

**STUDY ON THE TECHNIQUE OF THE GAME OF  
BADMINTON BY USING INFORMATION  
TECHNOLOGY DURING THE PANDEMIC COVID -19 IN  
STUDENTS AGED 10-12 YEARS**

***Tănasă Bogdan Ionuț<sup>1</sup>  
Vizitiu Elena<sup>2</sup>***

*<sup>1</sup>Alexandru Ioan Cuza High School in Falticeni*

*<sup>2</sup>Ștefan cel Mare University of Suceava*

**Keywords:** *badminton, technique, basic elements, information technology, students*

**Abstract:** In middle school education, sports games have always been attractive activities for students. Among the many sports games, we will propose a study to learn the technique of badminton during the COVID 19 pandemic, using online information technology. In this sense, we will focus on learning the basic technical elements, namely: the fundamental position, the movement in a space in a room and the grip of the racket, without causing injuries. The research took place at the “Alexandru Ioan Cuza” Secondary School in Fălticeni, including students (girls and boys) from the 5th and 6th grades. The aim of the study is to correctly master the three fundamental elements of the game of badminton, having a decisive role on the evolution of student players. Through the online program "Google Meet", we imposed a clarification on students, namely: to face the monitor to see how the technique is performed and the number of repetitions. This new way of conducting the teaching-learning process in badminton lessons has many good parts, but we must mention that it also has some less good parts.

**Introduction:** In the current stage of the COVID 19 pandemic, the education system has imposed the application of information technologies in order to continue the teaching-learning process, even in the discipline of Physical Education and Sports. The solution presented by the "system" aims to continue meeting the objectives of physical education, but also a healthy biological path of each student.

In the literature, physical education is defined as a component of general education, along with other educations (moral, intellectual,

aesthetic, etc.), and the goal is to train active students, healthy, brave, able to cope with life, etc. . In this sense, students must be informed with certain knowledge, skills and abilities, which they can use in their daily lives. Given the COVID 19 pandemic situation, the physical education teacher needs to understand and prepare for this online teaching process. However, at present the need for knowledge in such a current field as the transmission of electronic information is very obvious. The author Potorac A., D., states that "in the age of communications, computer networks and the Internet began to be part of everyday activity, and communication infrastructure and information transmission technologies have experienced an explosive development."

Another point of view of the authors is the way of controlling movement and motor learning through information technology, where there are still problems of connection, the way of perceiving movement, difficult to observe [3,4].

Regarding the topic of our article, the technique of execution of the three basic elements proposed for learning through the computer, has a special importance for the correct development of the game of badminton. Because the movements are acyclic in the learning stage, we will resort to fragmented teaching. The fundamental position of the badminton student is the correct waiting position, the legs are slightly apart, the dexterous foot being slightly before the other foot, being ready to go into action. A low position, with the center of gravity placed in front, ensures quick departure in any direction, but the muscular strain on the legs requires more effort on the part of the student. To master the movement in the "field-room" the movements are made by a short run forward, sideways or with the back to the direction of movement, added steps (it is recommended to move with the foot in front). In terms of mastering the grip of the racket, it requires a large volume of repetitions, the racket must be kept relaxed, the little and ring finger fixes the handle of the racket, and the other fingers having an important role in directing the blows. In the literature it is stated that the effort made in the game of badminton is similar to the effort made in the game of handball [1,2,5].

**Material and methods:** Hypothesis of the paper: It is assumed that through online information technology, it will be possible to learn the technique of the basic elements of the game of badminton in high school students.

The aim of the paper is to elucidate the most effective method of teaching online the technique of the three basic elements of the game of badminton.

The study took place through the online program Google Meet, with V and VI grade students (girls and boys) from the "Alexandru Ioan Cuza" High School in Falticeni, October 2020-January 2021. To achieve lessons I used in teaching, a theoretical part (technical explanation) and a practical part (demonstration).

In order to fulfill the objectives of my lessons I needed means for the development of leg strength, for the development of coordination, for the development of skill, for the education of attention, as well as for the involvement of students..

Table nr.1

PROGRAM FOR LEARNING THE BASIC TECHNIQUE IN THE GAME OF BADMINTON		
CONTENT	MEANS	DOSAGE
Fundamental position and movement in the "room"	- various walking exercises in the low position	2x
	- semi-squatting with a slight forward bend, jumps with a change of legs	2-4x
	- squatting, jumping in different directions	2-3 x
	- movement in the room in different directions	2-3x
	- the same exercise, but at the teacher's command	4x
	- running on the spot with the knees raised to the chest	4x
	- from sitting with a ball between the ankles, jumping with the ball (be careful not to break something in the	

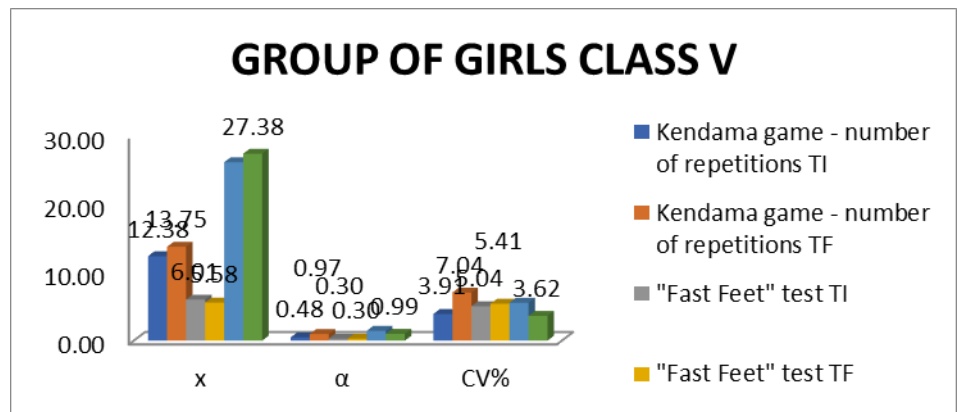
	room)	
Missile grip	<ul style="list-style-type: none"> <li>- Rocket exercises: bending and stretching the arm, rotating back and forth, short movements</li> <li>- Flexion and extension of the fingers with a tennis or rubber ball held in the palm</li> <li>- Wrapping a light weight on a stick</li> <li>- The Kendama Game</li> </ul>	4x 3x 4x 8-10 min

**Results and discussions:**

For the study we used three evaluation tests: the game "Kendama" - number of repetitions, the test "Fast Feet" and "Strength of legs.

Table no.2

GROUP OF GIRLS CLASS V						
	Kendama game - number of repetitions		"Fast Feet" test		Force legs	
	TI	TF	TI	TF	TI	TF
x	12,38	13,75	6,01	5,58	26,13	27,38
$\alpha$	0,48	0,97	0,30	0,30	1,45	0,99
CV%	3,91	7,04	5,04	5,41	5,56	3,62
t=	0,007999	p<0,05	0,002316	p<0,05	0,001565	p<0,05

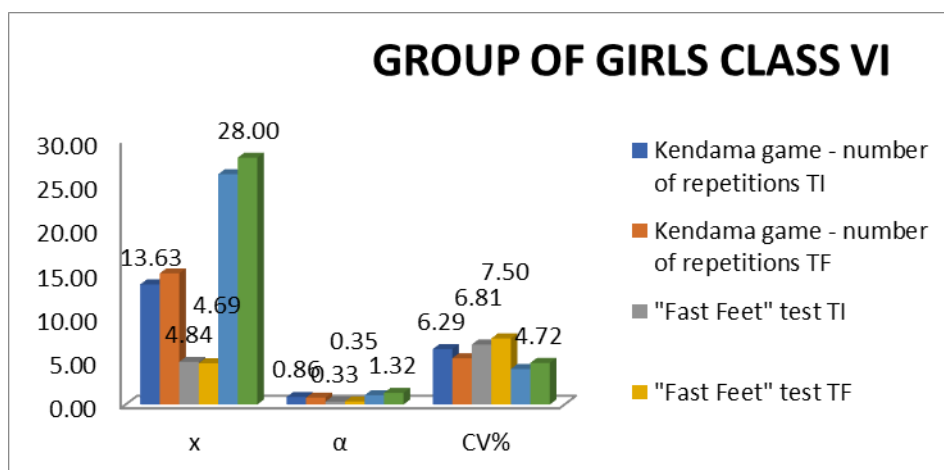


Graph no 1

In the Kendama game - number of repetitions test, the group of girls class V you can see an average difference of 1.38, in the "Fast Feet" test an average difference of 0.43, and in the force legs test there is a difference of 1.25.

Table no.3

GROUP OF GIRLS CLASS VI						
Crt. no	Kendama game - number of repetitions		"Fast Feet" test		Force legs	
	TI	TF	TI	TF	TI	TF
x	13,63	14,88	4,84	4,69	26,13	28,00
$\alpha$	0,86	0,78	0,33	0,35	1,05	1,32
CV %	6,29	5,25	6,81	7,50	4,03	4,72
t=	0,00156		0,00080		0,01089173	
	5	P<0,05	5	P<0,05	3	P<0,05



In the Kendama game - number of repetitions test, the group of 6th grade girls can see an average difference of 1.25, in the "Fast Feet" test an average difference of 0.15, and in the force legs test find a difference of 1.88.

Table no.4

GROUP OF BOYS CLASS V						
Crt. no	Kendama game - number of repetitions		"Fast Feet" test		Force legs	
	x	13,38	14,88	5,82	5,43	27,13
$\alpha$	0,99	0,93	0,38	0,29	1,17	0,78
CV%	7,42	6,23	6,49	5,27	4,30	2,68
t=	0,001791	P<0,05	0,000346	P<0,05	0,000192	P<0,05

In the Kendama game - number of repetitions test, the group of boys class V you can see an average difference of 1.50, in the "Fast Feet" test an average difference of 0.39, and in the force legs test there is a difference of 2.00.

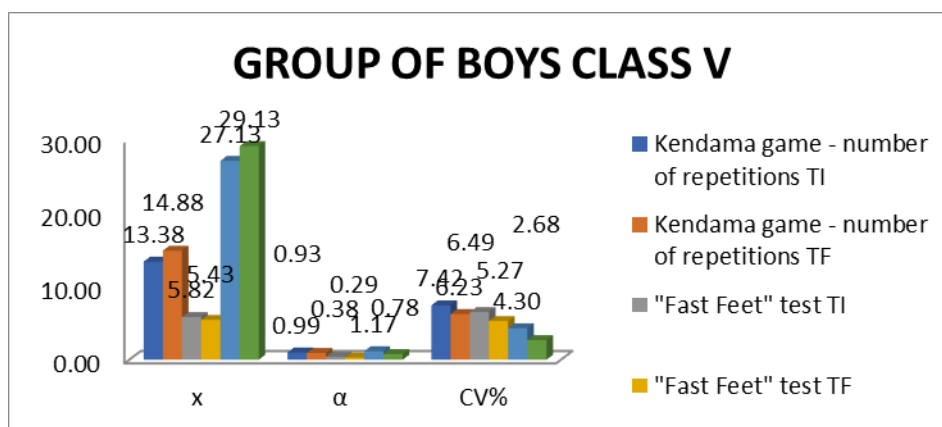
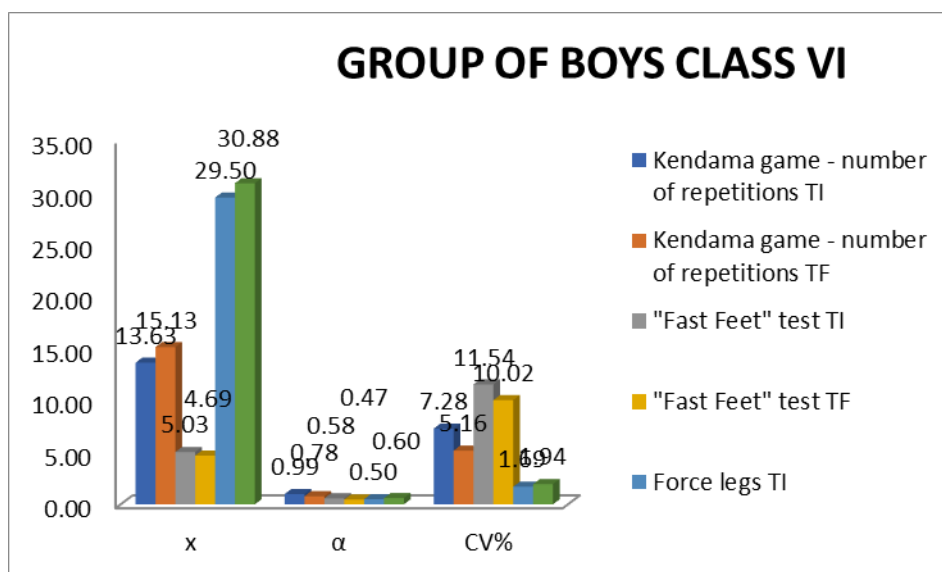


Table no.5

GROUP OF BOYS CLASS VI						
	Kendama game - number of repetitions		"Fast Feet" test		Force legs	
	TI	TF	TI	TF	TI	TF
x	13,63	15,13	5,03	4,69	29,50	30,88
$\alpha$	0,99	0,78	0,58	0,47	0,50	0,60
CV%	7,28	5,16	11,54	10,02	1,69	1,94
t=	0,002087	P<0,05	0,000622	P<0,05	0,001294	P<0,05

In the Kendama game - number of repetitions test, the group of 6th grade boys can see an average difference of 1.50, in the "Fast Feet" test an average difference of 0.34, and in the force legs test find a difference of 1.38.



**Conclusions:**

1. The hypothesis from which we started was confirmed by the fact that you can learn certain basic elements of the game of badminton and through the online environment
2. The groups in the 6th grade obtained better performances than the students in the 5th grade, because they coming from different schools needed to adapt to the new working conditions and to the teacher.
3. All groups obtained a  $p < 0.05$ , the statistical link being significant, with a 95% confidence threshold.

**Bibliography:**

- [1] MAFTEI D., Ș. (2019) The evolution of motor and technical abilities in children aged 6-7 in badminton, Doctoral thesis, Bucharest
- [2] SĂVESCU, I. (2009) Physical education, AiusPrinted Publishing House, Craiova.
- [3] POTORAC A. D. (2009) Transmission of information in computer networks, Matrix Rom Publishing House, Bucharest
- [4] ZOLTAN D., E. (1983) Badminton, Sport-Turism publishing house, Bucharest.



[5] LĂZĂRESCU, A. (1974). Play badminton !, Sport-Turism Publishing House, Bucharest.