Comparative study of speed and agility between university level cricket and football players

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Abstract
Speed and agility are the important motor components required in every game for improvement of performances. Agility is the quality of being agile. Agile refers to the ability to move quickly and easily, either physically or mentally. Agility is also the ability of the body to quickly change direction from one place to another. Agility is one of the components of physical fitness. Speed is used in sports for such muscle reaction that are characterized by maximally quick alteration of contraction and relaxation of muscles. Speed performances can’t be improved to considerable extent as is in case of strength and endurance.

The aim of the study is to compare the differences between speed and agility football and cricket players of university level males. A total number of 30 University level football and cricket players were selected 15 football and cricket players of university level were considered as the subject of the present study. The speed was measured by 30m dash and agility was measured by 4x10 m shuttle run, using standard procedures. The mean performance in speed and agility of the football and cricket players were 0.336 and 1.296 respectively. Using t-test it was observed that the speed and agility of the cricket and football players did not differ significantly.

Keywords: Speed, Agility

Introduction
Speed and agility are the important motor components required in every game for improvement of performances. Agility is the quality of being agile. Agile refers to the ability to move quickly and easily, either physically or mentally. Agility is also the ability of the body to quickly change direction from one place to another. Agility is one of the components at physically fitness. Speed is used in sports for such muscle reaction that are characterized by maximally quick alteration of contraction and relaxation of muscle. Speed performances can’t be improved to considerable extent as is in case of strength and endurance.

Football
The game of football is any of several similar team sports of similar origins which involve advancing a ball into a goal area in an attempt to score. Many of these involve kicking a ball with the foot to score a goal, though not all codes of football using kicking as a primary means of advancing the ball or scoring. The most popular of these sports worldwide is association football, more commonly known as just “FOOTBALL” or “SOCCER” unqualified the word football applies to whichever form of football is the most popular context in which the word appears, including American football, Australian rules football etc.

Cricket
It is believed to have been born in England in the late middle ages. Edward III banned a game similar to cricket in 1369, ‘Pila baculorea’ or ‘club ball’ as it was known, as he saw it as being a distraction to his war effort.

Statement of the problem
The researcher aimed to find out the extent of agility and speed criteria of the footballers and cricketers and the problem is stated as “Comparative study of speed and agility between university level football and cricket players”.

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Objectives of the study

- To assess the speed ability of the university level football players;
- To assess the speed ability of the university level cricket players;
- To assess the agility of the university level football players;
- To assess the agility of the university level cricket players;
- To compare the speed and agility between the footballers and cricketers separately.

Delimitation

The study was delimited to the following areas –

- Area – The study was conducted on the student of Visva-Bharati sanstitkatan.
- Age – 18 to 27.
- Sex – Only university level male players was selected.
- Number of subject – 30 players (15 players from cricket and 15 player football.)
- Test Items:
  - Only 30 m. dash for measuring speed and for agility 4x10m. Shuttle run have selected for this study.
- Hypothesis
  - H1: A significant difference would show in speed criteria between footballers and cricketers
  - H2: A significant difference would show in agility between footballers and cricketers

Significance of the study

- The study may help to the coaches and physical educators to know the status of motor components of the footballers and cricketers.
- The study may suggest to the coaches to prepare their training schedule as per the need of the game.

Limitation

- The Study could not control the underlying variables such as injuries, sickness or tiredness.
- The effort at the subjects in performing the tests was uncontrollable which might influence the results at the study.
- Daily routine, dietary habits, socio-economic condition, physical and the social environments were considered as the limitation of the study.
- The Study could not control the subject’s daily life behaviors, such as smoking and drinking.

Methodology

The main purpose of this study was to compare of speed and agility among cricket and foot ball players, those who participate university level, the methodology for this study would be presented in the following section subjects, ethical consideration, variables and test, criterion measures, testing techniques, collection of data, reliability of data statistical techniques.

Study Area

Department of physical education

Subjects

30men players (15from cricket and 15 from football.)

Age

(17-28)

Criterion Measure

Speed -30 meter dash
Agility - 4 ×10 MT's Shuttle run

Statistical tools

To obtain the mean performance of the subjects descriptive statistics and to determine the significance of difference between the group means of the criterion measures t-test was employed.

Analysis of data and result of the study

The analysis of data collected from the two play groups namely football and cricket players of 30 subjects. The data were analyzed by applying t test, by testing mean difference of speed and agility for two groups that is football and cricket.

Level of significance

The level of significance to the test t’ ratio was fixed at 0.05 level which was considered to be appropriate for the purpose of the study.

Result

In order to find out the significance difference of speed and agility of football and cricket groups by subjecting the difference between means scores without any training, statistical significance calculating ‘t’ratio using the formula. 30 players (15 cricket players and 15 football players) were selected as the subjects for the present study. Their personal data 30m sprint and 4x10 shuttle run were recorded. The mean and Standard Deviation (S.D) of selected physical fitness components of male athletes has been presented below-

**Table 1**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Speed</th>
<th>Agility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foot Ball</td>
<td>Cricket</td>
</tr>
<tr>
<td>Mean</td>
<td>4.63</td>
<td>4.61</td>
</tr>
<tr>
<td>SD</td>
<td>0.14</td>
<td>0.17</td>
</tr>
<tr>
<td>t- Value</td>
<td>0.336(NS)</td>
<td>1.296(NS)</td>
</tr>
</tbody>
</table>

NS = Not significant at 0.05 level of significance.

1. There was no significant difference between football and cricket groups on speed.
2. There was no significant difference between football and cricket groups on agility.

Discussion of findings

The findings of data was observed that in speed football players are better than cricket players and in case for agility cricket player were more better compare to football players, but it may be also stated that after applying t-test it was observed that it remain insignificant. So the data was insufficient to prove that there was any significant difference between the agility and speed of football or cricket players. This may be subjected to the view that the football and cricket player might be having some similarity in their skills training which is why there was no such significant difference, or the non significance can be due to similar social background or lifestyle habits.

Conclusion

- Within the limitation of the study the study may be concluded that.
- The mean performance in speed of the university level cricket players was to some extent better than the football players but not significant.
The mean performance in agility of the university level cricket players was to some extent lower than the football players but not significant.

Recommendation

- In light of conclusion drawn the following recommend have been made
- Similar study may be conducted by taking more number of variables using more number of subjects.
- The coaches and physical education teacher must put due emphasis on speed abilities while selecting their teams.

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