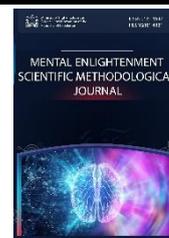




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EFFECTIVENESS OF THE APPLICATION OF METHODS FOR FORMING THE PHYSICAL TRAINING OF STUDENTS AND YOUTH

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ABOUT ARTICLE

Keywords: students, physical fitness level indicators, statistical characteristics, amplitude, complex exercises, tendon reflex.

Kalit so'zlar: talabalar, jismoniy tayyorgarlik darajasi ko'rsatkichlari, statistik tavsiflar, amplituda, mashqlar majmuasi, pay refleksi.

Ключевые слова: студенты, показатели уровня физической подготовленности, статистические характеристики, амплитуда, комплекс упражнений, сухожильный рефлекс.

Abstract. In this article, based on a program aimed at developing the physical fitness of university students using a developed exercise complex, training sessions were organized for the experimental group during the pedagogical experiment. When performing various running movements, it is necessary to develop the ankle reflex to perform the foot-stomping movement closer to the general center of gravity, that is, the hip joint. Therefore, in order to effectively pass short-distance running, long jump and throwing exercises, taking into account the academic tests of students, a set of exercises performed in a large amplitude was developed and used in practice. Based on these results, the effectiveness of the developed complex of exercises and the formation of the level.

Annotatsiya: Ushbu maqolada universitet talabalari jismoniy tayyorgarligini ishlab chiqilgan mashqlar majmuasi yordamida rivojlantirishga qaratilgan dastur asosida pedagogik tajriba davomida tajriba guruhi uchun mashg'ulotlar tashkil etildi. Turli xil yugurish harakatlarini bajarishda oyoq kaftini yerga bosish harakatini umumiy og'irlik markaziga, ya'ni son bo'g'imiga yaqinroq bajarish uchun to'piq refleksini rivojlantirish zarur. Shu sababli, talabalarning o'quv me'yorlarini inobatga olgan holda qisqa masofaga yugurish, uzunlikka sakrash va uloqtirish mashqlarini samarali bajarish uchun katta amplitudada bajariladigan mashqlar majmuasi ishlab chiqildi va amaliyotda qo'llanildi. Olingan natijalarga asoslanib, ishlab chiqilgan mashqlar majmuasining samaradorligi va daraja shakllanishi aniqlandi.

Аннотация: В данной статье на основе программы, направленной на развитие физической подготовленности студентов университета с использованием разработанного комплекса упражнений, в ходе педагогического эксперимента были организованы тренировочные занятия для экспериментальной группы. При выполнении различных беговых движений необходимо развивать голеностопный рефлекс для осуществления движения постановки стопы ближе к общему центру тяжести, то есть к тазобедренному суставу. В связи с этим, с учетом учебных нормативов студентов, для эффективного выполнения упражнений по бегу на короткие дистанции, прыжкам в длину и метанию был разработан и внедрен в практику комплекс упражнений, выполняемых с большой амплитудой. На основе полученных результатов была определена эффективность разработанного комплекса упражнений и уровень сформированности.

INTRODUCTION

Improving the physical fitness of students is, first of all, a process aimed at the comprehensive and special physical development of the athlete. General physical training means the harmonious development of students, that is, strengthening the organs and systems of the body through the development of motor muscles, increasing their functional capabilities, improving their ability to control, increasing their physical qualities, namely strength, speed, endurance, agility and flexibility, and correcting deficiencies in stature and body structure. To achieve this, it is necessary to regularly influence the organs and systems of the athlete's body participating in various motor activities - all parts of the body - using physical means. For this, the use of exercises from the three groups mentioned above, especially exercises aimed at developing general physical fitness, can lead to good results.

Specific physical training should be aimed at developing the physical qualities required by the sport in which the athlete specializes, and at developing all the

functional capabilities of their body, all organs and systems at a high level. For this, of course, general and specific exercises of the chosen sport are used.

Students and young people involved in any physical education and sports will certainly use strength-building exercises in their training. However, the focus should be on developing the muscle groups that are most important for performing the exercises in the chosen sport.

MATERIALS AND METHODS

To improve the ability to demonstrate muscle strength in a selected sport, large and maximum strength methods are used. This is achieved by repeatedly performing specially selected exercises with large and maximum strength (75-100% maximum intensity). Increasing the endurance of students and young people is considered one of the necessary preparatory qualities not only during participation in competitions, but also for performing large training loads. It depends on the level of readiness of the athlete's organs and systems (especially the central nervous system, heart, blood vessels, respiratory systems and muscular apparatus), the level of mastery of sports techniques and the level of economical performance of movements.

Endurance is divided into general and special types. General endurance is an integral part of the overall physical development of any student-athlete, and primarily causes significant positive changes in the central nervous system, cardiovascular, respiratory and other systems.

Depending on the chosen sports, special endurance is formed in students and youth. In annual training sessions with students and youth, general endurance is developed through almost all physical exercises. Of course, special training in some types of athletics also increases general endurance. But the best way to increase general endurance is to use cross-country, swimming and other sports exercises during long, slow runs. There is a difference in the methodology for developing special endurance in students and youth when playing different sports or running at different distances. First of all, changes in various organs, systems and the whole organism of young people involved in sports are determined by the physiological characteristics of the body, which depend on the intensity of running and the duration of the running phase. In this case, it is especially important to take into account the increased need for oxygen and the peculiarities of its consumption. It is known that the working capacity of the body, and especially the nervous tissues of the brain, is related to oxygen consumption.

When the body lacks oxygen, especially during long-term work, the ability to work decreases. Therefore, it also depends on the level of development of the respiratory and cardiovascular systems that supply the body with oxygen. Based on the information received from the experimental group, we have developed a complex of exercises for them to develop the level of physical fitness during the training session. In the content of the training session, it is necessary to develop the reflex of the foot to

perform the movement of the general center of gravity, that is, closer to the hip joint, when performing various running movements. Therefore, taking into account the training session tests of students, a complex of exercises performed in a large amplitude was developed for them in order to ensure the effectiveness of short-distance running, long jump, and throwing exercises.

RESULTS AND DISCUSSION

For endurance-demanding types, a complex of exercises performed at low amplitudes was used. The results obtained are presented in Tables 1-2-3-4.

Table 1. Statistical characteristics of the physical fitness indicators of the experimental group participants at the end of the experiment (n=25)

№	F.I.Sh	100m Run (seconds)	4x10m (shuttle run)	3000m (min.sec)	T,J,U,S (in cm)	Writing with folded hands (times)	Jump rope (1 min.) (times)	Pull-ups on the horizontal bar (times)
1	Abdurasulov Islombek	12,7	8,9	748	245	62	151	14
2	Abdurashidov Elyor	13,3	9,6	752	242	52	107	11
3	Abdullaev Javlonbek	13,9	9,1	766	239	49	124	14
4	Axmedov Ma'ruf	13,2	9,6	683	249	57	148	16
5	Bozorov Sherzod	12,8	9,2	728	229	43	143	13
6	Gadoev Azizjon	12,2	8,9	649	256	62	157	17
7	Jumaev Doniyor	11,9	9,2	652	239	63	159	16
8	Malikov Jaxongir	12,7	9,1	724	251	61	153	15
9	Mardonov Laziz	13,1	9,4	793	231	43	136	12
10	Nazarov Shoxruxjon	13,6	9,8	847	226	59	133	11
11	Nosirov Axrorbek	12,8	8,9	665	243	52	142	13
12	Panjiev Doston	12,6	9,2	683	244	55	154	11
13	Qo'ldoshev Abrorxon	13,8	9,6	728	228	44	148	12
14	Rahmatov Abdulaziz	12,5	8,9	721	246	57	149	14
15	Rixsixo'jaev Ismoilxo'ja	12,3	9,2	797	257	45	141	12
16	Ravshanov Davron	13,4	8,9	743	239	39	136	11
17	Soliev Sardor	11,7	9,1	718	253	51	153	14
18	Tillaboev Abdulaziz	13,6	9,8	892	242	39	109	10
19	Toshpo'latov Muhammadqodir	12,7	8,8	793	251	65	152	13
20	Toshmamatov Sayfiddin	13,3	9,2	838	252	51	145	14
21	Valiev Amrullo	12,2	9,1	769	241	56	136	12
22	Yavkashev Shahzod	13,5	9,6	826	232	45	126	10
23	O'roqov Elnur	13,3	9,8	822	244	49	145	11
24	Abdumanapov Boxodir	12,9	8,9	793	241	56	133	13
25	Yuldashev Muslim	13,8	9,2	784	228	47	114	9
	\bar{X}	12,95	9,24	756,56	241,92	52,08	139,76	12,72
	σ	1,31	0,84	84,34	29,34	6,83	15,56	1,54
	V, %	10,12	9,13	11,15	12,13	13,11	11,13	12,12

Table 2

Dynamics of changes in the statistical characteristics of physical fitness indicators of the experimental group during the pedagogical experiment.

	At the beginning of the experiment			At the end of the experiment			Abs	nis, %	T	R
	\bar{X}	σ	V, %	\bar{X}	σ	V, %				
1	13,88	1,53	10,98	12,95	1,31	10,12	0,93	6,71	2,32	<0,05
2	10,29	1,03	9,98	9,24	0,84	9,13	1,05	10,19	3,94	<0,001
3	847,36	101,53	11,98	756,56	84,34	11,15	90,80	10,72	3,44	<0,01
4	216,28	28,09	12,99	241,92	29,34	12,13	25,64	11,86	3,16	<0,01
5	45,16	6,31	13,97	52,08	6,83	13,11	6,92	15,32	3,72	<0,001
6	121,28	14,54	11,99	139,76	15,56	11,13	18,48	15,24	4,34	<0,001
7	10,88	1,41	12,98	12,72	1,54	12,12	1,84	16,91	4,40	<0,001
								12,42	%	

Table 3.

Physical fitness level of the control group participants at the end of the experiment

(n=25)								
№		100m	4x10m	3000m	T,J,U, S	Writing with folded hands	Jump rope (1 min.)	Pull- ups on the horizon tal bar
№		Run(seco nds)	(shuttle run)	(min.sec)	(in cm)	(times)	(times)	(times)
	F.I.Sh							
1	Abduvoxidov Behzod	11,9	9,4	732	240	54	146	11
2	Asatullaev Aziz	12,6	10,2	746	245	63	157	16
3	Eliboev Elbek	13,9	10,4	891	230	52	114	12
4	Eshmatov Maxmud	13,1	10,3	865	233	49	133	10
5	Eshmanov Samandar	13,3	10,6	847	241	61	145	13
6	Fayziev Sherbek	13	9,7	852	237	46	134	12
7	Ibroximov Akbarshox	12,8	10,1	784	226	53	153	11
8	Ismoilov Mirzabotir	14,1	9,8	883	219	56	136	10
9	Juraqulov Azamat	13,9	10,4	856	238	44	109	11
10	Kenjaev Allayor	12,4	9,4	782	251	39	161	13
11	Komiljonov Ollayor	13,4	9,8	774	228	37	98	9
12	Mamadiyorov Asqar	12,9	9,5	817	249	42	154	12

13	Mamayusupov Xumoyun	13,6	9,7	782	216	52	143	11
14	Mamidov Farrux	14,3	10,4	844	223	39	97	12
15	Narzullaev Nazarbek	13,2	9,3	807	239	43	153	13
16	Nuraliev Behruz	12,9	10,8	774	204	37	136	11
17	Obidov Ravshan	13,9	9,6	882	200	48	124	9
18	Otamurodov Samandar	12,8	10,1	851	231	52	143	12
19	Rahmatov Komiljon	13,1	10,5	881	222	36	97	10
20	Temirov Elbek	13,6	9,8	751	226	43	104	11
21	Tulaev Safarbek	14,2	10,5	892	203	56	118	14
22	Halilov Jumabek	13,1	9,8	822	217	49	143	12
23	Xolbuvaev Farxod	13,9	10,1	736	226	43	152	14
24	Zokirov Qamariddin	13,6	10,4	842	239	39	106	9
25	Abduhakimov Salohiddin	12,7	9,6	763	250	61	147	10
	\bar{X}	13,29	10,01	818,24	229,32	47,76	132,12	11,52
	σ	1,35	0,91	91,14	27,78	5,41	14,68	1,40
	V, %	10,16	9,13	11,14	12,11	11,33	11,11	12,12

Table 4

Dynamics of changes in the statistical characteristics of physical fitness indicators of the control group participants during the pedagogical experiment.

№	At the beginning of the experiment			At the end of the experiment			Abs	nis, %	T	R
	\bar{X}	σ	V, %	\bar{X}	σ	V, %				
	13,98	1,48	0,57	13,29	1,35	10,16	0,69	4,92	1,72	>0,05
	210,48	1,00	9,58	10,01	0,91	9,13	0,48	4,54	1,75	>0,05
	364,60	9,96	1,56	18,24	91,14	11,14	46,36	5,36	1,71	>0,05
	409,60	6,35	2,57	29,32	27,78	12,11	19,72	9,41	2,58	<0,05
	544,08	5,98	3,57	47,76	5,41	11,33	3,68	8,35	2,28	<0,05
	618,48	3,72	1,58	32,12	14,68	11,11	13,64	11,51	3,39	<0,01
	710,64	1,34	2,59	11,52	1,40	12,12	0,88	8,27	2,27	<0,05

In order to determine the effectiveness of the training complex used at the end of the pedagogical experiment, the final test experiments were conducted. According to them, at the end of the experiment, the average result of the experimental group in

running 100 m, which represents the speed-strength quality, improved by 12.95 ± 0.00 seconds. This indicator can be expressed as 13.29 ± 0.00 seconds in the control group. In the next 4×10 shuttle run, which represents the speed-strength endurance, the experimental group recorded 9.24 ± 0.84 seconds. In the control group, it was observed that the result of this indicator was equal to 10.01 ± 0.91 seconds. In the 3000m endurance test, the experimental group showed a time of 756.56 ± 84.33 minutes and 2 seconds, while the control group showed a time of 818.24 ± 91.14 minutes and 2 seconds.

The final result of the standing long jump test, which determines the quality of leg speed, was 241.92 ± 29.34 cm in the experimental group. In the control group, this indicator was 229.32 ± 27.78 cm. In the hand-wringing test, which determines the strength of the hands, the experimental group improved its results by 52.08 ± 6.83 times, while in the control group this indicator was 47.76 ± 5.41 . In the study on jumping rope in 1 minute, the experimental group achieved 139.76 ± 15.56 jumps. In the control group, this indicator was 132.12 ± 14.68 times. In our last test, the result of pulling up on the horizontal bar in the experimental group was 12.72 ± 1.54 times. In the control group, this indicator showed an improvement of 11.52 ± 1.40 times.

A comparative analysis of the results shows that the complex of exercises developed for the experimental group of subjects allowed the students to develop their physical fitness and improve their daily lifestyle. Thus, the results of this study indicate that the development of the tendon reflex for the experimental group when running at different distances or performing movements creates a basis for their effective performance of various movements in their daily lives.

CONCLUSION

The results of the pedagogical experiment made it possible to draw the following conclusions:

-The analysis of the literature on the development of physical fitness of students and youth shows that insufficient scientific research has been conducted to increase the level of development of physical fitness of students and youth.

-It is necessary to involve students and youth in physical education and sports in their free time effectively. Because physical education and sports play a significant role in the formation of their daily lifestyle, allowing them to develop harmoniously, increase their health, and especially improve their daily lifestyle.

-Using a complex of exercises that develop tendon reflexes in training sessions with young students will help increase their physical fitness and improve their functional status.

At the end of the pedagogical experiment, the average relative increase in the arithmetic mean values of the 7 physical fitness indicators recorded by the test subjects of the experimental and control groups was 7.48% in the control group, while this

indicator in the experimental group was 12.77% (5.29% more positive than the control group). Of the statistical reliability of the absolute differences in the results for these indicators, one was reliable at a good level of significance ($t=3.39$ and $R<0.01$), three were reliable at a satisfactory level of significance ($t=2.27$ to $t=2.58$ and $R<0.05$), and the remaining three ($t=1.71$ to $t=1.75$) were statistically unreliable at significance levels. In the experimental group, four of the changes in the results of these 7 tests were high ($t=3.94$ and The fact that the remaining three are statistically significant at a good level of significance (between $t=3.16$ and $t=3.44$ and $R < 0.01$) is a confirmation of the effectiveness of the tools and methods used in the experimental group compared to the tools and methods used in the control group during the pedagogical experiment.

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