## MENTAL ENLIGHTENMENT SCIENTIFIC – METHODOLOGICAL JOURNAL



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### INCREASING THE PHYSICAL FITNESS OF STUDENTS IN HIGH SCHOOLS THROUGH ENGAGEMENT IN ATHLETICS

#### Isroil Ilkhomovich Mirzatillaev

Senior Lecturer

Uzbekistan state physical education and sports university

Chirchik, Uzbekistan

E-mail: mirzatillaev@mail.ru

#### ABOUT ARTICLE

**Key words:** physical edication training, cycles, multi-year training, analysis pedagogical supervision.

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**Abstract:** This article is devoted to improving the effectiveness of training in athletics clubs in schools, which was carried out research work at the training objectives, the mode of application of the loads, anthropometric characteristics and level of physical development in the selection of athletes, dates of training, and organization of the training

load distribution.

#### INTRODUCTION

Athletics is growing rapidly worldwide. Because athletics is related to the constant growth of the level of physical training, thus the range of activities on the field is expanding. This factor, while providing reserves for athletics, also places high demands on the physical fitness of young athletics, which creates a demand for increasing the level of physical fitness of young athletics and improving the quality of their training. Taking this into account, organizing athletics clubs in secondary schools and improving the physical fitness of students participating in them are also urgent issues. The performance of students participating in organized athletics clubs serves as an indicator of their physical fitness. Regular control of the level of physical fitness in athletics should also serve for the high level of physical fitness of students of general education schools, and their physical fitness and physical development are the main factors in this.

A lot of experience has been collected on the study and analysis of the efficiency of movement in the activities of students of general education schools, and it is considered an urgent problem to regulate their training loads, increase their physical fitness, and optimize the means of engaging in athletics training. It is necessary to increase the physical fitness of secondary school students by

including them in athletics clubs, to constantly improve training tools and methods, and there is a need to conduct various experiments on this problem. Proposals and recommendations aimed at constant monitoring of physical fitness of schoolchildren in extracurricular activities and quick elimination of problematic aspects have not been sufficiently developed.

The purpose of the study is to develop proposals and recommendations for the organization of athletics clubs, taking into account the age-related characteristics, to improve the physical fitness of students in general education schools.

#### MATERIALSAND METHODS

Expanding the opportunity to apply special exercises aimed at developing the basic physical qualities of those involved in athletics to training and preparing for competitions;

organization of athletics clubs in secondary schools, taking into account the age of the participants, developing a system for covering them with mass sports and training;

Developing physical qualities by regulating the intensity and volume of physical education tools used in the training of students engaged in athletics, optimizing the series of exercises to increase physical fitness;

Methods used in the research: summarization and analysis of best practice and scientific-methodical data, pedagogical control tests, pedagogical experience and mathematical statistics.

The object of the study: students and the training process of athletics in general education schools.

#### RESULTS AND DISCUSSIONS

The total number of hours in the elementary training groups of the athletics club is 188 hours, 3 times a week for 2 hours and 90 minutes of training. According to the results of the survey conducted in our researched schools, it was found that the model of the organizational and methodological structure of conducting athletics club training in general secondary schools has not been developed, and the teachers do not have enough experience and understanding of conducting training.

### 48-week curriculum of school athletics training

#### SAMPLE CURRICULUM

Table 2

		Years of preparation								
T/p	Preparatory sections	1-year	2-year	3-year	4-year	5-year	6-year	7-year		
1.	General physical fitness		170	162	135	85	60	54		
2.	Special physical fitness	54	48	46	63	80	96	100		
3.	Technical training	16	25	28	30	50	54	58		
4.	Tactical training	4	6	8	12	20	24	28		
5.	Theoretical preparation	10	10	8	8	8	8	8		
6.	Transfer-control tests	12	12	12	12	12	12	12		
7.	Control games	Except for the hour								
8.	Arbitration and guidance practice *	- 4 6 9 10 4				4				

	One week download:	6 hour	6 hour	6 hour	6 hour	6 hour	6 hour	6 hour	
	Total:	288	288	288	288	288	288	288	
11 Medical examination		Except for the hour							
10 Recovery measures		6	9	12	12	12	12	12	
9	Participation in competitions	Public sports events according to the calendar plan							

According to the results of the survey conducted in our researched schools, it was found that the model of the organizational and methodological structure of conducting athletics club training in general secondary schools has not been developed, and the teachers do not have enough experience and understanding of conducting training.

Table 2

The dynamics of changes in the indicators of physical development of subjects of the control and experimental groups during the pedagogical experience

					Control	group					
№	Physical indicators	At the beginning of the study			At the end of the study			Growth			
		$\overline{X}$	σ	V, %	$\overline{X}$	σ	V, %	Абсолют %	Нисбий, %	t	P
1	Body length	139,44	6,85	4,91	143,28	6,74	4,70	3,84	2,75	1,79	>0,05
2	Body weight	33,94	2,24	6,60	35,42	2,24	6,32	1,48	4,36	2,09	<0,05
3	Chest circumference	64,76	3,37	5,20	66,68	3,52	5,28	1,92	2,96	1,76	>0,05
				E	xperimen	tal grou	ıp				
No	Physical indicators	At the beginning of the study			At the end of the study		Growth				
		$\overline{X}$	σ	V, %	$\overline{X}$	σ	V, %	Absolute %	Relative, %	t	P
1	Body length	140,14	8,38	5,98	146,44	7,56	5,16	6,3	4,50	2,50	<0,05
2	Body weight	34,42	2,38	6,91	36,34	2,26	6,22	1,92	5,58	2,62	<0,05
3	Chest circumference	65,36	3,68	5,63	67,79	3,52	5,19	2,43	3,72	2,13	<0,05

The average relative growth in the experimental group is 4.60%; The mean relative increase in the control group was 3.36%

In the experimental group we studied, it was observed that the physical development of the active children improved by 1.2% compared to that of the control group, or 4.6% over the entire study period. This shows that the physical loads given to the participants during the study did not have a negative effect on their body, but on the contrary, the participants of the experimental group had better physical development compared to the children who participated in the control group.

The physical fitness of students was determined based on the state standards for physical education.

We conducted pedagogical tests before the study and at the end of the study. According to it, based on the results of the research, during the last month, we developed a microcycle of training in the autumn season. At the end of the study, we focused on determining the effectiveness of the preparation microcycle. The results of the research are given in the table below.

<sup>\*</sup> School athletics clubs are not held in 1-2 years.

Age groups are taken into account when using athletics exercises in children. Attention is also paid to some unique features. For example: the duration of the lesson is short, small, and the size and intensity of the load is small. As children and adolescents improve the function of movement analyzers, sensitivity to learning movement skills increases. Children at this age have the ability to learn many fine motor skills, and strength and endurance should not be stressed in training. Therefore, it is advisable to start early training with the correct and more rational technique.

Therefore, it is important to teach them different movements. Accumulated knowledge, skills, and competence will help to improve the technique successfully.

Currently, the training of exercises given in athletics clubs of general schools is of great importance in acquiring technical elements. The execution of these technical actions is also related to its rapid execution and mastery. These exercises make high demands on the body of schoolchildren. That is why it is necessary to gradually increase the loads, especially (on the heart, blood-vascular system). Sprinting is a component of most track and field workouts. The elements of running, which are related to games, occupy the main place in the activities conducted with small and middle-aged children.

According to the results of scientific research, children aged 12-13 have the most favorable conditions for increasing the speed of movement and improving the movements of the nervous system. At the same time, fast running exercises help to better master the movements of other types of athletics.

When teaching running technique, it is important to maintain the naturalness and lightness of movements and teach to run on tiptoes. By running short distances and stopping the exercise as soon as excessive strain is felt, a light movement is achieved in running. It is necessary to pay attention to keeping the body in the right position during running. Putting the foot on the ground "quietly" helps to create a light running step. If the legs are not fully straightened, jumping from foot to foot is used, and these exercises are among the main exercises for mastering the running technique. In athletics circles, jumps are performed at different speeds. Jumps are similar to running and should be done with increasing intensity. When teaching children to run fast, it is necessary to gradually increase the speed of running. Speed running is the best exercise. It is important to teach students how to control themselves while running. For this, it is better for the teacher to run together with the children in the first run. In the early stages of training in athletics circles, it is not recommended to run at a very high speed. Students can run as fast as they can for 10-20m or more, depending on how well they have mastered sprinting without straining.

It is necessary to develop endurance, not limited to running faster. To do this, students run parts of the required distance and the entire distance repeatedly and at maximum speed. Once students have mastered the distance running technique, they can be taught to run from a low start. After the signal,

it is necessary to pay attention to clear and fast running from the start. After the students have learned to run correctly from the start and run the distance, it is advisable to introduce them to the finish line, starting with a high speed sprint, and moving from simple to complex in the sequence.

We developed the following exercises for the students of the athletics clubs and used them in the training process, focusing on revealing them by week.

Monday: Training tasks: Exercises with the nature of a game, which includes the qualities of quick strength: Light running 800 m, URM 15 minutes, MYuM 2x20 m, Relay run 4x30/200 m, Game 20 minutes

Wednesday: Cross-country run 2 km, URM sitting on grass 10 minutes Final run 400 m.

Friday: Light running 800 m, URM 15 min, MYuM 2.30 m, running at 60-70% intensity, 20 minutes of play.

We conducted pedagogical tests before the study and at the end of the study. According to it, based on the results of the research, during the last month, we developed a microcycle of training in the autumn season. At the end of the study, we focused on determining the effectiveness of the preparation microcycle. The results of the research are given in the table below.

Table 3

Dynamics of results growth at the end of the study of students of the experimental and control research groups

Tests	60 m	100 m	400 m	1000	Standing jump						
Control Group											
TO	9,5±1,1	15,5±1.4	1:15,0±15,4	3:44,0±31,5	174±16						
ТК	$9,2\pm1,0$	14,9±1.3	1:14,0±12,8	3:43,0±27,9	175,3±14						
Growth	0,3	0,6	1,0	1,0	1,03						
% at the expense of	3,2	3,9	1,3	0,4	0,6						
	Experimental Group										
TO	9,4±1,2	15,3±1,3	1:15,0±15,2	3:43,0±31,2	169±15						
ТК	9,0±0,9	14,6±1,1	1:12,3±11,3	3:41,9±21,4	179±12						
Growth	0,4	0,7	2,7	2,1	10						
% at the expense of	4,3	4,6	3,6	0,9	5,9						

After the study, according to the above indicators, the experimental group improved by  $9.0\pm0.9$  seconds in the 60 m distance, while the control group changed by  $9.2\pm1.0$  seconds, and the experimental group improved by  $14.6\pm1.1$  seconds in the 100 m distance, and for the 400 m distance, the runners of the experimental group improved by  $1:12.3\pm11.3$  seconds, while the athletes of the control group improved by  $1:14.0\pm12.8$  seconds. We can see that the result shown by the experimental group for running 1000 m was improved by  $3:41.9\pm21.4$  seconds and reached  $3:43.0\pm27.9$  seconds.

The standing jump test improved to 179±12 cm in the experimental group, and 175.3±14 cm in the control group.

#### CONCLUSION

Achieving results in athletics clubs of general schools is determined by the comprehensive level of preparation of students. A well-rounded, perfect technical and tactical preparation of a high level of training will have the opportunity to develop special physical qualities necessary for athletics training. In this case, it is necessary to pay attention to maintaining the speed of schoolchildren during the entire training. Special physical qualities are directly related to the improvement of energy exchange processes.

In order to build a solid foundation for the development of the body's functional capabilities, it is important to properly select loads suitable for individual functional capabilities, and to educate physical qualities.

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