

CALIFORNIA STATE SCIENCE FAIR 2006 PROJECT SUMMARY

Name(s)

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Project Number

J1708

Project Title

Too Close for Comfort? The Effects of Height and Gender on Personal Space Requirements in Preadolescent Students

Objectives/Goals

Abstract

One day while talking with my friends, I noticed that some of my friends talked so near to me that it made me feel uncomfortable. Others talked to me from so far away that I felt that I needed to move closer in order to hear them. I decided to test the effects of height and gender on personal space (proxemics) in preadolescent students. My hypotheses were that two females will require less personal space than two males, that a female will require less personal space with a male than a male will require with a female, and that regardless of gender, two people of different heights will require more personal space than two people of the same height.

Methods/Materials

I enlisted six preadolescent student assistants to ask questions of 25 females and 25 males in the fourth and fifth grades. Assistants were chosen for their height and gender. Assistants were instructed to ask the subjects five specific irrelevant questions about their pets, extracurricular activities, favorite color, etc. in order to distract the subjects from the real point of the project: gender and height and how they affect personal space. With every other question, the assistants would take a small, unnoticeable step forward. I observed the behavior of the subjects, in particular to see if the subjects felt uncomfortable and therefore took a step backward. Every subject was tested once by an assistant of each gender, for a total of 100 tests.

Results

According to my results, two females required less personal space than two males. Females also required less personal space with males than males did with females. Both the females and males required more personal space with members of the opposite gender than with members of the same gender.

Conclusions/Discussion

I had hypothesized that two people of different heights would require more personal space than two people of the same height. I thought that if there were a significant height difference, the shorter person would feel intimidated and, therefore, require more personal space. To my surprise, two people of different heights required less personal space than two people of the same height! Perhaps this is because, when two individuals are of different heights, the perceived amount of personal space is larger than when two individuals are at the same level, eye to eye, nose to nose, mouth to mouth.

Summary Statement

This project examines the effects of height and gender on personal space (proxemics) requirements in preadolescent students.

Help Received

Thanks to the six assistants who helped me in the testing process and to Roxanne Hunker, my science teacher, for her input on this project.