



USING SELECTION EXERCISES DIRECTIONS TO INCREASE PHYSICAL PREPAREDNESS OF SCHOOLGIRL IN EXTRA-COURSE CLASSES

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ABSTRACT

This article presents a methodology for using selective exercises to improve the physical fitness of 13-15 year old schoolgirls in extracurricular activities.

Target. To develop recommendations for improving the physical fitness of schoolgirls aged 13-15 through the selective use of developmental and lead-up exercises in extracurricular activities.

Methods. The study used the analysis and synthesis of scientific and methodological literature and scientific articles on the research topic published in the periodical press; questioning; pedagogical testing; pedagogical experiment; methods of mathematical statistics for processing research results.

Results: a set of special exercises was developed for use in extracurricular activities, aimed at eliminating muscle tension, based on the state of physical fitness of schoolgirls.

Conclusions. It was revealed that the effectiveness of physical education classes at school depends on the assessment of the physical condition of schoolchildren, the form of such an assessment is a comprehensive monitoring, which includes the control of physical development and physical fitness, as well as an assessment of physical qualities (speed-strength strength, speed, flexibility, endurance, agility). Monitoring allows to determine the features of changes in the physical development and physical fitness of schoolchildren and, on the basis of this, to develop effective forms, methods and means of physical education.

KEYWORDS



School; Physical Culture; extracurricular activities; special exercises; facilities; methods; physical fitness; physical qualities; experiment; control.

INTRODUCTION

The current state of society in the world, the pace of its development place high demands on the younger generation and its health. Strengthening the health of the younger generation, preparing them for active participation in socio-economic, cultural and political activities as a full-fledged citizen of society is a priority in the policy of the world community. Therefore, the promotion and improvement of physical culture and sports among the population, especially among young people, is of paramount importance in all countries. The value of physical culture in a general education school is to create a foundation for the harmonious physical development of young students, health promotion, and the formation of various motor skills and abilities.

Numerous studies are being conducted in different countries of the world on the organization of extracurricular activities to improve the health and meaningful spending of free time of students, the formation of motor skills and the development of physical qualities of schoolchildren. Modern data indicate a decrease in the motor activity of secondary education students. The main reasons for this situation, according to scientists, are the lack of motivation among schoolchildren for physical education, the insufficient development of methodological approaches to physical education, means and methods of physical training. The upbringing of students that meets modern requirements requires the search for new means and methods of using forms of extracurricular activities in physical culture.

In the Republic of Uzbekistan in recent years, in accordance with modern requirements from the state,

special attention is paid to improving the system of continuous education and training of highly qualified personnel, openness and quality of educational services. Currently, a number of measures are being taken to strengthen the legal framework of the general education system in order to develop it, modernize and update the content of the educational process, and provide targeted support for gifted youth in achieving decent results in international and republican olympiads and competitions.

Literature analysis. The state began to pay more and more attention to the health of the younger generation, and therefore hours for physical culture are provided at all stages of education. The main task of modern education is to increase the level of physical fitness and improve the health of schoolchildren. Physical education at school age is of particular importance in the formation of motor skills and abilities necessary in life, mastering the basics of their practical application in various conditions of motor activity. The organization of physical education of young students, the search for modern means and methods of physical culture and sports training and their introduction into the educational process have been studied by domestic and foreign scientists. However, due to modern conditions, the range of research is expanding and deepening.

The issues of increasing the level of physical development and physical fitness of students of educational institutions were studied by domestic scientists R.S. Salamov, R.D. Khalmukhamedov, T.T. Yunusov, Yu.M. Yunusova, K.M. Makhkamzhanov.

The works of M.S. Akhmatov, Sh.Kh. Khankeldiev, D.D. Safarova, O.V. Goncharova, F.A. Kerimov covered



the theoretical and methodological foundations of health-improving physical culture classes and health-saving technologies.

Foreign scientists, such as M.A. Godik, V.P. Bepalko, B.A. Ashmarin, V.K. Balsevich, L.I. Lubysheva, studied the issues of determining the level of physical fitness of students, increasing their the physical condition of the students.

V.S. Kuznetsov, V.I. Lyakh studied the problem of teaching schoolchildren to movements and increasing motor fitness at physical education lessons in a secondary school.

The organization and conduct of health-improving classes with students of educational institutions, the use of fitness programs, innovative approaches to building the educational process, testing the physical development and physical fitness of students were studied by such specialists and scientists as G.S. Tumanyan, N.A. Bernshtein, L .P.Matveev, Yu.D.Zheleznyak, Zh.K.Kholodov, V.I.Lyakh, Yu.Kuramshin and others.

Despite the fact that the issues of physical education of schoolchildren have been studied by specialists quite widely, however, the theoretical and methodological aspects of the organization of physical education and sports activities of students in their free time in our republic have not been studied enough. Based on the foregoing, it can be concluded that the problem of improving the methodology of physical education of secondary school students by activating their physical activity during extracurricular time is relevant today and requires its resolution.

The concept for the development of physical culture and mass sports in the Republic of Uzbekistan for 2019-2023 states that the main problem and task of modern society is to increase the effectiveness of physical education of young students. At the same time, the

current state of physical education of children and young people in general educational institutions, the level of development of mass sports does not meet the requirements and objectives of society.

The problem of the rational use of the free time of the younger generation has always been relevant for society. At any moment of activity, the process of education takes place, but in order for it to be effective, it must be carried out in free time from study. Based on this, extracurricular activities should be aimed at improving the physical, spiritual, moral, cultural and educational abilities of students. Extracurricular activities are closely related to educational activities and they are built taking into account the personal interests of students and the principle of voluntariness. Thanks to extracurricular activities, it becomes possible to take into account the needs and individual abilities of schoolchildren.

Extracurricular activities should not be considered as additional to the main educational activity. In extracurricular activities, the relationship and sequence of general and additional education should be carried out. Based on the classification of extracurricular activities in a secondary school, they allow you to solve different problems:

1. Creation of conditions for effective involvement in educational activities, which is ensured by performing exercises from basic gymnastics.
2. Increasing efficiency in the course of educational activities and resistance to growing fatigue.
3. Strengthening health, increasing the volume and types of physical activity of students.
4. Attracting a large number of students to physical exercises.



5. Promotion of physical culture and sports, a healthy lifestyle. At the same time, mass sporting events are of decisive importance.

6. Attracting schoolchildren to sports competitive activities. Students who do not participate in sports have a simple experience of participating in sports training and competition.

Conducted after school hours, physical education activities in a comprehensive school fully satisfy the needs of students for motor activity.

It should be remembered that physical exercises outside of school hours cannot replace physical education lessons, they should be considered as additional classes. At the same time, properly and competently organized extracurricular activities complement the positive effect obtained from the lessons and, in general, are an effective means of physical culture.

If the teacher knows the rules for the correct construction of extracurricular activities, such activities become effective and can give high results.

Extracurricular physical education classes are held in their free time in the form of general physical training classes. Educational materials on physical culture are used in the amount of the main content of extracurricular activities conducted with middle school students, they are used to improve the skills and abilities to perform various exercises with simple and complex movements. The main place is occupied by general developmental exercises with and without objects, exercises on a gymnastic bench and wall, exercises with a rope, exercises in balance, rope climbing, jumping, running exercises. Various combinations of floor exercises are chosen, great attention is paid to games.

To attract a large number of schoolchildren to extracurricular physical education classes, it is necessary to use various forms of organizing classes. This should take into account the age, health status and physical fitness of students.

Sections are organized for practical work with students. First of all, a section of general physical training is being created, which works throughout the academic year. As many students as possible should be involved in the general physical training section, including those who are somewhat behind in physical development from their peers. 15-20 schoolchildren are involved in the section. Groups are formed taking into account the age and physical fitness of students. Sectional classes are held once or twice a week in their free time according to the schedule.

In the course of the study, tests were carried out according to the standards of educational material in physical culture, where girls of 13-15 years of age from secondary schools took part. Preliminary results showed that there is practically no difference in speed qualities in the experimental and control groups of girls. In the 60-meter run before the experiment, the following results were revealed: for 13-year-old girls in the experimental group, the average result was 10.80 ± 0.24 s, and in the control group - 10.90 ± 0.19 s; in 14-year-old girls in the experimental group - 10.38 ± 0.19 s, in the control group - 10.42 ± 0.12 s; in 15-year-old schoolgirls in the experimental group - 10.40 ± 0.39 s, in the control group - 10.51 ± 0.20 s. Before the experiment, there was practically no difference between the indicators of the experimental and control groups, which made it possible to continue the experimental work.

In the test "shuttle run 4x10 m" for 13-year-old schoolgirls in the experimental group, the average result was 11.20 ± 0.21 s, and in the control group - 11.35



± 0.29 s; in girls 14 years old in the experimental group, the average result was 10.90 ± 0.21 s, and in the control group - 10.86 ± 0.36 s; in 15-year-old girls of the experimental group - 10.68 ± 0.10 s., in the control group - 10.71 ± 0.28 s.

In standing long jumps, the following results were revealed: in 13-year-old girls in the experimental group, the indicator was 150.50 ± 7.10 cm, and in the control group - 149.50 ± 4.34 cm; girls aged 14 in the experimental group - 157.50 ± 5.49 cm, and in the control group - 157.20 ± 4.65 cm; in 15-year-old girls in the experimental group, the result was 157.30 ± 4.42 cm, and in the control group - 156.90 ± 4.79 cm.

In the practice of physical education of schoolchildren, a variety of means and methods are used that contribute to the improvement of physical qualities. We have developed a program of extracurricular activities to prepare students aged 13-15 years of general education schools to pass control standards based on a set of developmental and lead-up exercises. In this complex, from 3 to 6 developing and leading exercises are selected, aimed at improving the physical qualities of schoolgirls. Then we used in practice a set of special exercises to improve the level of physical fitness of students (Table 1).

Evaluation of the effectiveness of the means and methods used for students using an integrated

approach was carried out as part of a pedagogical experiment over several academic years. In the course of the experiment, a comparative analysis of the dynamics of physical fitness of students in the experimental and control groups was carried out. In the process of conducting the main pedagogical experiment in the experimental group, we used a program for teaching special physical exercises and increasing the density of each lesson. The control group studied according to the program developed for educational institutions, i.e. based on traditional teaching methods. In the process of physical education, the formation of motor skills and abilities with the simultaneous development of physical qualities, the use of means and methods through an integrated approach gave a positive result. Given the above, in the course of the experiment, we conducted classes with students aged 13-15, aimed at developing the physical qualities of schoolgirls. The results obtained after the experiment showed that they had improved motor skills and abilities in mastering the exercises of the program, as well as improved their physical qualities.

After six months of classes, the difference between the results obtained in the girls of the experimental and control groups increased significantly.

Table 1.

**A set of special exercises to improve the physical fitness of schoolgirls aged 13-15
(to develop dexterity)**



Control tests	Content of the exercise	Number of repeats	rest interval	Guidelines
Shuttle run 4x10 m (s)	Developmental exercises			
	1. Running "herringbone".	4-6 times	2-2.5 min.	On half of the volleyball court, at the points where the lines intersect, chips are placed, touch each chip.
	2.O.S. - standing still, jumping with a turn of 90° and 180°.	4-6 times	30 s	To the right and left sides
	3. Running between the racks (balls, flags).	30-60s	30 s	2-3 tries
	4.Jumping over various projectiles and objects with direction changes.	30-60s	30 s	2-3 attempts
	5. Throwing the ball up and catching it with a clap of the palm in turn in front of you and behind you.	6-10 times	30 s	Performing palm claps as much as possible
	Lead up exercises			
	1.O.S - rotation of straight arms: right hand forward, left hand back. Change of hand movements.	6-8 times	20 s	For every hand
	2.O.S. - Hands in front. Performing free movements with one hand, drawing various geometric shapes with the other - a square, a circle, a quadrilateral, etc.	10-12 times	20 s	The same for the other hand
	3. Alternately touching two chips located at a distance of 3 m, moving sideways.	4-6 times	30 s	Hands must touch the chips
	4. Alternately touching two chips located at a distance of 3 meters, moving in a straight line (forward and backward).	4-6 times	30 s	Hands must touch the chips
	5.O.S. - tennis ball in hand. Throwing a ball at a target from a distance of 3-5 meters.	10-12 times	30 s	First right, then left

Let us consider in detail the average values for age groups obtained by comparative analysis of the average value of the results of control tests characterizing the level of physical fitness of girls after the experiment (Table 2).

In 13-year-old girls of the experimental group, the average results in the 60-meter run increased from 10.80 ± 0.24 s to 10.51 ± 0.25 s, the indicators had a

statistically significant difference ($P < 0.05$); in the control group, the result changed from 10.90 ± 0.10 s. up to 10.71 ± 0.22 s ($P < 0.05$). In the 4x10 m shuttle run in the experimental group, the results changed from 11.20 ± 0.21 s. up to 10.80 ± 0.21 s. ($P < 0.05$), and in the control group - from 11.35 ± 0.24 s to 11.10 ± 0.30 s, here the results had no statistical difference ($P > 0.05$). In throwing a tennis ball in the experimental group, the results increased from 18.05 ± 1.93 m to 20.34 ± 2.05 m,



the differences are statistically significant ($P < 0.05$), in the control group, the indicators improved from 18.16 ± 1.76 m to 19.40 ± 1.74 m, but had no statistical differences ($P > 0.05$). In the standing long jump in the experimental group, the results increased from 150.50 ± 7.10 cm to 156.10 ± 6.67 cm ($P < 0.05$), and in the 2000-meter run, the results increased from 60% to 100 %, and in the control group, respectively, from 149.51 ± 4.3 cm to 151.40 ± 4.31 cm ($P > 0.05$) and from 66.6% to 73.34% ($P > 0.05$). In lifting the torso by 90° lying on the back in the experimental group, the result increased from 14.10 ± 1.08 times to 16.30 ± 2.06 times ($P < 0.05$), and in the control group - from 14.25 ± 1.10 times to 15.20 ± 1.01 times, while the indicators are statistically significant ($P < 0.05$). In flexion and extension of the arms in an emphasis lying on a gymnastic bench in the experimental group, the result increased from 4.00 ± 0.85 times to 5.30 ± 0.96 times, and in the control group - from 3.90 ± 0.92 to 4.70 ± 1.03 times, the indicators had a statistically significant difference ($P < 0.05$).

In 14-year-old girls of the experimental group, the average results in the 60-meter run increased from 10.38 ± 0.19 s. to 10.05 ± 0.14 s ($P < 0.05$), in the control group the results changed on average from 10.42 ± 0.12 to 10.31 ± 0.15 s, the indicators had a significant difference ($P < 0.05$). In the 4x10 m shuttle run in the experimental group, the results increased from 10.90 ± 0.21 s to 10.51 ± 0.24 s, and in the control group, respectively, from 10.86 ± 0.36 to 10.72 ± 0.20 s. ($P < 0.05$). In throwing a tennis ball in the experimental group, the results increased from 21.40 ± 2.35 m to 23.95 ± 2.30 m. the results ranged from 21.01 ± 2.44 m to 22.45 ± 2.28 m ($P > 0.05$). In long jumps from a place in the experimental group, the results increased from 157.50 ± 5.49 cm to 162.11 ± 5.1 cm ($P < 0.05$), and in the control group - from 157.20 ± 4 , respectively, 65 cm to 159.70 ± 4.7 cm, changes are not statistically significant ($P > 0.05$). In the 2000m run in the experimental group of girls, the result improved from 66.6% to 100%, and in the control group - from 73.3% to 80%.

Table 2.

Indicators of physical fitness of girls aged 13-15 in the experimental and control groups (before and after the experiment)

No.	Tests	WHO reports	EG indicators (n= 15)		t	R	CG indicators (n= 15)		t	R
			Up to expert $\bar{x} \pm \sigma$	After exp. $\bar{x} \pm \sigma$			Up to expert $\bar{x} \pm \sigma$	After exp. $\bar{x} \pm \sigma$		
1	Running 60 m / s /	13	$10,80 \pm 0.24$	10.51 ± 0.25	2.90	< 0.05	10.90 ± 0.19	10.70 ± 0.22	2.57	< 0.05
		14	$10,38 \pm 0.19$	10.05 ± 0.14	2.87	< 0.05	10.42 ± 0.12	10.31 ± 0.15	2.23	< 0.05



		15	10.4 0 ± 0.39	10.01 ± 0.38	2.9 4	< 0.05	10.5 1 ± 0.2 0	10.4 2 ± 0.21	2.0 5	>0. 05
2	Shuttle 4x10 m /s/	13	11.2 0 ±0.21	10.8 0 ±0.21	2.5 8	< 0.05	11.3 5 ± 0.29	11.1 0 ± 0.3 0	1.4 3	>0. 05
		14	10.9 0 ± 0.21	10.5 1 ± 0.24	2.5 9	< 0.05	10.86 ± 0.36	10.7 2 ± 0.2 0	2.3 6	< 0.0 5
		15	10.68 ± 0.18	10.3 ± 0.23	2.3 1	< 0.05	10 , 7 1 ± 0. 2 8	10.59 ± 0.2	1.8 1	>0. 05
3	Throwing a tennis ball /m/	13	18.05±1.93	20.34±2.0 5	2.9 0	< 0.05	18.16 ± 1.76	19.4 0 ± 1.74	1.9 3	> 0.0 5
		14	21.4 0 ± 2.35	23.95 ± 2.3 0	2.8 8	< 0.05	21.01 ± 2.44	22.45 ± 2.28	1.6 7	> 0.0 5
		15	23.16 ± 1.81	25.09 ± 1.89	2.8 4	< 0.05	23.16 ± 1.81	24.29 ± 1.75	1.7 2	> 0.0 5
4	Standing long jump /cm/	13	150.5 0 ±7.1 0	156.1 0 ±6.6	2.2 2	< 0.05	149.5 ± 4.34	151.4 0 ± 4.3	1.2 2	> 0.0 5
		14	157.5 0 ± 5.49	162.11 ± 5.1	2.3 1	< 0.05	157.2 0 ± 4.65	159.7 0 ± 4.7	1.4 4	>0. 05
		15	157, 30 ± 4.42	163.4 0 ± 5.4	2.9 4	< 0.05	15 6 9 0 ± 4.29	159.9 0 ± 4.3	1.3 1	> 0.0 5
5	Running 2000 m /%/ and min / sec.	13	9/60	15/100			9/66.3	11/73.3		
		14	10/66.6	15/100			11/73.3	12/80		
		15	10/66.6	15/100			11/73.3	13/86.6		
6	Lifting the trunk by 90 ° from a supine position / in tech. 30 s., number of times /	13	14.1 0± 1.68	16.3 0 ± 2.06	2.8 5	< 0.05	14, 25± 1.1 0	15.2 ± 1.01	2.9 3	< 0.0 5
		14	13.20± 2.34	15.90 ± 2.61	2.8 1	< 0.05	13.00 ± 2.2	13.90 ± 2.25	1.5 1	>0. 05
		15	16.50 ± 2.49	19.8 ± 2.81	2.9 0	< 0.05	16.90 ± 3.01	18.30 ± 2.99	1.2 2	>0. 05
7	Flexion and extension of the arms in emphasis lying on the gymnastic bench /number of times/.	13	4.00 ± 0.85	5.3 0± 0.96	2.8 9	< 0.05	3.90 ± 0.92	4.70 ± 1.03	2.4 3	< 0.0 5
		14	4.4 0 ± 0.9 0	5.9 5± 1.39	2.5 8	< 0.05	4.3 0 ± 0.98	5.07 ± 1.1 0	1.9 3	>0. 05
		15	5.4 0± 1.18	7.07 ± 1.53	2.8 9	< 0.05	5.30 ± 0.90	6.35 ± 1.05	2.3 0	< 0.0 5



8	Tilt forward, standing on a gymnastic bench, without bending your knees / cm /	13	4.20±0.55	5.10±0.80	2.8 5	< 0.05	4.11±0.86	4.30±0.90	0.4 1	>0. 05
		14	4.70±1.01	5.40±0.99	1.6 4	>0.0 5	4.81±1.01	5.10±0.69	0.7 4	>0. 05
		15	5.20±0.86	5.90±0.79	2.4 2	< 0.05	5.34±0.80	5.50±0.63	0.8 9	> 0.0 5

In lifting the torso by 90° from the supine position in the experimental group, the results increased from 13.20±2.34 to 15.90±2.61 times; in flexion and extension of the arms in an emphasis lying on a gymnastic bench - from 4.40±0.90 to 5.95±1.39 times, where the results were statistically significant (P <0.05). In the forward bend, standing on the gymnastic bench, in the experimental group the results improved from 4.70±1.01 cm to 5.40±0.99 cm, but they did not have a significant difference (P >0.05). In the control group of girls in the test raising the body by 90° from the supine position, the results increased from 13.00 ± 2.20 to 13.90 ± 2.25 times, in flexion and extension of the arms - from 4.30 ± 0, 98 to 5.07±1.10 times, but the indicators did not have a statistical difference (P >0.05).

In 15-year-old girls of the experimental group in the 60-meter run, the results improved from 10.40±0.39 s to 10.01±0.38 s; in the shuttle run 4x10 m - from 10.68±0.18 s to 10.30±0.23 s, the difference is statistically significant (P <0.05). In the control group in this test, the results improved from 10.51±0.20 s to 10.42±0.21, but did not have a significant difference (P >0.05). In the girls of the experimental group in such tests as throwing a tennis ball, long jump from a place, flexion and extension of arms in an emphasis lying on a gymnastic bench, improvements in results were revealed, which turned out to be statistically significant (P <0.05) . Also in the experimental group of girls, the result in the 2000-meter run improved from 66.6% to 100%.

In the experimental group, significant results were observed in 7 out of 8 tests for all age groups (P <0.05). Only in 14-year-old girls in the forward bend test, standing on a gymnastic bench, the results turned out to be statistically unreliable, despite the improvement in performance (P > 0.05). In the control group of girls, improvements in performance were identified for all tests, and for 4 out of 8, the difference was statistically significant (P <0.05).

CONCLUSION

Based on a comparative analysis of data from literary sources, the results of pedagogical observations, questionnaires, the study of best practices and analysis of the results of a pedagogical experiment, the following conclusions can be drawn:

1. Comparative analysis of the level of physical fitness of girls aged 13-15 years of the experimental group to fulfill the regulatory requirements in the subject "Physical culture" showed that the lowest results before the experiment were among girls 13,14,15 years old in the 60-meter run; for schoolgirls 13.15 years old - in the shuttle run 4x10m; girls 13,14,15 years old - in long jumps from a place, girls 13,14,15 years old - throwing a tennis ball, schoolgirls 13,14,15 years old - in lifting the body by 90 ° from a supine position , for students aged 13 and 15 - leaning forward, standing on a gymnastic bench.

- 2 . In the course of the study, after the experiment, the girls of the experimental group showed improvements



in the following tests: in the 60-meter run, the results of 13-year-old girls were estimated at "5" - 20%, "4" - 60%, "3" - 20%, in girls 14 years old - respectively by "4" - 100%; and for girls 15 years old - respectively by "5" - 20%, "4" - 53.3%, "3" - 26.7%.

3. In the shuttle run 4x10 m, the highest results were found in girls aged 13 and 14: 13 years old 46.6% - "5", 40% - "4", 13.4% - "3"; 14 years old 60% - "5", 40% - "4". In throwing a tennis ball, the best results were found in girls aged 14-15; 14-year-olds have 26.7% - "5", 66.7% - "4", 6.6% - "3"; 15-year-olds - 26.7% - "5", 73.3% - "4". In the standing long jump, girls aged 14 showed high results - 20% - "5", 80% - "4". In the test, raising the body by 90° from the supine position, girls aged 13 and 14 showed high results: 20% - "5", 73.3% - "4" and 6.7% - "3". In flexion and extension of arms in an emphasis lying on a gymnastic bench, the best results were found in girls aged 14-15: 14 years old - 13.3% - "5", 46.6% - "4", 40% - "3", 15 years - 13.3% - "5", 46.6% - "4", 40% - "3".

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