CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY

Name(s)
Seth F. Carney

Project Number
35813

Project Title
How Far Can It Go?

Abstract

Objectives/Goals
In my opinion, learning the difference the follow through of a shot makes is very important, because it can help many athletes get better at what they do. My objective was to discover if the follow through actually changes the distance of a kick. I was attempting to figure out if all of the coaches are right about telling us that we should always follow through when we shoot.

Methods/Materials
A golf ball
A golf tee
Screws
Hammer
Long metal rod
Two eight foot, two by three pieces of wood
Decent sized piece of plywood

Results
After my experiment, I saw some very interesting results. I found that I was correct because the free swing went the farthest with an average of 364.066 cm, but the one that stopped on contact got second with an average of 270.086 cm. I was expecting the one that stops shortly after contact to get second but it got an average of just 257.386 cm. These are the results I found in my experiment.

Conclusions/Discussion
My hypothesis stated, #if I adjust the follow through to right on contact, shortly after contact, and a free swing, then the free swing will make the ball go the farthest.# My hypothesis was proven by the data I collected. I know my hypothesis was proven because I calculated the results and found the averages and the free swing average was the farthest. I found that the farthest was the free swing, the second farthest was the stop on contact, and the shortest was the stop shortly after contact. In the future, I would like to test other variations of this project. For example, I would like to see if changing the degrees that the hammer starts at would affect the follow through. I would also like to try it on a larger scale. For example, I would like to make it to a large enough scale that I could use a real soccer ball instead of a golf ball. Lastly, I would like to see if different weighted hammers affect the follow through.

Summary Statement
Using a device I created, it tested that the difference in follow through of a kick affects the distance of a soccer ball.

Help Received
My brother helped me build the device.