

CALIFORNIA STATE SCIENCE FAIR 2006 PROJECT SUMMARY

Name(s)

Norma Briseno

Project Number

J1008

Project Title

Does Participating in Yoga Yield the Same Cardio-Respiratory Fitness Benefits as Running?

Objectives/Goals

Abstract

The purpose of my project was to find out whether practicing yoga produces better cardio-respiratory fitness benefits than running. I believed that yoga participants would receive better cardio-respiratory fitness benefits than runners because yoga is said to expand the lungs and have positive effects on the body.

Methods/Materials

I tested volunteers who either practice yoga, train for the LA marathon, or do no physical activity for exercise. I used a spirometer to test 29 participants, 3 times each over a period of 5 weeks. I then calculated the experimental vital capacity values for each participant and compared it to their expected vital capacity. I calculated expected vital capacity by using a formula requiring gender, age, and height. I also used a blood pressure cuff to measure resting heart rates.

Results

My results showed that although none of the three groups reached their expected vital capacity values, those students who trained for the LA marathon had experimental values that were, on average, closer to their expected values. My results also showed that running also provided the participants with overall, lower resting heart rates. This did not confirm my hypothesis because I thought yoga would produce better cardio-respiratory fitness benefits than running.

Conclusions/Discussion

I have come to the conclusion that practicing yoga does not yield better cardio-respiratory fitness benefits than running. Based on my results, practicing classic exercises like running, walking, and jogging provides people with better overall cardio-respiratory fitness. Although yoga does relieve certain symptoms of stress, it is also being promoted in popular media as having better cardio-respiratory benefits than any other physical activity, which based on my results is not true.

Summary Statement

My project attempts to determine whether or not yoga provides people with equal or better cardio-respiratory fitness benefits as running.

Help Received

Mr. Simonsen guided me through the project and helped me learn how to use Data Studio; Ms. Powers helped me get yoga volunteers from her class; Ms. Barajas helped me get volunteers who train for the LA marathon.