An analysis of psychological proficiency between high and low achieving handball players

Nitesh

Abstract
The aim of present study was accomplished to analyze the psychological proficiency between high and low achieving handball players of schools, colleges and clubs. The total sixty handball players were engaged as subjects to analyze the psychological proficiency. Psychological proficiency questionnaire organized by Hardy and Nelson (1996) was administered to testify the reaction of school, college and club level handball players. The t-test was applied to discover out the significant difference between high and low achieving handball players. Further ANOVA was applied to see the significant difference among high achieving school, college and club level handball players. The significant level was set at 0.05 level of confidence.

Keywords: Psychological Proficiency, High Achieving, Low Achieving.

1. Introduction
Handball is a team sport in which two teams of seven players each (six outfield players and a goalkeeper) pass a ball using their hands with the aim of throwing it into the goal of the other team. A standard match consists of two periods of 30 minutes, and the team that scores more goals wins.

Modern handball is played on a court 40 by 20 meters (131 by 66 ft), with a goal in the centre of each end. The goals are surrounded by a 6-meter zone where only the defending goalkeeper is allowed; the goals must be scored by throwing the ball from outside the zone or while “jumping” into it. The sport is usually played indoors, but outdoor variants exist in the forms of field handball and Czech handball (which were more common in the past) and beach handball (also called sandball). The game is quite fast and includes body contact, as the defenders try to stop the attackers from approaching the goal. Goals are scored quite frequently; teams typically score between 20 and 35 goals each.

The game was codified at the end of the 19th century in northern Europe, chiefly in Scandinavia and Germany. The modern set of rules was published in 1917 in Germany, and had several revisions since. The first international games were played under these rules for men in 1925 and for women in 1930. Men's handball was first played at the 1936 Summer Olympics in Berlin as outdoors, and the next time at the 1972 Summer Olympics in Munich as indoors, and has been an Olympics sport since. Women's team handball was added at the 1976 Summer Olympics.

The International Handball Federation was formed in 1946, and as of 2013 has 174 member federations. The sport is most popular in continental Europe, whose countries have won all medals but one in men's world championships since 1938, and all women's titles until 2013, when Brazil broke the series. The game also enjoys popularity in Far East, North Africa and Brazil.

we will be introducing you to the wonderful world of Handball. Before we can explore the rules of the game, it is important to know the history of the game. The sport was developed in Denmark, Sweden and Germany in the late 19th century (handball was born in the same century as the rise of Shaka and the early discoveries of electric motor technology). Handball made its Olympic debut at the 1936 Berlin Games as an outdoor sport. The first ever women’s competition took place at the Montreal Games in 1976.
Now back to the basic rules of the game

- The aim is to score as many goals as possible by using your hands
- Each team consists of seven players, six outfield players and the goal keeper
- Handball is all about attack; it is illegal to keep the ball without making an attempt to score. This makes the game very entertaining (The unfit will be lucky to complete the game).
- With soccer there is a kick-off to start the game, in handball a throw-off is used to start the game and also to restart the game after a goal has been scored.
- A player is allowed to run with the ball taking only three steps and can only hold the ball for three seconds (now that takes some doing).
- It is prohibited to make contact below the knee and dive over a rolling ball
- Even though the game is a contact sport pulling or hitting the ball out of the opponent’s ball is not allowed.
- A defender may use the torso to impede the attacking player, but outstretched arms or legs, pushing and tripping is not allowed. The player on the offensive is not allowed to charge into the defender.

As one of the first international sport organization, the International Handball Federation has launched a worldwide training and education program for teachers at schools. According to the motto “Fun, passion and health”, competent IHF Handball at School Experts conducts courses for teachers of different age groups all over the world.

There are two different types of Handball at School courses – the classification is based on the age of the target group: Level I courses are designed for teaching handball to age groups between 5 and 11 years, whereas Level II courses focus on the age group 12 – 17 years. This distinction makes sure that the course content is especially adapted to the skills and abilities of the corresponding age group.

The present website is a promotion platform and should serve to illustrate the content presented in these courses. These animated training videos can help to get an idea and facilitate to understand the basic movements of handball. However, they cannot be considered as 100% correct visualization of the exercises. The animations are based on the work for the official „IHF Handball Challenge“ video game, produced by the Berlin-based media company Neutron Games GmbH. If you want to learn more about the game please navigate to the section „Handball Challenge – video game“ in the website menu.

Methodology

Sample: The total sixty (N=60) handball players was engaged as subjects to analyze the psychological proficiency between high and low achieving handball players. Out of total sample, twenty (N=20) school level and twenty (N=20) club level are selected as subjects. Further ten (N=10) each from school, college and club levels were separated into high achieving and low achieving groups. The first three position holder from school state (U-19) championship, inter-college championships of C.D.L.U, Sirsa and senior state Championship were measured as high achieving players. Those who only contributed in said championship were measured as low achieving handball players.

Tools: Psychological proficiency questionnaire organized by Hardy and Nelson was administered to verification the reaction of school, college and club level handball players. The scores was dispersed and deliberated as per key of test.

Statistical Analysis: The descriptive statistics was used to determine the Mean and S.D. figures of high and low achieving school, college and club level handball players with the help of Microsoft excel. The t-test was applied to find out the significant difference between high and low achieving handball players. Further ANOVA was applied to observe the significant difference among high achieving school, college and club level handball players. The significant level was set at 0.05 level of confidence.

Results and Discussion

Results: Mean, S.D., t-values and ANOVA figures are accessible in tables and Interpretations are specified consequently. Mean comparison of high and low achieving players have also obtainable through graphical representations.

Table 1: Mean S.D. and t-Values of Psychological Proficiency of High and Low Achieving Handball Players

<table>
<thead>
<tr>
<th>Level of Participation</th>
<th>Subjects</th>
<th>Performance Groups</th>
<th>Mean</th>
<th>S.D</th>
<th>M.D.</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools</td>
<td>10</td>
<td>High</td>
<td>99.49</td>
<td>11.46</td>
<td>13.15</td>
<td>3.57</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Low</td>
<td>86.34</td>
<td>9.36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colleges</td>
<td>10</td>
<td>High</td>
<td>99.68</td>
<td>15.37</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>10</td>
<td>Low</td>
<td>90.57</td>
<td>8.28</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clubs</td>
<td>10</td>
<td>High</td>
<td>104.98</td>
<td>13.32</td>
<td>17.42</td>
<td>4.15</td>
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<tr>
<td></td>
<td>10</td>
<td>Low</td>
<td>87.56</td>
<td>12.57</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.05 level

Table 1 shows that mean value of school level high achieving players is 99.49 with S.D. 11.46 and mean value of school level low achieving handball players is 86.34 with S.D. 9.36. The t-value 3.57 is found highly significant in favour of high achieving school handball players. The mean value of college level high achieving players is 99.68 with S.D. 15.37 and mean value of school level low achieving handball players is 90.57 with S.D. 8.28. The t-value 2.05 is found significant in favour of high achieving college handball players. The mean value of club level high achieving players is 104.98 with S.D. 13.32 and mean value of school level low achieving handball players is 87.56 with S.D. 12.57. The t-value 4.15 is found highly significant in favour of high achieving club level handball players.
Discussion: This study illustrated that t-values 3.57, 2.05 and 4.15 between high and low achieving school, college and club level handball players found significant in support of high achieving players. These outcomes evidently sustain that high achieving players having higher psychological proficiency level. High achievement of handball players in relevant championships may be due to high level of psychological proficiency. Previous studies conducted by Rose finished that psychological training of athlete’s enhance physical preparation and presentation for sports competition. Thelwel and Greenless point out that psychological proficiency encloses is effectual in attractive all participants’ competitive performance and usage of psychological proficiency from baseline to involvement phases. They highlight that usage of psychological proficiency played optimistic role in competitive endurance. Thapa\textsuperscript{11} found significant differences exist among university level and college level football players with regard to psychological proficiency. He commented that high psychological proficiency scoring may be the reason of high performance. The results exposes that there is a insignificant difference exist between high achieving school, college and club level handball players. Finally it is pragmatic that high and low achieving players change significantly with regard to psychological proficiency. On other hand high achieving handball players of school, college and club did not differ significantly. According to this study psychological proficiency played imperative role for high presentation.

Conclusion
It is done that high achieving handball players of schools, colleges and clubs are significantly better psychological proficiency level as evaluate to low achieving handball players. These conclusions showed that psychological proficiency may the motivation of high performance in handball game. Whereas school, college and club level high achieving players did not fluctuate significantly among each others.

References