

## STUDY CONCERNING THE EFFICIENCY OF THE USE OF DYNAMIC GAMES IN PHYSICAL EDUCATION AND SPORTS LESSONS AT 8<sup>th</sup> CLASS

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**ABSTRACT. Problem statement:** In this research, we want to present an experimental study demonstrating that dynamic games bring the lesson of physical education and sport a plus in terms of the results of the school curriculum control tests, but not only they have an important role in combating absenteeism at sports classes. The study was conducted during the first semester of the school year 2017-2018 at the “Mihai Viteazul” Campia-Turzii Secondary School, in the 8<sup>th</sup> grade, by introducing dynamic games of physical education and sport. The pupils’ evaluation was carried out with the help of compulsory control tests, in order to track the influence of the games on the results obtained. **Objectives:** The objectives are the implementation of dynamic games in physical education and sports lessons in the 8<sup>th</sup> grade, specific games for each subject of the lesson and quantification of the effectiveness resulting from their application by means of periodic verification. **Materials and methods:** school materials such as the meter, mattresses, milestones, the timer were used, and as a human resource, the two eighth grades were divided into the control class and the experiment class. **Conclusions and recommendations:** Following the experiment, positive results were recorded in both classes, specifying that the results of the experimental class had a higher improvement than the control class results.

**Keywords:** *physical education, dynamic games, 8<sup>th</sup> grade*

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**REZUMAT. *Studiu privind eficiența folosirii jocurilor dinamice în lecția de educație fizică și sport la clasele a VIII-a.*** **Introducere:** În lucrarea de față, dorim să prezentăm un studiu experimental prin care să demonstrăm că jocurile dinamice aduc lecției de educație fizică și sport un plus din punct de vedere al rezultatelor probelor de control din programa școlară, dar nu numai, acestea având și un rol important în combaterea absenteismului la orele de sport. **Situația problemei studiate:** Studiul s-a realizat pe parcursul semestrului I, al anului școlar 2017-2018, la Școala Gimnazială „Mihai Viteazul” Câmpia-Turzii, la clasele a VIII-a, prin introducerea în lecțiile de educație fizică și sport a jocurilor dinamice. Evaluarea elevilor s-a realizat cu ajutorul probelor de control obligatorii, cu scopul de a urmări influența jocurilor în rezultatele obținute. **Obiective:** Obiectivele sunt implementarea jocurilor dinamice în lecțiile de educație fizică și sport la clasele a VIII-a, jocuri specifice pentru fiecare tematică a lecției și cuantificarea eficienței rezultate în urma aplicării acestora cu ajutorul verificării periodice. **Materiale și metode:** s-au folosit materiale din dotarea școlii precum metrul, saltelele, jaloane, cronometrul, iar ca resursă umană, cele două clase de a VIII-a au fost împărțite în clasa control și clasa experiment. **Concluzii și recomandări:** În urma experimentului efectuat s-au înregistrat rezultate pozitive la ambele clase cu precizarea că, rezultatele clasei experiment au o îmbunătățire mai mare față de rezultatele clasei control.

**Cuvinte cheie:** *educație fizică, jocuri dinamice, clasa a VIII-a*

## Introduction

The concept of physical education and sports comes from the general view of the life of a society and differs from one country to another. According to I. Șiclovă (1977), “physical education is a deliberately built and directed process to improve physical development, people’s motor ability, in accordance with age, gender, social integration requirements of young people.”

According to Dragnea (2006), the physical education and sports lesson must fulfill the “modern” function that is the development of the competitive spirit, a characteristic of the human being in general, and the formation of a permanent desire for “self-sufficiency” and “overcoming”, but only within the limits of rules, correct and fair-play attitudes. In this sense, it is necessary to promote in physical education - especially - the competition through bilateral sports games, games of movement, races, paths or applicative routes, competitions etc.

Once the age of the students increases, fewer and fewer attend physical education and sports classes. If in primary classes physical education is a priority for pupils, for secondary schools, especially 7<sup>th</sup> and 8<sup>th</sup> grade, it becomes a “waste

of time”, a class that can be missed. Noticing these 8<sup>th</sup> grade classes, it can be very easily observed that there is a decrease in the students’ interest for the class, the absenteeism rate being high.

Using dynamic games, the aim is to increase the efficiency of physical education and sports classes and increase their attractiveness, too (Prodea, 2010). The Explanatory Dictionary of Romanian Language explains the word “play” / “to play” as follows: “fun activity”, “childish fun” or “spending time, getting amused by different games or toys “. The word “dynamic” means “full of motion”, “action,” “that is in constant and intense movement”, “evolution”, “that is going fast”. From all these we can conclude that “dynamic play” is “a fun activity, characterized by a continuous movement and an intensive activism” (dexonline.ro).

## **Objectives**

The main objective of the research was the implementation of dynamic games in the physical education and sports classes with the aim of increasing the motor density, the attractiveness of the lessons and the active involvement of the students (building abilities and motivation for learning).

## **Materials and methods**

The research was carried out with the help of two 8<sup>th</sup> grades from “Mihai Viteazul” School Campia Turzii, with a total of 21, respectively 23 students. The method used was the experiment, which consists in testing students at the beginning and at the end of 1<sup>st</sup> semester.

The control tasks are done according to the school curriculum, that is: 50m speed run, long-distance jump and development of the abdominal and back force. During the semester, one class (the experiment class) takes part in at least 2 dynamic games with specific themes each lesson, while the other class (the control class) has normal, planned lessons. The tests were carried out in the gym of the school with the existing equipment. If for the dynamic games there were used: all types and sizes balls, staples, sticks, balloons, cones, etc. (necessary materials for practicing dynamic games), for the evaluation of students the materials were: two timers, milestones, mattresses, meter and chalk.

## Results

For the control class, where the lessons were done normally, according to the plan, the results were the following:

**Table 1.** Results in initial and final testing for the control class

Testing stages		50m speed run (seconds)		Long-distance jump (cm)		Crunches 30" (repetitions)		Lower Back extensions 30" (repetitions)	
		Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
Statistical indicators									
Arithmetic mean									
Initial testing		8.8	7.84	1.48	1.71	21.7	24.7	23.1	25.5
Final testing		8.5	7.6	1.55	1.80	23.5	26.6	25.5	27
Difference		0.30	0.24	7	9	1.8	1.9	2.4	1.5
Standard deviation	Initial	0.07	0.28	0	0	5.65	2.82	0.70	0.70
	Final	0.70	0.35	0.02	0.06	5.65	0.70	0	1.41
Coefficient of Variability	Initial	0	0.03	0	0	0.26	0.11	0.03	0.02
	Final	0.08	0.04	0.01	0.03	0.23	0.02	0	0.05

At the 50m speed run (as shown in Table 1), the control class achieved a progress of the arithmetic mean at the final test against the initial test of 0.24 sec. in boys and 0.30 sec. in girls.

For the explosive force test, the long-distance jump, the boys and girls in the control class achieved a 9.5 cm, respectively 7 cm arithmetic mean progress.

The progress of the arithmetic mean for crunches lift-ups 30" testing is 1.9 repetitions in boys and 1.8 repetitions in girls, at the final tests.

For the experimental class, where dynamic games were used every lesson during the 1<sup>st</sup> semester, the results are:

**Table 2.** Results in initial and final testing for the experimental class

Testing stages		50m speed run (seconds)		Long- distance jump (cm)		Crunches 30" (repetitions)		Lower Back extensions30" (repetitions)	
		Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
Statistical indicators									
Arithmetic mean									
Initial testing		8.74	7.94	1.50	1.72	20.7	25	24.6	26
Final testing		8.18	74.2	1.61	1.86	22.8	28	26.5	29.2
Difference		0.56	0.52	11	14	2.1	3	1.9	3.2
Standard deviation	Initial	0.28	0.56	0.05	0.12	2.82	3.53	0	0
	Final	0.21	0.49	0.02	0.04	0.70	0.70	2.12	0.70
Coefficient of Variability	Initial	0.03	0.07	0.03	0.07	0.13	0.14	0	0
	Final	0.02	0.06	0.01	0.02	0.03	0.02	0.07	0.02

According to table number 2, the results of the experimental class are the following:

At the 50m speed run (as shown in Table 2), the experimental class achieved a progress of the arithmetic mean at the final test against the initial test of 0.52 sec. in boys and 0.56 sec. in girls.

For the long-distance jump, the boys and girls in the experimental class achieved a 14 cm, respectively 11 cm arithmetic mean progress.

The progress of the arithmetic mean in crunches 30" testing is 3 repetitions in boys and 2.1 repetitions in girls, at the final tests.

The arithmetic mean in back extensions30" had a plus of 3.2 in boys and 1.9 in girls at the final tests, compared to the initial ones.

After interpreting the results of the control class and the experiment class, it is very easy to notice that both grades have a visible progress.

As a result of our intervention, in the experimental class, the progress of the arithmetic mean is more significant than in the control class, almost in all the control tasks, respectively, in boys the differences of progress between the initial and final testing in the control and experimental class are:

- 0.28 seconds in 50m speed run;
- 5 cm in long-distance jump;
- 1.1 repetitions in crunches 30";
- 1.7 repetitions in back extensions 30".

As for the girls in the experimental class and the control class, the differences of the arithmetic mean are:

- 0.26 seconds in 50m speed run;
- 4 cm in long-distance jump;
- 0.3 repetitions in crunches 30" (despite the fact that the performance is higher in the control class, the experimental class has achieved higher progress!);
- 0.5 repetitions in back extensions 30" this test being the only exception because the girls in the control class had a higher progress than the girls in the experimental class.

The comparative analysis of the progress of the arithmetic mean values of the experimental and control class revealed, with a slight exception in the girls (at a control test), that the dynamic games introduced in the physical education and sports lessons during the first semester, produced a level increase on students' skills.

## **Discussions**

Dynamic games increase the efficiency of physical education lessons, but they can also serve as a way of selecting and guiding students to practice different sports and especially sports games (Mihăilă, 2014). For the boys' groups in the research it was observed that the values of the muscular abdominal and muscular arm force showed the most significant progress. They were followed by the target throw, legs muscle strength, strength, mini-basketball skills and memory capacity, as well as correctly executing the exercise structure.

For the girls' groups, the most significant progress was achieved in the legs muscle strength and in target throw. These were followed by the values reflecting the level of specific skills in mini-basketball, the muscle strength of the arms and of the back, the ability to memorize and correctly execute the structure of the exercises, strength and abdominal muscle strength (Bălan, Shaao, 2014). The methodological approaches of these studies aimed to increase individual participation, to strengthen collective capacity to solve problems, to increase self-confidence of players, to develop psychological and functional-functional tone, to improve physical and mental state and to increase civic solidarity and responsibility. Motivational games have the quality to function in an uncertain environment and are accompanied by intensive social group processes that can lead to the awareness of individual abilities and through the scenarios they involve (selection, organization, management and evaluation), they can improve the personal development of dynamics (Mijaica, 2014).

## Conclusions and recommendations

According to the results we can conclude the fact that dynamic games bring better benefits and results if they are introduced in the physical education and sports lessons. The objectives of the research were reached and indirectly, we also noticed a decrease in the absenteeism rate in students from the experimental class, where dynamic games were introduced. We recommend the use of dynamic games in physical education and sports lessons because, in addition to better results, we have also noticed that the absenteeism phenomenon in sports classes has been reduced in the experiment class.

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