A comparative study on speed ability between football and hockey male trainees

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Abstract
The purpose of this study was to evaluate and compare the speed ability between Football and Hockey male trainees. To achieve the purpose of the study, the fourth (n=40) trainees were randomly selected as subjects, out of which twenty (n=20) from Football and twenty (n=20) from Hockey discipline who were regular trainees of District Youth Empowerment and Sports, Bangalore. The age of all subjects ranged from 16 to 21 years.

The subject selected was tested, with 50-meter dash, which measured speed ability of players. The data collected put into analysis to compare the speed ability between Football and Hockey trainees. T test was applied to determine the significance of difference and direction of difference in mean score of variables between Football and Hockey D.Y.E.S male trainees. The level of significance was set at 0.05.

The results of the study showed a mean value of 4.55 and standard deviation of 0.25 with football players and a mean value 4.87 and standard deviation of 0.48 with hockey players with the ‘t’ value of 2.25 and it was concluded that there was a significant difference on speed ability between Football and Hockey male trainees, whereas the Hockey trainees were significantly scored higher compare to the Football trainees of District Youth Empowerment and Sports, Bangalore.

Keywords: Speed ability, 50-meter dash.

1. Introduction
Speed is recognized as an important component of sports. It defined as the ability to move quickly across the ground or move limbs rapidly to grab or throw. Sports performance is based on a complex and intricate diversity of variables. Which include physical, Physiological and psychological factors. Physiological systems are highly adoptable to exercise. Each task has its major physiological components and fitness for the task requires effective functioning of appropriate systems. In order to acquire the ability to achieve high level performance, numerous adaptive change of the structure and function of the body are required (Mathew and Fox, 1971). Not only to develop a relatively efficient leverage system for mobility of the various physiological systems but certain physical modifications are also necessary so that exercise capacity can be increased. Numerous studies have been conducted on motor fitness characteristics. Research studies conducted by Walters “Test of motor ability and educability factors at high and low scoring beginning bowlers”, and the study by Drowatzky of "Relation of size constancy to select measures at motor ability”. The study on speed ability and sports performance is the object of study the fitness and is important element to be analyzed.

1.1. Purpose of the Study
The main purpose of the present study was to investigate and compare the Speed ability between Football and Hockey male trainees of District Youth Empowerment and Sports Hostel, Bangalore.

1.2. Objective of the Study
To find out the significant differences between Football and Hockey male trainees of District Youth Empowerment and Sports, Bangalore.
2. Methodology
To obtain data for this study, fourth (n=40) subjects were selected out of which twenty (n=20) from Football and twenty (n=20) from Hockey discipline in D.Y.E.S Bangalore. The age of all subjects ranged from 16 to 21 years. The subjects were tested with the test item, 50-meter dash, which measured the acceleration and speed ability of athletes and the tests were conducted by using standardized procedure, T test was applied to determine the significance of difference and direction of difference in mean score of variables between Football and Hockey male trainees of District Youth Empowerment and Sports, Bangalore.

2.1 The Analysis of Data
To identify the difference between Football and Hockey male trainees of District Youth Empowerment and Sports, the data was analyzed by statistical technique T test. The level of significance was set at 0.05.

3. Result and Discussion
The data collected to achieve the objective of the study was statistically analyzed and results are presented in the following table.

Table 1: Showing the mean value, standard deviation and ‘t’ score of 50-meters dash (Speed)

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the game</th>
<th>Sample size</th>
<th>Mean±S.D.</th>
<th>‘t’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Football</td>
<td>20</td>
<td>4.55±0.25</td>
<td>2.25*</td>
</tr>
<tr>
<td>2</td>
<td>Hockey</td>
<td>20</td>
<td>4.87±0.48</td>
<td></td>
</tr>
</tbody>
</table>

* Significance at 0.05 level

It is clear from the above table that calculated ‘t’ value of 50 mts dash is 2.25 which is greater than table value i.e., 1.960 and is significant at 0.05 level of confidence.

In this component the Hockey male trainees have shown more mean value then the Football male trainees.

It is clear that Speed of Hockey male trainees are more than the Football Male trainees of District Youth Empowerment and Sports, Bangalore.

4. Conclusion
On the basis of the study and within the limitation already cited, the following conclusions were drawn.
1. There was a significant difference in the speed ability between football and hockey trainees of District Youth Empowerment and Sports, Bangalore.
2. It can be concluded from the study, that the hockey players are usually practice and play in a turf which resist the movement, intern to overcome the resistance more force is applied, and for the speed test when they were made to run in the normal clay surface, the speed movement of hockey players was improvised.
3. It may also affect, that the absence of stick during the speed test which helps to swing the arms properly and to achieve the higher speed.

5. References
1. Landiss CW. Influence of Physical Education Activities on Motor Ability and Physical Fitness of Male Freshman. The Research Quarterly.
5. Drowatzky JN. Relationship at size constancy to selected measures of motor ability. The Research Quarterly 1967; 38:3.