

Efficiency means the game Ringo the classroom physical education

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ABSTRACT

Topicality research is conditioned on the one hand, the value of the game Ringo, its diverse effects on the body, availability and implementation of the learning process of students, and the other - the need to verify its effectiveness and impact on the physical condition and physical fitness.

Goal - to determine the effectiveness of the use of the game Ringo the classroom for physical education.

Material and methods. In pedagogical experiment involved 64 students. The study was conducted during one semester. At the end of the pedagogical experiment measured and compared the performance of physical fitness and physical condition of students and conducted surveys. Methods: theoretical analysis and synthesis of these scientific literature, pedagogical experiment, pedagogical methods, in the form of survey questionnaires, physiological methods, teacher observation and mathematical statistics methods. poll

Research results. Results of surveys of students and observations regarding level of tricks and Ringo in the game demonstrate the possibility of successful mastering tricks and Ringo and the whole game in high school. In addition, it was found that the proposed pilot program allows you to maintain and improve the overall quality of physical performance and functional status of students in physical education. The experimental program verified introduction of Ringo in the game can be used by the educational institutions seeking to optimize the learning process.

Conclusions. Implemented a pilot program to study the game Ringo increased level of physical fitness of students EG. After the experiment, boys and girls EG showed better results in the development of skill and endurance ($p < 0.05$). Indicators of physical development and functional state of students surveyed KG and EG

after the experiment almost did not differ ($P > 0.05$). Increased respiratory rates ($P < 0.05$) in boys and Girls EG. Results of the study indicate a positive impact of the game Ringo physiological indicators and indicators of physical fitness of students and their increased interest in this type of exercise.

1. Introduction

One way to improve the quality of training of students is to improve the content of physical education of future professionals. In this regard, the use of physical culture and sports for training skilled labor to the modern demand's consideration and implementation of modern educational process [1].

2. Literature Review

Recently the classroom physical education often uses such means that do not require too much inventory or equipment and special premises here include yoga [8, 16], frisbee, badminton, darts, floorball [6], calenetics [2, 13] and other types of motor activity [5, 14, 15]. Effective means of physical education students are nontraditional game Ringo not yet very common but is quickly gaining popularity among children and young people, students, workers Poland, Russia, Ukraine, Belarus and many other countries.

"Ringo" - is both an individual and team sport [7]. Opponents of the game thrown ring (round, weighing 160-165 grams, a diameter of 17 centimeters "and called" ring ") or two rings in a special area, divided by a net. The goal of the game - to throw one or two of the rings over the net to make it or are affected area rival and trying to prevent the same game. Ring caught with one hand and thrown over the net the same [17, 21].

This sports game is available for different age groups and can be used to enhance health, leisure provision and development of physical skills: speed, speed-strength, coordination [18, 19]. While playing in Ringo participants produced the ability to work in a team and cooperate, ability to build relationships in the community, empathy, the ability to express themselves through their own efforts; produced by the reaction rate, develop fine motor skills of both hands, dexterity, and all this against the background of low injury [22, 24].

Means Ringo game develops coordination, fine motor skills of hands, which is required professionally important quality of the teacher. [23] To play Ringo requires good response and the ability to predict the next move opponent logic, simultaneous work "hands and head." Team play is impossible without mutual help and mutual aid partners, we must be sure that your partner will not let you down, and if needed - will replace any position. [20] It is important that Ringo equally involved both hands, and allodynia both hands leads to functional development of both hemispheres of the brain, increasing the effectiveness of the less developed side. These are the results of numerous research and educational experiments [11]. Inherent Ringo for a great variety of movements strengthens the nervous system, strengthens the musculoskeletal system, improves metabolism and improves the activity of all body systems [9, 11].

Thus, the relevance of the study is due, on the one hand, the value of the game Ringo as accessible and interesting means of physical training of future teachers, and on the other - the need to test the effectiveness of the impact of sports games on the physical condition and physical fitness of students.

Considering the above, we set a goal - to determine the effectiveness of the use of the game Ringo the classroom for physical education.

For the purpose defined objectives:

1. Describe the impact of the games in Ringo on physical fitness of students.
2. Analyze the physical development and functional status of students after the introduction of the game Ringo the learning process.

3. Method



3.1. Participants

Subscribers.

Company research. The study was conducted during one semester (semester 2017-2018 school year). At the beginning of the experiment determined the homogeneity groups on indicators of physical fitness and physical condition. Classes in EG and CC were common and distinctive features. Common features: in both groups, classes conducted under the current program, except for the sports section. Distinctive features: EG students learned tricks to Ringo and the game in general.

Total study on the bulk material in the experimental groups a year of physical education was provided for 72 classroom hours (36 hours - semester, 36 hours - second semester). [10] On learning material with sports scheduled 30 hours (16 hours - semester, 14 hours - second semester). Students EG for 10 hours in the first semester of studied material only game Ringo and the rest (6 hours) - fixed techniques volleyball. Students kg scheduled hours studying sports were volleyball of material (10 h) and football (6 hours). In other sections of mastering the curriculum and the content of the program for the second semester of student research groups differences were not.

At the end of semester measured and compared the performance of physical fitness and physical condition of students in both groups and analyzed the results of a survey of students to study their game Ringo the classroom for physical education.

3.2. Materials

The study involved 64 students (age 18-21 years) second courses Ternopil National Pedagogical University named Hnatyuk. All students were classified as basic medical care in a group and had variations in health status. All participants were informed and gave their consent to participate in the study. Students were divided into control (CG) (15 boys and 17 girls) and experimental (EG) (14 boys and 18 girls) group.

3.3. Procedure

Statistical analysis.

To process the results of the study were using methods of mathematical statistics. For each indicator calculated arithmetic mean value (M), an arithmetic error (m), standard deviation (σ), differences in reliability Student's test (p).

During the comprehensive educational and biological research with students followed the laws of Ukraine on Health, Helsinki Declaration of 2000, guidelines №86 / 609 European Community on the participation of people in biomedical research.

Research methods

Theoretical analysis and synthesis of these scientific literature, teaching methods, teaching experiment, physiological methods, teacher observation and mathematical statistics methods.

At the beginning and end of the study, all students passed a series of tests, which determined the level of physical fitness and physical development. The level of force was evaluated by the number of flexion and extension arms in emphasis lying; stamina test assessed by Cooper (overcoming the greatest possible distance in 12 minutes), evaluated the results dexterity shuttle run (4 to 9 pm with the transfer blocks); speed estimated by the results of overcoming a distance of 100m; Flexibility evaluated the results tilt forward while standing on a special pedestal with markers for measurements, strength endurance - the number of times lifting the torso in Seed Time and Davis bent on hands on the bar; explosive force characterized by long jump performance from a place [10].

To assess physical development of students, the functional state of the cardiovascular and respiratory systems were measured indicators of growth and body weight, vital capacity (VC) determined power brush (hand dynamometry); measured heart rate (HR), blood tick; Samples for measurements performed rod (a breath after inhalation) and sample



Ghencea [3]. The resulting performance allowed us to identify and describe the life and power indices and index and index Ruff'ye Robinson.

To test the efficacy study of the game Ringo performed in forming pedagogical experiment. The criterion for evaluation were indicators of physical fitness, level of physical development and functional status of the surveyed students and the results of the survey (survey). To study the opinions of students regarding the content and organization of the learning process of the game Ringo, we have conducted their survey, the results of which were indirect criterion for determining the effectiveness and feasibility of the pilot program.

In the experiment the students in both groups identified the level of physical fitness, physical development and functional state. No significant differences in terms of testing to determine the level of physical fitness and physical development of students between CG and EG in the experiment were found ($p > 0,05$).

4. Results

Research results. The use of the experimental training program in the game Ringo had a positive impact on the level of physical fitness of students EG. Yes, boys and girls experimental group results shuttle running 4 to 9 pm and Cooper test at the end of the experiment significantly ($p < 0.05$) improved. This is due to feature the game Ringo, which show extensive overcoming short segments for catching rings Ringo, which affected the improvement in endurance and agility (Table. 1). This is an indication that the individual level of physical fitness changed for the better. The remaining terms of physical fitness there were no significant differences ($p > 0.05$). This suggests that implemented a pilot program affects the physical fitness of students as traditional teaching methods,

Table 1

Indicators of physical fitness of students control and experimental groups at the end of the experiment

Types of tests	Sex	KG		EG		R
		MX	± m	MX	± m	
Flexion-extension arms, times	♀	12.1	1.1	11.9	1	> 0.05
	♂	40.1	3.7	39.4	3.2	> 0.05
Raising the trunk from a prone position, times in 1 min	♀	38.4	4.7	37.9	4.4	> 0.05
	♂	42.1	3.1	43.1	2.9	> 0.05
Long jump away, sm	♀	164.5	4.5	167.2	8.9	> 0.05
	♂	229.8	10.2	231.4	9.5	> 0.05
Running 100 m, s	♀	18.2	1.8	18.3	1.7	> 0.05
	♂	13.4	1.1	13.2	0.9	> 0.05
Running 12 minutes (Cooper test), kilometers	♀	1.8	0.4	2.1	0.4	<0.05
	♂	2.1	0.5	2.5	0.4	<0.05
Torso, ssm	♀	12.7	2.8	13.5	2.4	> 0.05
	♂	8.1	3.2	7.2	2.4	> 0.05
Vis bent on hands, sm	♀	12.2	1.1	13.4	0.7	> 0.05
	♂	43.4	1.5	44.2	2.1	> 0.05
Shuttle run 4 * 9m, s	♀	11.8	0.4	10.9	0.5	<0.05
	♂	9.8	0.03	9.1	0.1	<0.05

One criterion for evaluating the effectiveness of the pilot program introducing the game Ringo the classroom physical education has been its impact on physical development and functional performance of students (Table. 2).

Table 2

Indicators of physical development and functional state students control and experimental groups at the end of the experiment

Indexes	Sex	KG		EG		R
		MX	± m	MX	± m	
Height, sm	♀	164.2	2.54	163.9	2.25	> 0.05
	♂	175.6	2.1	175.8	1.9	> 0.05
Body Mass, kg	♀	59.21	2.8	59.09	2.68	> 0.05
	♂	75.4	2.34	77.9	2.6	> 0.05
VC, l	♀	2.92	0.19	3.4	0.2	<0.05
	♂	4.15	0.23	4,82,	0.17	<0.05
Dynamometry brush kg	♀	23.52	1.52	22.8	1.49	> 0.05
	♂	45.2	2.1	46	2	> 0.05
HR, beats / min	♀	76.3	9.7	75.4	5.5	> 0.05
	♂	73.5	8.3	74.2	6.2	> 0.05
Systolic blood pressure, mm Hg.	♀	106.5	2.8	109.2	3.1	> 0.05
	♂	120.7	3.6	118.7	2.7	> 0.05
Diastolic blood pressure, mm Hg	♀	72.8	3.2	71.5	2.9	> 0.05
	♂	70.1	3.1	72	3.4	> 0.05
Test Shtange, s	♀	55.7	4.8	69.2	4.6	<0.05
	♂	64.1	4.4	74.2	4.1	<0.05
Test Geni, s	♀	34.6	4.5	43.2	3.7	<0.05
	♂	39.1	4.3	48.2	3.8	<0.05
Life index, ml / kg	♀	52	2.5	56	2.2	> 0.05
	♂	54	2.3	50	2.3	> 0.05
Strength Index, %	♀	49	2.3	55	3	> 0.05
	♂	53	1.8	50	0.8	> 0.05
Robinson Index, mind. unit	♀	89	3	94	2.6	> 0.05
	♂	96	4.5	90	2.5	> 0.05
Ruffye Index, mind. unit	♀	11	0.7	10	0.6	> 0.05
	♂	12	0.6	11	0.5	> 0.05

Summarizing the results of physical development and functional status of student research groups, it should be

noted that after the implementation of a pilot program introducing Ringo play in the learning process, statistically significant changes ($p > 0.05$) in most performance between students CG and EG were found. This suggests that introduced the technology affects the physical development and functional status as students and traditional teaching methods worth noting improvements ($p < 0.05$) in samples pole and Ghencea, both boys and girls surveyed groups. The advantage of the experimental group students in these samples is basically changing the motor activity and the need to hold your breath in part to fulfill aptly throw ring Ringo.

To study the opinions of students regarding the content and organization of the learning process of the game Ringo, we have conducted their survey, the results of which were indirect criterion for determining the effectiveness and feasibility of the pilot program. During the survey we were interested in the attitude of students to study the game Ringo and level of assimilation.

Questioning was conducted at the end of semester, after the experiment. In the survey, students participated EG. The question questionnaire conventionally divided into two blocks. The first block consisted issues, we tried to determine the ratio of students to study the introduction of sports game Ringo. The second set of questions involved the self-esteem of students on possession Ringo tricks and playing in general.

Summarizing the results of the questionnaires, we found that most students EG (82%) found strong interest in the game Ringo. The majority of respondents (98%) recommend researched the sport in December to their friends. The second set of questions involved the self-esteem of students on possession and playing techniques Ringo as a whole. To the question "Do you know the tricks to Ringo?" 98% of students gave positive responses. However, all the girls and boys EG claim to be able to play Ringo. In addition, all (100%) of the students recommended to introduce new tools in the classroom for physical education, claiming to raise interest in physical education classes. Thus, the results survey is indirect proof that the pilot program teaching students the game of Ringo.

5. Discussion and Conclusion

Discussion. Our results confirmed the data [19], which means the game Ringo contribute to the development and improvement of basic physical qualities of players. In addition, our research showed that the most favorable they influence the development of endurance and agility. Developed a pilot program introducing the game of Ringo in physical education students were not significantly affected in terms of physical development and functional tests of study participants. Averages of physical fitness in boys and girls as EG KG answered below average. This data confirms the low level of physical fitness of today's youth [4, 12].

Our results on the results of functional tests confirm the students study data [11], which found that agents play in Ringo positively affect the health of students.

Researchers [5] noted that training and introduction of new and modern physical education in the educational process raises the interest of students to classes and increases the efficiency of mastering other parts of the curriculum. Our studies confirm these data. Due to the systematic use of games in Ringo experiment in molding students successfully mastered the program provides educational material from other parts of the curriculum.

The new data features are learning the game of Ringo students. Given the fact that this little-known sports game and not very common in Ukraine, we have shown in their studied the possibility of mastering the classroom physical education in higher education institutions. In addition, obtaining test results demonstrate the effectiveness of the implemented pilot programs in the educational process of students.

Results of surveys of students and observations regarding level of tricks and Ringo in the game as a whole demonstrate the possibility of successful mastering tricks and Ringo and the whole game in high school. In addition, it was found that the proposed pilot program allows you to maintain and improve the overall quality of physical performance and functional status of students in physical education. The experimental program verified introduction of Ringo in the game can be used by the educational institutions seeking to optimize the learning process.



Conclusions. Implemented a pilot program to study the game Ringo increased level of physical fitness of students EG. After the experiment, boys and girls EG showed better results in the development of skill and endurance ($p < 0.05$). Indicators of physical development and functional state of students surveyed KG and EG after the experiment almost did not differ ($P > 0.05$). Increased respiratory rates ($P < 0.05$) in boys and Girls EG. Results of the study indicate a positive impact of the game Ringo physiological indicators and indicators of physical fitness of students and their increased interest in this type of exercise. So, Ringo be included in the program of physical education university.

Prospects for research. This study is not fully disclosing all aspects of the effectiveness of student learning in the game Ringo. In the future, expect to test its effectiveness and impact on cognitive processes and attention of students, and develop learning technologies other sports.

Conflict of interest. The authors declare that no any conflict of interest.

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