

**ABSTRACT OF THE DOCTORAL THESIS BY  
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**TITLE THESIS:  
TRAINING OPTIMIZATION MANAGEMENT IN HANDBALL GAME  
FOR THE JUNIOR TEAM I (GIRLS)**

**Motto:**

*“A man endowed with exquisite skills can’t possibly live for himself, like a ray of sunshine can’t possibly light for itself” (Nicolae Iorga)*

**Theme’s Modernity**

Researches made by the Romanian handball school’ specialists concluded that this game can be practised since 10 or 11 years old. Thus, the Junior Team IV is formed. When we talk of high-performance handball, “we talk of a sport which requires not only certain somatic characteristics and remarkable physical abilities, but also psychical and mental qualities; these necessitate a strong will, intelligence, unfailing desire to win, tenacity, resoluteness, a fair-play attitude, a god self-possession etc.”<sup>1</sup>

The training’ complexity consists of the fact that, on the one hand, it cannot be performed without taking into account each and every factor of the sports’ training and on the other hand it is based on the opponent and game’ evolution, both at a national and international level. Nowadays, handball game comes into prominence by a strong competition at important contests. Consequently, we can notice a tendency of a continuous development, which is determined by the highly creative researches, in view of a improvement of all the components of the specialized training system.

By noticing the handball game’ tendencies, both at a national and particularly at an international level, we can point out a fast game evolution. This can be noticed not only by looking from the training point of view, but also from the point of view of the technical procedures’ used and game position’ specialization.

<sup>1</sup>Cicma, I. & T., Rață, G. (2012). *The coach’s role and efficiency in the management of 9 meter handball players’ training (Jun. I)*. Galați, Editura Galați University Press:26

Subsequently to some discussions and debriefing of trainers, to the remarks concerning the game level, to the study of the teams and handball players' evolution but also to the results to the level of the National Junior I Championship and the National Group, it emerges the existence of quite big flaws in the training of the Junior I teams (girls). These flaws are related not only to the training organization, leading and deployment, but also to the training itself. If we refer to the nowadays handball game' evolution, we can conclude that the classical training methods aren't enough. They have to be interwoven or even replaced with modern methods, based on a scientific training, on the help of the modern technique and on a creative thinking of the handball trainers. The need for good or even best results, "got in a short time and in a perpetual rhythm, led to the raise of the opponents' value; today, trainers must be very careful in choosing the right measures and planning, but also in the sportsmen' instruction"<sup>2</sup> and their continuous training. They are under the necessity of knowing "everything that is new, the progress of the instruction' process has to benefit from the most modern methods and ways of training"<sup>3</sup>, because "the modern sports training' methodology, brought into force in the handball game, calls for some changes in the scheme of the content, the structure and the training organization of the handball players and also of the team."<sup>4</sup>

The choice of approaching such a complex theme, both at a practical-methodological level and at a theoretical level mirrored in the specialized letters, comes out from the complexity level itself. We can also mention here the teams' results, after their instruction within the sports' training, from the high-performance handball game. A worldwide handball game analysis shows us that the remarkable results are merely a consequence of an organizational and methodological level attained on a very high educational and performance level.

Consequently, this theme' choice started from its modernity, the game technique and tactics evolution, as well as the high development of the sports' performances on a global scale, calling for a continuous and permanent improvement of the organizational and methodological forms of training the teams at this level. The experts' attention is thus focused not only on perfecting the sports training' methodology, for a high-performance level

<sup>2</sup> Baştireu, E. (2009). *The calculation of the correlation coefficient between the maintaining capacity of the balance and the physical preparation of the senior handballers*, Galați, ZIGOTTO Publishing House: 170

<sup>3</sup> Baştireu, E. (2009). *The calculation of the correlation coefficient between the maintaining capacity of the balance and the physical preparation of the senior handballers*, Galați, ZIGOTTO Publishing House: 173

<sup>4</sup> Mihăilă, I., & Iancu, A. (2009). *Optimization of sport performances handball players training through plyometrics exercises*. Galați, ZIGOTTO Publishing House: 298

in the handball game, but also on the amelioration both of the system and of the training process.

### **The Reason for Choosing the Theme**

On the score of these observations, I considered to bring something new in the training of handball teams, especially those of juniors I, because they are the primary source of constituting the national representatives. My very point was to implement and apply within the training some management principles, adapted to our domain, on each and every factor of the sports training, taken separately, at a sports' instruction level. At last but not least, another reason for choosing this theme is my practicing performance handball for twenty years, my major being also handball.

### **Theme' Significance**

The theoretical significance of the thesis relies on elaborating and underlying the particular methodical for the sports training, imagined for the junior handball players I (girls), on the basis of the management' principles. The very concept of *management* advances a join between science and leadership and it might be explained by "the leadership know-how" or "scientific leadership 'of an activity from a certain area.

The practical significance of the research consists in applying a better and a more effective management, in order to optimize the training of the junior I handball players and implicitly the improvement of their performances during the official games. The management can be adapted and implemented in the training process at the school sports clubs, the sports program colleges where there are girls' handball sections, as well as other similar institutions where they play handball. The basic theoretical concepts that have been elaborated within the framework of this thesis can be formed into a methodological rough-guide for the experts in this field.

This thesis is meant to bring a contribution to the enrichment of the training' methods domain, for the junior I team, by approaching, experimenting and presenting the results of implementing a good and effective management. When we refer to a good management, we refer both to the organization and the leadership, within the training, as well as to some new training methods, put across by the specific training of the handball players, on two positions.

### **The Aims of the Research**

As a general aim in completing the research, we proposed the implementation and applying of a good and effective management within the training, put across by a better organization, leadership and training deployment. This was meant to lead in the first place to an optimization of the handball

players' instruction, demonstrated by physical, technical and tactical tests, to a multilateral training of the players on at least two positions, as well as to a positive evolution and a high efficiency of the players in the official competitions. This efficacy can be demonstrated by the game results and the **SWOT** analysis. The concept of the **SWOT** analysis comes from a research made between 1960-1970 at Stanford Research Institute from USA. The **SWOT** acronym comes from the English language - Strengths, Weaknesses, Opportunities and Threats.

The presentation, experimentation and demonstrating the positive evolution of the handball players and implicitly of the Junior I Team, by approaching a different perspective on organizing, leadership and deployment of training, represents another intention of this thesis. Another important goal is to implement, apply, experiment and demonstrate the efficacy of introducing of some new elements within the training framework, like training reorganization and reengineering and the specific instruction of the players for two positions. Another aim of the search is that of observing how efficient this optimization and efficiency is, whenever this is obtained, and if this improvement has a determiner role in the evolution of the handball players, as well as that of the team, in the official competitions.

### **The General Objectives of the Research**

The general objective of the research consists of experimental verifying the optimization' accomplishment for the Junior I team, LPS Braila, and the streamlining its evolution within the official competitions, on the score of applying the methodological intercession we submitted.

This intercession, both implemented and applied, consisted of a better organization, leadership and deployment of training, by introducing some new elements within the whole process, like training reorganization and reengineering from the temporal and methodical point of view, and the specific instruction of the players for two positions. Finally, the results were to be generalized and applied to some other junior teams, if the efficacy of this step was high enough.

The research is of an observing and experimental type and sets itself on accomplishing the following objectives:

- to know the trainers' opinion concerning the training of the junior I handball teams;
- to know the level of actuating mastering for the junior I handball players;
- to know the level of technical training for the junior I handball players;
- to know the level of tactical training for the junior I handball players;

- experimental research concerning the methodology of training for the junior I handball players;
- to establish the specific training process, so as the players could play on at least two positions;
- to establish a new structure, organizations, leadership and deployment of training for accomplishing a real demonstrated optimization, a training and evolution in the official games of the handball players and implicitly of the whole team.

### **The Premises of the First Research**

The thesis is based on three researches, two preliminary ones and the experimental research itself. The first from the three searches deals with knowing the trainers' opinions, concerning the instruction for the handball game. With reference to this research, after a number of discussions and preliminary debriefings on a certain number of trainers, their opinion related to the handball game, in majority is that this game is on one of the most complex sports games. Consequently, high performances in handball game are hard to attain, because they require a multilateral training from many points of view: physical, technical, tactical, theoretical and psychological, but also special skills, most of them being native ones.

### **The Hypotheses of the Preliminary Research**

During the search process we formulated three hypotheses, namely:

- the trainers consider that a better organization and leadership of the training, as well as the use of some new training methods, can lead to a training' optimization for the junior I teams;
- the trainers consider that both the technical and the physical preparation represent the two most important factors of the training, within the training of the junior I teams.
- the trainers consider that the factors of the specific psychological and physical training aren't approached enough, at an optimal level, for the Junior I team and the National Group.

### **The Aim, Objectives and Tasks of the First Preliminary Research**

**The aim** of this research is to know the trainers' opinion on the training process for the handball teams at the Junior 1 Team, the flaws within their training and implicitly getting in touch with the personal views and concerns of many other trainers.

**The objective** of this research is trying to identify and apply new training methods for the Junior I handball players, on the score of studying the results of

the survey achieved in the virtue of the questionnaire. Our intention is to cut out most of this flaws and weak points that were observed, in order to demonstrate that a better organization, leadership and deployment of the training. Consequently, a better management implemented so as to obtain an optimization of the junior I training, can lead to obtaining better performances.

### **The Objectives of the Second Preliminary Research**

The aims consisted of observing and consigning in the observation charts of some relevant elements which can offer us a vision of the training management (the way of organizing, leading and deploying the training) for the Junior I teams from the A and B series within the National Championship for the Juniors I. Furthermore, we can also appreciate the level of somatic development, the level of kinetic abilities, the level of technical and tactical training, of some personality traits and also the psychical and behavioral ones, all these being extremely necessary for the handball game. The subjects were the handball players from two teams that were chosen for the basic experimental research, namely LPS Braila and LPS Piatra Neamt.

### **The Objectives of the Second Preliminary Research were:**

- to know the way of organizing, leading and deployment of training for the Junior I handball teams, from A and B series;
- to know the teams from the two series by taking into account the strengths, threats, opportunities and weaknesses;
- to know the level of somatic development and the level of kinetic abilities for the Junior I handball players;
- to know the level of technical and tactical training for the Junior I handball players;
- to know some personality traits and also the psychical and behavioral ones, which are necessary for the handball game.

### **The Hypotheses of the Second Preliminary Research:**

- the training management (organizing, leading and deployment of training), of the 12 teams, observed and consigned in the observation charts of the training management, is different from one team to another, and it may be upgraded and streamlined;
- the level of kinetic abilities is different for the components of the handball teams that took part in the research and it can also be upgraded;
- the level of the technical training is different for the components of the handball teams that took part in the research and it can also be upgraded;

- the level of the tactical training is different for the components of the handball teams that took part in the research and it can also be upgraded;
- the personality traits and also the psychical and behavioral ones, which are necessary for the handball game are optimal for the players of the teams that took part in the research.

### **The Conclusions of the Second Preliminary Research**

Pursuant to the results and notices we obtained and that come out on the score of the second preliminary research, we can allege that the idea of an immediate measures for an improvement of the training organization, leadership and deployment comes out logically. Thus, we talk about a better and more effective management, as well as about the input of some new training elements, which will lead to a high efficacy of the handball players in the official games. The new elements within the training framework, which were advanced and experimented during the basic research, are the specialty developed by the two positions players. We can also take into consideration the idea that a better organization, leadership and deployment of the game process preparation is attained by the means of training reorganization from the point of view of the time assigned to its different components, as well as the team organizing for a more effective work. The modernity of our intercession consists of a better organization, leadership and deployment of training, by streamlining it. The handball players should also be prepared so as to play with the same efficacy on two different positions.

### **The Premises of the Experimental Research**

From the first experimental research referring to the trainers' opinions on the training level for the Junior I handball teams at the national level, as well as from the observation and analyses done during the game of several Junior I handball teams, comes out that there are some quite significant flaws for all the training' aspects, related to the factors of the sports' training. On the score of these concerns, we tried to implement new methods of training based on a better organization, leadership and deployment of the sports training, therefore a better training management. This will lead to a high efficacy of the handball players in the official games. The optimization represents the choice and the affixing of the optimal (economical) solution (from multiple possible choices).

### **The Hypotheses of the Experimental Research:**

For the research' fulfillment we have formulated the following hypotheses:

- the reorganization and reengineering of training (shortening the openings and the endings and strengthening the fundamental part, cutting out the idle times and raising the working time by using small groups of 2 or 3 handball players), determines an optimization of the kinetic abilities' level for the players.

- the reorganization and reengineering of training (shortening the openings and the endings and strengthening the fundamental part, cutting out the idle times and raising the working time by using small groups of 2 or 3 handball players), determines an optimization of the technical level training for the players.

- the reorganization and reengineering of training (shortening the openings and the endings and strengthening the fundamental part, cutting out the idle times and raising the working time by using small groups of 2 or 3 handball players), determines an optimization of the tactical level training for the players.

- the implementation and applying the specialized training of the players on two positions, for the experimental group, determines a raise of the kinetic ability level, a raise of the technical and tactical training level, as well as a high efficacy of the handball players and an improvement of the results in the official competitions.

### **The Aim of the Experimental Research**

The aim of the research is that of optimizing the training within the handball game for the Junior I by applying a better and more effective training management, as well as the implementation and the carrying into effect the specific training of the two positions players.

### **The Objectives of the Experimental Research**

**The first objective** is verifying the efficacy of the implementation and application of a better management and demonstrating its efficacy, by a series of control tests, by observing the team during official games and by performing the appreciation charts for the training management.

**The second objective** is of demonstrating that, by carrying out this intercession we accomplished our goals, namely that of optimization of the individual training for the players, by carrying into effect the two positions specialty.

**The third objective** is to demonstrate, by having the control tests previously named, within the preliminary research and by noticing the evolution of the two teams at the official games, the efficacy of the methods which have been implemented and applied during the training.



## **The Research Methods We Used Within the Framework of Research**

The methods of research we used within the framework of the three searches were the bibliographical study method, the investigation method, the testing method, the observation method, the statistical-mathematics method and the graphical method.

## **Suggestions**

Both the methods and the means have to be studied, sorted and carefully selected so be instrumental to the purpose of the research, namely that of optimizing the training for the Junior I teams. The groups of players which are components of the research have to be as homogenous as possible, because the results obtained need to be decisive and need to express clearly the success or the failure of the intercession which was carried out. The questionnaire for the trainers may be built differently and may include different questions, depending on the aim we follow.

The use of the new means has to draw a bead on the raise of efficiency of the sports' activity, the accomplishing the aims and the righteous disposal of cases, the strengthening of the players' personalities, and the raise of their team integration. The training process has to maintain the same objectives but much improved, in harmony with the demands of the competitions' participation. Thus, it has to proportion the individual training of the player with the demands of her integration within the team.

In order to cope with the amount of training already imposed, and the efficient participation to the competition system throughout the sports' training, we need a pay a special attention to the psychological factors involved both in the training and in the competition. Consequently, the trainer has to perform a solid educational work which will allow him to fit the player in the sports activity, as accurate as possible,