

## **JUNIOR HANDBALL IN LEARNING THE GAME CONTENT**

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### **Abstract**

Handball is a popular sport enjoyed by millions of people worldwide. The key aspects of the sport, dynamic, fast-paced, and quick changing game play, make for an exciting game to play and an attractive sport to watch. Handball adapts well to different conditions and needs, creating fun and engaging variations that can be played by just about anyone anywhere at any time. The results of the research permitted the identification of a new contents of training process in junior three handball players.

**Key words:** *handball, junior three, learning, contents*

### **1. Introduction**

As part of this research, an opinion poll was conducted at the beginning of the 2020-2021 academic year, which provided us with the following information. Among the first year students of the Sports Faculty, only 1.8% got acquainted with handball in high school, and at the Faculty of Pedagogy only 0.7%, but without practicing it according to the school curriculum. The reasons were different: the lack of inventory, of gyms, but, most often, the teacher's initiative was missing. Therefore, we cannot talk about the acquisition of the university program at the handball course, nor about the performance.

### **2. Tasks**

We decided that the acquisition of the course with some changes related to age, physical appearance, physiology, etc., should take place together with that of beginners in sports schools.

The contemporary concept of training beginner handball players has been reflected in a series of researches (Şufaru, 2004; Capaţina, & Verejan, 2012), but further research complements this heritage with another instructive diversity.

The pillar of diversity is made up of the annual macrocycle (of the first year of training) which, together with other components, highlights a multilateral training, which in the scheduled future would lead to a specialization in the team game position.

### **3. Research methods and Results**

Exercises for *general physical training* (GPT) must include a complex of natural actions of the body: running, jumping, throwing, which in fact make up the elements of the game of handball.

The difficulty lies in the dosage and order of execution, which have already been brought to the attention of specialists (Budevici-Puiu, et al. 2012), but the problem remains to be solved with the duration and intensity of the stated component.

From our investigations we deduced that the locomotor system of novice handball players is intended to perform a wide range of exercises for GPT (Roman, & Biro, 2013).

Analyzing the constituent substances of the muscles subjected to the effort, it was determined that the energy required for muscle contraction results from the caloric value of the food ration, of the ratio between albumin, carbohydrates, proteins consumed. Starting from the caloric requirement according to sex and age, our contingent of 11-12 years needs 2500Kkal / day.

In children, who practiced handball at the age mentioned, applying the device "Polaris 3" was found telemetrically that energy consumption, resulting from macroenergetic phosphates following the cleavage of ATP reached the threshold of 2600 Kkal, which produced early fatigue.

For these reasons, there was a need to adjust the intensity, which we calculated as optimal of  $140 + 4.2$  beats per minute, lowering it from 170-180 beats per minute. All data were recorded telemetry.

Thus, experimentally we found that the optimal PFG component should be around 1.5 months, immediately following the holiday.

We appreciated the content of the *coordination* activity from the definition of the process of formation of the motor stereotype, which in the given period is carried out initially from the account of static fixation of the organs, and then from the account of short differentiated impulses in determined muscle groups. In the final phases, the stereotype is outlined by the inertia appeared and directed towards solving the concrete situation.

In the final process of dynamic movements there is an automatic balancing of the inertia, without the intervention of additional impulses for correction. All the muscle aspects listed are coordinated by the cerebellum. Because the coordination capacities require a high intensity, they were programmed in the training plan after warm-up with a medium effort with a release of 2100-2250 Kkal and intensity of 160-170 b / min with a dosage of 7-10 minutes for 2 weeks in 2 out of 3 times 4 workouts per week (90 minutes).

*Passing the ball* is a means that unites players in a unique system of actions, which provides possibilities for rational transmission. Depending on the location of the partners, the forward, reciprocal and accompanying the passes are distinguished, which were easily appropriated by the disciples, according to the elaborated plan. The problem was the acquisition of the closed pass. Initially, a defender had to be overtaken in two forwards, then in three - two defenders, when the rival is between them. The solution came through repetitions that led to the improvement of the process, and the actions taken formed the substratum of group

actions. Passing the ball is not a tactic but a tactical option, which is actually an extension of the technique.

Only after 9 weeks I allowed the disciples exercises with the ball, the characteristics of the handball game itself.

In the next 50 days, the learning of six technical procedures was scheduled: possession of the ball, passing, dribbling, throwing at the goal, handling the ball and the screen.

The first technical procedure programmed for the experimental group was the possession of the ball, which starts with games for getting used to the ball (Roman, & Biro, 2013, p. 42-54), important being the place, dosage and methodical indications already published.

The handball player takes possession of the ball after: the partner's passing, interception, the opponent's inattention, etc., whose abilities are initially appreciated according to the indications of the body's latent reaction. Based on a reasoned system of specific means staggered in sports training, palpable results were obtained.

*Dribbling* is a complicated technical procedure, for which reasons it is recommended to start learning it by directing bigger balls (football, basketball), but not volleyball or others, because they are different in size or weight, while the first two are close in weight. The higher volume of the balls increases the probability of touching the playing surface of the palm and especially of the fingers with the surface of the ball more frequently and more correctly, which reduces the training time of the ball's *directing skill*, chiseling along this process. Initially it was proposed to drive on the spot, then to turn right (left), followed by rectilinear, oblique, left side (right). Then drive with the throwing hand (stronger) and the opposite hand weaker. We recommend directing two balls at the same time, including with different levels of height. When a satisfactory degree of directing technique is reached, we recommend debating exercises of the ball of the partner who drives a ball, or two at the same time and directing the ball over the obstacle (gym bench).

*Throwing the ball.* It is a technical process for finishing the technical training of novice handball players. The experiment showed us that the most productive way to learn and improve this process is to implement dynamic games in the training process. In this sense, we recommended the beginning of learning by implementing the game "The Hunter and the ducks", "Defending the Citadel", etc. (Guțu, Sava, & Leahu, 2012). It was more difficult to determine the location and dosage, but experimentally the time of 14-18 minutes was confirmed.

We started both the technique of throwing the ball and the passing on the spot, then after a step from the 4th hour of implementation for 10-12 minutes, and then after three steps, keeping the same interval of hours and time.

*Handling the ball* - a category of competitive exercises. Initially it was the overtaking of the passive rival, indicating the direction and method of overtaking, and then the active defender was included in the game, which prevents the actions

of the forward. According to the contemporary classification, we distinguish bypassing, learning by: step - stop, jump. The learning methodology starts from the first by imitation, followed by the others from the range of exercises already described.

The method of learning handling the ball through the stop-step is performed by arranging the cones [6] parallel (2-3 m) to the edge line at the same distances. The handball player, approaching the cone, imitates the trick, after which he throws at the goal, or passes the ball to his partner. Execution time is 15 minutes, intensity 50-60% of maximum effort, recovery time between repetitions is 15-20 seconds. Learning method: torrent and series [4].

The improvement of handling the ball is initially carried out by imitation with reciprocal actions within groups or teams.

*The screen* - the creation of the temporary numerical superiority of the attackers over the defense and its rapid realization to the attack actions. The action starts from any extreme by passing the ball to the corner player to the partners: right inter - center - left inter - left corner and its placement between defenders: right inter - right corner, after which the left corner passes the ball to the left inter and is placed to the right teammate, between the right corner and the left inter corner. If the defense does not react in any way, because both corner players are on the semicircle and by their movements distract the defense, then the left winger throws freely on the goal, if the opposing opponent in the defense takes a step, two forward, then his place is taken by one of the players corner placed here after the birds, receives the ball and throws it on the goal.

The learning methodology is difficult, for which reasons it is difficult to produce, but it is perfected during the subsequent years of training. These actions also use means such as "Passing and exit" crosses with 2 and 3 players. Initially the defenders are passive, then active. The actions occur in the second half of the training for 16-20 minutes.

The *reciprocal actions* are performed by passing the ball between the partners with realignments in a triangle, square or diagonal, as well as laterally left, right, forward, backward, oblique.

Initially, the actions are performed with a ball, then twice as many. In the mutual actions for beginners, it is recommended to perform simple crosses with the participation of two players, where the center observes the position of the pivot in front of the left integer, creating a position favorable to the integer, to throw from a distance. Then the midfielder starts firmly to the right, passes behind the center, from which he receives the ball at the right time and throws at the goal from the jump.

From the beginning, you learn only the simple crossing, in the same period, during the training and with the same dosage as in the case of the screen, but not at the same time.

At the end of the macrocycle, the novice handball players were tested (Table 1), and the clues convinced us of the timeliness of the scheduled content.

**Table 1** *Indices obtained by junior handball players I at the end of the macrocycle (n = 14)*

No. crt.	Handball learning tests	Initial testing	Final testing	t	p
1	Running 30 m (sec)	5,4 $\pm$ 0,49	4,9 $\pm$ 0,44	2,15	<0,05
2	Long jumps (cm) from the spot	180 $\pm$ 0,75	192 $\pm$ 0,71	2,12	<0,05
3	Pentasalt (m)	11,1 $\pm$ 0,32	10,3 $\pm$ 0,41	1,08	<0,05
4	Throwing the handball ball (m)	29 $\pm$ 2,27	27 $\pm$ 2,39	3,03	<0,01
5	Dribbling cones (sec) distance 40 m, 13 cones	19,2 $\pm$ 0,24	18,3 $\pm$ 0,13	0,85	<0,05

The *competition period*, which usually ends the annual training macrocycle of beginner handball players, is short, around 4-6 days, and takes place only in friendly matches, with their peers from other schools, with a shorter playing time. and with more simplified rules. If the competitions take place outside the time determined in the macrocycle, a sustained activity of physical training must be scheduled, in order to surpass the rivals in the physical component, because there is no time for technical training and learning new actions will produce a faulty game with psychic consequences for the disciples.

#### **4. Conclusions**

1. Highlighting the data obtained from the tests, the share of the main components in the training of novice handball players was established. Thus, 35% went to physical training, 50% to technical training and 15% to tactical training.

2. The motor skill abilities of the beginner handball players reached the following indices: strength - 21%; resistance -19%; speed -28%; skill -22%, suppleness -10%.

3. The technical and tactical training is performed in a volume of 69% of the total volume of the technical-tactical training, at the researched age.

4. The composed program and the obtained norms present the main authentic method, experimentally justified, for verifying the progress made by the junior handball players.

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