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A Comparative Study of the Speed among Athletics Basketball and Kabaddi Players



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Abstract

Speed is the capacity of the individual to perform successive movements of the same pattern at a fast rate." (Harold M. Barrow and Rosemary McGee, 1979) Speed "as a physical quality with which man can execute his movements" (G.L. Kukushkin, 1983) Randomly 30 players each of basketball, kabaddi and athletics and was selected for the study. 30 basketball players who had represented in district level basketball tournament were selected from Lucknow District. In the same way, 30 kabaddi players who had represented district level kabaddi tournament were selected from Lucknow District and 30 Athletics players was selected who had represented in district level Athletics competition. A programme on speed and to assess their effectiveness as measured by 50 meter dash.

Keywords: Speed, Players, Basketball.

Introduction

Every individual on earth wants to be physically fit to carry out his day to day tasks or activities. These activities of Individuals vary from sedentary office work to competitive sports. Physical fitness levels of these individuals depend upon the nature of the task and vice-versa. (H. Harrison Clarke, April 1957)

It is a well-known fact that fitness plays a vital role in the performance of all sports and team games. The word "fitness" has been discussed and explained by physical educators, coaches and medical professional in numerous ways in relation to performance in games and sports and organic health. "The literature of Fitness" has variety of interpretations of the construct.

Each one of the professionals stated above keeps in mind his own expectations from a human body and defines "fitness" in his own way. Different terminology's like "Motor Fitness", "Physical Fitness", "Total Fitness", "General Fitness", "Athletic Fitness", "Organic Fitness" and "Health Related Physical Fitness" are in practice.

Fitness especially motor fitness is regarded as an essential component even if the team consists of highly skilled, technically scored and experienced players. Motor fitness is gauged by performance and this performance is based on outcome of many factors such as strength, endurance, power, speed, agility and flexibility. Some of the factors evidently are more dominant than other and thus have a higher relationship with motor fitness, scientist and physiologists have been of the view that anthropometric measurements and physical components of an athlete have a lot to do with his performance. More than the technical and tactics of a player or a team physical and physiological characteristics help him for better performance. Most of the games demand a higher level of speed, strength, endurance, flexibility, co-ordination and optimum fitness of the organism for higher performance (Warren R. Johnson and E.R. Buskirk, 1974)

General motor ability has been considered as one's level of ability in midrange of activities. It has been thought of as an interacted composite of such individual trait as strength, endurance, power, speed, agility, reaction time and Co-ordination. Traits underlying performance in many motor Complexes. In successful motor performance these traits function in a co-ordinate manner and in effective sequence to achieve accurate and efficient movement whether it be a single effort as in the golf drive or in a series of complexes and rapidly changing movement as in basketball (H. Harrison Clarke, 1976)

Specific motor fitness is the key to success for sportsman at higher level competitions. The development of specific fitness requires the appropriate amount of motor abilities in relation to the requirement of the

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game concerned. The specific motor fitness is of utmost importance to achieve higher results in games and sports.

Selection of Subjects

Randomly 30 players each of basketball, kabaddi and athletics and was selected for the study. 30 basketball players who had represented in district level basketball tournament were selected from Lucknow District. In the same way, 30 kabaddi players who had represented district level kiabaddi tournament were selected from Lucknow District and 30 Athletics players were selected who had represented in district level Athletics competition.

Selection of Variables

For this study, important and dominating motor fitness component were selected for comparing Basketball, Kabaddi and Athletics. The selected variables of motor fitness components are speed.

Administration of Test and Collecting of Data

The data was collected for each variable. The players were consulted personally and their sincere co-operation shall be solicited subjects or players were called at Lucknow University. For testing necessary instruction was given to the subject prior to the administration of the test for each variable. As soon as the instructions were clearly understood by them, players were asked to complete the particular test. Next for other variable was conducted after completed complete recovery.

These following standard test were selected for variable of motor fitness component..

Administration of the Test

Speed Test

50m. Dash

Procedure

Two subjects at a time run together to give competitive performance. The subjects were asked to stand on a starting line and took the standing start. The clapper was clapped after the caution "Ready". The starter stand in such position so that "V" of the clapper was closed, the time keeper started their stop watches at the finish line. The subjects run as they could and stopwatches were stopped as soon as the subject torso reaches the perpendicular plane of the inner edge of the finish line.

Result and Observation

The analysis of variance employed to investigate difference among sports groups on the variable Speed test has been presented in table -1

Table-1

The analysis of variance employed to investigate difference among sports groups on the variable speed has been presented.

Source of variance	Degree of Freedom	Sum of Square	Mean Sum of Square	Obtained F-value	Required F-ratio
Between Group	3-1=2	8.434	4.21	19.08*	3.103
Within Group	90-3=87	19.276	0.221		

N=90 Significance at 0.05 level

An examination of table-5 reveals that there was significant difference between sports groups, as the obtained 'F' value of 19.08 was greater than tabulated value of 3.103 required for significance at 0.05 level.

The 'F' ratio among sports groups Indicated a value of 19.08 which was greater than the tabulated 'F' value of 3.103 required for significance. Indicating that significant difference existed between the selected sports groups differed significantly the Scheffes Post-Hoc test was applied. The result pertaining to it are presented in table-2

Table-2

Ordered Paired Means and Significance of Difference Between Means of Sports Groups of Speed

Athletics	Basketball	Kabaddi	Mean Diff.	Critical diff.
--	7.723	7.828	0.105	0.3004
7.132	--	7.828	0.696*	0.3004
7.132	7.823	--	0.596*	0.3004

Table-6 shows that the Mean Difference in speed between athletics and kabaddi (M.D.=0.696), athletics and basketball (M.D.=0.596) were significant as the mean difference values were greater than the critical difference values of 0.3004 required for significance.

The mean difference between basketball and kabaddi (M.D.=0.105) showed values lesser than the critical difference value of 0.3004 required for significance thus indicating no significant difference were found between basketball and kabaddi on speed. Among the three sports groups the highest paired mean value was observed for the athletics group (7.13) and the lowest paired mean was observed for the basketball group (7.72)

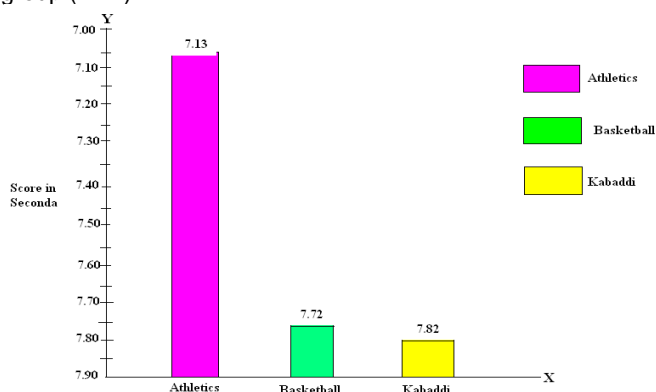


Fig.3 : Speed Means of sports groups

Discussion of Findings

The analysis of data using 'F' test showed that variation exist among athletics, basketball and kabaddi groups in all the selected motor fitness variables. While taking it into account, the speed variable, the analysis clearly indicated variation among sports groups that is, athletics and kabaddi, athletics and basketball groups.

There exist no significant difference between kabaddi and basketball groups. This may be attributed to nature of the athletics performance, where speed plays a vital role for optimum performance as compare the basketball and kabaddi players. Therefore, significant difference existed basketballers scored higher than kabaddi players, though the difference was not significant. This may be due the factor that speed is not the determining factor in both the game.

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