while for the untrained athletes is 5.5, the difference between them is 2.57.

The average of the Ruffier Index values for the trained athletes involved in strength exercises is 2.4, while for the untrained athletes is 4.46, the difference between them is 2.06.

After the results, one can notice that the athletes had better Ruffier Index values than the untrained students, with the exception of Ionuţ Bâră at the basketball game, where he obtained a middle Ruffier index value.

#### **CONCLUSIONS**

We conclude that it is good for the students to practice sports in order to improve their health and harmonious physical development.

The untrained students obtained a middle Ruffier index value for all three types of exercises.

There can also be noticed that, from the tables, the weight of the athletes is smaller in relation to their height, compared to those that are untrained (except for PE classes), who have a bigger body weight in relation to their height.

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# SURVEILLANCE DU RYTHME CARDIAQUE A DES ETUDIANTS FORMES ET NON FORMES DE L'EFFORT PHYSIQUE

#### Resume:

Au cours d'un exercice physique, les paramètres cardiaques (volume systolique, le débit cardiaque, fréquence cardiaque et la pression artérielle) des changements en fonction de la quantité d'oxygène (VO2) nécessaire par le corps humain.

L'évaluation cardio-vasculaire vise l'état morphologique et fonctionnelle de l'appareil cardio-vasculaire, dans le repos ou la situation dynamique. Les résultats de cette évaluation sont différents, que le sujet est un athlète ou une personne qui ne fait pas le sport en général.

Il est bon de connaître ces particularités morphologiques et fonctionnelles de ne pas considérer les pathologique.

Les paramètres surveillés sont nombreux et leur interprétation nécessite un personnel spécialisé.

Mots clés: l'effort, la fréquence cardiaque, la capacité motrical.

# THE COACH'S ROLE AND EFFICIENCY IN THE MANAGEMENT OF THE 9-METER HANDBALL PLAYERS' TRAINING (JUN. I)

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# Abstract.

The present work intends to approach, present and show that an efficient management and scientific management methods applied in the training of handball players (in this case, 9-meter players) can lead to the improvement of their efficiency.

**Key words:** Handball, coach, visual information, memory, observation sheet.

#### INTRODUCTION

This study presents a few important aspects related to the management of training (here, that of the

9-m players), a study that we hope to be useful for the coaches working in performance sports and for those who train children and juniors.

Handball, a great and harmonious mixture of natural movements of the human body (the same as running, jumping, throwing, simple dodge and specific driving skills), is attractive by its accessibility, and represents both a game and a way of practicing physical education and also a branch of performance sports.

The handball game takes place in conditions of intense mental demands, demands that cover this game both formatively and educationally.

The performance handball game implies some special skills of the players, as they have to face very difficult training tasks that involve the intense use of physical and mental abilities, of mental abilities such as will, motivation, driving intelligence, tenacity, and so on, as well as moral qualities such as fair-play, respect for the competitor, the referees, the public, etc.

The research undertaken by the Romanian school of handball specialists brought to the conclusion that this game may be put into practice from an early age, being introduced in the competitive system and the juniors standard (8-10 years). The purpose of the game is the enrollment goals, more than the competition, this leading to victory, to the obtaining of the success and performance. The victory cannot be obtained unless there is an intense physical training, with special technique and abilities, training that is accomplished by practice.

Nowadays, the term of training is perceived as a complex, difficult and exhausting activity as we speak about physical effort as well as mental effort, a continuous effort, that implies maximum of energy, and in most of cases this reaching the physical and mental endurance limit of the sportsmen.

All of this lead us to the idea of an attentive selection, on severe scientific basis, with a responsible medical check, complex and frequent combined also with a special theoretical training, practical and scientific in the field, for those who train performance sportsmen.

In the literature of this domain of activity, training is defined as a pedagogical process taking place systematically, gradually and continuously, aimed at adapting the human body to intense physical and mental effort, part of contests organised on different aspects" (Dragnea, 1996: 9).

Out of the characteristics of training, the one that ought to be addressed synthetically is the quality of training as an informational process referring to the human body, as a bio-mental-social individual represents a complex informational system, a person leading his existence in a space that permanently requires adapting and learning.

The interaction and relationship between the individual and the rest of the world cannot be

established without a communication network in which, in turns, the component parts make the transmitter-receiver couple and vice versa.

The training, as a complex process, establishes a relation between subject and object and requires an informational exchange of representative messages of groups of sememes (material-object, natural phenomenon, of attitude, conventional-linguistic). (my translation) S. Teodorescu, 2009: 17

As an active subject and as a hyper-complex and dynamic system, the athlete gets different kind of information and stimuli, gives them meanings and interpretations, and this leads to their assimilation and accommodation:

The adjustment of motor behavior takes place in a cyclic process, between movement and perception; in this "space", the exchange of information between the body and the environment takes place.

The cyclic movement process in which the body is situated covers the following moments: information receipt  $\rightarrow$  data processing  $\rightarrow$  decision  $\rightarrow$  action  $\rightarrow$  self regulation - self organization. (my translation) (Teodorescu, 2009:18)

**THE PURPOSE** of this work is to demonstrate that an efficient training management leads to the increase of efficiency of the gate bounce throw from 9 m.

THE WORK HYPOTHESIS is to highlight the efficiency and the important role of the coach in the training process mainly if there is progress in the training of the athletes .

#### **METHODS**

The experiment took place in Brăila, at the Sports High School, on a total number of 4 subjects, components of juniors I group boys.

The testing consisted in 20 successive throw bounce to the gate from 9 m.

The methods used in the experiment were: study of the sports literature, the conversation method, the tables method, the experimental method, the mathematical-statistical method and the interpretation of the recorded data, the graphical method.

### CONTENT RESEARCH

This entire complex process of training is led and accomplished with the work of the coach without whom the training process would not have taken place.

The scientific leadership of the training process, accomplished with efficiency, can be also called the training management.

The management has become a science because it represents a set of knowledge, concepts, principles, methods and tehniques that explain in a sistematic way the phenomenon and the process that take place in the leadership of the organisations, the companies, in our case, the teams, the science being also called "management science".

Management, as science, implies a sum of characteristics, one of which is the action that can be defined as a process or a group of coordinating activities, a sum of leading activities having the purpose of adopting the best decissions regarding the optimum design and adjustement of the processes in organisations.

Another characteristic is represented by the practical part, such as art, requiring talent and the manager's skills in applying all the scientific knowledge, in using the appropriate means and techniques adapted to the concrete reality of the organisation/team, in order to make it easier, this characteristic being also called "the art of leadership".

The management in a performance team also asks for a set of tasks related to the leadership and the team's management, and also to the group of persons entrusted with management responsabilities (second coach, masseur, the team's doctor and so on.).

Etymologically, "management" means "to manage-to lead, to administer", "management-leadership, administration", "manager-leader, person in charge"

In specialised literature "management" is in fact the coordination process of the human resources, materials, information and finance in order to reach the organisation's/team's goals.

The manager is that person who executes the management's function taking into account the objectives, tasks, abilities and certain responsabilities characteristic to the position he is in charge with.

Along with the previously used terms there are other three more terms in use also in English, but with different meanings: "to lead-to manage, to direct, to order", "leadership-management", "leader-head, commander, guide".

The leader is the head or commander of an informal or formal group, whose activity takes place in the field of interpersonal relations. If the manager leads people and structures, the leader is, by any means, the head of the groups of people.

Leadership represents the process of cooptation from the leader towards a person or a group of persons in order to make them act or 'fight' in order to obtain the oraganisation's/team's goals and that requires a leadership at a group level, towards people, "face to face".

The studies in the field have shown that the main factors of efficient leadership are the native qualities of the leader (inteligence, charisma, ambition), the leader's training (general training, the management training), on this training depending the ability to make decisions, to comunicate and the social abilities of the leader, the management situation, given by the communication characteristics and by the leader's role, as a person having a management position.

Leadership expresses a leader's ability, in our case the coach's ability, to determine the team's components to work together in order to reach a goal, in this case the appropriate training of the 9-meter players, by having an emotional and operational involvement.

The leadership's main feature is and has to be the team spirit, the state of mind that reflects the players' desire to think, feel and react as one in order to accomplish the target and to have the best training for the players; without this team spirit we cannot discuss about leadership at all.

The activity of leadership follows the management's human dimension in the involvement or training level of the team by the leader.

Leadership has in the same time a formal and an informal basis; the first, the formal one, is given by the formal authority, gained by the investment in the management position, whereas the informal one is given by the strong knowledge and by the leader's abilities.

*Management* is a sum of processes defined by all the coach's actions and functions (foresight, organisation, order, coordination, evaluation -control), whereas *leadership* is defined mainly by the comand/control function of the trening (the training component).

From the facts listed above, we may say that leadership is a management component, but their areas of coverage do not fully overlap, although they have the same translation "control".

Training management implies institutionalized, formal leadership, meaning an administrative leadership of the athletes and of the material they have in, while leadership regularly implies leading the team or a group of athletes, but not the responsability of administrating the base.

These two terms form the components or the dimensions of the managers' activities which materialize in the management's purposes.

In order to be efficient and to have a well determined role in the training process, the leader must have a set of qualities, the most important of which are easy to identify: he is active, motivated in obtaining the victory, confident in himself, convincing, optimistic, etc.

Although there are people who, despite having these qualities, they are not leaders, we draw the conclusion that these qualities are necesary but not sufficient, leaders/coaches having other qualities, such as empathy.

Efficient leaders/trainers have the capacity to perceive the facts from the other's point of view, from the opponent's point of view when it comes to performance sport, understanding the emotions and reactions in different tactical actions of his own team.

This quality is also called empathy, this being the most important quality for a person to practice this job in an efficient manner.

When we talk about empathy, the essence is represented by the attachement towards the others, with roots in the communication field techniques and especially in listening, the main characteristic of this action being the help given.

Empathy involves going through some stages such as recognising the need to be empathetic, great knowledge from any point of view of the team's components, the main actions of this understanding, in order to help all the members of the team to reach the objectives in the matter.

Productive leaders have also other qualities such as the fact that they tend to act as leaders not being capable of being confused to the others, someone who solves the problems, and they have the opportunity to identify in an early stage and to make necessary corrections, that gains the others' confidence through seriosness and perseverence, have a very good self control, are constantly striving to enhance their own techniques stimulating the others, helping to treasure themselves, are always on time and preoccupied by this fact, flexible and pragmatic, never rigid and narrowminded.

The team's or a group of sportsmen's leadership, represent a function that ensures the stability and the balance of the team, the maintenance of a personal mode of operation through training and accomplishing a plan that provides all the actions necessary for performance.

The training efficiency is given by a multitude of training components previously established, as well

as the trainer's ability in observing, analising, synthesizing and modifying the activity of training or the coaching process as to adapt it to the situations and the needs that this implies.

Coaches lead programs involving two main essential areas such as the components related to the abilities, strategies and perfomance sport techniques and the study modules in the sports science:

...maybe the most shocking aspect of a contemporay coach's activity is to face the informational boom, in most cases a high level boom, particularly in domains such as the physiology of the exercices and the psychology of the sport. From this aspect comes the preoccupation over these aspects of coaching, like the assimilation of fresh information, the tendency to reduce the dimension, of crucial importance, of the effectiveness of coaching... (Crawford, 1980, qtd in "Antrenoriat şi competiție", 1994: 94)

To be effective, a coach has to have the ability to react to the player's particularities and necesities.

The sportsmen who do not have much trouble for the low training level before the competition and they expect the coach to have a talk with them as to motivate them, they do not have self motivation and the coach indeed has to have a discussion as to stimulate that player or the group of players.

Recent theories regarding the effectiveness of training have shown a multitude of steps the analysis and approach of which have a purpose in the sportsman's development.

Studies present the steps as follows:

- > The style of leading and perceptual congruence between the player and the coach;
- Self analysis and reflection;
- Effective application of systematic observation instruments;
- > Examination and analysis of information content;
- Specific analysis of the situation." ("Antrenoriat şi competiţie", 1994: 96)

The leadership of a coach is influenced by a number of variables such as the game experience, the number of victories and defeats, age, knowledge: "When it comes to the style a coach applies, we have to take into account all these variables, depending the sport situation" (Kuklinski, 1990, qtd in "Antrenoriat şi competiție", 1994:

# **RESULTS**

Table 1.

N° series	Series 1		Series 2		Series 3		Series 4		Series 5		Arithmetic average	
Subjects	It	Ft	Ita	Fta								

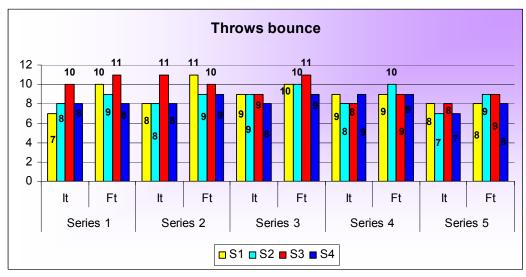
S1	7	10	8	11	9	10	9	9	8	8	8,2	9,6
S2	8	9	8	9	9	10	8	10	7	9	8	9,4
S3	10	11	11	10	9	11	8	9	8	9	9,2	10
S4	8	8	8	9	8	9	9	9	7	8	8	8,6

It=Initial test, Ft=Final test, Ita=Initial test average, Fta=Final test average

As a conclusion the leadership and the training of a team has a number of complex problems and variables which if not taken very seriously, will not help to reach the goals and the targets.

The experiment tried and succeeded in pointing all these problems and variables because the hypothesis

was verified, and a quite good progress was recorded with trained sportsmen; so the coach proved his essential role and his qualities in management and leadership.



Graphic 1.

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# LE RÔLE ET L'EFFICIENCE DE L' ENTRAÎNEUR DANS LE MANAGEMENT DE LA FORMATION DES JOUEURS DE 9 m, CONCERNANT LE JEU DE HANDBALL

**Résumé:** Cet ouvrage se propose d'aborder, de présenter et de démontrer qu'un management efficient et scientifique de handball, usant des méthodes appropriées à la formation des joueurs de handball (dans ce cas là- des joueurs de 9 m) peut mener à une amélioration de l'efficience et des performances de ces joueurs.

**Mots-clés:** handball, entraînement, information visuelle, mémorisation, fiche d'observation