

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-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 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 subtesta 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.



Fig. 1.1. Duel striker – goalkeeper and back to 7 m shooting



Fig. 1.2. Duel striker – goalkeeper



Fig. 1.3. „Reliance“ actions attackers defender



Fig. 1.4. “Predicting“ the actions of the defenders of the attackers



Fig.1.5. "Identification" the actions of the defense and goalkeeper attacker

Creating software for interactive selection of clips, evaluation of response time measurement

Addressing the third task involved developing a means of demonstrating clips for an easy interactive access time measurement accuracy and the practical actions of a test person. The screening of the video has to stop at some point. From this moment is the measurement of the response time. The clips were divided into five groups characteristic. Subsequent statistical processing is through variance analysis of the results of the team - the percentage of successful responses to five different menus and average response time. Proposed was a factor based on the % correct answers and the average response time.

Processing and analysis of the results

In conducting the survey and processing the results we proceeded from the theoretical formulation that anticipation, ie overtaking itself can be divided into two interrelated areas: motor skills and game environment.

Requirement:

1. Anticipate „flight“ of the ball (game medium).
2. Understanding the relevance of their own movements any changes in location of the enemy (motor).
3. Considers correct the course of the game and programmed their behavior / action (game medium).
4. It is envisaged the ultimate goal or sub-objectives, alternatives and stages of action (motor).
5. Pre meaning to the consequences of their own actions and those of the enemy.

RESULTS

At this stage, given the number of persons covered in the study will analyze the overall results obtained in handball (men and women).

From the analysis that illustrates the average time in seconds for responses to both sexes:

1. The time for action anticipation of attackers men and women is equal (4.8 sec.), while the actions of defenders difference is minimal (5.7 sec. against 5.5 sec.) in favor of women.
2. Actions in anticipation of the match goalkeeper

- 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

Coefficient	Men	Women
S1 B7M static	9,85	8,91
S1 B dynamic	12,84	13,88
S1 Defender	17,12	15,86
S1 Offender	18	16,3
S1 GK	13,19	9,35

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.

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Correspondence:

Varbanov Iia

National Sports Academy „Vassil Levski“

Department of Basketball, Volleyball, Handbal,

Studentski grad 1700, Sofia, Bulgaria

Email: overhand@abv.bg