



THE EFFICIENCY OF THROWING AT THE GOAL PROCEDURES AT THE LEVEL OF WOMEN HANDBALL TEAMS - SENIORS

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Abstract

Male and female handball in Romania is considered a sport with an exceptional track record over time, both nationally and internationally. Many handball athletes have made history in this sport both through their results and the fact that at some point they have contributed to improving the throwing procedures at the gate, effective procedures that today carry their names.

Purpose: This paper is a study that deals with determining the most effective disposal methods used by athletes from C.S.M. Ploiesti in handball matches, played in the championship.

Methods: Research methods used during the research were: method records, statistical and mathematical method, bibliographic documentation method, pedagogical observation method.

Conclusions: from the study that I conducted on female team handball senior at C.S.M. Ploiesti, I noticed that it was emphasized the throwing at the goal from the jump and from plunge. The most effective team player who played in every game was J₁ who plays inside left with 89 goals.

Suggestions: From the made study I believe some proposals for improving the efficiency of throwing at the goal procedures are imposed by taking the following measures:

- The coach to devote more time to prepare the team in terms of effective throwing at the goal of players;
- The development of exercises specific to throwing the goal from posts;
- The execution of throws at the goal by the main post specific techniques to exhaustion, etc..

Key words: throwing at the goal, procedures, efficiency.

Introduction

Handball as a sport branch, is considered to be the newest of classic sports games, having originated in Europe, specifically in the northern part of it. At its beginnings, under the influence of other team games, it was played in 11 players, held outdoors, today being currently played in seven players, in the gym only (I.K. Ghermănescu, et al., 1983).

Over time Romanian handball players have progressed to throw at the goal, so that these processes carry their names today. Such a course would be Maricel's Voinea, "Voinea effect", which is a throw with effect, by which the thrown ball, coming into contact with the floor, will go around the keeper. For this process the player can benefit from a very small space of handling. This is a spectacular and effective throw with which plenty of goals were scores from all positions but especially from the extremes (P. Cercel, 1983).

Another method is throwing at the goal by evasion which was first made by Virgil Hnat. This process consists in throwing at the goal from avoidance, initially the striker threatens the

goal perpendicular on the defender, this is followed by a bending towards right or left avoiding thus the blocking of the defender, completed by a shot on the goal. Vasile Stângă remained in history as the man who first made "the floating" (C. Hantau, 2009). This execution is a high jump, and maintaining it as much as possible making such a floating, an optical illusion. The number of throwing procedures is much

higher, they being subject to the attack phase in which they are performed, the position of goalkeeper, of the defender confronted with the striker that makes the throw. In the present study were tracked, analyzed and recorded in order to establish an optimal level of efficiency the following throwing procedures at the goal: throwing at the goal by plunge, bounce, near the hip, from support, from running (I. Bota, 1984)

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Table 1. Records were centralized

First and last name	Throwing at the goal from jump		Throwing at the goal from running		Throwing at the goal from support		Throwing at the goal from plunge		Throwing at the goal from hip		The 7 m throw		Throws	Total goals	Efficiency
	Goal	Miss	Goal	Miss	Goal	Miss	Goal	Miss	Goal	Miss	Goal	Miss			
<i>J₁</i>	39	32	7	7	7	15	10	2	3	1	18	6	147	84	57,14%
<i>J₂</i>	19	5	0	1	0	0	14	5	0	0	2	1	47	35	74,46%
<i>J₃</i>	2	5	1	0	2	1	3	1	0	0	0	0	15	8	53,33%
<i>J₄</i>	26	25	6	4	9	7	18	4	7	10	1	1	118	67	56,77%
<i>J₅</i>	6	6	2	0	1	1	26	16	0	0	2	1	61	37	60,65%
<i>J₆</i>	21	14	3	0	3	1	10	2	0	0	0	0	54	37	68,51%
<i>J₇</i>	1	0	0	0	0	0	0	0	0	0	0	0	1	1	100%
<i>J₈</i>	6	0	1	0	1	0	5	2	0	0	0	0	15	13	86,66%
<i>J₉</i>	3	2	0	0	0	0	3	2	0	0	0	0	10	6	60%
<i>J₁₀</i>	0	1	2	0	0	0	3	2	0	0	1	0	9	6	66,66%
<i>J₁₁</i>	0	0	0	0	1	0	1	0	0	0	0	0	2	2	100%
<i>J₁₂</i>	3	1	0	0	0	0	0	0	1	0	0	0	5	4	80%

Research premises

In this paper we track the effectiveness of various methods of throwing at the goal used by players in the game of handball. The women athletes subject to investigation are representative for the category they belong to. The team is homogeneous in terms of training and the players participate with 100% of their capacity in this competition.

Research organization

To perform this study we followed and studied the effectiveness of various methods of throwing at the goal used by the players from C.S.M. Ploiesti, team that is representative of the echelon of which it forms part. The data recording was made after watching the matches in women's handball National League and after consulting the statistics under the competition sites, [www.frh.ro].

Research data

The data we have obtained with the game sheets and videos were exposed through the tables for each game in part. Throws at the goal have been tracked by various methods at the girls team of C.S.M Ploiesti.

Research methods used

The records method: Records results with variable values were centralized through the game sheets and video camera and exposed in this paper with the help of tables for each game.

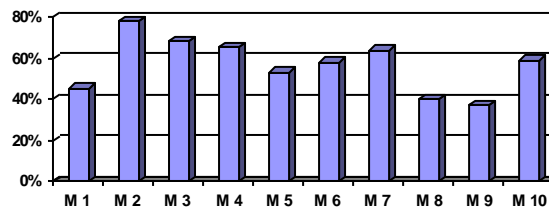
Statistical-mathematical method: data obtained were entered into tables and centralized. At

every match it has been established the number of goals scored by different methods of throwing from a total number of throws at the goal. Bibliographic documentation method: in performing this study we used several methods and research techniques. In order to study the theoretical foundations of the paper we studied the specialty materials and materials from other areas. Pedagogical observation method: knowing the potential of the sample of which the team that conducted the study is part of, we appealed to a pedagogical study. This study was conducted on the senior team of C.S.M. Ploiesti that has evolved into A Division in the competitive year 2010 - 2011. Recordings were made during eight matches, held at home and away. Records were centralized in the table below.

Data interpretation

J₁ played on the inside left position. She had a total number of 147 throws at the goal and scored 84 goals, having an efficiency of 57,14%. Her favorite procedure was throwing at the goal from jumping, with which she scored a number of 39 goals from 71 throws, by throwing at the goal from running she scored 7 goals from 14 throws, by throwing at the goal from support she scored 7 goals from 22 throws, by throwing at the goal from plunge she scored 10 goals from 12 throws, by throwing at the goal from the hip she scored 3 goals from 4 throws, and from the 7m throw she scored 18 goals from 24 throws (figure 1).

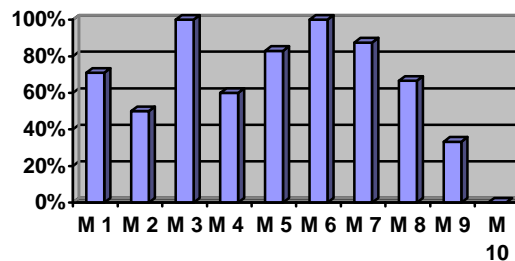
Figure 1. The efficiency degree of the throws at the goal of the player's J_1



J_2 played on the extreme left position. She had a total number of 47 throws at the goal and scored 35 goals, having an efficiency of 74,46%. The favorite procedure was throwing at the goal from jumping with which she scored 19 goals from 24 throws and

throwing at the goal from plunge with which she scored a number of 14 goals from 19 goals, and by the 7m throw she scored 2 goals from 3 throws (presented in figure 2).

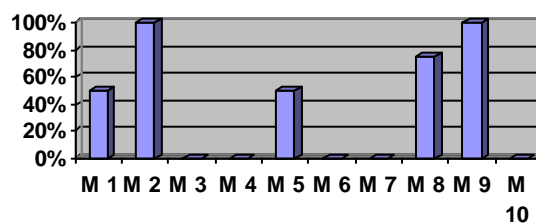
Figure 2. The efficiency degree of the throws at the goal of the player's J_2



J_3 played on the pivot position. She had a total number of 15 throws at the goal and scored 8 goals, having an efficiency of 53,33%. Her favorite procedures were: throwing at the goal from running with which she scored 1 goal, throwing at the goal

from support with which she scored 2 goals from 3 throws, throwing at the goal from plunge with which she scored 3 goals from 4 throws (presented in figure 3).

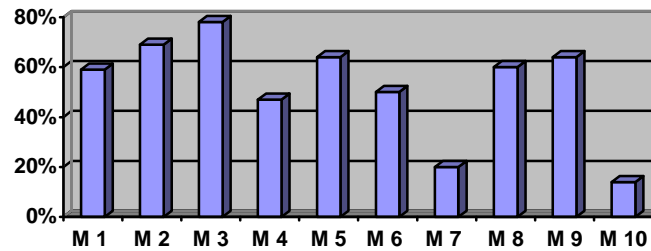
Figure 3. The efficiency degree of the throws at the goal of the player's J_3



J_4 played on the position of game coordinator. She has a number of 118 throws at the goal and scored 67 goals, having an efficiency of 56,77%. Her favorite procedure was throwing at the goal from jumping with which she scored a number of 26 goals from 51 throws and through: throwing at the goal from running she

scores a 6 goals form 10 throws, throwing at the goal from support she scored 9 goals from 16 throws, throwing at the goal from plunge she scored 18 goals from 22 throws, throwing at the goal near the hip she scored 7 goals from 17 throws and by the 7m throw she scored 1 goal from 1 throw (presented in figure 4).

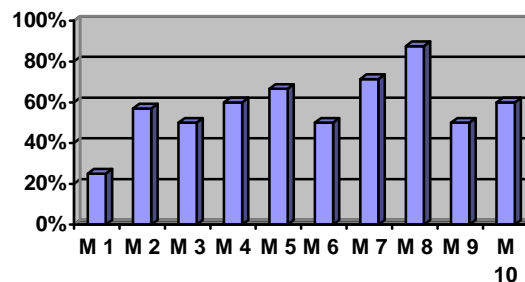
Figure 4. The efficiency degree of the throws at the goal of the player's J_4



J_5 played from the extreme right position and had a total number of 61 throws at the goal and scored 37 goals, having an efficiency of 60,65%. Her favorite procedure was throwing at the goal from plunge with which she scored a number of 26 goals from 42 throws, by throwing at the goal from jumping she scored 6

goals from 12 throws, by throwing at the goal from running she scored 2 goals from 2 throws, by throwing at the goal from support she scored 1 goal from 2 throws and by the 7m throw, 2 goals from 3 throws (presented in figure 5).

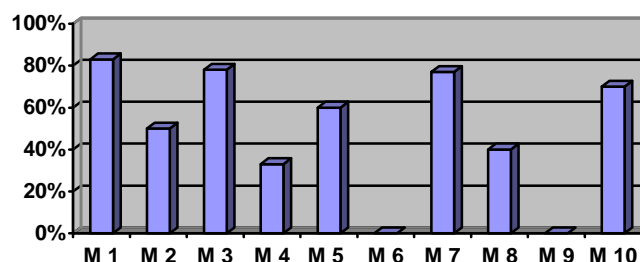
Figure 5. The efficiency degree of the throws at the goal of the player's J_5



J_6 played from the position of intern right and had a number of 54 throws and scored 37 goals having an efficiency of 68,51%. The used procedure was throwing at the goal from jumping by which she scored 21 goals from 35 throws, by throwing at the goal from

running she scored 3 goals from 3 throws, by throwing at the goal from support she scored 3 goals from 4 throws and by throwing at the goal from plunge she score 10 goals from 12 throws (presented in figure 6).

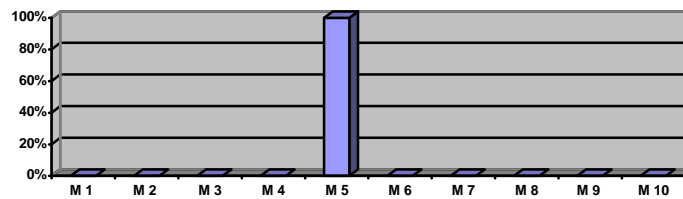
Figure 6. The efficiency degree of the throws at the goal of the player's J_6



J_7 played on the intern right position and had a total number of 1 throws at the goal and scored 1 goal having an efficiency of 100%. The used procedure was

throwing at the goal from jumping through which she scored 1 goal (presented in figure 7).

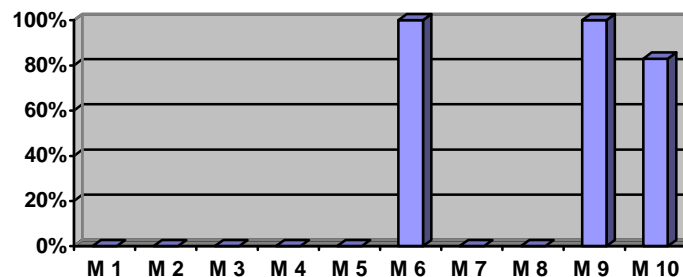
Figure 7. *The efficiency degree of the throws at the goal of the player's J₇*



J₈ played on the intern right position and had a total number of 15 throws at the goal and scored 13 goals, having an efficiency of 86,66%. The favorite procedure was throwing at the goal by jumping through which she scored a number of 6 goals from 6 thros and

by: throwing at the goal by running she scored 1 goal from 1 throw, by throwing at the goal from support she scored one goal from one throw and by throwing at the goal from plunge she scored 5 goals from 7 throws (presented in figure 8).

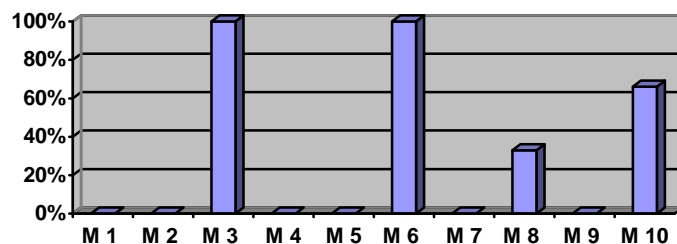
Figure 8. *The efficiency degree of the throws at the goal of the player's J₈*



J₉ played on the pivot position and realized a total number of 10 throws at the goal and scored 6 goals having an efficiency of 60%. The favorite procedure was throwing at the goal from jumping

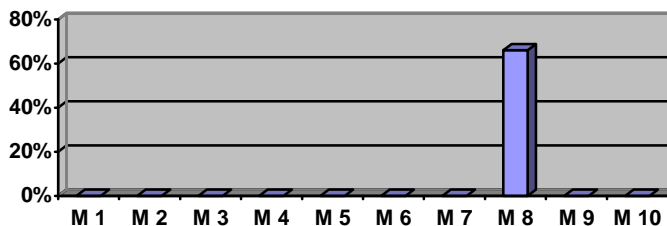
through which she scored 3 goals from 5 throws and throwing at the goal from plunge through which she score 3 goals from 5 throws (presented in figure 9).

Figure 9 *The efficiency degree of the throws at the goal of the player's J₉*



J₁₀ played on the extreme left position. She realized a total number of 9 throws at the goal and scored 6 goals having an efficiency of 66,66%. The favorite procedure was throwing at the goal from plunge through which she scored 3 goals from 5 throws and by throwing at the goal from running she scored 2 goals from 2 throws and by the 7 m throw she scored 1 goal from 1 throw (presented in figure 10).

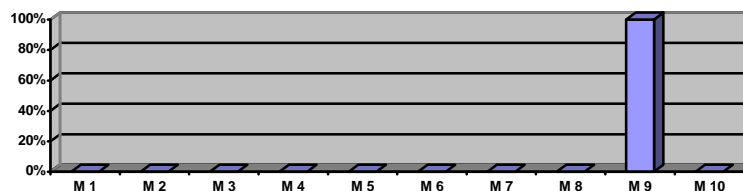
Figure 10. The efficiency degree of the throws at the goal of the player's J_{10}



J_{11} played as game coordinator. She had a total number of 2 throws at the goal and scored 2 goals, having an efficiency of 100%. The used procedures by the player were throwing at the goal from support

through which she scored 1 goal from 1 throw and throwing at the goal from plunge through which she scored 1 goal from 1 throw (presented in figure 11).

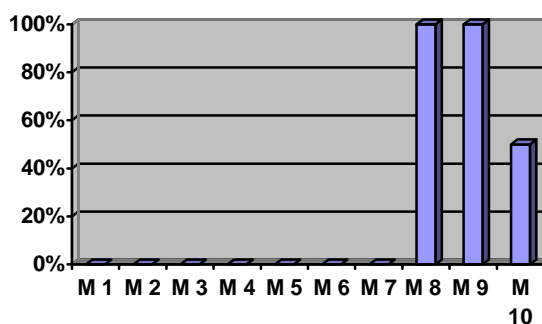
Figure 11. The efficiency degree of the throws at the goal of the player's J_{11}



J_{12} played on the intern right position. She realized a total number of 5 throws at the goal and scored 4 goals having an efficiency of 80%. The favorite procedures were throwing at the goal by

jumping through which she scored 3 goals from 4 throws and throwing at the goal from the hip through which she scored 1 goal from 1 throw (presented by figure 12).

Figure 12. The efficiency degree of the throws at the goal of the player's J_{12}



Conclusions and suggestions

In conclusion, after the study that we made with the senior women handball team from C.S.M. Ploiești, we noticed that throwing at the goal from jumping and the one from plunge were emphasized.

The most effective team player who played in every game was J_1 that was playing on

the intern left position with 89 scored goals. The second place was held by J_4 who was playing as a

game coordinator with a total of 67 scored goals. On the third place we have J_6 that played as an intern right and J_5 as an extreme right, each having a number of 37 scored goals. In total the team scored a number of 300 goals having a mean per game of 30 goals.

The most efficient played of the team that played in all games was J_2 that played on the position of extreme left with a percentage of 74,46%. On the second place we have J_6 that played as intern right with a percentage of 68,51%. On the third place we have J_5 that played as extreme right with a percentage of



60,65%. In what concerns the C.S.M. Ploiesti team we can notice that the players from 9 m line were the most efficient, followed by the pivot that presented a low efficiency.

After the carried out study I believe we need to impose certain suggestions for the improvement of the efficiency of throwing at the goal procedures by taking the following measures:

- the coach to devote more time in preparing the team in what concerns the efficiency of the throws at the goal of the players;
- developing certain exercises specific to throwing at the goal from the posts;
- the execution of throws at the goal by the main technical procedures specific to each post until exhaustion;

- exercises for physical training of the players because in the second half the performance of the team was lowering due to fatigue;

- bringing new players as reserves did not show the same value and level of training as of the starting line-up.

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