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*Original article*

## THE OPTIMIZATION MANAGEMENT OF THE GOAL THROWS FROM THE EXTREMES IN HANDBALL GAME, JUNIOR PLAYERS I (GIRL'S)

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### Abstract

*Aim.* The paper objective consists of showing that a good management leads to an optimization of the goal throws efficiency for the junior I handball players, from the outside left and right positions.

*Methods.* In order to elaborate and carry the thesis into effect, we used the experimental method, the tests method, the mathematical method of statistics, and the graphical method.

*Results.* On the score of the implemented intercession, the one used within the experiment, we could notice an increase of the medium efficacy of the goal throws on the outside position, from 9.5 throws to 13.5 throws, as well as an individual progress of each player, between 3 and 5 throws.

*Conclusions.* As a general conclusion, we can affirm that the thesis' aim has been accomplished. The experiment clearly showed us that implementing and applying a good management we can obtain an optimization or the goal throws from the outside.

*Keywords:* management, handball, optimization, efficiency

### Introduction

Speaking scientifically, the rapid development and evolution of society are synonymous to a development of both quantity and quality in the field of high performance sports.

The sport "has come into the world in virtue of the human ideal. It's more than a religion, culture or subculture. On account of its values, it has to be defended and turned into profit. (Watt, 2003, quoted by Șanta-Moldovan, 2010, pg. 6).

Handball is a team sport game accessible that can be easily learned and practiced even by those who have no special training period.

Handball game represent an „harmonious combination between natural movements like runs, throws and jumps on the one hand and simple, accesible and attractive specific motor skills, on the other hand" (Ghermănescu, Gogâltan, Jianu, Negulescu, 1983, pg. 5). The dynamic character of the game is given by actions engaged in running, sometimes the highest speed.

"The handball game evolution may be attributed to the high technology breakthrough in the sports area. This led to an improvement of both material and training conditions." (Baștiurea, Sârbu, Stan 2001, pg 40).

This game is in a continuous evolution and it changes permanently, not only in most of the game's

aspects, but also from the training deployment point of view. There are to be noticed many progress elements, some of them being new and some others being adjustments to the superior parameters.

The handball game, as a sports discipline, developed with a whole technical and tactical armory. It also entailed upon a huge mass of followers and participants on the one hand, and numerous spectators on the other hand.

This game is organized on the basis of a competition system, on different age and performance categories.

The continuous development of the sport performances induced by a qualitative development of the training process, which brought by numerous factors: the ability and professional training of the coach, the competition system, the additional sciences contribution and help in establishing some efficient ways for scientifically working with the trainees. We can also mention here, motivation for practicing high performance sports, but also the material basis and the training conditions.

Within the handball specialty framework, "continuous new researches are being done, they refering to the modern techniques used both in the sports training process and the educational process. At same the time, modern structure patterns of the specific training and competition effort are

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established, reported to multiannual training dates. New ways of improving the training process for the junior teams are being searched.

The most efficient methods of specific training are being used, in connection with the handball players peculiarities and characteristics, things that may lead to an actual specialty" (Cicma., 2014, pg. 39).

Performance handball game, „involves psycho-mental qualities, as the will and special qualities like intelligence, strong motivation for victory, tenacity, daring, fair-play spirit, self-control, etc." (Cicma, Rață 2012, pg. 26)

The preparation in this sports game, is very complex and "consisted in fact this make according to each factor of sports training content one the one hand, and on the other hand she make according to opponent and game evolution." (Cicma, 2014, pg. 14).

The preparation in the handball game, is mainly made through sports training, what representing basic form of organization to preparation of the handball players.

An essential factor in performance handball developing, it is qualitative improvement of the instructive- educational process to childrens and juniors, through radically improving to technical and educational training, based on a new concept, superior, on physical qualities development and psychological, moral and behavior traits education, characteristic features of performance sports.

The hypothesis of this paper is if through a good management, materialized through work on small groups of players what evolving at the same position in team, by eliminating downtimes and increasing the number of shot to gate inside of training, can be optimized efficiency of shot to gate, from extreme position, at the handball players, Juniors I (girls).

As purpose in realization of research, we proposed the implementation and application of a good and efficient management in the extremes preparation, materialized by a better organization, leading and unfolding a players preparation what evolves on this position, which conducted to an optimization of efficiency of handball players, demonstrated by some physical, technical and tactical tests and by increase of successful number after shots to the gate.

With an eye to achieve the research purpose and objective, as well as verification the working hypothesis, I introduced the "management training

extremes" materialized by a series of organizational actions, leading and unfolding more effective of the preparation, what conduct to an optimization, of the handball players preparation, optimization what will emerge from the results at the proposed test inside of experiment.

#### Sports training in handball

The performance capacity of athletes "increases through training process, through the competitions, as well as thanks to other forms what leading to obtaining optimum efficiency" (Cicma, 2014, pg. 31).

Training status, involves some components, as well as physical component, what it refer to general and specific handball game physical qualities, technical component, what it refer to technical skills of athletes, theoretical component, what it refer to theoretical knowledges about the game, regulation, arbitration, etc. and psychological component, what it refer to psychological qualities of the athletes, essential qualities for performance sport practice and high performance.

Referring to optimal training condition, Harre in 1973, say that these „is appropriate of preparation stage and characterized by harmonious relation and unity of these components, an important role having athlete capacity to mobilize himself physical reserves by means of some maximum efforts of will, during the competition" (Harre 1973 , pg. 38).

Sports training, can be defined as "an pedagogical process, systematic and continuously graded unfolded, for human body adaptation to intense physical and mental efforts, involved in participation in competitions, organized in different branches of sport" (Dragnea, 1996, pg. 9-10).

Another sports training definition is that "sports training is a pedagogical process managed by some scientific principles, which, through a planned and systematic influence on the capability of achieving a high performance, leads the sportsmen to obtaining remarkable results, in a certain sport area" (Menschel, Stein, Fährmann, 1984, pg. 6).

The concept of "sports training", represent general idea about to fundamental and essential characteristics of sports training, an abstracting and generalization of the experiences what were accumulated in time. Sports training, being an long-time process, projected as motor-functional system, has as result, adaptation to higher parameters of the human body, at physical and mental efforts of a maximal and supramaximal intensity.



As a result of the above, we can say that „the effort represent a behavior [...] for mobilization, concentration and acceleration of physical and mental forces in a self-adjustment system conscious and subconscious with an eye to overcoming an obstacle, to defeat an environmental resistance and him-self” (Dragnea 1996, pg. 13).

The management of preparation

The “management” concept comes from the english term “to manage”, meaning “to administrate”, “to lead”, a definition approved worldwide and being taken into consideration as “a coordination process of human, informational, material and financial resources, in view of accomplish the organization aims” (Rece, & Grandy, 1984 quoted by Colibaba-Evuleț & Bota, 1998, pg. 65).

The concept of management as such, expresses an association between science and leading and it may be translate by “leading science” or “scientific leading”, in a particular area of activity.

The management involves “all principles, rules, knowledges, requirements and means, and like art of leading, involves the talent and the skill to do possible transformation into indicators and parameters of maximum efficiency, of practical activity” (Gevat, Larion, 2008 pg. 612).

Management in sport consist in „coordinating an organization/sport type activity, of actions, processes, situations, contingent problems and aspects, witch result from administration of financial, material, human and informational resources, to achievement organizational objectives proposed for different operational intervals” (Oană, 2005 quoted by Șanta-Moldovan, 2010, pg. 13).

The management optimization of preparation in handball game, so implicitly and optimizing the team efficiency in the main and each handball player particularly, assume a series of actions, materialized by a through better organization of training (eliminate the downtime, shortening of introductory and closing parts, using workspace and materials with efficiency, using some methods and means in accordance with training objectives proposed, work on value groups, increasing the number of executions, etc.), as well as through better leading of preparation (involvement of several specialists of staff in the preparation process).

### Methods

The main methods used in this experiment was observation method, experimental method, statistical and mathematical method and graphical method.

The experimental method was materialized by using of individualization principle, in the form what suppose work in a small groups of players, specialized on the same position, in this case, extreme.

The individualization principle suppose the knowledge of athletes features, permanent control of their behavior, of coordination of training efforts with physical and psychological possibilities. This principle “can not be confused with work procedure, besides wide-spread in practice namely individual trainer work with each handball player” ([http://www.aikido.ro/index\\_html\\_files/ANTREN\\_SPORTIV.pdf](http://www.aikido.ro/index_html_files/ANTREN_SPORTIV.pdf)).

In fact, individualization principle suppose „capitalization at maximum of availabilities of athletes, ensuring tereby development of optimal performance capacity” (Teodorescu, 2009, pg. 99).

### Results

The experiment took place at the Sports High School Braila, to the group of performance childrens, Juniors I echelon (girls), between october 5, 2014 - february 25, 2015.

The subjects was the four female players which evolve currently within of team, on extreme position.

The testing consists in carrying out to 20 throws to the gate, 10 from left extreme position and 10 from the right extreme position and recording of successful number, from total number of throws.

The efficiency was calculated both the initial and the final testing by the formula  $Ef = Nr \times 100 / Nt$ , where Ef represent the efficiency, Nr represent number of successes and Nt represent total number of throws, efficiency being expressed in percents (%).

**Table number 1** - Results obtained of the two tests

Subjects	Throws to gate poartă from extr. (nr. of successes from 20 thr.) Ti	Throws to gate poartă from extr.(nr. of successes from 20 thr.) Tf
<b>S1</b>	<b>11</b>	<b>14</b>
Rate of progress (S1)		+3
<b>S2</b>	<b>9</b>	<b>12</b>
Rate of progress (S2)		+3
<b>S3</b>	<b>10</b>	<b>15</b>
Rate of progress (S3)		+5



<b>S4</b>	<b>8</b>	<b>13</b>
Rate of progress (S4)		+5
Arithmetic mean (X)	<b>9.5</b>	<b>13.5</b>
Medium difference between tests (progress – P)		+4

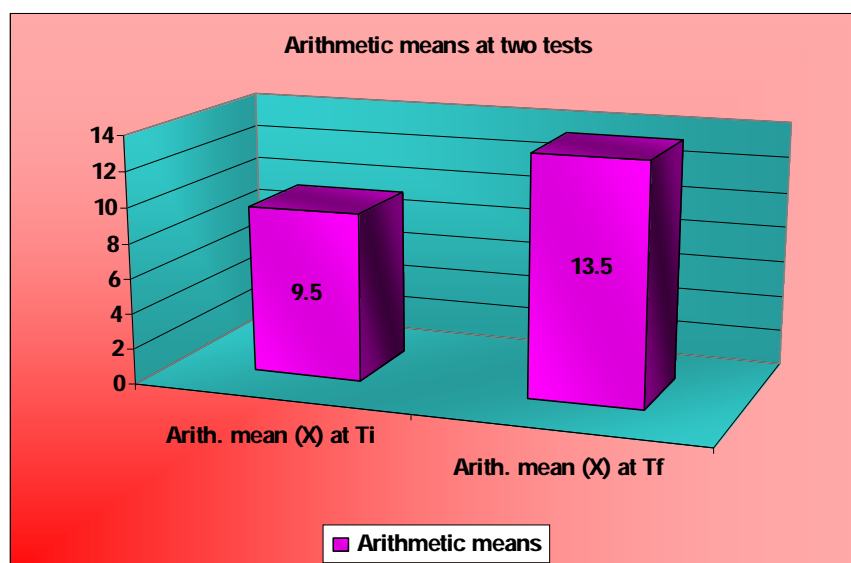
**Legend:** S1-4 = subjects 1-4; nr. = number; thr. = throws; Ti/f = Inițial/final test

After the two tests, was recorded following results, presented in Table number 1. As it can be seen after data analysis, all 4 female players

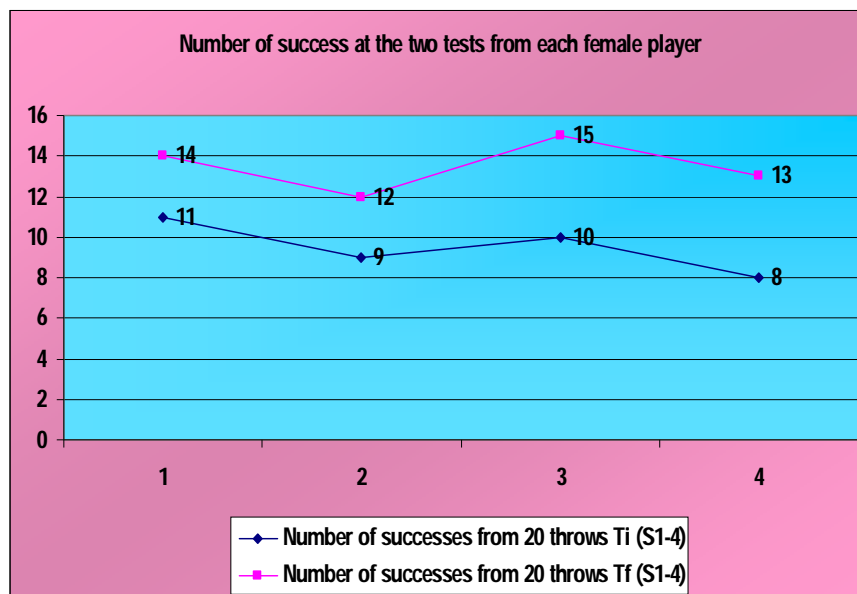
registered an progress between 3 and 5 successes, the progress of the whole group being by 4 successful.

These data demonstrate us that implemented and applied of this approach, was efficient, research objective has been reached and the proposed hypothesis was validated.

For a more clear image of recorded progress, are presented and graphic representations of obtained results at the two tests, of the 4 female players.



Graphic no. 1



**Graphic no. 2**

### Discussions

Studies linked to the preparation management are quite a few and refers more to leadership training and less to the organization's and the means used.

However, we can compare the results, relating to the establish samples by FRH (Romanian Handball Federation) in competition year 2013-2014.

Comparing results obtained in our research with results obtained in other studies linked to optimization by the optimization training extremes like research by "Increasing the efficiency of extremes shot on goal in the handball game, using the individualization principle", research realized by Cicma and Mereuță, in 2003, we can say that the modern methods like implementation of good management, can be achieved a clear increase of efficiency of throws at gate from extreme position.

### Conclusions

In conclusion we can say that through implementing a good management, can be reached to an optimization of preparation, materialized by increasing of the efficiency of throws to gate, by increasing the number of successful.

Also we can say that the efficiency optimization by the throws to gate, is not the only way of evaluating the management and the optimization of the extremes players training, but there are many others.

### Aknowledgements

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