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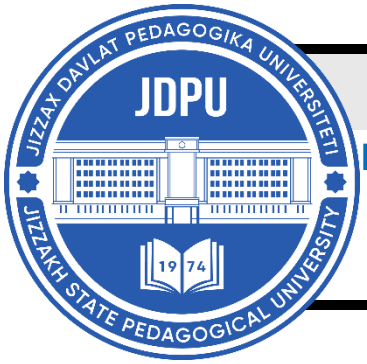

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THE SIGNIFICANCE OF METHODS DETERMINING THE DEVELOPMENT OF LEADING PHYSICAL QUALITIES IN ROADCASTS

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ABOUT ARTICLE

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Abstract: The article uses special methods to improve the physical fitness of throwing athletes. Methods of organizing the training process of throwers, working with athletes during practical training and organizing their activities are covered in detail. At the same time, the research and the obtained results are widely covered with explanatory frameworks.

INTRODUCTION

Relevance of the topic. In the current stage of development of athletics in the world, throwers need to research the fundamental issues of training theory and methodology. In many countries, large-scale scientific research is being carried out in order to adapt the training system of athletics athletes to modern requirements. Negative trends are introduced in the implementation of technical skills in sports at major international competitions. Today in the international sports arenas, in order to achieve high sports results in the shot put, during training and competitions, almost the capabilities of the athlete's body are limited. This requires the use of new creative training tools in the development of mechanisms for improving the technique of assault throwers, while ensuring the implementation of the action potential at a high level. In our republic, consistent measures are being taken to develop physical education and sports, to ensure the proper participation of our country's athletes in international sports arenas. The task of "improving the methodology of training athletes, taking into account advanced international experience, forming a sports reserve to fill the composition of national teams in various sports, and introducing innovative projects into the process of training highly qualified athletes" is set. The actual strength training methodology of the throwers, the majority of the training time in it is related to the implementation of strength work, the general volume of work with the main barbell, and it requires

the modernization of the training to a significant extent, and the search for and development of highly effective tools and methods. the introduction of innovative complex-targeted tools in the special strength and rapid-strength direction to the performance and sports training of throwers determines the relevance of this research.

Decree of the President of the Republic of Uzbekistan dated April 6, 2021 No. PF-6199 "Turizm, sport va madaniy meros sohalarida davlat boshqaruvi tizimini yanada takomillashtirish chora-tadbirlari to‘g‘risida", dated October 30, 2020 No. PF-6099 "Sog‘lom turmush tarzini keng tatbiq etish va ommaviy sportni yanada rivojlantirish chora-tadbirlari to‘g‘risida" and PQ-114 dated April 7, 2023 "Ma’muriy islohotlar doirasida yoshlar siyosati va sport sohasida davlat boshqaruvini samarali tashkil qilish chora-tadbirlari to‘g’risida" dated November 3, 2022 No. PQ-414 "Jismoniy tarbiya va sport sohasida kadrlarni tayyorlash hamda ilmiy tadqiqotlar tizimini yanada takomillashtirish chora-tadbirlari to‘g‘risida", No. PQ-269 dated June 6, 2022 No. "Oliy sport mahorati instituti faoliyatini tashkil qilish chora-tadbirlari to‘g‘risida", the President of the Republic of Uzbekistan dated January 24, 2020 "O‘zbekiston Respublikasida jismoniy tarbiya va sportni yanada takomillashtirish va ommaliashtirish chora-tadbirlari to‘g‘risida" This dissertation is for the implementation of the tasks specified in the "Concept for the development of physical education and sports in the Republic of Uzbekistan until 2025" and other regulatory and legal documents on physical education and sports, approved by Annex 1 of Decree No. PF-5924 studies serve to a certain extent.

The purpose of the research is to develop special physical fitness during the training processes of throwers.

Tasks of the research:

by developing the physical qualities of shot put athletes in the stage of sports improvement, improving the technique of shot put athletes.

the use of restorative exercises, taking into account the state of fatigue that occurs in the body during the performance of training loads of throwing athletes in the stage of sports improvement.

Research methods. pedagogical observation, pedagogical testing, conversation, pedagogical experience, mathematical-statistical method.

Discussion of research results. The scientific significance of the results of the research is that the main cases and results of the research expand the methodology of the special force training of the attack throwers through new scientific data and practical recommendations, the selection of collectively selected exercises and technological methods, and the implementation of a logical scheme of the projects of classification of application and enriches.

Results in sports depend on many independent and interrelated factors (pedagogical, biological, social).

According to N.G. Ozolin, the following should be included among the main factors:

a) the level of material well-being of the attackers;

b) effectiveness of training process organization;

c) related to the availability of sports bases.

Throwing is a system of actions performed simultaneously and sequentially, which are aimed at their rational movement in order to use external and internal forces more fully and effectively to achieve high sports results.

Throwing is based on circular - continuous movements. This sport requires maximum muscle tension in a short period of time. The modern requirements for the organization of the educational and training process in jumping are based on the clear characteristics of the flexible restructuring of the main movement and functional systems.

The athlete's physical fitness is subordinated to technical training. There is a close connection between training on the one hand and development of physical qualities on the other. Over the years, throwing techniques have been improved based on the great experience of trainers and athletes. Especially when there is a big increase in sports results, the need for scientific research has increased. The reserve for increasing the throwing distance consists in the more efficient use of the athlete's power. This is achieved in the following cases:

- first of all, in the rational functioning of the muscles;

- secondly, in the movement of movements along the optimal trajectory, when the impact on the projectile occurs with great force;

- thirdly, when shooting the projectile at a right angle.

The ideal posture and work of the final push-up requires a flat body position with static tension and highly active leg work while the hips are in motion. The state of training combined with general physical fitness determines the level of effectiveness of this technique. The lack of general and special strength leads to errors in technique. As a result of the research conducted by N.A. Dyachenko, a method of developing physical qualities and technical skills together was developed and justified. The whole carrying concept can be used in the training of athletes with different sports skills. Here, the improvement of technical skills should be carried out in parallel with the necessary special speed. Artificially separating them does not help the growth of sports results. There is a certain correlation between the training tools used. It can have a positive or negative effect on the growth of sports results. Solving the problem of optimal combination of the used tools is a great reserve in the work of further improving the sports skills of strong throwers. An explosive quality in a power throw is the ability to develop power in a short amount of time. It

consists of specific elements of coordination of movements in throwing. Therefore, purposeful development of explosive power in throwing includes, first of all, improvement of power skills and the ability to use them in competitive training.

So the main movement qualities of the thrower are strength and speed. Strength abilities are a type of human physical abilities that determine the ability to perform a high level of resistance to resistance through muscle tension. Different components of strength abilities are associated with different properties of the nervous system.

For this purpose, we selected a special test to determine the physical fitness of shot putters and conducted a preliminary research on athletes.

Table 1

Pre-research indicators of physical training of hurdle throwers

	Sportsmen's F.N	30 m run result (sec)	Standing long jump (metr)	Triple jump (m.)	Throwing a ball forward with both hands (5 kg), (m.)	Throwing a ball behind the head with both hands (5 kg), (m)	When lifting a barbell (kg)
		TB	TB	TB	TB	TB	TB
1	S-ov O	4,1	180	11,35	11,14	9,15	55
2	A-ov A	4,2	185	11,25	11,09	8,25	53
3	X-ov U	4,5	184	11,15	10,97	7,38	56
4	F-ov D	4,2	182	11,65	10,71	7,42	56
5	H-ov O	4,4	187	12,01	10,76	7,31	54
6	B-ov A	4,7	192	11,91	10,54	7,28	54
7	R-ov A	4,6	250	11,85	10,34	6,41	44
8	B-ov N	5,8	248	9,97	8,96	6,28	43
9	I-ov I	5,7	245	9,54	8,76	6,11	48
10	T-ov-X	5,6	217	9,65	8,92	6,11	45
11	Y-ov T	5,7	213	9,73	8,95	6,04	44
12	X-ov Z	5,9	211	9,12	8,68	6,07	44
ẋ average		4,95	207,83	10,72	9,99	6,98	49,67
standard deviation		0,72	27,15	1,12	1,02	1,00	5,42
V, %		14,56	13,06	10,41	10,26	14,26	10,90

The following results were returned before the research of the throwing athletes in the experimental group on the level of physical fitness.

30 m to determine physical fitness in terms of speed quality. at the beginning of the research, he recorded an average result of 4.95±0.72 seconds for the distance, and 207.83±27.15 cm for the long jump from a standing position. recorded the result. 10.72±1.12 cm at the beginning of the standing triple jump research. returned the result. The average of 9.99 ± 1.02 cm at the beginning of the research in the determination of the physical quality of specific strength in throwing the nucleus forward with both hands (5 kg). returned the result, the quality of the special strength of

throwing the nucleus behind the head with both hands at the beginning of the research (5 kg) was on average 6.98±1.00 cm. recorded the distance. In order to determine the physical quality of explosive power, the average of 49.67±5.42 kg at the beginning of the research when lifting a barbell. we can see from the results of the beginning of the research that the result was recorded. In order to further develop the results obtained at the beginning of the research, exercises were used to develop strength, flexibility, and explosive power.

Movement skills should be developed in accordance with the morphofunctional characteristics of athletes. When the results of the SM championship competitions in throwing were held, a complex of exercises was created for the development of strength.

These are:

1. Hold the barbell with both hands, right leg in front. Taking a step forward with the left leg, the barbell is quickly raised up and back. It is necessary to monitor the forward movement of the head and the backward bending of the spine in the chest. Lower the barbell to the chest and step back with the left foot.

2. Sitting with the barbell on the shoulders.

3. Lifting the barbell. Legs are shoulder-width apart, hands on the bar are lowered. The barbell is lifted over the head with the movements of the legs, body and straightened arms.

4. Lifting the barbell to the chest without squatting.

5. Lifting the barbell from the left leg forward position. The middle of the barbell standing on the plank is held with hands spread shoulder width apart, the left leg is placed next to the barbell in a straightened position, and the right leg is bent at a distance of half a meter behind. While straightening the right leg, the pelvis is moved forward, the barbell rises along the left leg to the level of the abdomen.

6. Step forward with the left foot and take the barbell back.

D.H. - the barbell is lifted over the head with straightened hands.

7. Straighten the arms raised to the bar up and forward. D.H. - barbell behind the head, arms bent, elbows shoulder width apart. When performing the exercise, the elbows are not pulled out to the side.

8. Standing up quickly while half crouching. Barbell on shoulders. He gradually sits in a semi-squat and at a certain moment overcomes the resistance of the weight of the barbell, quickly stands up and rises to the tip of the leg.

9. Standing with a barbell on the shoulders is performed from a semi-squat position with the legs wide apart. While standing quickly, the thigh of the supporting leg is turned inward, the pelvis is moved forward.

10. With straightened hands, move the barbell back from the front grip position and return to the initial position. The grip is held with the grip wider than shoulder width apart.

11. Take the barbell to the shoulder and "kick" with the thigh of the right leg. D.H. - the legs are wider than the width of the shoulders, the hands are on the barbell disc. He sits on the half-bent right leg, in which he turns slightly to the right. Then the hip is turned inward, and the leg is quickly straightened; the pelvis is moved forward.

12. Holding the bar in the "drawn bow" position. The barbell is raised above the head. It is caught from below with the right hand.

A set of useful exercises was used during the training.

After that, they were re-examined.

Boskan returned the following results at the end of the research of test athletes in the experimental group on the level of physical fitness of throwing athletes.

Table 2

Indicators of physical fitness of the throwers at the beginning and end of the research

	Sportsmen's F.N	30 m run result (sec)		Standing long jump (metr)		Triple jump (m.)		Throwing a ball forward with both hands (5 kg), (m.)		Throwing a ball behind the head with both hands (5 kg), (m)		When lifting a barbell (kg)	
		TB	**TO**	**TB**	**TO**	**TB**	**TO**	**TB**	**TO**	**TB**	**TO**	**TB**	**TO**
1	S-ov O	4,1	3,7	180	214	11,35	13,11	11,14	12,51	9,15	10,45	55	64
2	A-ov A	4,2	3,8	185	211	11,25	13,07	11,09	12,91	8,25	10,12	53	62
3	X-ov U	4,5	3,7	184	217	11,15	12,32	10,97	11,32	7,38	9,32	56	65
4	F-ov D	4,2	3,9	182	225	11,65	12,93	10,71	12,02	7,42	9,38	56	64
5	H-ov O	4,4	4	187	249	12,01	13,11	10,76	12,57	7,31	8,83	54	62
6	B-ov A	4,7	4,1	192	252	11,91	12,88	10,54	11,48	7,28	9,15	54	63
7	R-ov A	4,6	4,1	250	261	11,85	13,22	10,34	11,5	6,41	8,11	44	53
8	B-ov N	5,8	5	248	255	9,97	10,45	8,96	10,11	6,28	8,07	43	51
9	I-ov I	5,7	5,1	245	248	9,54	10,32	8,76	10,12	6,11	7,57	48	56
10	T-ov-X	5,6	5	217	225	9,65	11,05	8,92	10,13	6,11	7,53	45	54
11	Y-ov T	5,7	5,1	213	235	9,73	11,12	8,95	10,31	6,04	7,38	44	52
12	X-ov Z	5,9	5	211	231	9,12	10,93	8,68	10,12	6,07	7,41	44	53
$\overline{X}$		4,95	4,38	207,83	235,25	10,72	12,04	9,99	11,26	6,98	8,61	49,67	58,25
σ		0,72	0,60	27,15	17,28	1,12	1,16	1,02	1,08	1,00	1,08	5,42	5,50
V, %		14,56	13,75	13,06	7,35	10,41	9,65	10,26	9,58	14,26	12,55	10,90	9,43
absolute difference		0,57		27,42		1,32		1,27		1,63		8,58	
relative difference, %		11,62		13,19		12,33		12,75		23,28		17,28	
t		2,12		2,95		2,84		2,97		3,83		3,85	
P		P< 0,05		P<0,01		P<0,01		P<0,01		P<0,001		P<0,001	

30 m to determine the speed physical fitness of the observed athletes in the experimental group. the average distance was 4.95±0.72 seconds at the beginning of the study, and 4.38±0.60 seconds at the end of the study. At the beginning of the study, the average result of standing long jump was 207.83±27.15 cm, and at the end of the study it was 235.25±17.28 cm. recorded the result. To determine the quality of quick strength, the triple jump test at the beginning of the study was 10.72±1.12 cm. recorded the result, at the end of the study, the triple long jump test was 12.04±1.16 cm on average. recorded the result. The average of 9.99±1.02 cm at the beginning of the study in throwing a ball forward with both hands (5 kg.) for the purpose of determining the physical quality of special strength. recorded the result, at the end of the study the average was 11.26±1.08 cm. we can see that it recorded the result. To check the development of the quality of strength, the average of 6.98±1.00 cm at the beginning of the study in throwing the core behind the head with both hands (5 kg.). recorded the result. 8.61±1.08 cm at the end of the study. recorded the result. In order to determine the physical quality of quick-strength, the average of 49.67±5.42 kg at the beginning of the study when lifting a barbell. recorded the result, at the end of the study this indicator was on average 58.25±5.50 kg. we can see the results recorded after the study.

Based on the pedagogical experience, the following conclusion can be reached. First of all, the purposeful application of complex selected tools, developed during our research to develop special strength training in the training of throwers, leads to a high increase in the target strength indicators of the flexor and extensor muscles at the level of the biodynamic joints of the hip and calf and their reasonable palm. provides ratios. The total and partial indicators of general and special physical fitness of the throwers at the stage of sports improvement, depending on their anthropometric indicators and technical indicators, were obtained before the research. Emphasis was placed on anthropometric indicators using the developed program and structured set of exercises. The length of the experimental group is 181.92±3.23, body weight is 79.83±9.15 cm. In the control group, it was noted that the body weight was 180.25 ± 74.83, and the body weight was 77.83 ± 4.80.

According to the results of the test conducted in the experimental and control groups on the level of physical fitness, the increase in strength qualities in the experimental and control groups was determined as follows. The results of the tests show that the results of standing jumps of the athletes of the experimental and control groups were 235.25±17.28 results in the experimental group and 212.08±18.87 results in the control group. It was found that in the experimental group of two-handed forward core pushing, the result was 11.26±1.08, while in the control group, the result was 10.47±0.89.

It can be analyzed from the dynamics of the obtained results that the methodological recommendations developed by us were found to be effective.

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