

## Effect of Selected Exercises on the Shooting Ability in Field Hockey

**Uday Manjre**

Professor, D.C.P.E. Amravati, MS, India

### Abstract

The purpose of the study was to see the effect of some selected exercises on the goal shooting ability of Hockey players.

For that purpose, total 30 male Hockey players were selected as subjects and divided equally in two groups, one was experimental and other was control group. The age of the subjects ranged between 18 to 25 years.

Shooting ability was assessed by administered the Harban Singh goal shooting test for the Experimental and Control group, and scores were recorded in number.

To find out the significant difference between the means of two groups 't' test was used and the Hypothesis was tested at 0.05 level of confidence. The findings of statistical analysis revealed that, there was significant mean difference between the Experimental and Control group. The Experimental group improved their performance in final test. Calculated t-ratio value of 3.804 is greater than tabulated t- value of 2.05 at 0.05 level of confidence for 28 degree of freedom i.e. there was significant difference between the groups.

### INTRODUCTION

In this modern world Games and Sports have rapidly increased in scope and conquered ever fresh fields both nationally and internationally as social functions.

Sports skills have now acquired an important place in culture of the society and now a days culture is valued partly through achievements in sports competitions.

Today field hockey is a popular game all over the world. The comparison with other countries. India is also one of the most popular country in field hockey. It is considered to be a major national game. But, as we have seen the performance and result of the last few years in the international level, we come to know that Indian performance in field hockey is decreasing day by day .After a new observation, it is now conformed that the root cause of decline due to the lack of scientific principles of training and coaching.

Hockey is a skilful game requiring the ability to control the ball with stick.

Physical strength, particularly of forearms and wrists play the important role in this game. Speed of movement for short distance, fitness and endurance are all contributory factors for the efficiency in field hockey . It is a game of skill and more individual skills are highly necessary to win the match.

### METHODOLOGY

For the purpose of the study, 30 Inter collegiate male Hockey players were choosen as subject and their age was ranged between 18 to25 years. The subjects were divided in to two equal groups, group 'A' was Experimental and group 'B' was control. The Harban Singh Goal Shooting test was conducted and the scores were recorded.

Experimental group 'A' was given selected exercises for six weeks whereas group 'B' was fully under control with regular Hockey practice . There was no specific training program was kept for control group 'B'. The exercises were selected for the development of leg power, strength and forearms muscles which were closely related to dribbling, tackling and heading. The exercises were bench press, Two arms curls, wrists curls and Half squat.

### ANALYSIS OF DATA AND DISCUSSION OF FINDINGS

The data pertaining to this study were analyzed by using 't'-test statistical technique to determine the significant difference in the means of two groups.

**Table -1**  
MEAN, STANDARD DEVIATION AND t-RATIO OF PRE AND POST TEST OF EXPERIMENTAL AND CONTROL GROUP

Group	Pre-test mean	Post test mean	Pre-test SD	Post test SD	M.D.	S.E.	t-ratio
Experimental	17.73	25.93	5.77	6.34	8.2	2.21	3.71*
Control	17.47	18.47	4.42	4.18	1.0	1.57	0.64

\* Significant at .05 level

Tabulated  $t_{.05(14)} = 2.145$

### FINDINGS

It is evident from the table 1 that, there was significant improvement in Experimental group as the initial mean score 17.33, the final

mean score 25.933 and the calculated t-ratio value of 3.71 is greater than table value.

There was no significant difference in the performance of initial and final test of control group as the mean scores were 17.47 and 18.47 respectively, and t-ratio of -.064 is less than the table value of 2.145.

**Table-2**  
COMPARISON OF POST TEST MEANS OF EXPERIMENTAL AND CONTROL GROUP

Group	Mean	S.D.	M.D.	S.E.	t-ratio
Experimental	25.933	6.34	7.463	1.96	3.807*
Control	18.47	4.18			

\* Significant at .05 level

Tabulated  $t_{.05(28)} = 2.048$

It is learnt from the above table that there is significant difference between the post test means of Experimental and Control group because the obtained t-value of 3.807 is greater than the tabulated t-value of 2.048 for the 28 degrees of freedom.

### **DISCUSSION ON FINDINGS**

Considering the limitations and on the basis of statistical findings it is observed that the Experimental group has shown significant improvement in the performance of goal shooting in Hockey, it may be because of six weeks training programme might have contributed significantly development of desired fitness as well as accuracy in scoring ability of the subjects hence such results occurred in the study.

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