



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Melissa E. Adams	Project Number J0301
Project Title Do Running Partners Motivate or Distract?	
Abstract Objectives/Goals In physical education class, I noticed that during our warm-up laps some of the students were not running their hardest. I wanted to think of a better way to do more effective warm-up laps. I wondered if who the students were paired with while running mattered. I decided to design an experiment to try to discover an answer. Methods/Materials To carry out my experiment, I emailed the physical education teacher to set up the class test plan. For each class I tested, I had the students run one lap around a track. Then the test subjects would run with partners. The students would be paired girl/ girl, boy/ boy, or girl/ boy. I was in a hidden location with a stopwatch timing how long it took the subjects to run each lap. I recorded the results into my excel sheets. Results I recorded a total of 113 times for 40 test subjects. Each subject had to perform three tests. The average mean time for the students running alone was 35.9 seconds. The mean for the two girls as partners was 34.1 seconds. The mean for two boys as partners was 33.8 seconds. The mean for the boy/ girl partners was 33.7 seconds. Conclusions/Discussion The average times for all of my results were very similar except when students ran alone. On average, the subjects were 6% slower when running alone than their average times when running with a partner. Running alone did not make as great a difference as I thought it would. All three of the pair averages were statistically the same. I was surprised by my results. I had thought there might be differences between same sex and opposite sex pairings. The results were not dramatic, but seemed to support the research that recommends running with a #pacer#, (running with another runner) to improve performance. Perhaps the novelty of being paired with a pre selected partner encouraged competition in the runners. Physical education teachers may want to randomly pair students to motivate them to run their laps faster.	
Summary Statement The goal of this project was to find out whether students running laps alone or students running laps with same sex or opposite sex partners would affect the average running speeds.	
Help Received Thanks to the physical education teachers and student subjects who participated in my experiment. Thanks to my science teacher for her guidance.	