

STUDY ON THE DEVELOPMENT OF PSYCHOMOTOR SKILLS THROUGH ATHLETICS AT THE LEVEL OF GYMNASIUM CLASSES

TANASĂ IONUȚ BOGDAN¹

¹Middle school “Alexandru Ioan Cuza” from Fălticeni

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Abstract: Being a teacher of physical education and sports, I set out in this article to pursue some main objectives, which led to the choice of this research topic. The aim was to obtain superior results at the level of the experiment group compared to the control group. The age of our research subjects is between 10 and 12 years, which requires priority the development of psychomotor skills speed, so that the improvement of specialized perceptions will lead to students' ability to effectively direct their own movements, in relation to increasing speed. The motivation for choosing this topic is the desire to understand and present, in detail, the importance of the means specific to athletics, the development of motor quality, speed and their evaluation in middle school classes. The interest I showed in the direction of knowing the aspects related to athletics in the lesson of physical education and sports, especially specific means, led me to propose the most efficient, new means to develop psychomotor skills in this category of age. For this we tried to create an emotional climate in the school community and to use certain techniques to promote the active manifestation of students.

Introduction:

The study of the influence of psychomotor speed on speed through exercises specific to athletics, attracted the debate of several issues related to this topic, namely:

The issue of the instructive-educational process as well as the National Curriculum with priorities related to the main education reform;

Another problem would be the theoretical basis related to certain teaching conditions of physical education and sports in secondary education in accordance with the general educational ideal;

The particularities of growth and development of middle school students must be taken into account in correlation with the influences of physical education and sports as a factor in the development of biopsychomotor features.[1,5]

The author Tudor Virgil (1999), refers to the development of motor speed, appreciates that "in the gymnasium cycle the latency and reaction period continues to decrease, the frequency of movements and running speed increase, so it is recommended to intensify the activity to develop speed" .[6]

All the means performed to consolidate and improve the exercises in athletics, positively influence and develop the other psychomotor skills.

It is known that the discipline of athletics is present in all school physical education programs, due to the wide range of means at its disposal and the beneficial influence of these exercises on the harmonious and motor physical development of students.

Unlike other disciplines, athletics in the physical education lesson has mainly a complex and integrative component that refers to the preparation of students for the systematic practice of physical exercises both in the school gym and on the sports field.[1,5]

The author Dragnea Adrian (1999) considers that this pubertal stage represents "an optimal interval both in learning most of the motor skills specific to sports and as well as developing the qualities of speed, endurance and coordination".[2]

Material and method

The hypothesis of the paper: It is assumed that by selecting the most effective exercises specific to athletics and applying them in physical education and sports lessons, one can develop speed motor quality in all its forms of manifestation in students of classes V and VI.

The purpose of the paper: The aim of the paper is to select the most effective exercises specific to athletics, which will be applied to students in high school, taking into account the particularities of age, sex and level of training in all plans developed by us during the semesters.

Organizing and conducting research: In order to carry out the study, we chose the subjects (students) of the "Alexandru Ioan Cuza" Gymnasium School from Fălticeni, we formed four groups of students: an experimental group (5 girls and 6 boys) from the class VI, a control group formed also from (5 girls and 6 boys), also from the class VI, an experimental group consisting of 6 girls and 16 boys from the class V

and a control group also consisting of 6 girls and 16 boys, also from the class V .

During the experiment the number of subjects remained the same. For the experiment groups, we applied in the physical education and sports lessons, means (proposed by us) specific to athletics in order to develop motor quality and speed, and for the control groups we went standard according to the program proposed by the Ministry of Education and Research. The study period took place during the school year September 15, 2018-June 2019. During all this time I studied the literature, I formed 2 groups for experiment and 2 control groups, I chose the three tests for the semester evaluation, I selected the most effective means specific to athletics for each experimental group (class VI and class V), we analyzed and interpreted the data collected, we developed the conclusions of the study. In the first semester they worked in the gym, and in the second semester they worked in the stadium.

For develop speed psychomotor skills, we used in physical education and sports lessons without neglecting other psychomotor skills means specific to athletics: exercises with selective influence performed in fast tempo (5-10 sec); exercises in the group of front and training exercises; relays and motion games that require attention and prompt reactions to various pre-set or surprise signals; exercises and games with different objects; starts from different positions; various jumps with detachment on one or two legs; athletics school exercises with shifting in speed running. [3,4]

Results and interpretation of data

In order to visualize the factual material, we resorted to the centralization of the data in the tables and to the graphic representations.

The initial tests took place at the beginning of the school year in September 2018, and the final tests in June 2019.

EXPERIMENTAL GROUP-DIFFERENCE BETWEEN INITIAL AND FINAL TESTING

Statistical indicators	SPEED RUNNIG 60 m (s)	SHUTTLE 5 X 10 m (s)	SPEED RUNNING 25 m (s)
x	0,77	0,81	0,34
α	0,14	0,2	0,02
Cv%	1,03	0,01	0,01

As can be seen the difference between the initial and the final test in the 60m speed test, the arithmetic mean is 0.77 s, in the 5x10 m shuttle test, the average is 0.81 s, and in the 25m speed test m, the mean is 0.34 s.

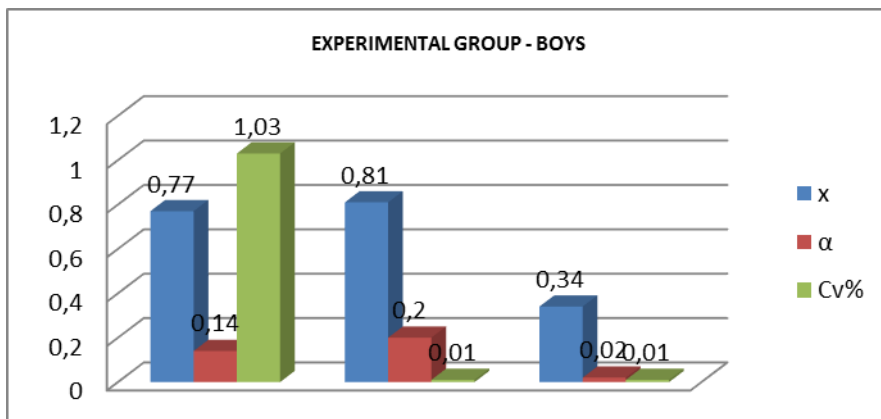


DIAGRAM NO.1

The diagram is represented by columns, each test has a color and you can see the difference between the initial and final test in the boys experiment group.

BOYS CONTROL GROUP - DIFFERENCE BETWEEN INITIAL AND FINAL TESTING

Statistical indicators	SPEED 60 m (s)	RUNNING	SHUTTLE 5 X 10 m (s)	SPEED RUNNING 25 m (s)
x	0,42		0,55	0,23
α	0,03		0,04	0,02
Cv%	1,02		1,01	0,01

In the control group you can see an average difference of 0.42 s, in the 5x10m shuttle the difference is 0.55 s, and in the speed run it is 0.23s.

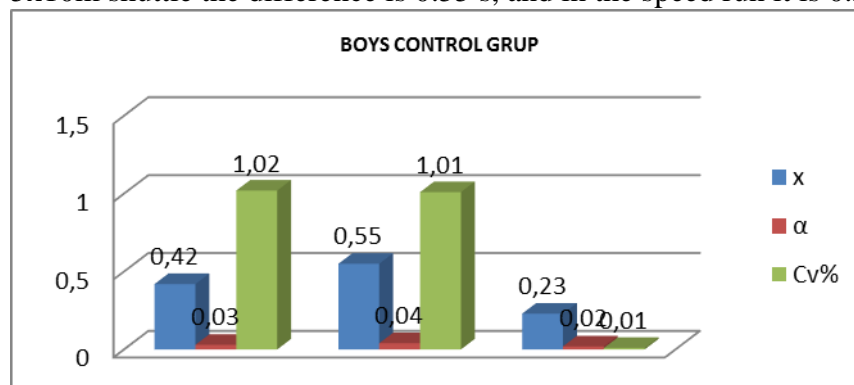


DIAGRAM NO.2

DIFFERENCE BETWEEN THE EXPERIMENTAL GROUP AND THE CONTROL GROUP-BOYS-CLASS V

Statistical indicators	SPEED RUNNING 60 m (s)	SHUTTLE 5 X 10 m (s)	SPEED RUNNING 25 m (s)
x	0,35	0,26	0,11
α	0,11	0,2	0,00
Cv%	1,01	1	0,00

The table shows the difference between the experiment group and the control group, in the 60m running speed test it is 0.35s, in the 5x10m shuttle test it is 0.26s, and in the 25m running it is 0.11s.

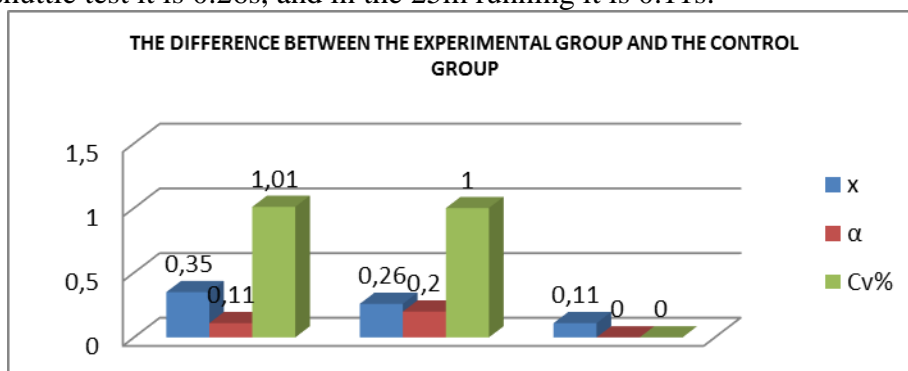


DIAGRAM NO.3

EXPERIMENTAL GROUP-DIFFERENCE BETWEEN INITIAL AND FINAL TESTING

Statistical indicators	RUNNING SPEED 60 m (s)	SHUTTLE 5 X 10 m (s)	RUNNING SPEED 25 m (s)
x	0,41	0,69	0,52
α	0,8	0,2	0,06
Cv%	0,00	0,00	0,01

You can see in the 60m speed test a difference between the initial and the final test of 0.41 s, in the 5x10m shuttle of 0.69, and in the 25m speed test a difference of 0.52s.

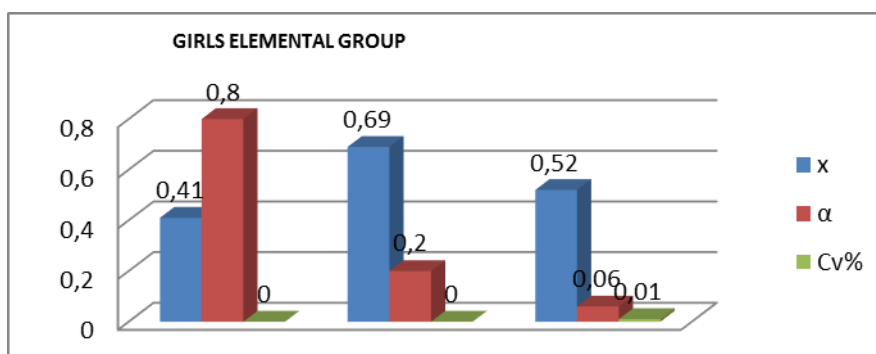


DIAGRAM NO.4

CONTROL GROUP - DIFFERENCE BETWEEN INITIAL AND FINAL TESTING

x	0,38	0,43	0,37
α	0,06	0,95	0,12
Cv%	0,00	0,03	0,03

In the control group, the difference between the initial and the final test at the 60m speed run is 0.38 s, the 5x10m shuttle test is 0.43 s, and the speed run is 0.37 s.

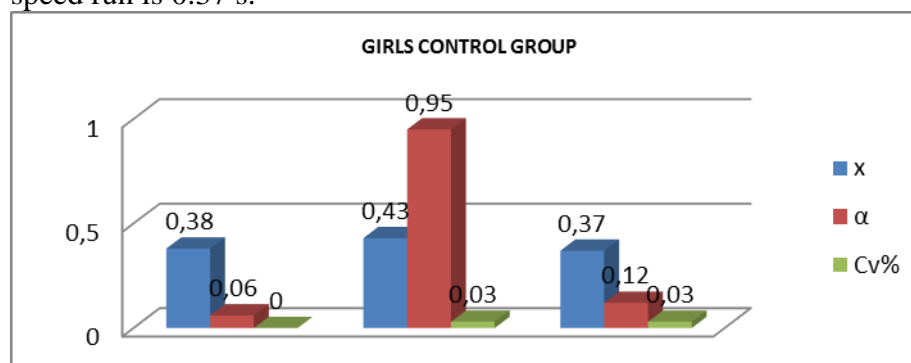


DIAGRAM NO.5

CONTROL GROUP - THE DIFFERENCE BETWEEN THE EXPERIMENTAL GROUP AND THE GIRLS CONTROL GROUP – CLASS V

Statistical indicators	SPEED RUNNING 60 m (s)	SHUTTLE 5 X 10 m (s)	SPEED RUNNING 25 m (s)
x	0,3	0,26	0,15
α	0,2	0,93	0,06
Cv%	0,00	0,03	0,02

It can be seen from the table above the difference between the experimental group and the control group in the 60m speed running test

of 0.3 s, in the 5x10m shuttle test it is 0.26 s, and in the 25 m speed running test it is of 0.15 s.

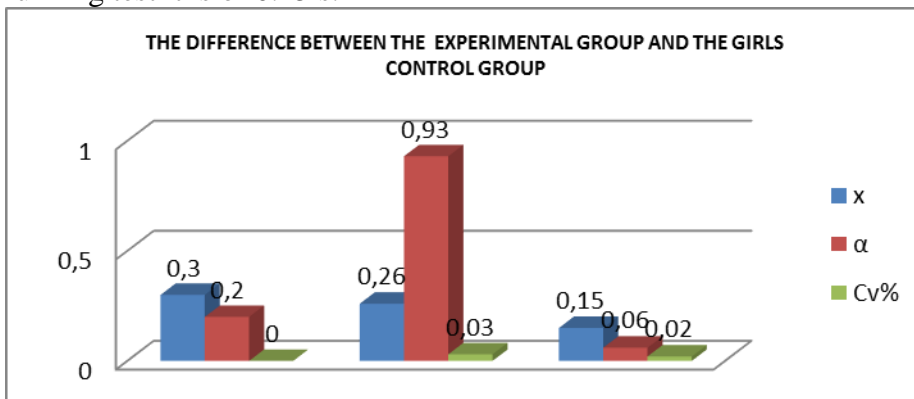


DIAGRAM NO.6

THE EXPERIMENTAL GROUP OF GIRLS - THE DIFFERENCE BETWEEN THE INITIAL AND THE FINAL TEST

Statistical indicators	SPEED RUNNING 60 m (s)	SHUTTLE 5 X 10 m (s)	SPEED RUNNING 25 m (s)
x	0,96	1,12	0,4
α	0,14	0,46	0,8
Cv%	0,00	0,03	0,01

The difference between the initial and the final test in the girls' experimental group, in the 60m running test is 0.96 s, in the 5x10m shuttle test is 1.12 s, in the 25m running test it is 0.4 s.

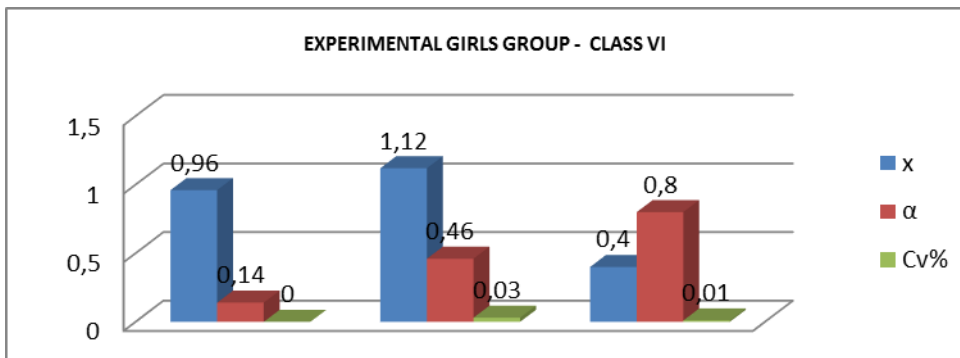


DIAGRAM NO.7

GIRLS CONTROL GROUP - THE DIFFERENCE BETWEEN THE INITIAL AND THE FINAL TEST

Statistical indicators	SPEED RUNNING 60 m (s)	SHUTTLE 5 X 10 m (s)	SPEED RUNNING 25 m (s)
x	0,26	0,26	0,38
α	0,03	0,17	0,05
Cv%	0,01	0,01	0,00

In the girls control group, the difference in the 60m speed test is 0.26 s, the 5x10m shuttle is 0.26 s, and in the 25 m speed test it is 0.38 s.

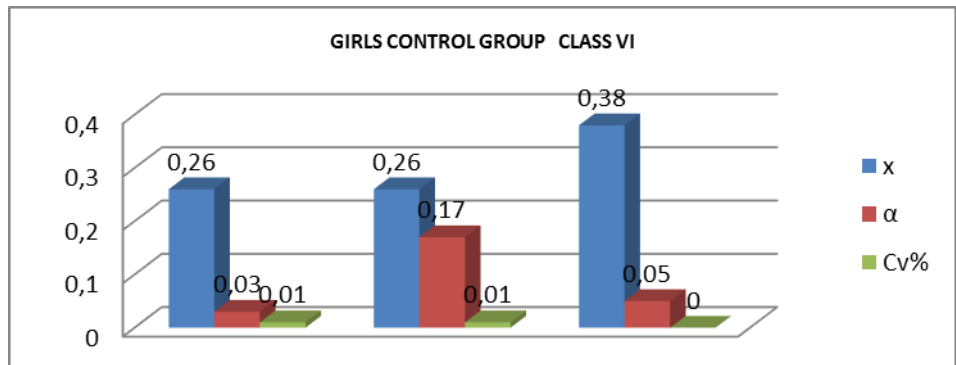


DIAGRAM NO.8

BOYS EXPERIMENTAL GROUP DIFFERENCE BETWEEN INITIAL AND FINAL TESTING

Statistical indicators	SPEED RUNNING 60 m (s)	SHUTTLE 5 X 10 m (s)	SPEED RUNNING 25 m (s)
x	0,85	1	0,30
α	0,09	0,27	0,00
Cv%	0,01	0,01	0,00

A difference of 0.85 s can be observed in the 60m speed test, a 1 s difference can be observed in the 5x10m shuttle test, and a difference of 0.30s can be observed in the 25m speed test.

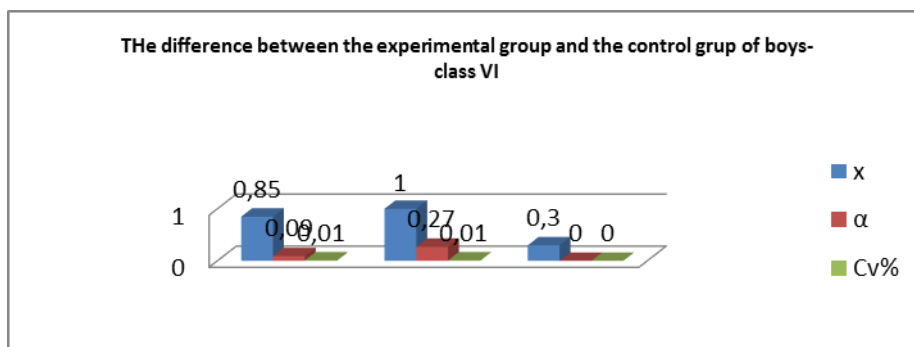


DIAGRAM NO.9

BOYS CONTROL GROUP THE DIFFERENCE BETWEEN INITIAL AND FINAL TESTING

Statistical indicators	SPEED RUNNING 60 m (s)	SHUTTLE 5 X 10 m (s)	SPEED RUNNING 25 m (s)
x	0,26	0,04	0,18
α	0,05	0,06	0,00
Cv%	0,00	0,01	0,00

In the boys control group a difference of 0.26 s can be observed in the 60m speed run, in the 5x10 m shuttle test a difference of 0.04s can be observed, and in the 25m speed test a difference can be observed of 0.18

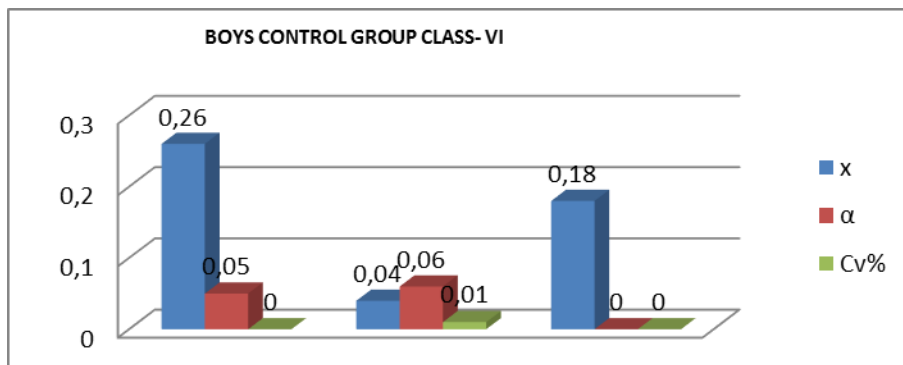
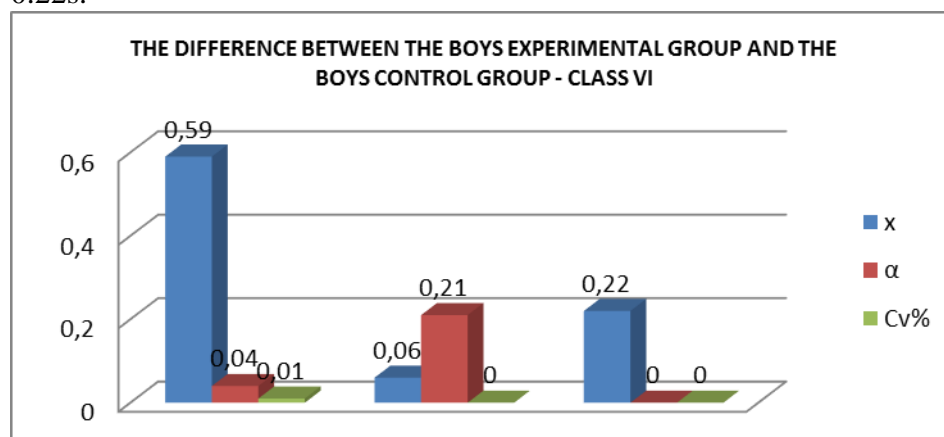


DIAGRAM NO.10

DIFFERENCE BETWEEN THE EXPERIMENT AND THE CONTROL GROUP IN CLASS VI

Statistical indicators	SPEED RUNNING 60 m (s)	SHUTTLE 5 X 10 m (s)	SPEED RUNNING 25 m (s)
x	0,59	0,06	0,22
α	0,04	0,21	0,00
Cv%	0,01	0,00	0,00

The difference in the 60m running test is 0.59 s, in the 5x10m shuttle it is 0.06 s, and in the 25m running test the difference is 0.22s.



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**STUDIUL PRIVIND DEZVOLTAREA APTITUDINII
PSIHOMOTRICE VITEZA PRIN MIJLOACELE
ATLETISMULUI LA NIVELUL CLASELOR DE GIMNAZIU**

¹TĂNASĂ IONUȚ BOGDAN

Școala gimnazială "Alexandru Ioan Cuza" din Fălticeni¹

Cuvinte cheie: aptitudine psihomotrică, elevi, mijloace, atletism, evaluare

Abstract: Fiind profesor de educație fizică și sport, mi-am propus în acest articol urmărirea unor obiective principale, care au condus la alegerea prezentei teme de cercetare. S-a urmărit obținerea unor rezultate superioare la nivelul grupei experiment față de cea de control.

Vârsta subiecților cercetării noastre este cuprinsă între 10 și 12 ani, care impune cu prioritate dezvoltarea aptitudinii psihomotrice viteza, astfel că, perfecționarea percepțiilor specializate, va conduce la priceperea elevilor de a dirija eficient propriile mișcări, în raport cu viteza din ce în ce mai mare. Motivația alegerii acestei teme, o reprezintă dorința de a înțelege și prezenta, într-un mod detaliat, importanța mijloacelor specifice atletismului în dezvoltarea calității motrice viteza și evaluarea acestora la clasele din ciclul gimnazial. Interesul pe care l-am manifestat în direcția cunoașterii aspectelor legate de disciplina atletism în lecția de educație fizică și sport, în special al mijloacelor specifice, m-au determinat să propun cele mai eficiente, noi mijloace în scopul dezvoltării aptitudinii psihomotrice la această categorie de vârstă. Pentru aceasta am încercat să creez un climat afectiv în colectivul școlar și să utilizez anumite tehnici pentru a favoriza manifestarea activă ale elevilor.