

CALIFORNIA STATE SCIENCE FAIR 2016 PROJECT SUMMARY

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Project Title Does Confidence Matter?

Abstract

Objectives/Goals The object of this project was to test the effect of positive (cheering) and negative (booing) affirmations on a person's skill in sports.

Methods/Materials

The participant first takes pretesting survey to collect general information. Next they shoot ten baskets, this gives me their baseline skill level. Then the participant is blindfolded and people are brought in to either cheer or boo the subject as they take two shots. The people brought in to do the cheering or booing then leave, and the participant removes the blindfold. Finally, the participant shoots ten more baskets to show the effect of the affirmations.

Results

I used the paired T test calculator provided by Graphpad.com to compare the averages of two groups, before and after the affirmations. Using this calculator, it was discovered that the data collected in the cheering portion of testing was not statistically significant with a P value of 1.0000. There was no mean difference before and after the the cheering affirmations. On the booing portion of data, however, when using the same program it was discovered that the data was extremely significant with a P value of 0.00001. There was mean difference of 1.07 shots made after the negative affirmations as a result of the booing affirmations.

Conclusions/Discussion

In conclusion, my hypothesis was supported by the data collected through the booing portion of testing. The data was proved extremely significant using the paired T-test, with a P value of 0.00001. The data collected on the cheering portion of testing was not statistically significant with a P value of 1.0. According to Skinner (2013), the coach#s confidence level was a direct correlation to how the team performed in competitive situations. This leads me to believe the booing portion of testing does influence a player's confidence and consequently their performance. Therefore, the result of booing having significance is an indication that cheering could possibly also work. This could be supported by increasing sample size, a difference approach on cheering rather tha lot of white noise, or being selective on what subjects are chosen based on their experience with basketball.

Summary Statement

I found that booing (negative affirmations) have a large effect on a person's confidence, and cheering (positive affirmations) had no statistical significance but I believe significance of cheering could be shown with altered testing.

Help Received

I tested and collected all of my data on my own, but my science teacher/advisor taught me the meaning of the statistical analysis program I used.