

INNOVATIVE METHODOLOGY OF TRAINING OF KAYAKERS 10–11 YEARS

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ABSTRACT

The article is devoted to the study of the possibilities of increasing the efficiency teaching the technique of rowing on a kayak. The authors have developed a teaching methodology, including the use of a fitball, a barefoot and a KAYAKRO rowing machine. Analysis research results showed that the innovative methodology allowed improve balance performance, technical skills, and promoted growth sports results in kayaking.

Keywords: kayaks, innovative methodology, fitball, bosu, rowing simulator "KAYAKPRO".

The relevance of research. Becoming popular in today's world healthy lifestyle. Parents are increasingly willing to send their children to various sections and sports clubs. Most authors believe that kayaking and canoeing is one of the sports in which the body is hardened, children become strong and hardy, the body develops harmoniously. Lessons rowing develop the following physical qualities: strength, speed, endurance, coordination abilities [3, 4]. Issues of theory and methods of rowing on kayaking was practiced by such authors as B. M. Bondarev, V. V. Gamaly, V. F. Kaverin, and others [1, 2, 5, 6]. No matter how much the coach dreams of immediately starting to teach a beginner in the first lessons rowing art: powerfully, with strong strokes, drive the boat forward, initially he is forced to teach the athlete a sense of balance and coordination, because kayaks are very unstable sports equipment, and at first they don't it is easy to learn even just to sit without turning over. The ability to balance in a rower is akin to the art of a tightrope walker, and the feeling balance should be developed in kayakers no worse. Poor boat balance is a very common technical error. You can remember the names of rowers who turned over, flew out of the boat a few meters before becoming national champions (Ilya Shtokolov, Vera Sobetov).

The sense of balance depends on the development of the vestibular apparatus, psychological stability, skills in difficult

conditions of the aquatic environment: waves and wind, do not experience panic fear, afraid to roll over. It's shackling movement causes anxiety. Closely related to balance is another factor - sense of water: subtle muscular sensation of the density of water (especially pronounced expressed during the capture of water in the initial phase of the stroke). Congenital or the acquired ability to “understand water”, not to lose touch with it in any conditions can help achieve high speeds at minimal cost physical energy. A sense of balance and a sense of water lead to the main thing – to the ability to invest in a stroke, connect the largest number of muscle units, effectively coordinate their intermuscular interaction [1]. A beginner rower must master the feeling of water, learn the main thing - the ability to correctly perform a strong stroke at the level of their muscle sensations. Mistakes made at the beginning of training will inevitably lead to sad results. Therefore, it is necessary to teach the rowers themselves thoughtfully to improve their technical skills. For achievement high sports results in kayaking requires possession correct, rational rowing technique [2]. Work on improving the skill of balance, feeling water closely is intertwined with other issues of technical skill of the rower and should be carried out in a complex together with all other sections of training [1, 2].

The research problem stems from the contradiction between insufficient material and technical equipment of the training process of rowers from one side, and high requirements for their technical training at the modern stage, on the other hand. As a result, there is a need to develop new approaches to this problem, that is, the development of innovative methods kayaking training. Hence the purpose of the study: to identify effectiveness of an innovative methodology for teaching kayaking techniques rowers 10–11 years old.

Based on the goal, the following tasks were set for the study:

1. Conduct an analysis of scientific and methodological literature related to training rowers.
2. Develop a methodology for teaching the technique of rowing in a kayak for children 10–11 years.
3. Identify and track the dynamics of coordination and technical preparedness, as well as sports results of rowers aged 10–11 years for the period experiment.

Methodology and organization of the study. During the study, there was developed an experimental technique in which, along with the classical means [5], the simulator "KAYAKPRO" [7] and the complex special exercises with fitball and barefoot. Bosu - a hemisphere that is used for cultivation movement coordination. The experimental technique used the complex boss exercises.

1. Put the barefoot up with a straight surface, try to fix yourself on it and not fall (keep balance).

2. Lay the bare head straight upside down, stand on it and do 5 squats while maintaining balance.

3. Put the barefoot with a straight surface up, stand on it with one foot, maintaining balance (after 1 minute - change the leg).

4. Put the barefoot with a straight surface up, stand with two feet on it and imitate rowing movements with a gymnastic stick. The rowers' training program also included various fitball exercises, some of them are given below.

1. Sitting on a fitball, legs are placed on a heavy ball (medball). Need keep your balance and don't fall.

2. The starting position is the same (see above), a gymnastic stick, held for a few seconds on outstretched arms (balance), then lowered. Make several approaches.

3. The starting position is the same, perform rowing movements with gymnastic stick. Duration from a few seconds to 30 minutes. Training sessions were held on the basis of Sports school for children and teenagers, School of higher sports skills specializing in water sports " Tashkent Sea" rowing in kayaks and canoes, Tashkent and at the rowing base in Samarqand from 11/01/2021 to 03/31/2022. Athletes took part in the study groups of initial training, rowers 10-11 years old in the amount of 10 people. The training process took place in the water area of the city pond in Samarqand, in the water area of the rowing base in Tashkent, as well as on land using a rowing simulator "KAYAKPRO", and exercises for the development of coordination, relaxation and muscle tension (including with fitball and barefoot).

The following methods were used in the course of the study: analysis of scientific and methodological literature, pedagogical observation, pedagogical experiment, testing, methods of mathematical statistics. Studying the level of development of coordination and ability to balance was carried out using the balance test (Romberg's test). Test performed alternately on the right and left legs. Then the average was calculated index. Rowing technique was evaluated with the help of pedagogical observation. For To this end, we have developed a 5-point system for evaluating rowing technique on rowing machine "KAYAKPRO". The following indicators were evaluated:

1. Correct fit (slide height, distance between slide and emphasis).
2. Correct position of the oar in the hands (correct grip of the oar links).
3. Stroke technique (capture of the stroke, wiring, removal).
4. Turn of the torso (stroke is performed by the back and shoulder girdle). The following evaluation criteria were developed

for each element technology. If the element of technique is performed correctly (without errors), then the maximum score is.

5. Rating 4 was given for the roughness in the technique, which is not significant mistake. If significant shortcomings were made, from 2 to 3 points are put, in depending on the number of errors in this element. If an athlete performed a technical element poorly, with gross errors, then put from 0 to 1 point. To evaluate the effectiveness of the experimental technique at the beginning and at the end experiment was tested on the KAYAKPRO rowing machine and control passage of a distance of 200 m. Reliability of differences in test results and pedagogical observation of rowing technique was determined by Student's t-test. The research hypothesis was that the use of in the experimental method of balance exercises using

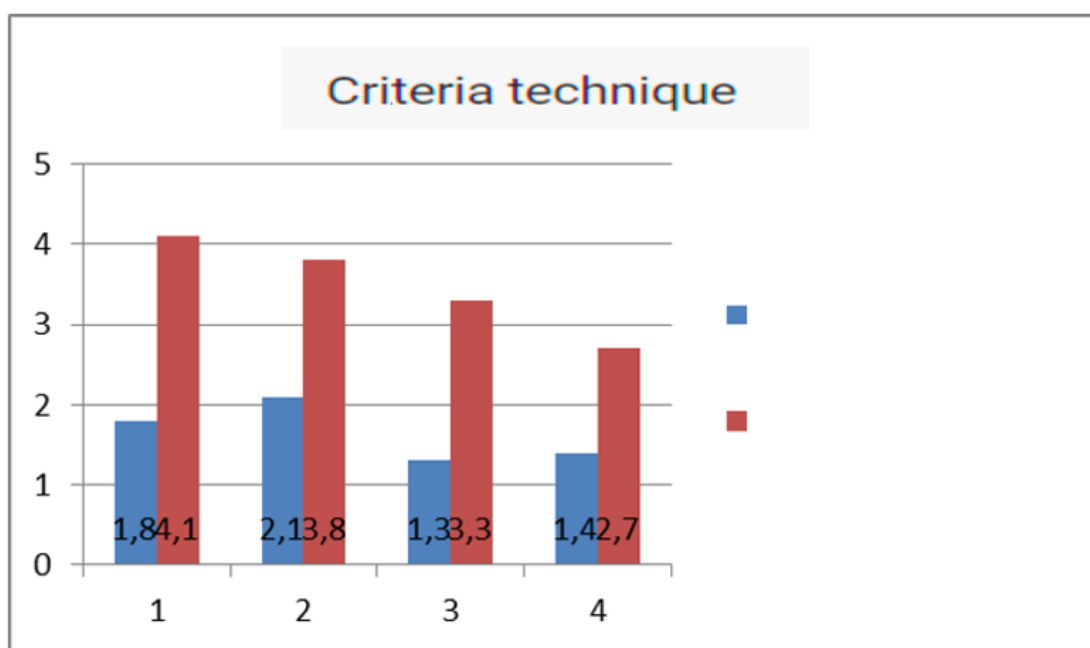
fitball and barefoot, as well as rowing exercises will improve the overall and special coordination of movements, increase technical readiness rowers 10–11 years old, which will result in improved athletic performance. The absence of a control group is justified by the insufficient number rowers-kayakers of this age and preparedness in the Youth Sports School. That's why the experiment was vertical.

Research results. Control during the experiment showed that application of an experimental methodology for teaching the technique of rowing in a kayak allowed rowers 10-11 years old to learn how to balance in a boat, coordinate your movements. Testing and pedagogical supervision of technique was carried out at the beginning of the experiment and at its completion (Table 1). From Table 1 shows that rowers significantly improved their performance in all technique evaluation criteria. Correct fit score increased by 2.3 points, the correct position of the oar in the hands by 1.7 points, stroke technique by 2 points, and torso turn index by 1.3 points. Percentage increase indicators was 56% in the first criterion, 44% in the second, 60% in the third, fourth 48%. Thus, work on technique 2 times a week on a rowing simulator, SFP exercises using fitball and barefoot effectively affect on the technical readiness of rowers.

Table 1. -Results of technique evaluation on the **KAYAKPRO** rowing machine in points.

№	Technique evaluation criteria	Beginning of the experiment		End experiment		(P)
		\bar{x}	σ	\bar{x}	σ	
1	Right landings	1,8	1,14	4,1	0,99	< 0,001
2	Correct paddle positions in hand	2,1	0,87	3,8	0,91	< 0,01
3	Technique stroke	1,3	0,94	3,3	0,82	< 0,01
4	Reversal torso	1,4	0,96	2,7	0,82	< 0,01

The improvement in technology can be clearly seen in Figure 1.



Rice. 1. - Dynamics of improvement of rowing technique on a rowing machine

- 1 Correct fit
- 2 The correct position of the paddle in the hands
- 3 Stroke technique
- 4 Torso turn

Indeed, all the assessed elements of technology have improved over the period of the experiment by about 2 or more times. Such indicators as the correct landing and stroke technique have especially improved. At

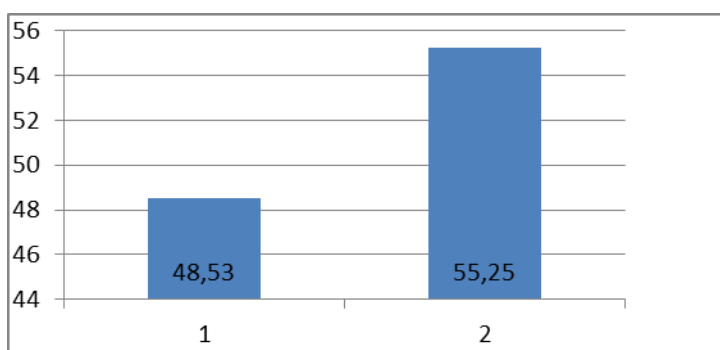
the same time, the significance of differences is very high (P from 0.01 to 0.001).

We also judged the effectiveness of the developed methodology by improving the balance indicators and the results of passing a distance of 200 m in a kayak (Table 2).

Table 2. Results of balance and passing tests distance 200 m

№	Tests	Start experiment		End experiment		(P)
		\bar{x}	σ	\bar{x}	σ	
1	Romberg test, with	48,53	7,82	55,25	4,58	< 0,01
2	Rowing 200 m,	84,19	2,06	82,41	1,51	< 0,05

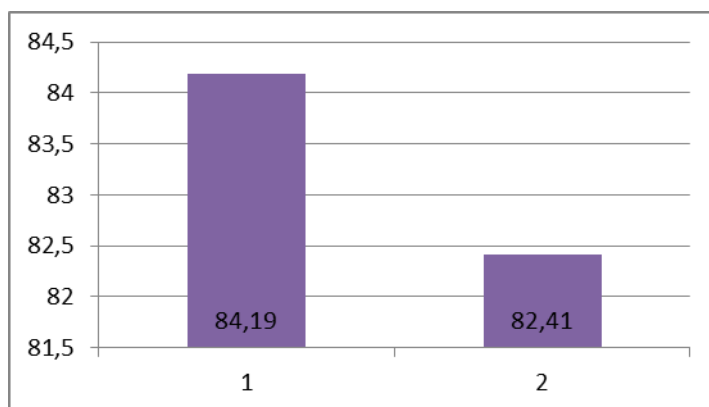
Rice. 2. - Dynamics of equilibrium indicators



1 - the beginning of the experiment

2 - end of the experiment

Rice. 3 - Dynamics of rowing results at 200 m



1 - the beginning of the experiment

2 - end of the experiment

Table 2 and figures 2 and 3 show that the rowers have significantly improved their indicators. The balance indicator increased by 6.7 s. In rowing at 200 m, the indicator improved by 1.8 s. In percentage

terms, the increase in equilibrium indicators was 12.1%. At a distance of 200 m, the passing rate improved by 2.2%.

Thus, during the experiment, the effectiveness of the innovative method of teaching rowing in kayak was proved.

CONCLUSIONS

1. Analysis of the scientific and methodological literature related to the training of rowers showed that the most important thing in teaching the elements of rowing technique and achieving high sports results is the formation of a sense of balance and a sense of water.

2. As a result of the study, it was revealed that under the influence of exercises on a rowing machine, balance exercises using fitball and barefoot, rowers experienced positive changes. The correctness of the landing increased by 2.3 points, the position of the oar in the hands by 1.7 points, the stroke technique by 2 points, and the indicator of the turn of the body by 1.3 points. The equilibrium index in the Romberg test increased by 6.3 s. In rowing at 200 m, the indicator improved by 1.8s.

3. The results of the experiment showed that the applied technique is effective. Indeed, the mathematical and statistical processing of the results of testing and pedagogical observation revealed a significant increase ($0.01 < P < 0.001$) in both balance indicators and technical readiness. The most significant result of the experiment can be considered an improvement in kayaking at a distance of 200 m.

REFERENCES

1. Алексеенко, Э.М. Сила, техника, скорость/ Э.М. Алексеенко// Гребной спорт в России—М.: 1998.— N 1.— С. 22-23.
2. Кирсанов, В.А. Техника и биомеханика академической гребли/ В.А. Кирсанов, В.В. Клешнева— СПб: Санкт-Петербургская государственная академия физической культуры им. П. Ф. Лесгафта, 1996. — 45 с.
3. Гамалий В. В. Спортивная техника как объект изучения в теории спорта / В.В. Гамалий // Наука в олимпийском спорте. — 2004. — №1. С. 23–28.
4. Гребной спорт: учебник для студентов высших педагогических учебных заведений / под ред. Т. В. Михайловой. — М.: Издательский центр «Академия», 2006.— 400 с.
5. H.L.Fourie, I.W.Fourie An Introduction to Rowing UK, 2013. – 23 с.
6. John Chasэ Powэr to thэ Raddлэ: Эхэrcisэs to Improvэ your Canоэ and Kayak Paddling USA, 2014— 16 с.