STUDY ON DEVELOPMENT SPEED TO EIGHTH-GRADE SCHOOLGIRLS

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Abstract: Introduction The paper entitled "Study on development speed to schoolgirls class VII" wants efficient quality development of basic motor speed, in the use of various means of sports games and athletics as part of secondary education in physical education class and sports.

Material and Methods

The specific methods for the development of the rate applied in this study were:

• maximum application method; Alternative method; exerted on the method handicap pairs of pupils with close; method races or relays; competition distance method gradually increased with intensity.

Obtained results

Develop motor skills are physical education and sports training for one of the major concerns go toward improving the structural and functional parameters of different organ systems of the body.

Following the collection and interpretation of the results of the group subjects improved their general and specific indices of speed, so the means employed and have achieved their goal;

Discussion and conclusions

For physical education, development of motor skills is performed simultaneously with physical development and general consolidation of motion skills and representing an end of the first importance, which is realized in the educational process of physical education and through independent activity of students and does not require special material base.

Keywords: motor quality, speed, gymnasium

Introduction

The paper entitled "Study on development speed to schoolgirls class VII" wants efficient quality development of basic motor speed, in the use of various means of sports games and athletics as part of secondary education in physical education class and sports.

Motor skills development is inextricably linked to physiological changes in the cells, tissues, organs, body organs and systems. Development of motor skills is achieved by gradual improvement of function and anatomy of cells, organs, organs and systems required adequate and targeted to achieve a prolonged adaptation layer enabling driving tasks with maximum efficiency.

"Speed, in the broadest sense refers mainly to the speed of movement or act performing motor unit time. It is determined by the length of the trajectory over time or time to make a movement. It is estimated in m / sec., Or in units of time. "[1]

"With regard to biological factors, some are likely nervous and some are of anatomic, functional:

• the mobility of nervous processes course, the speed of rotation of the excitation of the inhibition and their intensity;

• latency or response time which, in turn, depends on the quality of the nerve, the muscle and the synapse;

• nerve impulse conduction velocity (afferent and efferent) by nervous network;

• speed of muscle contraction following nerve excitation;

• force of muscle entering the contraction;

• length of the segments involved in the activity, joint mobility and muscle elasticity;

• capacity to coordinate muscle groups;

• the type of muscle fibers making up the muscle fibers F. T. White (Fast-Twitchglycolitic fibers - fast fiber) or red S.T. (Slow - Twitch oxidative Fibers - slow fibers);

• macroergic wealth of muscle fiber compounds (CP and ATP). "[1]

In the process of physical education, the factors listed above are subject to the attention of the teacher who put a specific means to improve them. So, following specific programs to increase the speed decreases neuromuscular excitability chronaxi improving, it shortens the latency and increase energy reserves underlying compounds specific efforts to speed.

Speed has various manifestations most important being:

- speed of response;
- speed of execution;

- repetition rate;

In physical activity and sport are distinguished and speed combined forms such as speed acceleration or speed of travel and driving combined with other qualities such as expansion (power-speed) [2]

„In all its forms, speed, as well as resistance in regime of speed, are motric qualities decisive in the game of contemporary handball where to cope with the present level of high performance is required intensive work and sustained" [3]

Speed development is a complex process that depends on other important elements among which highlights the level of technical training in the execution of complex processes or complex motor actions. [4]

Speed is the quality motor whose manifestation is highlighted in particular by the individual genetic treasure, having the spotlight on the quality of the nervous system that facilitates prompt control of movements [5].

To develop all forms of manifestation of speed can act methodically and organized from the age of 10 years. The effect of this operation methodical gradually decreases until final maturity age (approximately 22 years boys and 19 years girls). As comparison of performance between the sexes from the age of about 11-12 years, the boys equals girls that past performance will be superior [6].

Material and methods

Research methods used: literature study, theoretical study and observant, observation, means the application system development, initial and final testing, statistical analysis, and graphic representation.

The specific methods for the development of the rate applied in this study were:

• maximum application method; Alternative method; exerted on the handicap method pairs of pupils with close performance; method races or relays; competition distance method gradually increased with intensity.

For the development and execution speed of reaction and action is taken on other body segments using lightweight materials and exercises sports complex variable, requesting alternative analyzers tactile, visual or hearing.

It was also demonstrated that by acting on the force development by increasing the cross section of muscle and thus force him favoring "sliding" actin and myosin in the muscle fiber, which ultimately results increased speed of contraction and done availability to execute an increased number of repetitions.

Such drives to speed development must fulfill certain conditions:

• exercise are well known and understood, so as to favor execution speed;

• to perform predilection exercises specific for sports events, with technical and tactical actions performed in race conditions, gameplay, stage races, dynamic games;

• dosing should exercise be optimal shape is determined by the speed that is intended to be developed so the speed does not drop to the end.

• to avail the special exercises that lasts from 5-6 seconds until the 50-60 sec., composed mainly by altering the volume and duration of work;

• provide breaks between repetitions must be adequate time for the return of autonomic functions, It has oxygenation muscle, but in order to maintain optimal brain excitation.

Speed development of specific methods applied were:

• maximal request method, which involves performing exercises jersey by completing the rapidly varying distances or running in maximum tempo of the different specific means of sports games;

• alternative method consisting of alternating intensity, for example increasing the speed to maximum, keeping her distance marked beforehand (or time frame), gradually decreasing intensity;

• handicap method exerted on pairs of pupils with close distance between performers may vary

• method races or relays that can successfully address the multiple manifestations of speed;

• method distance contest progressively increased with intensity.

• development and execution speed of reaction and action is taken on other body segments using lightweight materials and exercises sports complex variable, requesting alternative analyzers tactile, visual or hearing.

Results:

Develop motor skills for physical education is one of the major concerns go toward improving the structural and functional parameters of different organ systems of the body pupils.

The experiment was conducted during 2 nd semester education (February-June), with the

help of 10 students who were selected on a voluntary basis and the presence of two classes VIII of School 190 in District 4, Bucharest.
I used the following tests of control: speed 30 meters, 30 meters dribbling between landmarks, run in a triangle, Cooper test.

To see the progress of each student testing was conducted on initial and final. Initial testing driving the four samples was performed at the beginning of the experiment in the second week of semester 2 and the final in the last week of it.

Table 1 - The results of the initial and final testing for group of experiment

TEST	GROUP OF EXPERIMENT																			
	T.A.		S.A.		D.M.		S.O.		V.A.		R.C.		T.S.		S.R.		A.A.		B.M.	
	I .T	F.T.	I .T	F.T.	I .T	F.T.	I .T	F.T.	I .T	F.T.	I .T	F.T.	I .T	F.T.	I .T	F.T.	I .T	F.T.	I .T	F.T.
Speed 30 m	5	4,3	5	4,7	4,8	4,4	4,8	4,5	4,8	4,5	4,7	4,5	4,9	4,1	4,6	4,5	4,7	4,6	4,6	4,4
30 metri dribblin g	7	6,7	7,1	6,8	6,9	6,3	7,1	6,8	6,8	4,9	7	6,7	6,9	6,7	6,7	5,9	6,7	6,5	6,8	6,3
Move triangle	22,9	21	23,8	23,7	22,5	22,3	22,6	21,2	21,4	20,7	21,3	20,9	24,5	21,5	20,1	20	21,4	21,3	20,4	19,6
Cooper Test	1958	2046	1640	1680	1963	2020	1650	1730	1976	2000	1848	1856	1695	1776	2000	2015	1680	1850	1963	2000

Table 2 - The results of the initial and final testing for control group

TEST	THE CONTROL GROUP																			
	N.E.		H.S.		A.N.		B.R.		D.L.		F.G.		G.E.		R.F.		A.I.		R.S.	
	I .T	F.T.	I .T	F.T.	I .T	F.T.	I .T	F.T.	I .T	F.T.	I .T	F.T.	I .T	F.T.	I .T	F.T.	I .T	F.T.	I .T	F.T.
Speed 30 m	4,7	4,5	4,9	4,9	4,9	4,6	4,6	4,4	4,7	4,6	5	4,8	4,7	4,4	4,8	4,7	4,8	4,5	4,8	4,5
30 metri dribblin g	7,1	7,1	6,9	6,8	7,2	7	6,7	6,4	6,7	6,5	8	7,2	7	6,7	6,8	6,8	6,8	6,5	7,1	6,8
Move triangle	23,8	23,7	22,7	22,6	21,5	21,5	20,1	20	21,4	21,2	24,9	24,5	21,3	20,9	21,3	21	22,5	22,2	21,4	20,7
Cooper Test	1848	1856	1663	1676	1886	1995	2000	2033	1995	2120	1628	1675	1928	2000	2000	1975	1685	1700	1976	2000

In figure 1 and 2 are the results obtained in evaluating the 30m running speed.

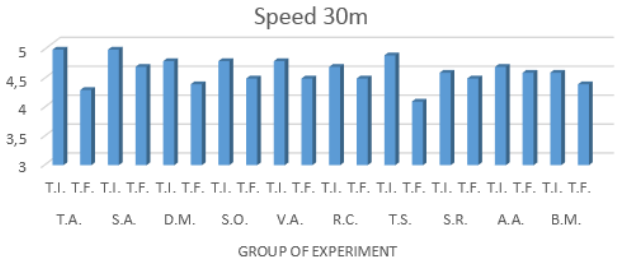

Fig. 1. Group of experiment running speed to 30m

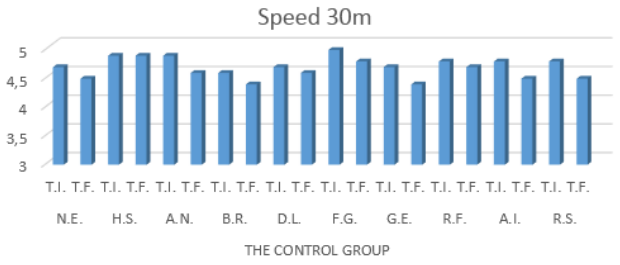

Fig. 2. The control group running speed to 30m

Figure 3 and 4 are the results obtained in the evaluation of speed dribbling between cones on initial and final test.

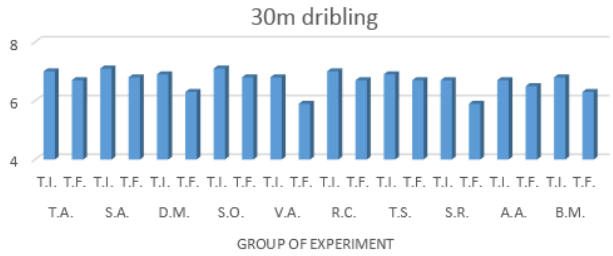

Fig. 3. Speed dribbling between cones on initial and final test for group of experiment

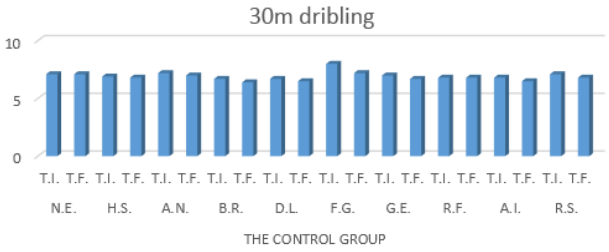

Fig. 4. Speed dribbling between cones on initial and final test for control group

In figure 5 and 6 are the results in the evaluation of displacement delta initial and final testing

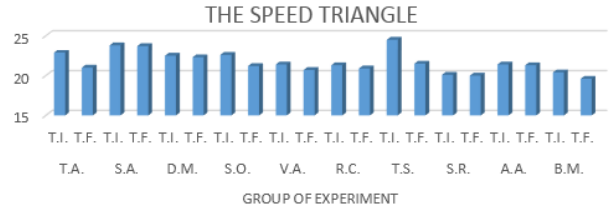

Fig. 5. Moving speed in triangle for group of experiment

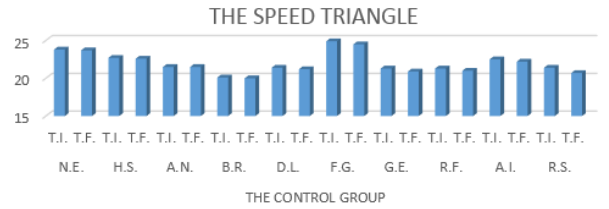

Fig. 6. Moving speed in triangle for the control group

In figure 7 and 8 are the test results obtained in the evaluation of the two tests Cooper

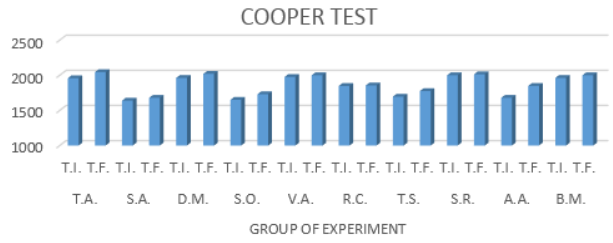

Fig. 7. Cooper test to group experiment

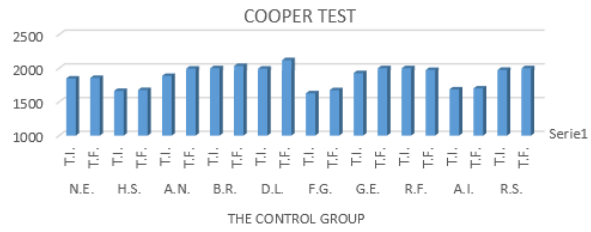

Fig. 8. Cooper test to the control group

Discussion and conclusions

Finally, we conclude the following:

- On initial testing, experimental group and the control group had equal value, but after using after use of the means, values the experiment group increased significantly compared to the control group that grew very little.
- Final testing standard deviation does not increase very much from that initial testing and pursuing the coefficient of variability is observed that homogeneity is greater in the experimental group.

Develop motor skills at primary school is performed simultaneously with strengthening abilities and motric skills, with execute exercises of physical development, as well as through of a particular action system.

Develop motor skills are physical education and sports training for one of the major concerns go toward improving the structural and functional parameters of different organ systems of the body.

After analyzing and interpreting the results of the subjects of the two groups have improved indices of speed, strength, force general and specific with a small surplus for the group of experiment, so the means used and have achieved their goal;

The experiment showed that in terms of somatic, and motrics subjects meet school requirements for this age group.
Specific test results confirm the hypothesis that work using in the workout of training means better streamlined and standardized may get an increase an motrics specific capacity.

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