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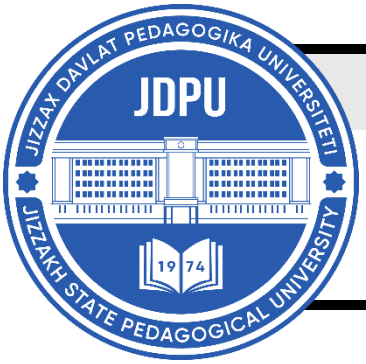

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OPTIMIZATION OF THE PROCESS OF SPECIAL TRAINING OF HIGHLY QUALIFIED BIATHLETES TAKING INTO ACCOUNT THE SPECIFICS OF THEIR COMPETITIVE ACTIVITIES

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ABOUT ARTICLE

Key words: Biathlon, technical training, tactical training, training methodology, shooting accuracy, physical preparation, pedagogical experiment, competitive activity, combination actions, comprehensive training.

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Abstract: This study proposed and experimentally tested a methodology for improving the special training of biathletes, taking into account the peculiarities of competitive activity. The results of a pedagogical experiment conducted as part of the work are also presented. The main focus was on the development of combined training actions aimed at improving shooting accuracy and enhancing athletes' physical conditioning. The results of the experiment showed a significant improvement in the level of technical and tactical preparedness in the experimental group, which confirms the effectiveness of the proposed methodology.

INTRODUCTION

In connection with the above, a necessary step in improving the training of biathletes is the development of comprehensive training programs, including both physical activity and special shooting classes. It is important to take into account the individual characteristics of athletes, their level of training and ways of motivation in training. Studies show that regular and high-intensity training, combining various elements of biathlon, can significantly increase the level of training of athletes.

In addition, attention should be focused on the psychological training of athletes. The ability to maintain concentration and emotional balance in competition conditions directly

affects the results. In this context, it is useful to introduce special training aimed at developing resilience to stressful situations and increasing self-confidence.

As part of improving the quality of training, it is necessary to conduct regular seminars and master classes with the participation of experienced coaches and specialists in the field of biathlon. This will allow not only to exchange experience, but also to develop new training methods, securing the scientific basis for them.

Only an integrated approach to the training of athletes will be able to reach a new level and ensure the successful development of biathlon in Uzbekistan, which in the future will make it possible to achieve high results in the international arena.

The purpose of the study: to improve the training of biathletes, taking into account the peculiarities of their competitive activities.

Object of research. The training process of preparing to improve the special training of biathletes.

Research subject. Improving the special preparedness of biathletes, taking into account the specifics of competitive activity.

Novelty of work. A system has been created to improve the special training of biathletes, which guarantees successful and stable achievements in competitions.

Research objectives:

1. Identify changes in the development of special training for biathletes, taking into account the peculiarities of their competitive activities.

2. Create a methodology to improve the special training of biathletes, taking into account the unique aspects of their competitions.

3. Conduct an experimental justification of the methodology aimed at improving the special training of biathletes, taking into account the characteristics of their competitive practice.

MATERIALS AND METHODS

Organization of the study. The research took place at the sports base of biathlon UzGosUFKiS. As part of the main pedagogical experiment, all participants were divided into two groups: control and experimental. Each group consisted of 12 qualified biathletes. Athletes of the experimental group were engaged in a specially developed program, which took into account the positive aspects of programming and organization of the training process. While athletes of the control group trained according to standard methods.

During the experiment, the dynamics of improving shooting and comprehensive training was evaluated, taking into account the peculiarities of competitive activity. At the beginning of

the experiment, no significant differences were observed between the participants in both groups in terms of technical and tactical training and sports results.

During the experiment, the dynamics of improving shooting and comprehensive training was evaluated, taking into account the peculiarities of competitive activity. At the beginning of the experiment, no significant differences were observed between the participants in both groups in terms of technical and tactical training and sports results.

However, by the end of the experiment, the indicators of the experimental group showed significant superiority, which confirmed the effectiveness of the proposed methods for improving the special training of biathletes, taking into account the specifics of competitive activity. Based on the data obtained, the correctness of the hypothesis was confirmed, and an effective methodology was proposed to improve the special training of biathletes.

Training program to improve the special training of biathletes.

When creating curricula, it should be borne in mind that modern biathlon, due to the increased training and competitive loads, requires a high level of technical training from athletes. Research of specialized literature, analysis of the experience of leading professionals, assessment of the level of technical and tactical readiness and the study of competitive practice served as the basis for the formation of the training program. In the educational process, complex running exercises and specialized shooting were used, and significant attention was paid to strengthening the muscles of the legs at the end of classes. Training is aimed at developing coordination skills and improving respiratory functions, which contributes to the preparation for competitions.

Analysis of specialized scientific literature, study of best practical experience of leading specialists, assessment of the level of technical and tactical preparedness, analysis of competitive activities, as well as the results of studying the relationship between the level of technical and physical fitness became the basis for the development of a training program. As part of improving the special training of biathletes, comprehensive running and specialized shooting training was used, with an emphasis on strengthening the muscles of the legs at the end of classes. Training of the special preparedness of biathletes is focused on the development of coordination abilities and functional indicators of the respiratory system of athletes, which contributes to their preparation for competitions.

The program lasted two months and was divided into two stages of 30 days each. Classes were held from February to March 2023. The practical significance of this study lies in the development of a methodology that can be used in the training process to increase the special shooting training of biathletes at different stages of training. The technique is aimed at creating

a basic motor potential that allows you to adapt the main parameters of the shooting technique depending on the conditions of the competition, as well as to improve sports results. It includes the development of fast aiming skills, due to the operational transition from a lying to standing posture, concentration on aiming devices, regardless of external and internal factors, as well as on the interaction of the shooter and weapons. In addition, it is planned to form the skills of a special breathing mode during shooting, restoring breathing before the firing line and shooting with a breath hold after physical exertion. It was found that the results of the experimental group in prone and standing shooting improved significantly, unlike the control group, which is associated with their successful adaptation to the new technique, breath control and trigger release technique.

A comparative study of the implementation of control standards among experimental groups at the beginning of the experiment with biathletes showed that no significant statistical association was revealed based on the results of the implementation of control indicators. The results of combination actions in biathletes in the control and experimental groups were almost the same

A comparative analysis of the implementation of control standards for indicators in experimental groups in the final of the experiment with biathletes showed that the results of the experimental group improved as in shooting from a lying position and from a standing position, while the control group showed no changes and remained at the same level.

Table 1.

Indicators of control tests in biathletes of the experimental group at the beginning of the pedagogical experiment

№	FULL NAME	Pull rubber bent at 90 ° (within 1 minute)	Squat, right leg gray (times)	left foot squat (times)	Cross country 1000 metres	3000 metres cross-country running кросс	Prone shooting (10 height glasses)	Standing shooting (10 out glasses)	Penalty		Result in the Sprint race (4 km)
									prone shooting	Firing standing	
1	Axrorov Afzal	42	8	7	203	645,6	54	53	3	3	1344
2	Raupov Jahogir	38	7	7	213	667,6	48	46	2	4	1373
3	Koshokov Shaxzod	39	8	9	215,2	670,8	49	47	3	2	1367

4	Ucmanov Shaxruz	36	6	6	221,3	672,8	50	49	3	3	1382
5	Kasimov Tursinboi	45	9	8	205,4	650,3	52	50	2	2	1312
6	Husanov Sardor	44	7	7	198,1	633,2	56	53	3	4	1303
7	Juraev Aziz	45	9	9	207,5	652	49	48	2	3	1366
8	Isroilov Sanjar	42	8	9	199,1	648,2	51	50	2	1	1332
9	Uralov Ahror	37	9	7	204,4	666,5	48	46	1	3	1406
10	Nazarov Islom	38	7	6	222	666	49	47	3	4	1452
11	Asadov Abdulla	40	8	8	212,7	642,9	47	48	2	4	1390
12	Obidov Asadbek	38	7	7	207,5	638,7	50	46	2	2	1373
13	Average result	40,33	7,75	7,5	209,1	654,55	50,25	48,58	2,33	2,91	1366,6

Table 2.

Indicators of control tests in biathletes of the control group at the beginning of the pedagogical experiment

№	**Full name**	**Pull rubber bent at 90 ° (within 1 minute)**	**Squat, right leg gray (times)**	**left foot squat (times)**	**Cross country 1000 metres**	**3000 metres cross-country running**	**Prone shooting (10 height glasses)**	**Standing shooting (10 out glasses)**	**Penalty**		**Result in the Sprint race (4 km)**
									prone shootin	**Firing standin**	
1	Hakimov Tolkin	40	7	7	213	639,6	54	61	3	3	1332
2	Rustamjonov Jasur	38	6	8	210	657,2	49	47	2	4	1368
3	Salimov Akbar	39	8	9	215,2	670,8	46	49	3	2	1361
4	Usmonov Axat	39	9	6	221,9	662,8	50	49	3	3	1372
5	Rozmatov Daler	49	9	8	205,4	650,3	52	50	2	2	1310
6	Hashimov Jaxogir	44	7	7	198,1	633,2	56	53	3	4	1321
7	Valiev Aziz	45	9	9	207,5	652	46	44	2	3	1354
8	Abdudaliev Sardor	47	8	9	193,1	648,2	51	50	2	1	1319

9	Maxmudov Sardor	47	9	7	214,4	656,1	48	46	1	3	1420
10	Ilamov Raim	38	7	6	222	654	47	49	3	4	1408
11	Abduraxmonov Dilmurod	40	8	8	212,7	633,9	49	45	2	4	1382
12	Urkinbaev Muhamad Ali	43	7	7	207,5	639,7	50	46	2	2	1385
13	Average result	42,36	7,83	7,58	210,07	649,82	49,83	49,08	2,33	2,92	1361

This can be explained by the fact that biathletes from the experimental group were able to find the optimal position, strengthened breathing control and mastered the technique of properly pulling the trigger, which contributed to improving the quality of shooting. In addition, the results of combined actions in the participants of the experimental group also increased significantly, while the indicators of the control group remained unchanged.

Table 3.

Indicators of control tests in biathletes of the experimental group at the end of the pedagogical experiment

№	**Full name**	**B Pull rubber bent at 90 ° (within 1 minute)**	**Squat, right leg gray (times)**	**Squat, right leg gray (times)**	**Cross country 1000 metres**	**3000 metres cross-country running**	**Prone shooting (10 height glasses)**	**Standing shooting (10 out glasses)**	**Penalty**		**Result in the Sprint race (4 km)**
									prone shooting	**Firing standing**	
1	Axrorov Afzal	60	12	12	192	611,5	78	80	1	1	1215
2	Raupov Jahongir	58	12	12	198,4	648,2	76	77	1	1	1264
3	Koshokov Shaxzod	56	11	12	198,6	651,2	74	78	0	2	1313
4	Ucmanov Shaxruz	54	10	11	205,1	647,4	78	73	2	2	1355
5	Kasimov Tursinboi	61	13	14	191	615,3	81	78	2	3	1292
6	Husanov Sardor	66	15	15	184	589,7	65	68	3	3	1268

7	Juraev Aziz	65	14	15	194,7	605,6	75	72	1	2	1279
8	Isroilov Sanjar	64	14	14	188,7	649,7	78	77	1	0	1275
9	Uralov Ahror	59	13	11	190,2	650,3	74	75	1	1	1350
10	Nazarov Islom	57	12	13	208	661,3	73	73	1	2	1385
11	Asadov Abdulla	60	13	12	199,5	630,4	75	72	1	1	1301
12	Obidov Asadbek	59	11	12	195,6	626,4	77	74	1	1	1268
13	Average result	59,91	12,5	12,75	195,48	632,25	75,33	74,75	1,25	1,58	1297,08

Table 4.

Indicators of control tests in biathletes of the control group at the end of the pedagogical experiment

Full name	**B Pull rubber bent at 90 ° (within 1 minute)**	**Squat, right leg gray (times)**	**Squat, right leg gray (times)**	**Cross country 1000 metres**	**3000 metres cross-country running**	**Prone shooting (10 height glasses)**	**Standing shooting (10 out glasses)**	**Penalty**		**Result in the Sprint race (4 km)**
								prone shooting	**Firing standing**	
Hakimov Tolkin	42	8	7	214	635,6	56	58	3	2	1319
Rustamjonov Jasur	41	7	7	213	650,2	47	49	3	4	1354
Salimov Akbar	39	8	8	213,2	652,8	48	54	3	3	1349
Usmonov Axat	38	9	8	218,9	669,8	58	48	3	3	1361
Rozmatov Daler	47	7	8	212,4	643,3	50	52	3	2	1318
Hashimov Jaxogir	44	8	7	200,1	630,2	53	52	3	2	1321
Valiev Aziz	46	8	9	205,5	657	48	48	3	4	1348
Abdudaliev Sardor	45	8	7	191,1	638,2	48	53	2	3	1317
Maxmudov Sardor	40	8	8	205,4	646,1	44	48	2	3	1410
Ilamov Raim	40	7	7	217	649	47	49	3	2	1412
Abduraxmonov Dilmurod	39	9	8	214,7	643,9	46	47	3	3	1375

Urkinbaev Muhamad Ali	44	8	7	202,5	639,7	50	42	3	3	1372
Average result	41,91	7,92	7,58	208,98	646,32	49,58	50,00	2,83	2,83	1355

Program for performing combination techniques

№	Contents	Baseline Level	dynamics	Loading minutes	February	March
1	No-load prone shooting (10 shots, points)	83	7	240	120	120
2	No-load standing shooting (10 shots, points)	53	16	240	120	120
3	Prone shooting with load (10 shots, hits)	4	2	240	120	120
4	Standing shooting with load (10 shots, hits)	3	2	240	120'	120
5	Cross at 1000 m (min, s)	209,1	14,28	300	150	150'
6	3000 m cross (min, s)	654,55	22,3	300	150	150'
7	Pulling the rubber with the bent leg at an angle of 90 ° for one minute)	40.33	19,58	150'	-150	150
8	Squat, gray on the right leg	7.75	4.5	150'	75	75
9	Squat, gray on the left leg	7.5	5.5	150'	75	75
10	Sprint	1366,6	69,1	120'	60	60'
Total:		3263,58	162,26	2280	1140	1140'

RESULTS AND DISCUSSION

Improving the special training of biathletes includes not only the transfer of knowledge and the formation of skills and abilities, but also monitoring their technical and tactical training. The object of control in this area is the dynamics of the tactical skill of the athlete. The level of tactical training of a biathlete is assessed during his training and competitive processes.

At the beginning and at the end of the pedagogical experiment, we assessed the level of performance of combined actions of athletes, which made it possible to identify a number of indicators for the analysis of tactical actions:

Forward and operational planning. Forward and operational planning. To achieve the desired results, it is necessary to constantly increase the volume of training and the total mileage of running, because with an unchanged load, the body adapts to stimuli and ceases to react to them. Therefore, if we strive for a specific goal, our training loads should be age-related. In the process of training, the volume of work performed and the intensity increase, reaching 5-7 workouts per week. Accordingly, the amount of running work increases.

More details about the periodization of the training process. The main tasks of this stage are the implementation of special running and comprehensive exercises aimed at preparing the athlete for competitions, as well as recovery training after participating in them. It is important to create a harmonious distribution of efforts so that the athlete can effectively adapt and raise his results to new heights, while maintaining health and physical balance.

Monday-

- idle training 15-20 min.,

- sighting - 10 min, shooting for accuracy -3-4 series x 10 shots, - shooting with targets transfer,

- Warm-up, uniform cross 12-15 km., OSG, jumping exercises,

hitch 1-1.5 km.

Tuesday - variable running - 3000 + 2000 + 1500 + 1000 + 800 m through 600 m. Light running.

Wednesday - practicing "stand" and "lying" in shooting 15 minutes,

- holding of weapon in steady position combined with targeting

- easy cross - 10-12 km.

Thursday - cross 5 km free + 3 tempo + 2 hitch.

Friday - warm-up 2-3 km

- OSG

- Weapon shooting, special exercises

- complex training - 15 x 600 m after 3 minutes of rest alternating shooting "lying" and "standing" - pulse - 140-160 bpm.

- light running 1.5 km.

Saturday - cross, hills - 15-18 km evenly.

Sunday - rest

Thus, the implementation of the proposed experimental program led to improved compliance with regulatory requirements. The comparative analysis in both groups showed a significant advantage of the methodology we developed.

CONCLUSIONS. 1. An analytical review of the scientific and methodological literature showed that today there is a significant amount of information on the technical and tactical training of qualified biathletes. However, despite this, in the literary sources there are no purposeful methodological recommendations aimed at improving the training process, which could contribute to a more effective development of sports results in biathlon, taking into account the requirements of modern competitive standards.

2. In the course of the study, it was found that the effectiveness of competitive activity in biathlon is most influenced by the level of exercise aimed at improving the quality and speed of shooting, as well as increasing the volume of complex training.

3. The results of the study showed that by the end of the pedagogical experiment, the level of technical and tactical preparedness increased significantly in the experimental group. At the same time, the group that trained according to the methodology we developed showed the highest results.

Thus, the analysis of the materials of the pedagogical experiment confirms the effectiveness of the proposed methodology aimed at developing combination actions using specially selected exercises and training tasks.

The results of the studies based on the above data confirm the effectiveness of the developed methodology for the technical and tactical preparedness of qualified biathletes, which includes the implementation of combination actions taking into account the peculiarities of competitive activity. The use of this technique, aimed at developing and improving the quality and speed of shooting, as well as the use of comprehensive training that contributes to the development of key skills, allows you to effectively and purposefully manage the training process. As a result, this has a positive impact on the competitive activities of biathletes.

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