

## METHODOLOGY OF PHYSICAL TRAINING ON DEVELOPMENT SIXTH GRADERS THROUGH SPECIFIC ATHLETICS MEANS

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### Abstract

The research followed the use of specific exercises, running, jumping and throwing in physical education lesson to students of grade VI to improve their physical training. Were made and applied the system of lessons during a school semester.

**The purpose of the** current work is to establish the most efficient methods and exercises structures in order to increase the motor qualities development process of 12-13 years old children, throughout physical education lesson.

**Used methods of research:** *Method of Bibliographic Study, Method of Observation, Experimental Method, Method of Testing, Statistical-mathematical method.* Used test of the research: 50 m speed running, long jump from place, force abdominal and back strength, running endurance of 600 m girls and 800 m boys.

**Conclusions.** The level of performance achieved, homogeneity of groups, shows that both means and various specific athletics methods influenced the development of motor qualities in physical education school.

**Key words:** running, repeat, motor qualities

### Introduction

Naturalness and affordability of athletic drill, the utility of its processes, explains their great presence in the physical education programs. Athletics contribute, alongside other means of physical education in school, to general physical preparation of students. Naturalness and accessible athletic exercises, the utility of its processes, explains their great presence in physical education programs. Running under its various aspects, jumping in their various forms and throwing objects are exercising enjoyable, attractive and useful at school age (D. Gârleanu, 1996).

specific sport, their value is still low due to the very weak development of motor qualities. To improve students 'physical training are recommended exercises form "school athletics": running school, jump school and throwing school (F. Neder, 2008).

**The purpose of the** current work is to establish the most efficient methods and exercises structures in order to increase the motor qualities development process of 12-13 years old children, throughout physical education lesson.

The following **hypothesis** was the basis for the draw up of this work: It is assumed that the motor qualities development at 6<sup>th</sup> grade is due with

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Athletic means has the advantage that it can be done with a minimum of material conditions, throughout the school year, all season. This explains the large share and continuity in curricula, their resume every year, to other parameters values. Athletics is considered one of the principal means of school physical education with maximum efficiency in achieving the educational objectives.

Adaptation of athletics exercises to particular age and gender of students, the precision with which to determine and measure the accuracy and quality of effort required are arguments for using athletics as a means of training in school physical education or sports training, as a means of maintaining status health (C. Albu, 1981).

The physical preparation of students, motor quality development continues to be a secondary aspect concerns a large number of specialists. Although acting primarily on the formation and strengthening of basic motor skills or industry-

high efficiency if we use means and exercises structures as well adequate possible to age's particularities.

In this work we established a series of **tasks**, as follows:

- The study of the bibliographic materials;
- To discover the most efficiency methods and means to develop motor qualities at 6<sup>th</sup> grade students.
- Check up the efficiency of means and work methods by testing the students.

**Used methods of research:** *Method of Bibliographic Study, Method of Observation, Experimental Method, Method of Testing, Statistical-mathematical method.* Used test of the research: 50 m speed running, long jump from place, force abdominal and back strength, running endurance of 600 m girls and 800 m boys.

The research took place between March 15<sup>th</sup> and May 15<sup>th</sup> 2009 at No. 196 Secondary School

from Bucharest. The experiment was made with two 6<sup>th</sup> grade students, divided in 30 students for experimental group and 30 for control group.

After applying the work program during the second semester of 2008-2009 academic years at the end of the experiment events control were passed again as the final test.

The results obtained were recorded separately for each group separately for each sex were centralized, processed and interpreted as evolution from initial to final testing, allowing conclusions on the effectiveness of separation of means and methods used, by comparison

Research results (Table no 1-4). Comparative analysis between groups (Figures no 1-10)

The results were recorded separately for each group and were centralized, processed and interpreted, allowing some conclusions on the effectiveness of methods and means used.

In the final moment of research the boys obtained the following results:

In 50 m Speed (Fig. no. 1) running the control group progress was on the 0.06-tenths (8"79 - 8"73), while the experimental group has a mean improvement of 1.13 tenths (8"67 - 8"54).

Growth media to test experimental group long jump from place is 4 cm (1.71-1.75 m) and the control group of 1 cm (1,72 m - 1,73 m), so finds a growing percentage upper experimental group compared to the control of 30% (Fig. no 2.).

For abdominal force testing, the average growth of 4 repetitions experimental group and the control group of 2 repetitions, 10% of the experimental group was higher than the control (Fig. No. 3).

Average growth recorded in testing back strength is 4 repetitions for the experimental group and 2 repetitions for the control group, being recorded the same 10% favorable progress of the experimental group (Fig. No. 4).

Endurance at running the 800 m (Fig. no. 5) experimental group got an average growth rate of 60% higher than the control group. Increasing values mean experimental group is 8 seconds (3'34"-3'26) and the control group 2 sec (3'30"-3'28").

In the final moment of research the girls obtained the following results:

50 m Speed running per experimental group had a final average increase of 1.16 tenths

Table no. 1 The results achieved by experimental group of boys in the two times tested

(8"86 - 8"70), while the control group only one-tenth (8"91 - 8"81) (Fig. no. 6).

To test the long jump from place (Fig. no. 7) increasing the average experimental group is 4 cm (1.63-1.67 m) and control group 3 cm (1.63-1.66 m).

Abdominal force testing of both experimental and the control group had the same increase of 2 repetitions in the final moment to experiment (Fig. no. 8).

Growth media to test the experimental group achieved back strength (Fig. no. 9) is 1.3 repetitions (25.87-27.00) and the control group of 0.5 repetitions (26.50-27.00).

Significant increase in the final average was recorded in the 600 meters race of endurance (Fig. no. 10), where the experimental group has a performance improvement of 10 seconds (3'10-3'00), while control group only 2 seconds (3'07 -3 '05). Percentage growth of the experimental group is 80% compared to the control.

#### Conclusions

1. By implementing programs to develop specific motor qualities using effective methods and means, as they grow, with great ease in the physical education lesson.
2. The principal means found in the experiment as a high efficiency line of endurance capacity development at this age, are: long running, in uniform tempo and solving the tasks on the route, long running varied in tempo; continues relays on short and medium distances, routes applied (in the form of race), focusing on endurance movement games, sports games, running "like fartlek".
3. Strength quality can successfully develop through various jumps and exercises performed with weight (lifting knees to espalier the stand hanging, lifting of lying dorsal trunk, "baskets", raising the torso from a lying facial genuflexion etc.).
4. Specific exercises to develop the motor qualities can be applied taking into account the peculiarities of age. To do this, knowing the group of students is a necessity that what he proposes to complete an experiment, it is realized by applying the initial and final tests that are obtained information on the state of somatic, functional and motor development.

No.	Indicators	50 m speed running		Long jump from place		Abdominal force		Back strength		800 meters	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
1	Arithmetical means	8"67	8"54	1.71	1.75	26	30	26	30	3:34	3:26
2	Standard deviation	0,42	0,35	0,12	0,11	3,26	2,80	3,05	2,45	0,23	0,20
3	Coefficient of	4,78	4,05	6,85	6,22	13,08	10,00	11,29	8,12	6,4	6,2

variability										
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Table no. 2 The results achieved by control group of boys in the two times tested

No.	Indicators	50 m speed running		Long jump from place		Abdominal force		Back strength		800 meters	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
1	Arithmetical means	8"79	8"73	1.72	1.73	27	29	27	29	3:30	3:28
2	Standard deviation	0,28	0,26	0,12	0,10	2,04	1,94	2,27	2,46	0,07	0,08
3	Coefficient of variability	3,29	3,03	6,84	6,06	7,80	6,93	8,10	8,19	17,3	14,7

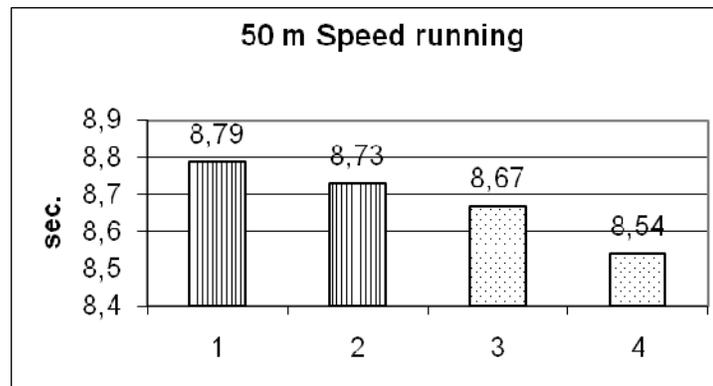
Table no. 3. The results achieved by experimental group of girls in the two times tested

No.	Indicators	50 m speed running		Long jump from place		Abdominal force		Back strength		600 meters	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
1	Arithmetical means	8"86	8"70	1.63	1.67	24	26	25.87	27	3:10	3:00
2	Standard deviation	0,34	0,30	0,08	0,06	3,12	2,31	3,42	2,80	0,09	0,12
3	Coefficient of variability	3,83	3,39	4,60	3,73	12,58	8,74	13,22	9,38	5,7	1,30

Table no. 4. The results achieved by control group of girls in the two times tested

No.	Indicators	50 m speed running		Long jump from place		Abdominal force		Back strength		600 meters	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
1	Arithmetical means	8"91	8"81	1.63	1.66	22	24	26.5	27	3:07	3:05
2	Standard deviation	0,20	0,17	0,07	0,06	3,34	3,61	2,88	2,41	0,06	0,07
3	Coefficient of variability	2,24	1,88	4,25	3,38	14,85	15,02	10,85	8,94	1,08	1,35

Fig no. 1



- 1 – Initial test for control group
- 2 – Final test for control group
- 3 – Initial test for experimental group
- 4 – Final test for experimental group

Fig no. 2

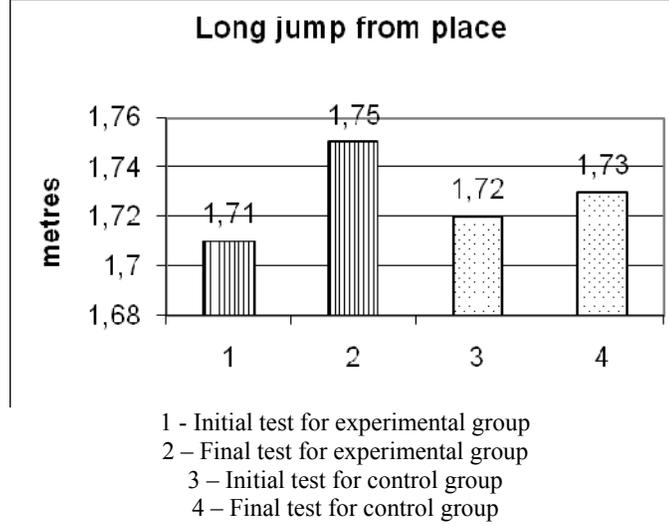


Fig. No. 3

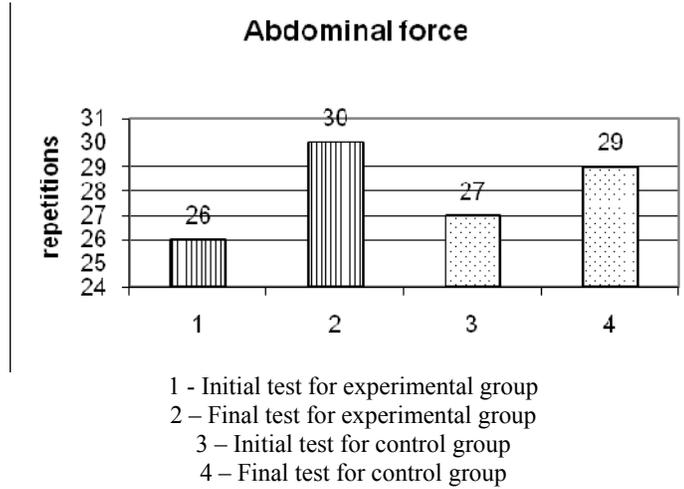


Fig. No. 4

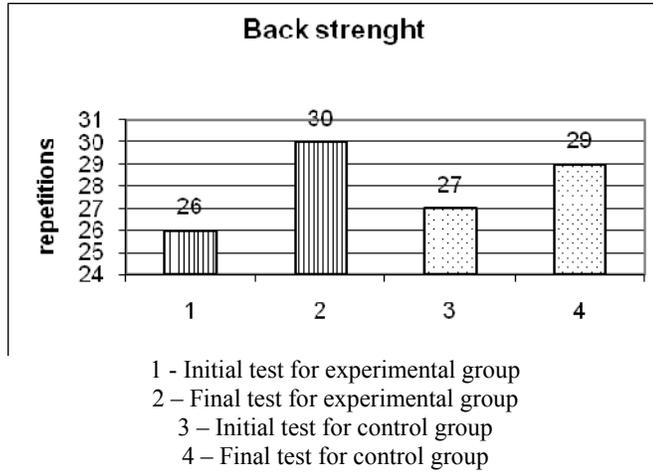


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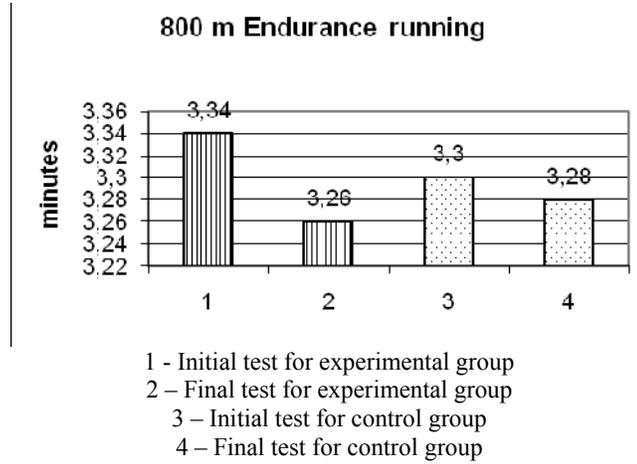


Fig. no. 6

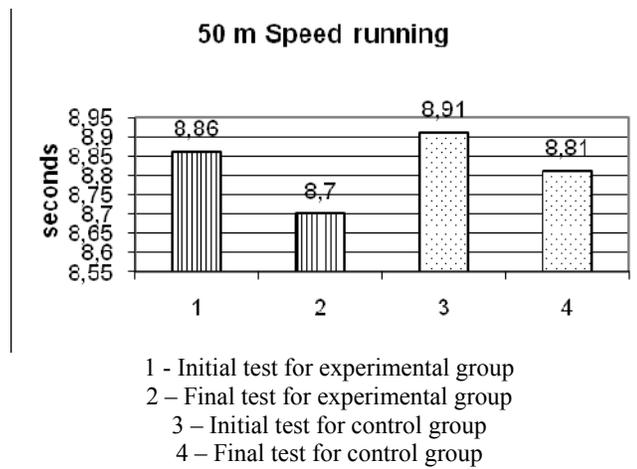


Fig. no. 7

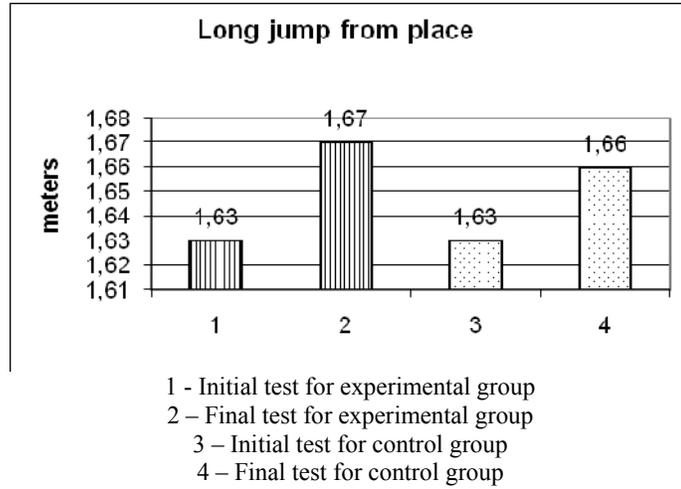


Fig. no. 8

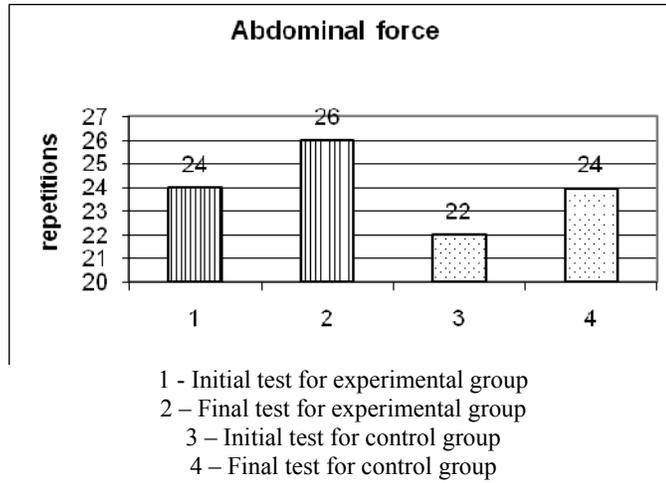


Fig. no. 9

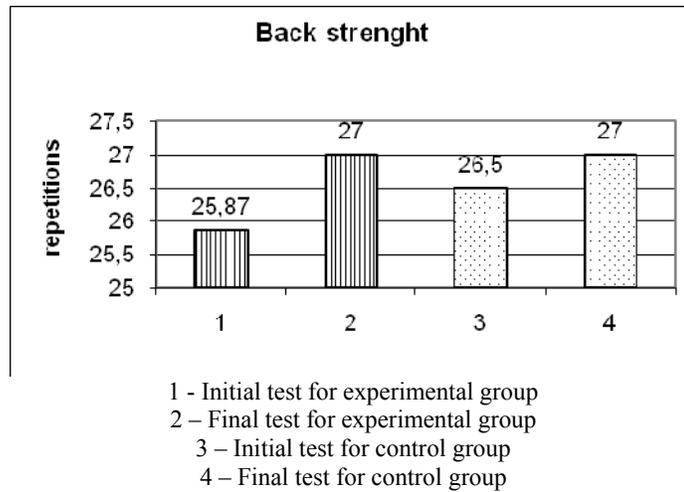
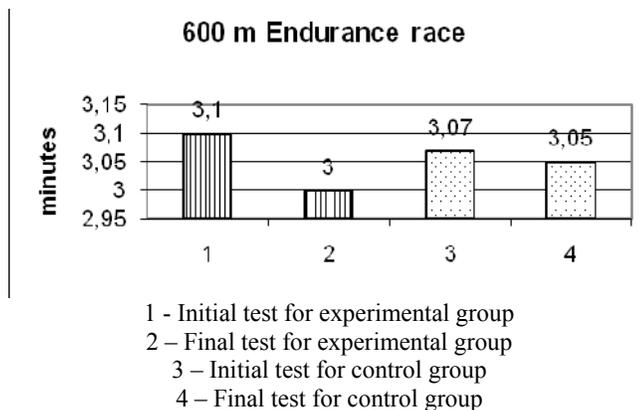


Fig. no. 10



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