



**CALIFORNIA STATE SCIENCE FAIR  
2002 PROJECT SUMMARY**

<b>Name(s)</b> Amy A. Bogart	<b>Project Number</b>  22206
<b>Project Title</b> Power of the Mind: A Study of Positive Reinforcement	
<b>Abstract</b> <b>Objectives/Goals</b> Most sport spectators like to cheer for their favorite team. Do the individual athletes perform better when they hear the "positive reinforcement" of a cheering crowd? Knowing this information might help athletes, coaches and even spectators to look at positive reinforcement differently. Building up an athlete's confidence through positive reinforcement could be much more helpful than only giving corrections or negative feedback. The information may be helpful in motivating the athletes, coaches and teams to feel and act more positive about their sport. Hypothesis: "Positive reinforcement will affect an athlete's performance in a favorable way." <b>Methods/Materials</b> Six tests were developed and given twice to 15 competitive gymnasts. The first time each test was given there was no positive reinforcement. The second time there was cheering. My materials were 15 participants, who were competitive gymnasts between the ages of 10-14. I also used a judge to score the two events. I used one permission slip for each participant and a spread sheet to record my results. I also used 5 different tests, which were: the uneven parallel bars, the vault, push-ups, tuck-ups, and v-ups. <b>Results</b> From my 5 tests described above I created the following results: 79% of all participants were affected positively by the positive reinforcement.  13% of all participants were affected negatively by the positive reinforcement.  8% of all participants were not affected by the positive reinforcement at all. <b>Conclusions/Discussion</b> With 79% of the participants improving their scores while receiving positive reinforcement my hypothesis was proven. The 13% that did worse with the cheering may have been tired from the first test, however, the 79% that did better may have been tired too but the cheering may have made them try harder. Looking at the results I can see that positive reinforcement helps most athletes perform better.	
<b>Summary Statement</b> My project is about positive reinforcement and how it affects an athlete's performance.	
<b>Help Received</b> My coaches helped judge the subjects and cheer them on. I used my gymnastics team for this project, they were used as participants. I also used my mom to proofread my work and assist me with purchase of the project display materials.	