Influence of coordinative abilities training on skill performance and hand eye coordination among hockey players

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Abstract

Background: This study is done to find out the influence of coordinative abilities training on skill performance and hand eye coordination among hockey players. The study aimed to find out the influence of coordinative abilities training on serving ability and hand eye coordination among hockey players.

Methods: To achieve the purpose of the study fifteen Hockey players from Pondicherry Region were selected as subjects. The age of the subjects were ranged from 25 to 30 years respectively. Players who represented intercollegiate level tournaments were selected for this study as subjects.

Results: The experimental group namely coordinative abilities training have achieved significant improvement on general skill performance and hand eye coordination.

Conclusions: This technique can be recommended for all coaches, Physical Education Teachers and improve the skill and coordinating skill in various sports and games.

Keywords: Coordinative abilities training, skill performance, hand eye coordination, hockey players

Introduction

Training

Training is not a recent discovery. In ancient times, people systematically trained for military and Olympic endeavours. Today athletes prepare themselves for a goal through training. Training represents a long term endeavour. Athletes are not developed overnight and a coach cannot create miracles by cutting corners through overlooking scientific and methodical theories - Bompa, 1991.

Motor Skill Development

Motor skills are actions that involve the movement of muscles in the body. They are divided into two groups: gross motor skills, which include the larger movements of arms, legs, feet, or the entire body (crawling, running, and jumping); and fine motor skills, which are smaller actions, such as grasping an object between the thumb and a finger or using the lips and tongue to taste objects. Both types of motor skills usually develop together, because many activities depend on the coordination of gross and fine motor skills - Nuttall, 1992.

Benefits of Skill training

Skill Training promotes strong and healthy Performance. Skill Training will help you control the technique and tactics in our performance. Skill training acts as an antidote for emotion disturbances. Skill training can improve your intellectual capacity and increase your productivity. Skill Training is a realistic way to lose weight and keep it off. Skill training provides significant protection from heart disease. You can get the maximum benefits in a minimum amount of time in a variety of programs.

Objective of the Study

The study aimed to find out the influence of coordinative abilities training on serving ability and hand eye coordination among hockey players.
1. To determine the eye hand coordination of hockey players.
2. To determine the serving ability of hockey players.
Methodology
Selection of subjects
To achieve the purpose of the study fifteen Hockey players from Pondicherry Region were selected as subjects. The age of the subjects were ranged from 25 to 30 years respectively. Players who represented intercollegiate level tournaments were selected for this study as subjects.

Selection of Variables
Skill related variables and general skill performance variables were selected as dependent variable (Skill performance & Hand eye Coordination) and Coordinative abilities training were selected as independent variable for this study.

Selection of Test
The Method used for this study is Hand-Eye Coordination (MIRROR TEST) and Serving ability (FRENCH SHORT SERVE). The pre and post-test single group design was used as experimental design; the subjects were tested pre and post training session. The results were analyzed with dependent “t” test to find out the significant improvement between pre and post-test means of experimental group. The level of confidence was fixed at 0.05 level for all the cases to test the hypothesis.

Results and Discussions
Table 1: the summary of mean and dependent ‘t’-test for the pre and post tests on skill performance of Experimental group

<table>
<thead>
<tr>
<th>Test</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre test</td>
<td>15</td>
<td>53.2</td>
<td>18.24</td>
</tr>
<tr>
<td>Post test</td>
<td>15</td>
<td>57.47</td>
<td>18.13</td>
</tr>
<tr>
<td>‘t’-test</td>
<td></td>
<td>8.49*</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.05 level.

(Skill performance in Numbers)
(The table value required for 0.05 level of significance with df14 is 2.14)

Table 2: the summary of mean and dependent ‘t’-test for the pre and post tests on hand eye coordination of experimental group

<table>
<thead>
<tr>
<th>Test</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre test</td>
<td>15</td>
<td>165.87</td>
<td>11.19</td>
</tr>
<tr>
<td>Post test</td>
<td>15</td>
<td>164.07</td>
<td>11.11</td>
</tr>
<tr>
<td>‘t’-test</td>
<td></td>
<td>12.44*</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.05 level.

(Hand Eye Coordination performance in Seconds)
(The table value required for 0.05 level of significance with df14 is 2.14)

Fig 1: The pre and post-test mean values of coordinative abilities training group on general skill performance.

Fig 2: Mean Values of Coordinative Abilities Training Group on Hand Eye Coordination.
Conclusion
From the analysis of the data, the following conclusions were drawn. The experimental group namely coordinative abilities training have achieved significant improvement on general skill performance and hand eye coordination.

Recommendation
1) The sample size can be increased for future study.
2) The similar study can be taken to identify between men and women.
3) The study can be done without age constrain.
4) The study may be conducted for state and national level.

References