013 PROJECT SUMMARY

Name(s) Hondo G. Gonzalez	Project Number S0498
Project Title A Relationship between Teacher Gender and an Increased Achievement of Female Students in Secondary Science	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals To determine if there is a relationship between teacher gender and the achievement of female students in secondary science.</p> <p>Methods/Materials My hypothesis states that female students in the 8th grade will show a higher achievement in science when compared to the males when instructed by a female teacher. My hypothesis will be proven by looking at the difference between males and females average test scores in the 8th grade CST (California Standardized Test) for the 2011-2012 school year. Initially I analyzed the science CST scores for all of the counties in the state of California, and female students on average scored 3% below male students. I then picked one of the large counties in the state of California. I identified the science CST scores of the students by gender. I looked at all 85 middle schools in that county. I asked each school for the gender of the science teachers for the 2011-2012 school year. I then grouped the schools into five categories: only male teachers; only female teachers; both male and female; male and female; majority male; male and female, majority female.</p> <p>Results My hypothesis was supported by this experiment. The data shows that 8th grade female students will score better on the 8th grade science CST if they had a female teacher. If 8th grade science students were enrolled in a school with only male 8th grade science teachers, females on average will score 10% below the male students. If students were enrolled in a school with a majority of male 8th grade science teachers then the average score dropped where 6% of female students scored below the male students. Schools that had an even number of male and female teachers had females scoring 5% below the males. In schools with all female teachers, female students were scoring below males by 3%. When a majority of the teachers were female, females students scored only 1% below the male students.</p> <p>Conclusions/Discussion The data shows that there is a relationship between the female achievement scores on the 8th grade science CST scores and the gender of the teacher. Is it possible that female science teachers are able to explain physics concepts to female students in such a way that if the female student does not have the back ground information from childhood experiences, the female student is now able to reason through the test questions? Does having a male teacher to collaberate with enhance the females teaching?</p>	
Summary Statement To determine if there is a relationship between teacher gender and the achievement of female students in secondary science.	
Help Received	