



CALIFORNIA STATE SCIENCE FAIR 2008 PROJECT SUMMARY

Name(s) Alex L. Burtson	Project Number S0305
Project Title The Correlation between Religious Maturity and Physiological Reaction Time	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Past studies show that religious maturity and various forms of human perception affect the psychological and physiological aspects of human beings. Religious maturity can affect anyone enough to be a cause depression and distress (Atkinson 1). Religious maturity is a measure of one's independence, ownership, examination/ evaluation, and most importantly, an openness to new experiences in one's own life situation. This means that religious maturity is independent of religion. In this study, teenagers were surveyed in order to determine their religious maturity. They were then required to undertake a program that measured their physiological reaction time. It was predicted that both tests would have a positive correlation, meaning that religious maturity would affect physiology, making one more capable of responding to and reacting with their surroundings.</p> <p>Methods/Materials The physiological #MW# test was first requested from Dr. Amodio. Permission was granted to use Gary Leak's religious maturity scale. The survey was created with the scale incorporated, also including demographics such as gender, religion, ethnicity, etc. One hundred forty eight high school students were surveyed and tested. The data was analyzed through creating several X-Y scatter plots and using Excel to calculate the regression lines and the corresponding r^2 values for each subcategory of the demographics.</p> <p>Results After comparing all the data from 148 participants, none of the charts showed any correlation. It appeared to be that the larger the sample size was, the more accurate it was, and the closer the results were to having no correlation.</p> <p>Conclusions/Discussion The results showed no correlation, despite the hypothesized prediction that there would be a positive correlation (between the religious maturity survey score and the #MW# physiology test score). Perhaps a much larger sample size was needed, perhaps 500 people instead of 148 people. The physiology test could have been longer and more in depth as well. It might have been too short for the participants. After data re-evaluation, it was discovered that participants performed significantly greater on the second half of the physiological test. Another possible reason for my results is that religious maturity might not even affect physiology until people reach adulthood (only teenagers were tested here).</p>	
Summary Statement This is an attempt to demonstrate the effects of close-mindedness on human physiology.	
Help Received Parents helped brainstorm; Dr. Vavra gave guidance and suggestions; Dr. David Amodio permitted the use of his physiological program; David Leak permitted the use of his survey/scale; IT at High Tech High assisted in solving technical computer problems.	