Competitive game technology at the stage of sports specialization of freestyle wrestlers in the Sakha Republic

UDC 796

Dr. Hab., Professor **V.V. Ponomarev**[1,2]
Postgraduate student **A.A. Efimov**[1]
PhD, Associate Professor **L.A. Bartnovskaya**[3]
PhD, Associate Professor **V.M. Kravchenko**[3]
[1]Siberian Federal University, Krasnoyarsk
[2]Prof. V.F. Voino-Yasenetsky Krasnoyarsk State Medical University, Krasnoyarsk
[3]Reshetnev Siberian State University of Science and Technology, Krasnoyarsk

Corresponding author: vaspon59@mail.ru

Received by the editorial office on 15.11.2024

Abstract

Objective of the study was to theoretically substantiate and develop the content of competitive gaming technology at the stage of sports specialization of freestyle wrestlers of the Republic of Sakha and test its effectiveness in experimental work.

Methods and structure of the study. The study was conducted at the Amginskaya Children and Youth Sports School of Freestyle Wrestling in the Sakha Republic from 2022 to 2024. The experimental work involved 31 people aged 11–13 years, involved in freestyle wrestling at the stage of sports specialization. Using a random sample, the participants were divided into two groups: a control group of 15 people and an experimental group of 16 people. The control group was trained according to the traditional sports training program, and the experimental group was trained based on the design of competitive game technology into the sports process. The following classical research methods were used in the experimental work: analysis of scientific and methodological literature on the topic of the work, systematization, abstraction, modeling, questionnaires, conversations, pedagogical observations, experimental activities, testing general physical fitness and special physical fitness, mathematical statistics, etc.

Results and conclusions. Based on the results of the conducted experimental work, a competitive-game technology was developed and tested, including blocks of national sports and competitions of the peoples of the Sakha Republic, which were projected into the training process of the sports specialization stage. Model indicators of physical and special physical fitness for freestyle wrestlers at the sports specialization stage were also developed. The experimental competitive-game technology introduced into the sports process contributed to an increase in physical fitness in the experimental group by 20,02% ($P < 0,05$), in the control group – only by 5,1% ($P > 0,05$); in special physical fitness by 10,6% ($P < 0,05$), while in the control group – by 4,5% ($P > 0,05$). Thus, the overall average increase in sports fitness at this stage in the experimental group was 15,3% ($P < 0,05$), in the control group – only 4,8% ($P > 0,05$). Thus, the results of the conducted experimental work allow us to recommend the competitive-game technology based on national sports, games and competitions of the indigenous people of the Sakha Republic in the practice of sports training in free-style wrestling for the younger generation of the republic.

Keywords: *competitive gaming technology, stage of sports specialization, freestyle wrestlers, Sakha Republic*

Introduction. At present, progress in sports results depends not only on modern digital and sports-pedagogical technologies, rehabilitation medicine, modular material and technical support, etc. As practice shows, high sports results are also achieved by athletes whose nationality is taken into account when building the training process, namely, their formed psychophysical potential and motor genetics in accordance with the climatic and geographical conditions of residence and development. A modern sports teacher should include in the training process national games and competitions characteristic of the people and area where the ward was born and raised, for further harmonious and progressive psychophysical development in combination with modern sports methods and technologies. This scientific work has been carried out in this direction.

Objective of the study was to theoretically substantiate and develop the content of competitive gam-

ing technology at the stage of sports specialization of freestyle wrestlers of the Republic of Sakha and test its effectiveness in experimental work.

Methods and structure of the study. The study was conducted at the Amginskaya Children and Youth Sports School of Freestyle Wrestling in the Sakha Republic from 2022 to 2024. The experimental work involved 31 people aged 11–13 years, involved in freestyle wrestling at the stage of sports specialization. Using a random sample, the participants were divided into two groups: a control group of 15 people and an experimental group of 16 people. The control group was trained according to the traditional sports training program, and the experimental group was trained based on the design of a competitive-game technology. The following classical research methods were used in the experimental work: analysis of scientific and methodological literature on the topic of the work, systematization, abstraction, modeling, questionnaires, conversations, pedagogical observations, experimental activities, testing of general physical fitness and special physical fitness, mathematical statistics, etc.

Results of the study and discussion. In the process of research activities on the subject of the work, a theoretical definition was formed «Competitive-game technology at the stage of sports specialization of freestyle wrestlers of the Republic of Sakha» - this is a sports and pedagogical process that includes blocks of game and competitive motor exercises formed on the basis of local national traditions and culture for folk-applied physical training of the younger generation, contributing to effective cultural and everyday activities in unfavorable climatic and geographical conditions of residence of the local population in the Republic of Sakha. Based on the national traditions of physical training of young people, an experimental competitive-game technology of sports training of freestyle wrestlers aged 11-13 years of the Republic of Sakha at the stage of sports specialization was formed.

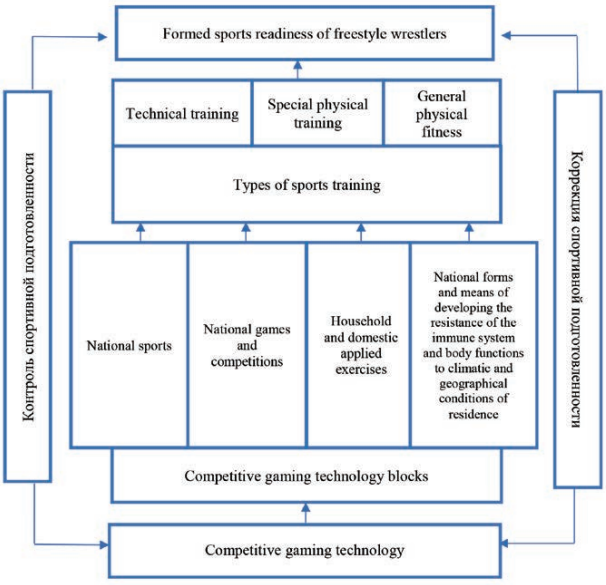

Figure 1 – Structure and content of competitive-game technology (C-IT) at the stage of sports specialization of freestyle wrestlers of the Republic of Sakha

Figure 1 shows the structure and content of the experimental competitive gaming technology.

As shown in Figure 1, the blocks of the experimental competitive-game technology were distributed in the sports training of freestyle wrestlers aged 11–13 years in the Republic of Sakha at the stage of sports specialization as follows:

to develop physical fitness, the following were used: household and applied exercises (clearing snow; preparing firewood for the winter; making a fire; preparing ice; walking and running on snow in a forest zone; simulating hunting skills; preparing hay, etc.); national forms and means of hardening the body (walks in the tundra and taiga, hardening with water and snow; spending the night in a tent, physical exercises in nature, etc.);

technical preparedness: national sports (Yakut national wrestling «Khapsagay», «Mas-wrestling», Yakut «vertushka», games «Vodopoi» and «Khabylyk», throwing «lasso», etc.);

special physical training: jumping over sleds, national Yakut multi-faceted long jumps, throwing various objects over the head and in different directions, pushing out of the circle, carrying heavy objects and partners at speed, etc. Upon completion of the experimental work, a theoretical and statistical analysis of the effectiveness of introducing a competitive-game technology for training freestyle wrestlers at the stage of sports specialization was carried out (Table 1).

The statistical results presented in Table 1 show the effectiveness of the competitive gaming technology at the stage of sports specialization of freestyle wrestlers aged 11–13 years in the Republic of Sakha at the stage of sports specialization, where the average increase in sports fitness in the experimental group was 15,3% ($P<0,05$), and in the control group – only 4,8% ($P>0,05$).

Conclusions. The theoretically substantiated, developed and tested competitive-game technology

Table 1 – Statistical results of testing the competitive gaming technology at the stage of sports specialization of freestyle wrestlers of the Republic of Sakha

№	Control exercises	Groups	Physical fitness $\bar{X} \pm \sigma$		Growth, in %	P
			Beginning of the experiment, September	Completion of the experiment, May		
1	2	3	4	5	6	7
	Pull-ups on a high bar, number of times	E	7,8±1,8	9,9±1,6	26,9	<0,05
		C	7,9±1,9	8,5±1,8	7,6	<0,05
	Run 30 m, s	E	5,7±0,38	5,4±0,31	5,3	<0,05
		C	5,6±0,37	5,5±0,38	1,8	>0,05
	Forward bend from standing position, cm	E	6,1±1,8	9,0±1,6	47,5	<0,05
		C	6,4±1,9	7,1±1,9	10,1	<0,05
	Long jump from the spot, cm	E	166,8±11,8	176,9±11,7	6,1	<0,05
		C	167,9±11,9	171,7±11,8	2,3	>0,05
	Torso lifts per minute, number of times	E	41,2±4,1	47,1±3,9	14,3	<0,05
		C	41,7±4,2	43,2±4,3	3,6	>0,05
Special physical training						
1	2	3	4	5	6	7
	Running onto the «bridge», s	E	22,8±1,4	19,9±1,2	12,7	<0,05
		C	22,7±1,5	21,4±1,6	5,7	>0,05
	Running on hands, s	E	23,7±1,1	21,9±1,1	7,6	<0,05
		C	23,5±1,3	22,8±1,4	3,0	>0,05
	One-arm running, s	E	26,7±2,9	24,8±2,8	7,1	<0,05
		C	26,6±3,1	25,4±3,0	4,5	>0,05
	Rollover from the bridge position, 10 times, s	E	22,4±1,3	18,9±1,2	15,6	<0,05
		C	22,3±1,4	21,1±1,5	5,4	>0,05
	Leg passes, 10 times, s	E	21,5±1,3	19,1±1,1	11,2	<0,05
		C	21,4±1,4	20,9±1,5	2,3	>0,05
	Windmill throws, 10 times, s	E	26,2±1,4	23,1±1,1	11,8	<0,05
		C	25,9±1,5	24,1±1,6	6,9	>0,05
	Throws «poker», 10 times, s	E	25,1±1,3	23,0±1,2	8,4	<0,05
		C	25,0±1,4	24,1±1,5	3,6	>0,05

based on the inclusion of national sports, games and competitions of indigenous people in the process of sports training of freestyle wrestlers aged 11-13 years in the Republic of Sakha contributed to an increase in average physical fitness in the experimental group by 20,02% ($P < 0,05$), in the control group – 5,1% ($P > 0,05$); in special physical fitness in the experimental group – 10,6% ($P < 0,05$), while in the control group – 4,5% ($P > 0,05$). These experimental results allow us to recommend the experimental competitive-game technology in the practice of sports training in freestyle wrestling for children aged 11-13 years in the Republic of Sakha at the stage of sports specialization.

References

1. Efimov A.A., Yatsenko S.V., Ponomarev V.V. Natsionalnaya borba «khapsagay» kak bazovaya osnova v sportivnoy podgotovke yunykh bortsov volnogo stilya Respubliki Sakha. Teoriya i praktika fizicheskoy kultury. 2024. No. 4. 41 p.
2. Ponomarev V.V. Pedagogicheskiye tekhnologii fizkulturnogo obrazovaniya shkolnikov Kraynego Severa. Doct. diss. (Hab.). Tyumenskiy gosudarstvennyy universitet, 2002. 290 p.
3. Markelov A.V., Ponomarev V.V. Prikladnaya napravlennost narodnykh sostyazaniy v fizicheskom vospitanii studentov vuza. Teoriya i praktika fizicheskoy kultury. 2014. No. 12. pp. 72-73.
4. Markelov A.V., Ponomarev V.V. Narodnyye sostyazatelno-igrovyye traditsii v fizicheskom vospitanii studentov vuza: teoreticheskiye i prakticheskiye osnovy. Monograph. Krasnoyarsk: SibGTU publ., 2014. 152 p.