

## METHODS OF USING NON-TRADITIONAL METHODS IN PHYSICAL EDUCATION CLASSES IN HIGHER EDUCATION INSTITUTIONS

**Khalmukhamedov Rustam Dekanovich**

**Ph.D., prof.** Uzbek State University of Physical Culture and Sports, **UZBEKISTAN**

**Kupalov Sanjar Ulugbekovich**

**Ph.D., docent,** Urgench State University, **UZBEKISTAN**

**&**

**Makhmudova Musharraf Mirrahmatovna**

**PhD,** Uzbek State University of Physical Culture and Sports, **UZBEKISTAN**

### ABSTRACT

The following article deals with the physical fitness of female students of higher educational institutions of Uzbekistan. The average indicators of physical qualities (strength, speed, endurance and flexibility) of girls were determined. A program of Physical education based on the use of national sports has been developed and a lesson on physical education has been analyzed as well.

**Keywords:** Higher education, female students, physical training, sports-oriented physical culture, Uzbek martial arts, national sports.

**Actuality:** Tthe study of spiritual values, their use in educating young people, improving the theoretical and practical content of students' knowledge in higher education, the formation of professional knowledge, skills and competencies have been required in professional activities in our country [1].

Today, wrestling, belt wrestling, Uzbek martial arts and other national sports are gaining popularity in Uzbekistan and occupy a deep place in the hearts of our youth. has been proven to be incomparable [2].

Modernization of the system of physical culture in educational institutions and the development of physical training of young people should be carried out with measures to improve the system of physical culture and sports for students, as well as recommendations for improving the effectiveness of compulsory physical education in the education system. The current reform of higher education requires the deepening of the knowledge of teachers and coaches, the renewal of teaching methods in physical education and sports [3].

**Aim of the research** – Launching effective tools and methods for physical education classes in higher education institutions.

#### **Research tasks:**

Improving the program of physical education on the basis of health-oriented areas of Uzbek martial arts (peace morning exercises, complex exercises).

Developing the physical fitness of female students using optimized tools and methods in an enhanced physical education program.

**Research Methods:** Commonly used methods in sports science.

**Organizational part of the research:** For 3 years (in 3 stages) pedagogical research was conducted among students of the National University of Uzbekistan (NUU) and Tashkent State Institute of Dentistry (TSID) to study the functional capabilities and develop physical qualities of girls using sports-oriented physical education (2017-2019) .

In the first phase, 2017 (January-August) theoretical research was conducted and analyzed. In the second stage, in the 2017-2018 academic year (September-June), the physical development and qualities of student girls were studied on a test basis. In the third phase, the main pedagogical research was conducted in the 2018-2019 academic year (September-June) and the physical fitness of female students was reviewed. 105 female students of the National University of Uzbekistan and 106 female students of the TSID were involved in the study in the first stage.

The attitude of higher education institutions to physical culture and sports was studied by conducting a questionnaire survey with first-year female students. In a survey of students, 82% of respondents said that "the means and methods that are tied to homogeneity have not increased the interest in physical education and sports". Based on the views of student girls, the means and methods of physical education were optimized, and the physical education program was improved.

In improving the program, the sport, which is popular among young people today, is based on the healing aspects of Uzbek martial arts (morning exercises, complex exercises).

The program material classifies complex exercises on the mastery of movements in the process of physical education lessons, the implementation of the pedagogical process, the specifics of the sport and takes into account the movement activities. The sequence of use of tools and methods to improve the physical qualities of students is described in detail.

**Research results and their discussion.** In the organization of the process of physical education was formed on the basis of free choice of sports-oriented sports, movement activities. Special and general developmental exercises were used, which provided for the effectiveness of the set goals and objectives.

The program developed at the Uzbek Martial Arts Complex and its implementation in the educational process was carried out mainly through audio and video collections, combined with traditional classical teaching elements.

Motivational support of the educational process in sports-oriented physical education depended in many respects on the correct methodological and practical orientation of training, which was determined by the appropriate effect of exercise, natural and physical factors on the body of the participants.

In the organization of this program, the materials were mastered on the basis of consistent use of the principles of sports pedagogy (continuity of the process of physical education, changes in load and rest, enhancing the impact of education, adapting and balancing the dynamics of loading, cyclical structure of training and age).

The developed program was used in two higher education institutions and pedagogical experiments were conducted.

The basis for the organization of academic training in physical culture with the use of differentiated sports complexes focused on Uzbek martial arts consisted of the following features;

- Exercises aimed at developing agility, limiting the Uzbek martial arts complexes to specific muscle groups;
- loading capacity two hours per week;
- loading intensity 130-150 beat / min (aerobic mode);
- change of direction;
- application of the rule of repetition and static elongation in the development of flexibility;
- use a variety of musical accompaniment;
- use and update various programs to achieve strength, endurance, flexibility, coordination of movements.

The organization of the training and their general structure, the purpose of the training sessions, the tasks are the same as the generally accepted aspects in physical education, except for the means of achieving these goals.

A typical training scheme was used in the applied groups. In both groups, the preparatory and concluding sections had a common direction and content. The main part of the lesson differs in content from the generally accepted lessons. It was presented in four groups of complexes. Focused on aerobic, strength, agility, and coordination exercises (Table 1).

**Table 1: Indicators of the number of heartbeats of female students in academic physical education classes**

Parts of the session		Duration, min.	Female heartbeats	
			beat/min.	Maximal %
Preparation		15-20	90-110	45-50
Main (45-60) min.	Aerobic complexes	15-25	130-150	60-70
	Complexes in the direction of force	20-25	110-120	50-60
	Rapid-force directional complexes	15-25	140-160	70-80
	Complexes in the coordination direction.	15-20	120-140	50-60
Final		10-15	75 - 90	30-50

The duration of the program was 80 minutes. The main form of the lesson consisted of 3 parts, of which 20-25 minutes, 10-15 minutes of the preparatory part, 45 minutes, 20-25 minutes of the main part, 10 minutes and 10 minutes of the final part were devoted to the elements of Uzbek martial arts exercises. .

The level of engagement of the girls entering the 1st stage was actively rested after continuous and intense physical exertion in the main part due to non-compliance with the requirements of the curriculum (smooth movement of arms with gradually decreasing amplitude, walking with less amplitude).

The goals and objectives of the sports-oriented physical education program, developed on the basis of Uzbek martial arts, help to increase theoretical, methodological and practical knowledge and skills in the field of physical education, improve the techniques and elements of sports.

Aerobic complexes include exercises that develop the level of functional training of participants. At the beginning of the school year, during the training, 10-15 minutes were allocated to study the elements of special exercises techniques taken from the morning directions of Uzbek martial arts. In the middle of the academic year, priority was given to functional preparation (20-25 minutes in the preparatory and main parts of the lesson); 10-15 minutes were allocated at the end of the main part of the session to work on improving the technique of performing the exercises.

Strength-focused complexes were designed to keep participants engaged in the norm of lifting the body while sitting on a gymnastic bench.

The speed-strength complexes consisted of exercises designed to prepare for the performance of the following norms: 100m run, 30-second rope jump, standing jump, long jump. In the experimental method, exercises were presented to develop the agility of student girls and prepare them to perform the 4x10 running norm.

Academic classes in physical education are formed on the basis of group and individual methods. The loading rate was 65-85% of the maximum possible beat of the female heart beating.

In order to improve the level of physical and technical readiness of female students, section classes were organized using Uzbek martial arts, which were conducted by experienced teachers of both universities in the first semester for 114 hours, in the second semester for 126 hours three times a week.

In the 2018-2019 academic year, when the results of control exercises at the beginning and end of the school year were analyzed using generally accepted methods, a significant increase in indicators ( $P < 0,001$ ) was observed in Table 2.

**Table 2: Description of the movement qualities of students of control groups I and II after the application of sports-oriented physical education (n=105)**

№	Criteria	n	Groups	In the beginning of study year (September)	In the end of study year (June)	T	R
				$\bar{X} \pm \sigma$	$\bar{X} \pm \sigma$		
1	Lifting the body from the supine position, times (1 min)	105	I gr.	31,6±6,4	34,8±5,5	3,89	<0,005
		106	II gr.	32,1±6,2	35,0±6,6	3,26	<0,01
2	Hanging in solitude, s	105	I gr.	15,7±0,12	16,2±0,15	2,1	<0,05
		106	II gr.	14,6±0,20	15,8±0,18	2,3	<0,05
3	Long jump while standing (cm)	105	I gr.	164,1±23,3	176,1±21,6	3,86	<0,05
		106	II gr.	155,4±25,8	164,7±20,7	2,93	<0,01
4	60 m run (seconds)	105	I gr.	12,1±2,7	10,6±2,1	4,55	<0,001

		106	II gr.	12,0±2,9	10,6±1,7	4,29	<0,001
5	Bend the body forward from a height of 30 cm	105	I gr.	14,0±3,2	15,2±3,2	2,68	<0,05
		106	II gr.	17,4±3,0	19,2±3,0	4,23	<0,001
6	5 min running (m)	105	I gr.	808±5,2	855±7,7	2,2	<0,05
		106	II rgr.	751±7,3	732±6,9	2,4	<0,05

At the beginning of the school year, in the lessons based on sports-oriented technology, lifting the body lying on his back  $\bar{X}=31.6\pm 6.4$  times. These results, after the pedagogical experiment, averaged  $\bar{X}=34.84\pm 5.5$  times. Reliability of statistical differences between indicators ( $P < 0.001$ ). The quality of power in this group of students improved by 10.18%.

An increase was also observed in the results of the group of girls who received the traditional course, but it can be observed that the level of reliability in the results of the experimental group was high.

The dynamics of physical training of the I experimental group during pedagogical experiments was as follows. According to him, before the pedagogical experiment, the long jump test was recorded by female students  $\bar{X}=164.1\pm 23.3$  after the pedagogical experiment, the results of this group of female students were  $\bar{X}=176,1\pm 21,6$  cm, respectively. There are statistical differences between the indicators ( $P < 0.001$ ), after the experiment it was observed an increase in speed-power quality by 7.31%.

In the study of speed quality, an increase of 1.95% was noted in the results of control group I (Table 1), but in the increase in the results of experimental group I, the reliability level ( $P < 0.001$ ) was observed to improve by 12.60%. The results improved from  $\bar{X}=12.1\pm 2.71$  seconds,  $\bar{X}=10.6\pm 2.1$  seconds.

When the development of endurance was determined by the 5-minute running (m) test, the results of the experimental group I student girls before the pedagogical experiment were correspondingly  $\bar{X}=808\pm 5.2$  m. After pedagogical experience, pedagogical tests showed that the performance of this group of female students improved on average  $\bar{X}=855\pm 7.7$ . The statistical differences between the indicators are equal to the reliability ( $P < 0.05$ ). This physical quality index improved by 6.64%.

The results of the control exercise of the students of the experimental group bending forward from a height of 30 cm before the pedagogical experiment  $\bar{X}=14.07 \pm 3.2$  cm, after the pedagogical experiment, the average score was  $\bar{X}=15.2 \pm 3.2$  cm, respectively. The reliability of statistical differences between the indicators is  $p < 0.05$ . The quality of flexibility in this group of students improved by 8.6%.

The performance of the first-year students of the Tashkent State Institute of Dentistry in the subject "Physical Culture and Sports" in the I-II semester was as follows after the use of sports-oriented Physical education.

After the use of complex and healthy morning martial arts in sports-oriented technology in higher education physical education classes, it was observed that the change in strength of students of Experimental Group I increased by a reliable difference  $\bar{X} = 31.6$  to  $= 34.8$  ( $p < 0.001$ ). Results improved by 8.94% by the end of the school year.

Students of the I experimental group of long jump control exercise before the pedagogical experiment  $\bar{X} = 164.1 \pm 23.3$  cm, respectively, after the pedagogical experiment the results of the students of this group  $\bar{X} = 176.1 \pm 21.6$  cm. There are statistical differences between the indicators ( $r < 0.05$ ). Performance in the I-control group increased by 6.06%. In this control exercise, students of control group II jumped  $\bar{X} = 155.4 \pm 25.8$  cm, respectively, before the pedagogical experiment. By the end of the academic year, it was  $\bar{X} = 164.7 \pm 20.7$  cm ( $p < 0.05$ ). But even this growing figure will not be enough for students to take rating control tests.

After pedagogical experiments to determine the effectiveness of sports-oriented physical education, it is clear from the results of mathematical and statistical analysis that the results of the control test for girls in the control group II reached 60 m  $\bar{X} = 12.0 \pm 2.9$  seconds  $\bar{X} = 10.6 \pm 1.7$  seconds. Statistical differences ( $P < 0.001$ ) were identified between the results recorded by student girls after the pedagogical experiment.

Before the pedagogical experiment, the students of the experimental group ran a distance of  $\bar{X} = 808 \pm 5.2$  m in a 5-minute run. After pedagogical experience, it was found that the index of students in this group was  $\bar{X} = 855 \pm 7.7$  m. Resilience quality results were 4.18% higher at the end of the academic year among students of Experimental Group II. Reliability of statistical differences between indicators ( $P < 0.05$ ).

The results of the test of forward bending of students of experimental group II from a height of 30 cm before the pedagogical experiment  $\bar{X} = 17.4 \pm 3.0$  cm. These results, after the pedagogical experiment, reached  $\bar{X} = 19.2 \pm 3.0$  cm. Reliability of statistical differences between indicators ( $P < 0.001$ ). The indicator found that after using sports-oriented physical education, the flexibility of this group of female students improved by 10.21%.

## CONCLUSION

At the end of the study, a comparative analysis of the indicators of physical fitness (strength, agility, speed, endurance, flexibility) of female students in the experimental training program of the sports-oriented program was conducted. The organization of the educational process in the discipline of "Physical Education" with the use of sports-oriented technologies significantly improves the physical fitness of female students during the school year ( $P < 0.05$ ) and allows to assess the importance of the proposed experimental program in developing vital physical qualities.

Comparison of movement quality indicators in the experimental group showed a clear positive dynamics of development in the first group: strength qualities (6.7% increase), speed-strength qualities (4.1% increase), endurance (3.64% increase), speed (9.3% increase), flexibility (1.9% increase), strength quality increase by 6.1% in the second group, fast-force qualities by 3.5%, endurance by 2.3%, speed by 9.9%, the increase in elasticity was 1.1%.

The use of differentiated exercise equipment of the Uzbek national Martial arts in Physical education creates a wide range of opportunities for students to develop an interest in physical education and sports and make it a necessity.

## REFERENCES

1. Danieva Ya.Ch. Effectiveness of the use of folk movement games in the physical education lessons of students of I-II stages. Diss - 2009, 66 p.
2. Makhmudova M.M. Improving the physical fitness of female students of higher education institutions using the national sport. Abstract of Diss PhD. Chirchik 2020, 17-19 p.
3. Makhmudova M.M. Classification of complex exercises of Uzbek martial arts for use in physical education classes of higher education institutions. Science and sport. Scientific-theoretical journal. 6/2020. 63-66 p.