STUDY OF ANTICIPATION IN HANDBALL THROUGH INTERACTIVE TEST

(Preliminary communication)

Ilia Varbanov and Ognian Tishinov
National Sports Academy „Vassil Levski“, Sofia
Department of Basketball, Volleyball, Handball, Sofia, Bulgaria

Abstract
Based on the records of all meetings of handball Olympic Games in 2012 and World Championships in 2009 for women and 2013 for men 70 were selected situations in the test, which united in 5 subtests with 14 tasks (situations) each. With this 70-item version of the test (ie 70 situations) were studied 149 players from eight clubs in seven cities - Sofia, Svishtov, Dobrich, Varna, Burgas, Haskovo and Bankia (of which 111 men and 38 women). According to the adopted by the Bulgarian Handball Federation division ages studied our people compete in three groups - 15 years, 16 to 18 and over 18 years of age (men and women). The analysis of the data obtained showed that the anticipation is an intellectual process. Coaches can use in their practical work.

Keywords: video clip, videos locomotor activity in handball, created interactive software, motor skills, men, women, average values, variance analysis,

INTRODUCTION
In handball, as a collective game, ultimate success is the work of team effort, ie all racers. Without ignoring that accurate staging, we must emphasize that in its base of sports-technical point of view the most important is winning challenges „one against one,” which puts - matches attacker - defender and second (not least) - striker - keeper. A confirmation for the surge in interest is the research of a group of lecturers at the Faculty of Sports Sciences, University of Granada, Spain (Gutiérrez-Dávila, Rojas, Ortega, Campos, & Párraga, 2011; Pacheco, & Steve, 1999) who set an aim – to evaluate the time of anticipation and the kinematic factors in long-distance shots in handball.

In acute conflict situations, which are the essence of handball game is crucial is anticipation. According to Anohin (1979) anticipation represents a particular form „Overtaking impact“ in which the mind of man is an image of the result of the action of its actual appearance.

Surkov (Сурков), 1982) gives the following definition of anticipation „of man’s ability to act and adopt some or other decision of temporarily set-spatial projections regarding expected future events.”

In sports psychology in anticipation means the ability to predict the movements of your partner or opponent.

In our anticipations in handball is proactive creative thinking motor action!

It is important to know that in sports activities extremely important is intuition that influences the tactical thinking of the evaluation of the situation, making intuitive solution specifically related to forecast the effectiveness of selected technical and tactical action.

According to the explanatory dictionary „intuition is insight, ability to unconsciously penetration into the essence of phenomena, insight.“

Intuition and anticipations that are interrelated and interact?

On the other hand in extreme situations racing prominently operational thinking, allowing to shorten the time for decision and its optimization. It must be stressed that in game situations handball flow speed and the choice of technical and tactical methods, decisions and actions obey deficit of time.

In this aspect with particular force stands role of anticipation in the „game“ striker - goalkeeper and back.

Through the „movement“ of thought certain action it can be done before the onset of the expected signal. This is especially true for the „recognition“ of the game situation or a better game with attacker / defender / goalkeeper when a player „guess“ what is. Anticipations raises skill - the actions shooting - goalkeeper confidently place within fractions of a second, which greatly increases through targeted multi training since childhood (7-8 years).

In our time, the potential for solving this problem lies in unlocking the „secret“ of anticipation in handball
and pave the way for its formation even in the early childhood.

After theoretical analysis of current trends in handball game and considering that the flow speed of game situations, and the choice of technical and tactical methods, decisions and actions are subject to strict time we tried to select and selecting appropriate videos for mentally - motor activity of handball. They were classified into separate groups in order to create tests for assessing the anticipation. Was created interactive software for selecting movies, set the tactical issues, evaluation of the accuracy and response time for handball. Statistically processing realizes the implementation of the objective of establishment (diagnose) the state (level) of anticipation as far as age of handball players in their specific game environment in racing conditions.

Software development provides the researcher a standard format of recording information of the experiment. At further development of the project, the algorithm analyzing the results achieved so far can be interpreted according to the new guidelines for the development of the idea of evaluation of game situations falling surveyed athletes.

METHODS

Purpose: Establishing the state of anticipation as far as age of handball players in their specific gaming environment in racing conditions.

Tasks:
1. Recruitment and selection of appropriate videos locomotor activity in handball and create tests for assessing anticipation.
2. Arrange the selected videos in their series for distribution in their groups and video edition.
3. Creation of software for interactive selection of the clips, set the tactical question of the correctness assessment and response time of a test person.

Based on records of all meetings of handball Olympic Games in 2012 and World Championships in 2009 for women and 2013 for men 70 were selected situations in the test, which united in 5 subtests with 14 tasks (situations) each. With this 70-aytemen version of the test (ie 70 situations) were studied 149 players from eight clubs in seven cities - Sofia, Svishtov, Dobrich, Varna, Burgas, Haskovo and Bankia (of which 111 men and 38 women).

According to the age division study adopted by the Bulgarian Handball Federation our people compete in three groups - 15 years, 16 to 18 and over 18 years of age (men and women).

Solving the first and second tasks required selection of movies, video editing and preparation for placement in computer memory. For the execution was used by the project purchased a computer video editing program Adobe Premiere Pro.

Examples of the tasks of the test are presented in the pictures (Fig.) 1.
- player (at 7 meters) - time is shorter in women (6.45 sec. 6.9 sec. Of handball), which can be explained by better technical and tactical men’s possibilities. Back to the dynamic situation (one against one) handball player for a little short time give the correct answer (5.98 sec. Versus 6.1 sec.)

3. The biggest difference in time (5.7 sec. vs. 6.6 sec.) in favor of men in anticipation of interactions between keeper and defense in shooting the attacker in the door. This difference of nearly one second, in our opinion, due to the greater experience (routine) of handball players (they have a greater number of meetings in the league).

Table 1. Average values of the coefficient obtained by dividing the % correct responses on average response time of both sexes

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1 B7M static</td>
<td>9.85</td>
<td>8.91</td>
</tr>
<tr>
<td>S1 B dynamic</td>
<td>12.84</td>
<td>13.88</td>
</tr>
<tr>
<td>S1 Defender</td>
<td>17.12</td>
<td>15.86</td>
</tr>
<tr>
<td>S1 Offender</td>
<td>18</td>
<td>16.3</td>
</tr>
<tr>
<td>S1 GK</td>
<td>13.19</td>
<td>9.35</td>
</tr>
</tbody>
</table>

What are our findings:

1. The most significant differences in favor of men were obtained coefficient of anticipating actions of defenders (Defender) - 17.12 15.86 against attackers (Offender), respectively 18 and 16.3, and in anticipation of interactions goalkeeper protection (13.19 versus 9.35).

2. The ratio of women is better at anticipating the actions of the players in the dynamic duel goalkeeper-player (one against one) - 13.88 against 12.84.

3. Significantly smaller the difference in the coefficients at anticipating the actions of the players in the match goalkeeper-player (one against one) under a static situation (9.85 against 8.91 for women).

These differences in the coefficients of both sexes give grounds for the following conclusions:

1. Handball (men) better (for short time) give the correct answer to pictorial game situations with the exception of situations where dynamic game (5.98 against 6.19 for women).

2. Mean odds on handball are significantly higher than those in conflict with women game situations, which we believe is due to accumulated more experience in more competitions provided for in the sports calendar of BFH.

3. Relatively low ratio of men and women received at goal-player game is the result of the smaller and more basic options in the actions of the attacker and goalkeeper at 7 meters throwing.
CONCLUSION

The analysis of the data obtained showed that the anticipation is an intellectual process, since its performance is moderately positively connected with the common intelligence.

We can conclude that the test contains information that coaches can use in their practical work.

REFERENCES


