

Figure 15. Trunk extensions results

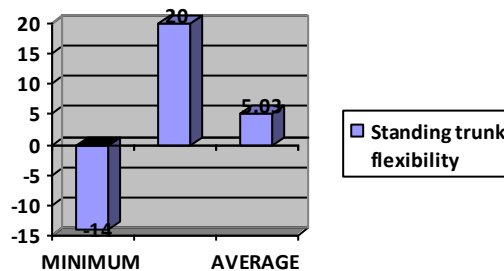


Figure 16. Standing trunk flexibility results

#### 4. Conclusions

The research was conducted over a period of two months in March-April 2014.

The evolutions were different for boys compared to girls.

For boys were obtained in all tests indicated at least equal or even higher than the reference value for the applied tests.

Instead girls performed very poorly on upper limb segmentary strength - expressed through pushups, trunk lifting, trunk extension and oina ball throwing. Unsatisfactory results obtained by girls at strength tests is explained by a low workout capacity.

To increase the strength level of the the upper body must act through specific physical education method - short circuits and pathways that have included exercises for the strength of arms.

The results can not be generalized due to the limited number of participants in the study, but there are ways to improve the motrical capacity.

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## ATHLETICS SPECIFIC SAMPLES FOR ASSESSING THE STUDENTS' MOTOR SKILLS – RUNNING

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#### Abstract

The paper presents two athletic specific samples used for assessing the motor skills of students from the seventh grade. A pedagogical experiment was conducted in order to see if the running samples are relevant to assess the skills development. From the large number of running samples the 50m time trial and endurance race have been chosen, according to the requirements in gymnasium. Using the running exercises different objectives of training can be achieved, in relation to the planned themes: such as strengthen the short burst of speed, consolidation of start, start launching, improving the run-up at long jump or above hurdles, the development of endurance by cross country race on certain distances or periods of time, etc.

*Keywords: athletics, motor skills, running sample*

#### 1. Introduction

The physical education lesson has a certain typology, certain content and a particular structure, which make the difference from all other lessons [1]. Also the themes of lessons are, naturally, different: there are themes for motor skills, for specific utility and application in different branches of sport (athletics, gymnastics, jumping, sports games) and themes that secures the development of motor qualities like speed, skill, resistance and force or combined [4], [5].

The exercises contained in the practice of athletics, varied and numerous, make an important contribution to the achievement of the physical education tasks [2].

Learning the correct technique of any simple or complex exercise, extending up to the form of global technique execution of a sample in athletics, represents a pedagogical activity, led by teachers in the benefit of the trained, of various ages, levels of physical development and motric stages [1], [6].

It follows that in the framework of the physical education lessons using the running exercises can achieve the different objectives of training, in relation to the planned themes: strengthen the pitch system launched in moderate tempo and evenly, strengthen the short burst of speed, start consolidation, start launching, improving the run-up at long jump or above hurdles, the development of endurance by cross country race on certain distances or periods of time, etc [3], [7], [11].

Although the running is a natural skill many students do not know the correct technique. The inclusion of them as a lesson objective and multiple repeating, according to all the rules required by the running school is necessary being an essential requirement, in particular at the lower classes [9], [10].

## 2. Method

The method of the pedagogical experiment is used in order to check the effectiveness of training method. This method consisted of a succession of phases, aspects, actions, as: the choice of control samples, description of the experimental and control group. In our case the experimental method had three variables: variable "subject", composed by groups of students from the seventh grade, age, gender, the report boys-girls, the environment, the development level; the variable "stimulus", consisting of the detailed rules for the actuator used in the experimental group; the variable "answer", concrete registered outcomes as results of the stimuli actions [8].

In order to verify the effectiveness of the experiment a "battery" of tests to determine the students' motor skills level was used [12], [13]. It includes:

Anthropometric Measurements:

1. The height
2. The weight

Athletics specific samples:

1. 50 m time –trial;
2. long jump;
3. triple jump;
4. Small ball throwing;
5. Endurance race: 1000 m for boys and 800 m for girls;

Samples for testing the muscular force:

1. Pushups
2. Raising the trunk from dorsal lying, for 30 seconds
3. Raising the trunk from facial lying, for 30 seconds
4. Standing long Jump,
5. Jumping over the gymnastics bank, for 30 seconds

Specific samples of the handball game:

1. Distance throwing of the ball, using three run-up steps;
2. The specific race

I have chosen the 50m time trial and the endurance race for determining their influence on the motor skills.

The 50 m time-trial was carried out in a straight line, on flat ground, individually. The timer was switched on at the movement of the rear foot. The running time was recorded in seconds and fractions of a second.

The endurance race: 1000 m for boys and 800 m for girls was carried out on flat ground on different distances for boys and for girls. The running time was recorded in seconds and fractions of a second.

## 3. Results

The results for the 50 m time-trial are shown in table 1.

Table 1 50m time-trial

Group	Experimental				Control			
	Gender	Boys		Girls		Boys		Girls
TEST.	IT	FT	IT	FT	IT	FT	IT	FT
1	8:04	7:77	9:27	9:14	8:35	8:23	9:41	<b>9:35</b>
2	8:09	7:73	9:00	8:93	8:35	8:17	9:37	<b>9:31</b>
3	8:19	8:00	8:96	8:90	8:31	8:26	9:25	<b>9:20</b>
4	8:24	8:02	9:23	9:09	8:03	7:95	9:12	<b>9:03</b>
5	-	-	8:95	8:92	8:36	8:21	8:95	<b>8:78</b>
6	-	-	9:01	8:96	8:33	8:19	8:78	<b>8:72</b>
7	-	-	8:86	8:84	8:04	8:01	8:82	<b>8:71</b>
8	-	-	9:15	9:05	8:02	7:99	8:67	<b>8:63</b>

<b>9</b>	-	-	9:17	9:12	7:91	7:87	-	-
<b>10</b>	-	-	9:03	9:00	-	-	-	-
<b>11</b>	-	-	8:67	8:64	-	-	-	-
<b>12</b>	-	-	8:78	8:73	-	-	-	-
<b>13</b>	-	-	8:94	8:90	-	-	-	-
<b>Σ</b>	32:56	31:52	117:02	116:22	73:70	72:88	72:37	<b>71:73</b>
<b>x</b>	8:14	7:88	9:00	8:94	8:18	8:09	9:04	<b>8:96</b>
<b>S</b>	±0:09	±0:15	±0:17	±0:14	±0:18	±0:14	±0:28	<b>±0:29</b>
<b>Cv</b>	<b>1:12</b>	<b>1:910</b>	<b>1:93</b>	<b>1:64</b>	<b>2:24</b>	<b>1:76</b>	<b>3:11</b>	<b>3:26</b>

*IT – initial testing, FT – final testing*

At the 50 m time trial: initially: the individual values of the boys have had an amplitude of 0:20 at the experimental group (EG) and 0:45 at the control group (CG); for girls: the amplitude of 0:60 was registered for the experimental group: while for the control group the amplitude was 0:74.

At the final test the amplitudes for boys in EG are spread out on a scale of 0:25 and 0:39 in CG; for girls: amplitude of 0:50 in EG and 0:72 in CG (fig.1 and 2).

The standard deviation (S) indicates very small variations of all results. The values of the coefficient of variability (VC), indicate high homogeneity (between 0 - 10%). (table 1).

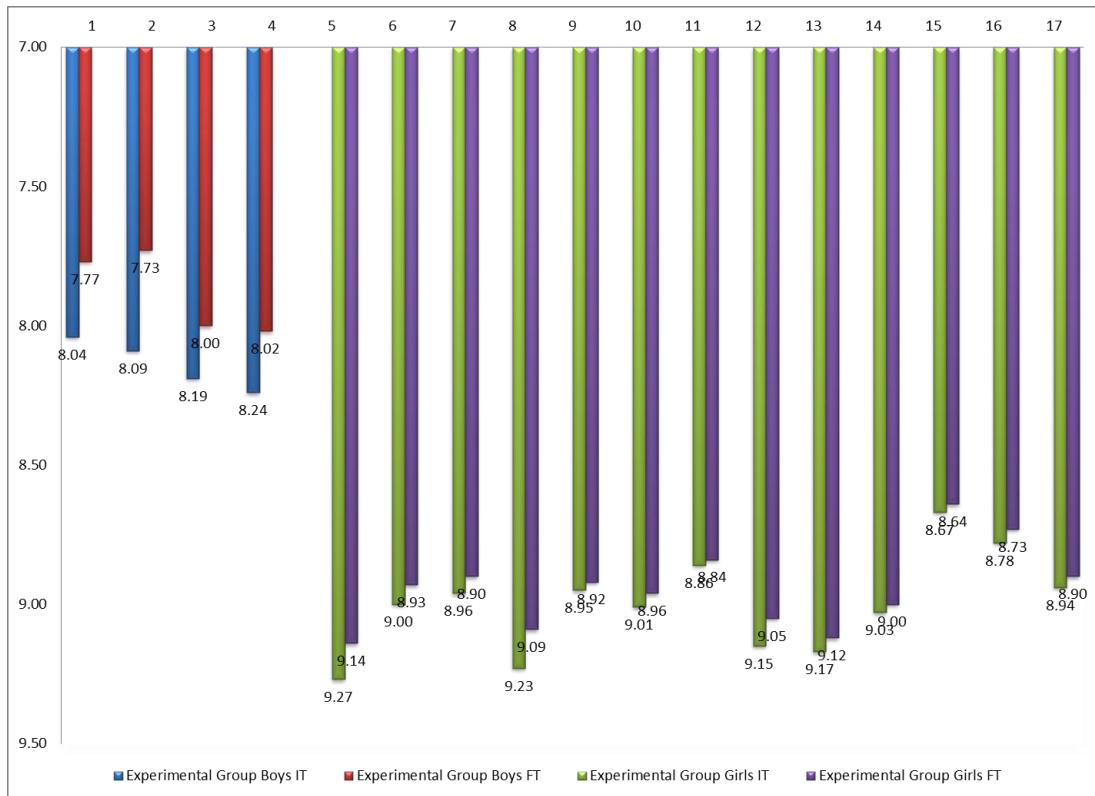


Fig.1 50m time trial results for experimental group

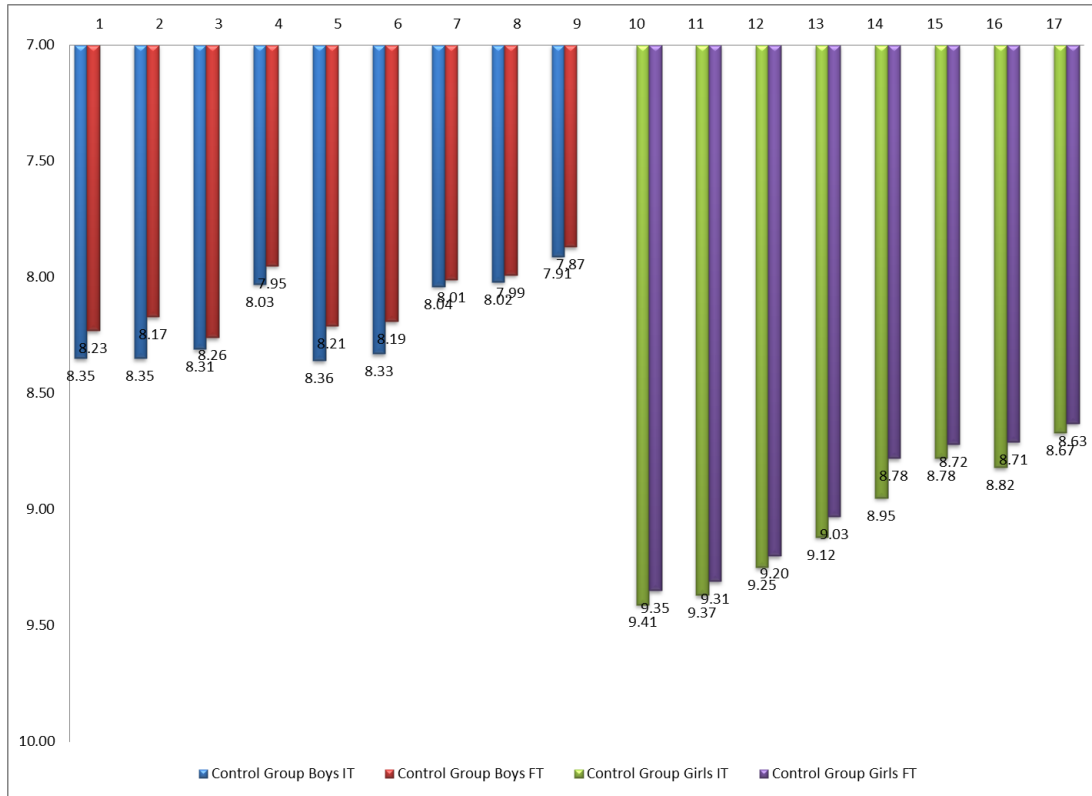


Fig.2 50m time trial results for control group

Table 2 Endurance race

Group	Experimental					Control			
	Boys		Girls			Boys		Girls	
TEST.	IT	FT	TEST.	IT	FT	TEST.	IT	FT	
1	4:36	4:28	4:50	4:39	4:46	4:40	4:52	4:47	
2	4:33	4:25	4:46	4:25	4:47	4:42	4:42	4:48	
3	4:43	4:39	4:45	4:37	4:43	4:37	4:55	4:50	
4	4:52	4:43	4:44	4:40	4:33	4:30	4:37	4:35	
5	-	-	4:45	4:38	4:34	4:39	4:43	4:39	
6	-	-	4:39	4:31	4:48	4:43	4:42	4:40	
7	-	-	4:48	4:42	4:39	4:35	4:54	4:42	
8	-	-	4:40	4:38	4:34	4:32	4:37	4:31	
9	-	-	4:50	4:41	4:39	4:33	-	-	
10	-	-	4:35	4:30	-	-	-	-	
11	-	-	4:38	4:33	-	-	-	-	
12	-	-	4:40	4:35	-	-	-	-	
13	-	-	4:35	4:29	-	-	-	-	
Σ	17,64	17,35	57,55	56,58	39,63	39,31	35,62	35,32	
x	4,41	4,33	4,42	4,35	4,40	4,36	4,45	4,41	
S	±0,08	±0,08	±0,05	±0,05	±0,05	±0,04	±0,07	±0,06	
Cv	1,91	1,98	1,17	1,20	1,34	1,04	1,65	1,49	

The average: for boys 4'41 (IT) and 4'33 (FT) for EG and 4'40 (IT) and 4,36 (FT) for CG, and for girls 4'42 (IT) and 4'35 (FT) for EG and 4'45 (IT) and 4'41 (FT) for CG (fig. 3 and 4).

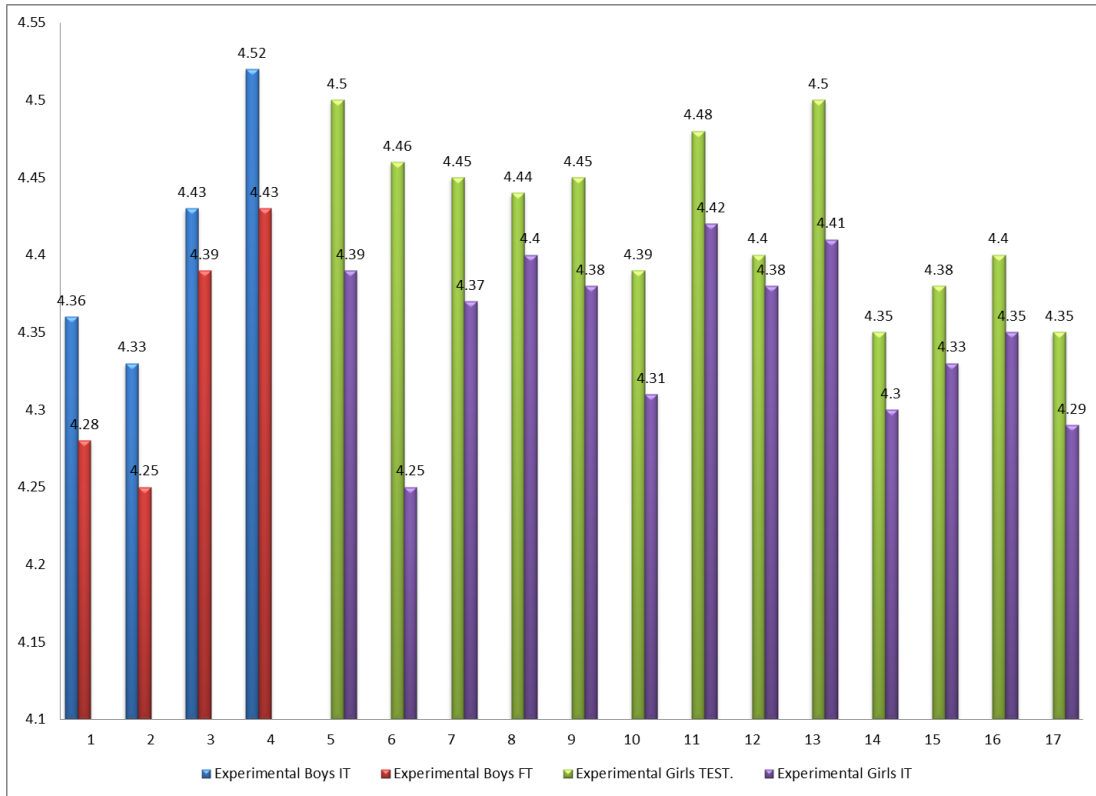


Fig.3 Endurance race results for experimental group

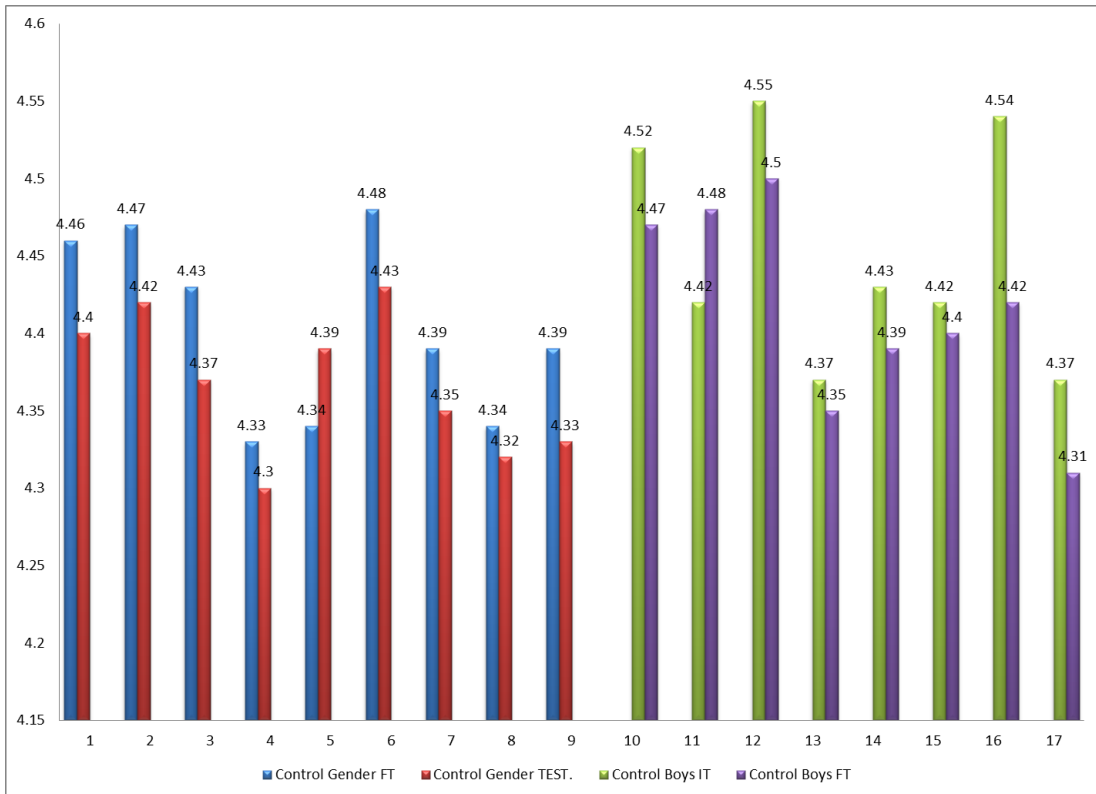


Fig.4 Endurance race results for control group

The standard deviation (S) shows very small variations of results and the coefficient of variability (VC) shows high homogeneity (between 0 - 10%) of all results (table 2).

#### 4. Conclusions

The varied and numerous exercises contained in the practice of athletics, have an important contribution to the achievement of the tasks in physical education lesson. They form natural motor skills, as well as some more complicated ones. On the other hand, they also contribute to the development of the qualities of the motor skills which will gradually be noticed on the evolution of students, leading to the performance for the talented ones.

It follows that in the framework of the physical education lessons using the running exercises can achieve the different objectives of training, in relation to the planned themes: strengthen the pitch system launched in moderate tempo and evenly, strengthen the short burst of speed, start consolidation, start launching, improving the run-up at long jump or above hurdles, the development of endurance by cross country race on certain distances or periods of time, etc.

Control samples were well chosen and assessed the physical development level, specific motor skills, and the development of motor skills indices.

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## ATHLETICS SPECIFIC SAMPLES FOR ASSESSING THE STUDENTS' MOTOR SKILLS – JUMPING AND THROWING

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#### Abstract

The paper presents three athletic specific samples used for assessing the motor skills of students from the seventh grade. A pedagogical experiment was conducted in order to see if the jumping and throwing samples are relevant to assess the skills development. The samples used are according to regulations in physical education class: long jump, triple jump and small ball throwing. The jumps are used in the physical education lesson for the achievement of several objectives: training and strengthen the long and height jumping (as main forms), jumping over long or high obstacles; and the development of motor qualities, as well as of specific forms of motrical skills, of which the most important are the force and speed as their combination (springiness). The throws reveal the force and the force-speed dominant group.

*Keywords: athletics, throwing, jumping*

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#### 1. Introduction

The jumps are part of the speed and force-speed dominant group of efforts, the relationship between these qualities ranging from one sample to another. On the initiation of students in athletic tests the long and high jump are compulsory. They are part of the athletic exercises with multiple influences on the development and improvement of the qualities and motor skills. They are also of a great applicability value, being present, in various forms in our daily activity [5], [7].

Although the jumps influencing the development of the feet force, due to different movements executed by other segments and muscle linkages, the abdominal and the back muscles are also tensed. The running speed, the long or short approach is also affected by the number of repetitions [1], [6].

The jumps being typical exercises force-speed, contribute to the development of this complex motor quality [12], [13].