ANALYSIS OF SELECTED COORDINATIVE ABILITIES AMONG INTERCOLLEGIATE MEN BALL BADMINTON BADMINTON AND TENNIS PLAYERS

Dr. P. KUMARAVELU

Assistant Professor, Department of Physical Education, Tamilnadu Physical Education and Sports University, Chennai, Tamilnadu, India.

ABSTRACT

The purpose of the study was to find out the analysis of selected coordinative abilities among intercollegiate men ball badminton, badminton and tennis players. The objective of the study is to analysis of selected coordinative abilities among intercollegiate men Ball badminton, Badminton and Tennis players. To achieve the purpose of the study, ten men tennis, ball badminton and badminton players were selected from Pachaiyappas Arts and Science College, Kanchipuram and TNPESU, Chennai. The age of the participants ranged from 21 and 28 years. The following variables namely differentiation ability and orientation ability was selected as criterion variables. All the subjects were tested on dependent variables by using Backward Target Throw Test, Numbered medicine ball run Test and Ball Reaction Exercise test respectively. The experimental design used for this study was static group comparison design. The collected data were statistically analyzed for significant difference using ‘F’ ratio in this case 0.05 level of significance was used to test the hypothesis. The results of the study showed that there was no significant difference in, space orientation ability and complex reaction ability among ball badminton, badminton and tennis players.

KEY WORDS: Differentiation ability, Space Orientation Ability, Complex Reaction Ability.

INTRODUCTION

Coordination is the ability to integrate the senses visual, auditory and proprioceptive (knowing the position of your body in space) with motor function to produce smooth, accurate and skilled movement. Coordinative abilities are also needed for maximal utilization of conditional abilities, technical skills and tactical skills (Hardayar singh, 1991). Coordinative abilities have a direct relevance to sports performance. Performance in different games and sports to a great extent depends upon the level of the coordinative abilities of a sports person. Coordinative abilities depend upon the mechanism involved in the control and the regulation of the body movement, the coordinative process of the central nervous system and the functional capacity of the various sense organs.

Insufficient training of coordinative abilities limits the performance ability especially at the higher levels. On the contrary, better-developed coordinative ability provides an essential base for a faster and an effective learning, stabilization and variation in technique and their successful execution in the game situation. In different sports, the requirements of the coordinative abilities are different and these abilities ensure a higher movement efficiency and movement economy, whereas in some sports events they help in higher movement frequency with high explosiveness and force application. In strength sports, they help in putting maximum effort in a short time and at the right time. But, where the technique dominates in an event, the abilities help in better learning, stabilization, variability and autoimmunization. Apart from the performance improvement in team games, the coordinative abilities ensure an effective use of the tactical abilities in the continuously changing situations (Kalb, Lother, 1989).
In sports, seven coordinative abilities are of crucial importance. In different sports the relative importance of these abilities is however different (Singh, 1991). Physical education teachers and coaches should be well versed with this importance of coordinative abilities in putting up good performance in various games and sports. Differentiation ability enables the sportsperson to perceive micro-differences regarding the temporal, dynamic, spatial aspect of the movement execution and the differentiation can be with regard to an implement or movement like serve, movement serve, water feeling, etc. (Singh, 1991). Orientation permits the sportsperson to determine the position and movement of this own body or of a moving object, an opponent or a partner with regard to space. Coupling or combination movement allows the sportsperson to coordinate the partial movement of the body with regard to space, time, and dynamics (Singh, 1991). Reaction ability permits the sportsperson to effect an action quickly and purposefully according to a signal and for a sudden change in situation (Singh, 1991). Balancing ability helps in keeping the total body in a certain position or to re-establish it (Singh, 1991).

METHODOLOGY

The purpose of the study was to find out the analysis of selected coordinative abilities among intercollegiate men ball badminton, badminton and tennis players. The objective of the study is to analysis of selected coordinative abilities among intercollegiate men Ball badminton, Badminton and Tennis players. To achieve the purpose of the study ten men tennis, ball badminton and badminton players were selected from Pachiappas arts and Science College, Kanchipuram and TNPESU Chennai. The age of the participants ranged from 21 and 28 years. The following variables namely differentiation ability and orientation ability were selected as criterion variables. All the subjects were tested on dependent variables by using Backward Target Throw Test, Numbered medicine ball run Test and Ball Reaction Test respectively. The experimental design used for this study east static group comparison design. The collected data were statistically analyzed for significant difference using ‘F’ ratio In this case 0.05 level of significance was used to test the hypothesis. The results of the study showed that there was no significant difference in differentiation ability, space orientation ability and complex reaction ability among ball badminton, badminton and tennis players.

ANALYSIS OF THE DATA

<table>
<thead>
<tr>
<th>S.No</th>
<th>Variables</th>
<th>‘R’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Differentiation ability</td>
<td>0.87*</td>
</tr>
<tr>
<td>2</td>
<td>Orientation ability</td>
<td>0.90*</td>
</tr>
<tr>
<td>3</td>
<td>Reaction ability</td>
<td>0.88*</td>
</tr>
</tbody>
</table>

*significant at 0.05 level of confidence.
(Table value required for significance at 0.01 level of confidence is 0.77)
Since the obtained ‘R’ values are much higher than the required value, the data were accepted as reliable in terms of instrument, tester and the participants.
TABLE II
ANALYSIS OF VARIANCE ON DIFFERENTIATION ABILITY, SPACE ORIENTAION ABILITY AND COMPLEX REACTION ABILITY OF THREE DIFFERENT EVENTS
(Differentiation ability scores are in Numbers)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Ball Badminton</th>
<th>Badminton</th>
<th>Tennis</th>
<th>Sources Of Variance</th>
<th>Sum of Square</th>
<th>df</th>
<th>Mean Square</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation ability</td>
<td>13.8</td>
<td>13.7</td>
<td>13.7</td>
<td>Between within</td>
<td>0.067</td>
<td>27</td>
<td>0.003</td>
<td>.010</td>
</tr>
<tr>
<td></td>
<td>93.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.474</td>
<td></td>
</tr>
<tr>
<td>Complex Reaction Ability</td>
<td>10.34</td>
<td>10.24</td>
<td>10.13</td>
<td>Between within</td>
<td>0.221</td>
<td>27</td>
<td>.111</td>
<td>.647*</td>
</tr>
<tr>
<td></td>
<td>6.738</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.250</td>
<td></td>
</tr>
<tr>
<td>Space Orientation ability</td>
<td>1.24</td>
<td>1.23</td>
<td>1.23</td>
<td>Between within</td>
<td>.001</td>
<td>27</td>
<td>0.00</td>
<td>.719*</td>
</tr>
<tr>
<td></td>
<td>.010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(The table value required for significance at .05 level with df 3 and 27 is 2.96)

Table II shows that the mean values of three different groups like Ball badminton, Badminton and Tennis players are 13.8, 13.7 and 13.7 respectively. The obtained F-ratio value is 0.010, 0.647, 0.719 which lesser than the table value 2.96 with df 3 and 27 required for significance at .05 level. Since the value of F-ratio is lesser than the table value, it indicates that there was no significant difference exists among the means of three different games on Differentiation ability, space orientation ability and complex reaction ability.

CONCLUSIONS
Based on the results of the study, the following conclusions were made. The results of the study indicate that there is no significant difference in differentiation ability, space orientation ability and complex reaction ability among, ball badminton, badminton and tennis players.

REFERENCES


