

# CALIFORNIA STATE SCIENCE FAIR 2006 PROJECT SUMMARY

Name(s)

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**Project Number** 

**J0336** 

# **Project Title**

# **How Does Noise Pollution Affect the Concentration Levels of Teens?**

#### Abstract

# **Objectives/Goals**

my objective was to learn if noise has any affect on students in their work environments.

#### Methods/Materials

I will be using 30 of my peers as my subjects. They are all between the ages of 12 and 14 years old. The subjects will be placed in 3 different environments. Such as listening to music, having a television on, or have complete silence. Each subject will be given some 8th grade material to study, then after a certain amount of time, the subjects will take a test on what they have just studied. I will then use the results of my tests to theorize what tests did better in what environment(s).

## **Results**

The males and females preformed the best in the silence category. The males recieved an 80% on their tests with music while females recieved an 90% with music. Although the females preformed better than the males in the music environment, the males preformed better in the television environment while the females did poorer in this environment. The males recieved an 84% in the television environment, while the females scored an 85%.

#### **Conclusions/Discussion**

After the completion of my experiment on how noise pollution affects the concentration levels of teens in a silent environment, my hypothesis was correct. I predicted that that the silence would have the least affect on the teenagers. After testing this project on both males and females, both had a better percentage in the silent environment.

My hypotheses for television and music on males were incorrect. It stated that the television will have the greatest effect on the males followed by the music. Instead, the television had a lot of affect on the male#s performance, but it was not the greatest affect. The students who took the tests with the music received an 80% while the males that took the tests with the television received an 84%.

My hypotheses for television and music on females were incorrect. It stated that the music will be the greatest distraction and the television would not be the greatest. After completing my experiment I discovered that the television had the greatest affect on the females. The students who took the tests with television received an 85% while the students who took the test with music received a 90%. In conclusion I have discovered that music or television (noise pollution) does affect the concentration levels of teens.

### **Summary Statement**

My project is testing if noise or distractions has any affect on students in their work environments.

## **Help Received**