

DEVELOPMENT OF MOTOR QUALITIES TO STUDENTS THROUGH HANDBALL GAME

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Abstract: Today's handball game is undergoing intense development, similar to other sectors of social life. The specialists in the field, through their studies and experience, are concerned with the continuous improvement of the handball game such as increasing the efficiency of the attack phases and improving the finalization. In handball, speed, regardless of its form of manifestation, represents the motor quality with the greatest influence on the quality of the game. Following the initial testing, we analyzed the results obtained, elaborated the team's training program and established the game model in attack and defense. At the end of the training period, the team players again took the samples from the initial testing. The system of standardized means, adapted to the age particularities of the students, used in the training process, has led to an increase of the motor potential, which is demonstrated by the progress obtained in the final test.

Keywords : motor qualities, specific means, handball, school, speed

1. Introduction

Speed in handball is very important motor quality. Speed is the rapidity of the movement or motor act in the unit of time[1]. Along with the improvement of technique and tactics, it is necessary to increase the speed of play for most teams in all phases of the attack. We consider that in the high school cycle, not enough means are used for speed education. Through this paper we want to find out the methods and means specific to the handball game in order to develop the motor quality, speed, to all the teams that we will train in the future. Speed is the ability of the body to act quickly on a signal, to execute a motor act quickly or to perform a large number of movements in a small unit of time [2].

The handball game has positive effects on the student body and personality and will contribute to the achievement of the physical education objectives due to its general characteristics. Handball game is a variant of the game activity, it is also obvious means and a method of education [3]. Handball is a game characterized by a complexity of movements executed in conditions of changing speed and force, determined by collaboration between teammates and direct combat between opponents [4]. For this topic we try to determine the teachers to attract the students in the practice of handball at the school level as well as performance level. Whether it is carried out at the level of the physical education lesson, or at the level of the sports training, the speed development is carried out during the preparatory period and it is aimed at improving it or maintaining it in the competitive period. There is a close link between technical-tactical training and the development of motor qualities that are treated concurrently and improve performance. Physical

training is the level of development of the individual's motor possibilities, achieved in the process of systematic repetition of physical exercises.[5].

Regardless of whether it is general or special physical training, these with the help of increased speed, strength, skill, endurance indices can lead to great performances, special physical training ensuring the necessary qualities for the players to face the opponents. Force development is intended to increase the overall force ratios and provides technical support needed for performing force. Lack of proper support force can lead to the incorrect formation of technical skills.[6]. The technical-tactical elements will be achieved in speed, skill, strength and endurance. It is necessary the early selection of the children who possess a good speed of movement, ambidextrous as far as possible in the handling of the ball, with a high waist, wide, resistance to the prolonged effort and a good explosive force.

2. Materials and methods

The research was carried out at the representative girls handball team from the school no. 2 Traian from Craiova, made up of 12 players. In order to be able to appreciate the level of physical training and technical mastery we have established the following tests and control rules:

- ◆ 50 m speed run with foot start;
- ◆ resistance run 800 m;
- ◆ throwing the handball ball at distance;
- ◆ dribbling through obstacles 25 m;
- ◆ throw from running.

The methods used in conducting the research were those for developing motor quality.

Speed development methods

The method of repetition (it influences the athlete's well-being, willpower and concentration with the help of movement games and sticks). The method of competing games of movement and sticks (ball on the bridge, sowing and picking potatoes, kangaroo, pole on teams with overcoming obstacles, running) with feet starting at distances up to 100 meters, accelerated running at distances of 50-60 m, running with lower starting, running with knees up fast, accelerated running with reaching the maximum speed at the end, dribbling in dribbling, in the handball game, in the gymnasium, to develop the speed of reaction and execution, we use light sports materials, requesting visual and auditory analyzers, competitions in pairs starting with sound or visual signal, running exercises in different forms and competing on teams through themed games.

Skills development methods

Movement and stomping games (balloon ball, shadow, single ball, double ball, cock fight, milestone among milestones, team stomp, running with change of direction to beep, shift, attention to

play, joy); bilateral ball games (handball, basketball, soccer) with different themes; dribbling through obstacles with both hands alternately.

Methods of force development

Movement games and poles (myrtle, bag race, rabbit, basket throw, ball over the bridge); Maximum and supramaximal effort process; High effort process; Isometric contraction process; Methods of developing resistance.

The method of uniform efforts (for beginners having as a means of accomplishing the long run, the running the pole), the method of the variable efforts (having as main means the running on the varied field with different intensities), the method of working with intervals.

3. Results

Following the initial testing, we analyzed the results obtained, elaborated the team's training program and established the model of the game in attack and defense. At the end of the training period, the team players backed up the samples from the initial testing.

Table 1- Initial testing

No crt.	Name and first name	Speed 50m	Resistance 800m	Throwing the ball at distance m	Dribbling through obstacles 25m	Throw from running
1.	V.D.	10"1	4' 32"	26	9"5	0/10
2.	G.D.	7"4	4' 15"	25	9"1	0/10
3.	Z.V.	7"8	4' 40"	28	9"3	2/10
4.	G.A.	8"2	4' 40"	24	8"4	0/10
5.	Z.A.	9"0	4' 40"	19	9"0	0/10
6.	U.P.	8"2	4' 15"	24	8"6	1/10
7.	T.L.	7"7	4' 00"	28	8"9	1/10
8.	N.D.	8"4	4' 50"	24	8"9	0/10
9.	T.A.	8"8	4' 30"	32	8"7	0/10
10.	B.D.	8"4	4' 30"	29	10"4	0/10
11.	V.M.	8"1	4' 50"	27	8"8	1/10
12.	B.A.	7"8	4' 25"	28	7"9	2/10

Chart 1-Initial testing

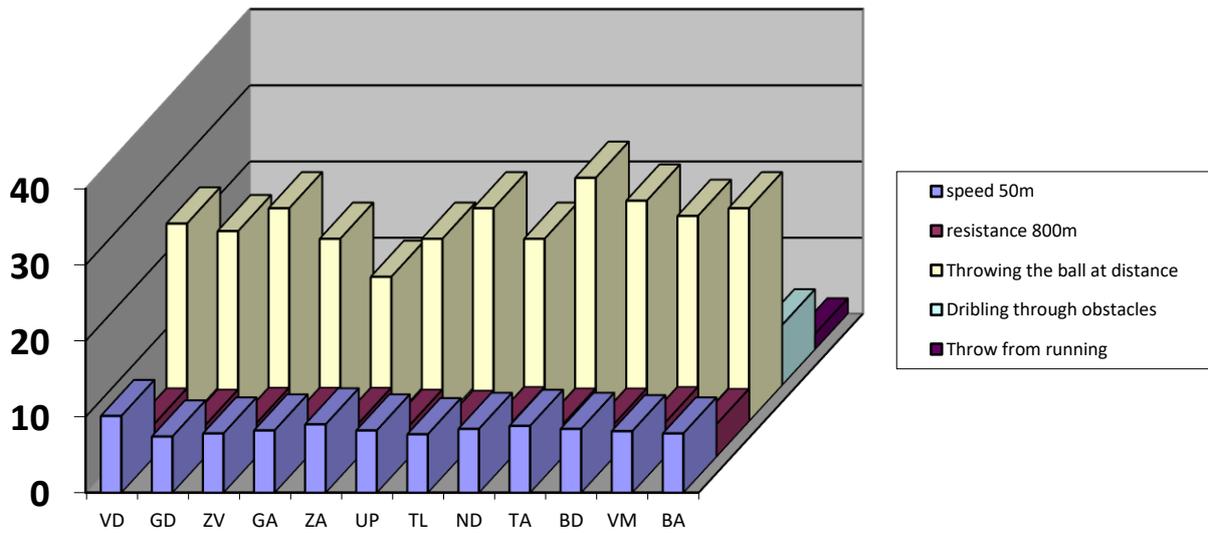
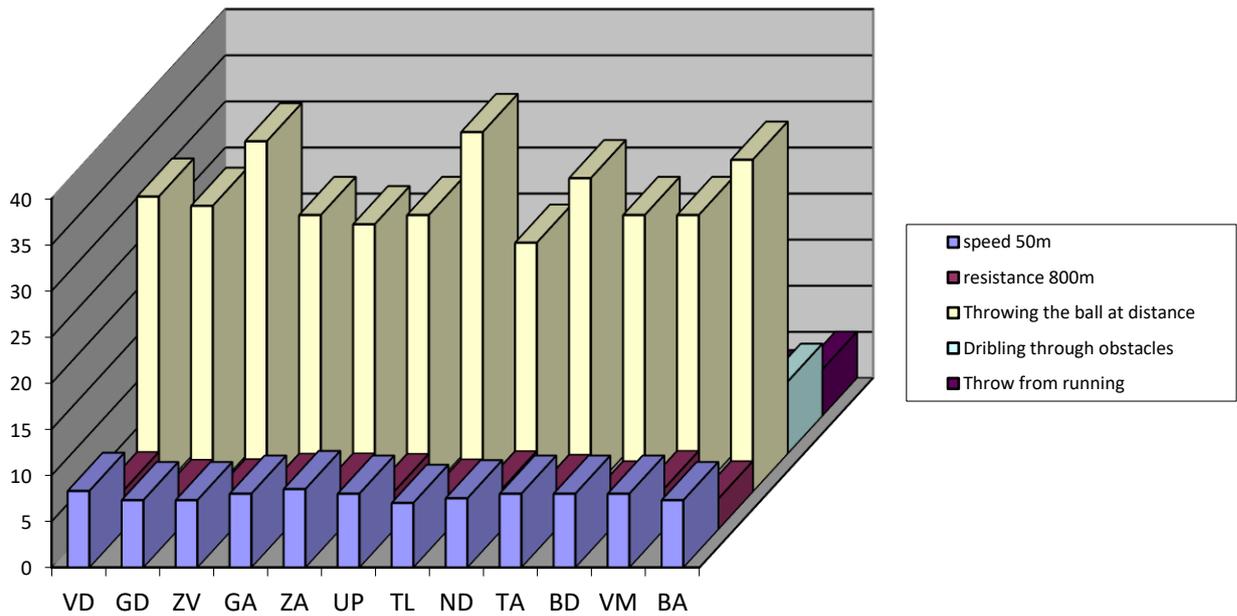


Table 2- Final testing

N o crt .	Name and first name	Speed 50m	Resistance 800m	Throwing the ball at distance m	Dribbling through obstacles 25m	Throw from running
1.	V.D.	8"3	4' 30"	32	9"2	2/10
2.	G.D.	7"3	3' 46"	31	8"9	1/10
3.	Z.V.	7"3	3' 52"	38	7"8	5/10
4.	G.A.	8"0	4' 12"	30	7"6	2/10
5.	Z.A.	8"5	4' 15"	29	8"9	1/10
6.	U.P.	8"0	4' 10"	30	8"3	3/10
7.	T.L.	7"0	3' 50"	39	8"4	6/10
8.	N.D.	7"5	4' 40"	27	8"7	1/10
9.	T.A.	8"0	4' 00"	34	7"5	3/10
10.	B.D.	8"0	3' 30"	30	7"9	2/10
11.	V.M.	8"0	4' 42"	30	7"9	3/10
12.	B.A.	7"3	3' 30"	36	7"8	5/10

Chart 2- Final testing



The control tests administered at the beginning and the end of the training period, showed that following the training, the team players reached a higher level of technical-tactical and physical training.

At the 50m speed run test, with which we measured the speed of movement, we obtained an essential improvement of the speed of movement compared to the initial test. Thus the team average is 7.75 sec. compared to 8.32 sec. upon initial testing.

At the 800m running test, through which I measured the body's resistance to effort, I obtained at the initial test, the team average of 4.31 min. At the final test, the team average was 4.20 min. From the calculation made, an improvement of the overall resistance to effort is observed in all 12 players.

When throwing the handball at distance, following the training program and developing the motor qualities (force), we obtained superior results regarding the length of the throws.

At the dribbling test among the 25m obstacle s, with which we evaluated the execution speed of the dribbling, the average value is 8.9 sec. at the initial testing and 8.2 sec. upon final testing. It can be seen that after the training, the players improved their skill in handling the ball in speed.

Throw from running highlighted the improvement of the accuracy and effectiveness of this process used by the players. Thus, at the initial testing, we obtained on average 0.7 goals from 10 throws and at the final testing 3-4 goals from 10 throws.

4. Conclusions

In this paper, it was tried to experiment with a system of means for preparing the handball team at school level, focusing on improving the speed in relation to the other motor qualities. Due to this aspect it was possible that during the school year the students improve their motor qualities (speed of execution and movement, ambidextrousness, force of throw and resistance to long-term effort). Rational grading of the content of the preparation, as well as the efficient use of the time allotted to the training, made their contribution to raising the value level of player training and obtaining more and more valuable results. In order to participate effectively in the game, it is necessary to continue to consolidate and improve the technical procedures and tactical actions based on an attack, solid physical training for both individual and team workouts. Control tests should be important benchmarks for each player's training level and a starting level for future training scheduling and planning of preparation, to give special importance to the development of the basic motor qualities, especially the speed under all forms of manifestation through the use of as varied means, methods and procedures as to attract the students to participate actively and with pleasure in the lessons.

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