

**STUDY ON THE DEVELOPMENT OF MOTOR QUALITIES IN  
THE "ALEXANDRU IOAN CUZA" SECONDARY SCHOOL  
FROM FĂLTICENI**

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**Abstract:**

At present, in the educative-educational process of the students in the secondary school, the influence of the development of the motor qualities, must be a special attention on the physical education and sports teachers, in order to fulfill the objectives stipulated in the school programs, thus ensuring a minimum of preparation. of these students.

Our work is limited to a study on the development of moral qualities, speed, endurance and strength and we wanted to find out the evolution of the students during the three years of school, the 5th grade, the 6th grade and the 7th grade. The paper presents specific means of athletics for each proposed motor quality, pursuing their efficiency in the physical education and sports lessons, during the six semesters. All the means used during the hours of physical education and sports contributed to the achievement of the proposed objectives. The study was organized and conducted within the "Alexandru Ioan Cuza" Secondary School from Fălticeni. The testing of the students undergoing the study was carried out both in the open air and in the gymnasium, and the working conditions, testing are the same each time. The specific means of athletics have proven to be attractive by involving the students creating them both physical and mental emulation. The hypothesis from which we started was confirmed, due to the fact that these students were aware of the importance of physical exercise both in the instructional-educational process and in daily life.

**Introduction:**

In the last years the opinion of the specialists in the field of physical education and sport has represented a promotion of the strategy of developing the concept of active life by moving students both in the

physical education lessons and through other independent sports activities. [1,2,4]

The concept of teaching the athletic means, in the physical education and sports lessons, concerns methodological - organizational aspects from the fifth to the eighth grade. Through the specific objectives of the lesson of physical education and sport in the secondary education are pursued several aspects: the maintenance and optimization of the state of health, the harmonious physical development, the development of the motor qualities, the prevention and the correction of the vicious posture of the spine. All these goals can be successfully achieved by the specific means of athletics, if they are correctly applied and dosed.[3,7,8]

The aim of our study offers a vision on the implementation of the most efficient and attractive athletic means in the physical education and sports lessons in order to obtain the necessary progress of these students within the secondary school cycle. The preliminary establishment of our objective was, the development of the motor qualities, necessary at this stage of age.

In this regard, we aimed at three motor qualities: speed, endurance and strength.

In order to develop speed in all its forms of manifestation, the physical education teacher must approach this objective in its full complexity, since most use only the traveling speed in lessons. For the development of the resistance, the atmospheric conditions will be taken into account, if it is performed in the open air, it will be used actuation systems with distances between 600 and 800 m, if they are performed in the hall, it will be resorted to the development of the combined motor qualities. Strength is one of the driving qualities especially demanded by boys. In the students of the gymnasium cycle will be used mainly exercises that overcome the weight of the body and exercises that overcome an external force. [9, 10]

We consider that the most important period is the age of 10-14 years, because the bases of the physical and mental training must be laid, which implies the development of the motor qualities at a certain level.

**Material-method:**

The study was organized and conducted at the "Alexandru Ioan Cuza" High School in Fălticeni. The study was conducted during the three years of school 2016-2019 (5th, 6th, 7th grade) and followed the evolution of a class of students (10 girls and 13 boys) regarding motor skills. In this regard, we have applied athletics specific exercises to develop the motor

qualities and thus ensuring a minimum of their preparation for the next school year.

In carrying out this study we started from the premise that selecting the most efficient and attractive athletic means used in physical education and sports lessons, the motor qualities of the students from the secondary school will be developed and at the same time they will lead to the achievement of the objectives proposed in the school programs..

The purpose of the paper is to follow and carefully analyze the evolution of each group (boys and girls), groups under investigation in order to improve the results during the three years of study.

In our paper we used the following research methods: the comparative method, the observation method, the experimental method, the test method and the mathematical-statistical method. We will list the motor tests we have proposed in the study: throwing the ball of ball (AMO), long jump on the spot (SLP), running speed (AV), resistance running (AR).

In order to select the exercises, the particularities of age, gender and degree of preparation of the students throughout the study were taken into account.

Table 1.

Classification of the specific means of athletics for the development of the motor qualities for the gymnasium cycle	
Educational instructional objective: development of motor qualities:	
for speed <ul style="list-style-type: none"> <li>• working distance 25-120m</li> <li>• 3-4 series</li> <li>• 3-4 repetitions</li> </ul>	exercises from the running school
	sticks and motion games
	from running and running, different executions at the signal over different distances
	start from the bottom and the bottom, starting at the signal on different signals
	start running from different positions to the signal
	repetitions at different distances in maximum tempo
	downhill running at different distances
for resistance <ul style="list-style-type: none"> <li>• Working distance between 600m-800m</li> <li>• 2-3 series</li> </ul>	jumping
	exercises from the running school
	varied tempo running over different distances
	downhill runs at different distances
	weight dragging

<ul style="list-style-type: none"> <li>• • 3-4 repetitions</li> </ul>	fartlek
for strength <ul style="list-style-type: none"> <li>• the number of halves for an exercise between 2 -4</li> <li>• number of repetitions in a half 4-10                         <ul style="list-style-type: none"> <li>• • runs 2-3 times a week</li> </ul> </li> </ul>	exercises from the jumping school
	exercises to overcome your own weight
	dynamic exercises with objects
	exercises under heavy conditions
	weight training exercises

**Results and discussions:**

The data collected for the four proposed tests were entered in the tables and calculated statistically: the arithmetic mean, the standard deviation and the coefficient of variability, and for a better visualization diagrams were made in the form of columns, where the evolution of the group can be observed on the three years of study.

Table 2

statistical calculation	V-A CLASS (boys)				VI-A CLASS (boys)				VII-A CLASS (boys)			
	AMO	SLP	AV	AR 800	AMO	SLP	AV	AR 800	AMO	SLP	AV	AR 800
$\bar{x}$	18,62	1,39	9,74	4,27	21,23	1,55	9,03	3,99	24,54	1,70	8,65	4,99
$\alpha$	4,01	0,13	0,97	0,83	4,66	0,15	0,79	0,86	5,44	0,15	0,61	0,35
Cv%	0,22	0,09	0,10	0,19	0,22	0,09	0,09	0,21	0,22	0,09	0,07	0,07

Table 3

statistical calculation	V-A CLASS (girls)				VI-A CLASS (girls)				VII-A CLASS (girls)			
	AMO	SLP	AV	AR 600	AMO	SLP	AV	AR 600	AMO	SLP	AV	AR 600
$\bar{x}$	11,40	1,38	10,12	3,72	14,60	1,49	9,66	3,46	16,40	1,59	9,28	5,11
$\alpha$	3,23	0,17	0,88	0,41	2,76	0,21	0,71	0,34	2,11	0,20	0,53	0,21
Cv%	0,28	0,13	0,09	0,11	0,19	0,14	0,05	0,10	0,13	0,12	0,06	0,04

Table.4

The evolution of the group of boys during the three years of school				
statistical calculation	Throwing the ball (m)	Long jump on the spot (m)	Running speed 50 m (s)	Running resistance B: 800 m
x	5,92	0,31	1,09	0,67
$\alpha$	1,12	0,02	0,36	0,13
Cv%	0,00	0,00	0,03	0,01

In the group of boys we can see a progress in the evolution of the students: when throwing the ball of ball the difference of the 5th class until the end of the 7th class the arithmetic mean is 5, 92 m, at the sample the long jump from the average of the group. is 0.31 m, at the speed run on 50 m the group improvement is 1.09 sec., and at the last test, the resistance run the group improvement is 0.67 min.

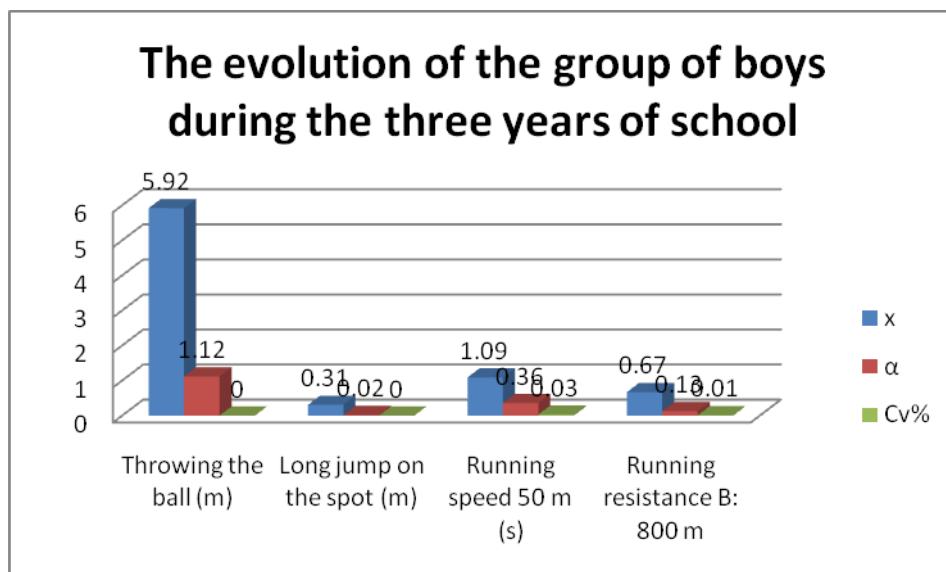


Diagram no.1

Table .5

The evolution of the group of girls during the three years of school
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statistical calculation	Throwing the ball (m)	Long jump on the spot (m)	Running speed 50 m (s)	Running resistance B: 600 m
x	5	0,21	0,84	0,52
$\alpha$	1,12	0,03	0,35	0,17
Cv%	0,15	0,01	0,05	0,03

In the table above, we can see a significant progress of the students from the initial test (5th grade) to the final test (7th grade). In the test of throwing the ball, the arithmetic mean of the group is 5.00 m, at the long jump in the place it is 0.21m, at the speed run on 50 m it is 0.84 sec., And at the run of resistance is 0.52 min.

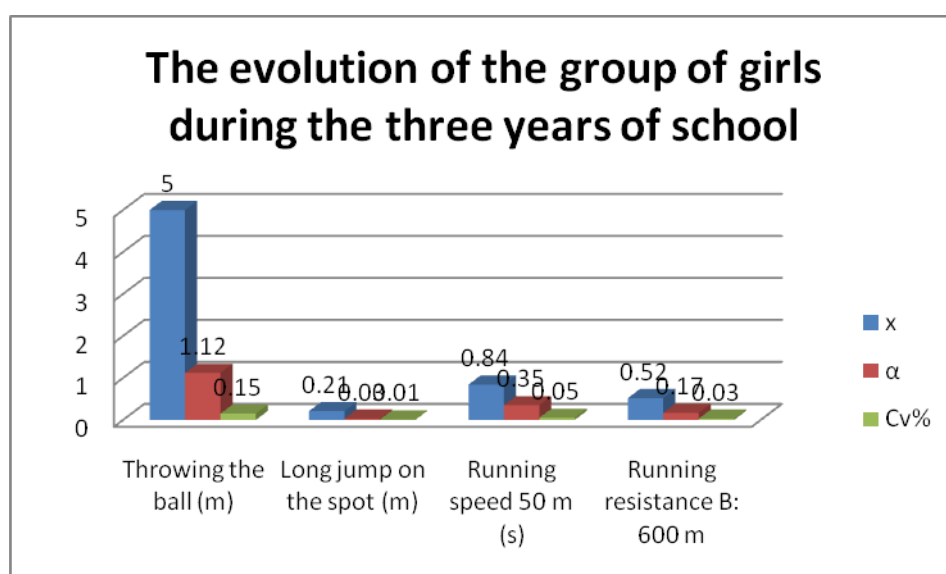


Diagram no.2

**Conclusions:**

1. Following the proposed program, the students had a normal evolution in terms of motor skills development;
2. It has been found that the development of motor qualities by means specific to athletics is a finality of major importance in the instructional-educational process.
3. Development of motor qualities if not constantly achieved, efforts to achieve significant improvements of students are small.
4. The means used in all the physical education lessons were accessible to the physical and intellectual possibilities of the students.

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**STUDIUL PRIVIND DEZVOLTAREA CALITĂȚILOR MOTRICE  
LA ELEVII ȘCOLII GIMNAZIALE ”ALEXANDRU IOAN  
CUZA” DIN FĂLTICENI**

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**Keywords:** studiu, calitate motrică, elevi, mijloace

**Abstract:** (maximum 200 words, TNR 12, justify, line spacing 1)

În prezent, în procesul instructiv-educativ al elevilor din ciclul gimnazial, influențarea dezvoltării calităților motrice, trebuie să constituie o atenție deosebită privind profesorii de educație fizică și sport, pentru a îndeplini obiectivele stipulate în programele școlare, asigurându-se astfel un minim de pregătire al acestor elevi. Lucrarea noastră se rezumă la un studiu

privind dezvoltarea calităților morice, viteza, rezistența și forța și am dorit să aflăm evoluția elevilor pe parcursul celor trei ani de școală, clasa a V-a, clasa a VI-a și clasa a VII-a. Lucrarea prezintă mijloace specifice atletismului pentru fiecare calitate motrică propusă urmărindu-se eficiența lor în lecțiile de educație fizică și sport, pe durata celor șase semestre. Toate mijloacele folosite în cadrul orelor de educație fizică și sport au contribuit la realizarea obiectivelor propuse. Studiul s-a organizat și desfășurat în cadrul Școlii Gimnaziale "Alexandru Ioan Cuza" din Fălticeni. Testarea elevilor supuși studiului s-a desfășurat atât în aer liber cât și în sala de sport, iar condițiile de lucru, de testare fiind aceleași de fiecare dată. Mijloacele specifice atletismului s-au dovedit a fi atragătoare implicând elevii creându-le o emulație atât fizică cât și psihică. Ipoteza de la care am plecat s-a confirmat, datorită faptului că acești elevi au conștientizat importanța exercițiului fizic atât în procesul instructiv-educativ cât și în viața de zi cu zi.