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THE IMPACT OF MOVEMENT GAMES ON THE DEVELOPMENT OF MOTOR QUALITIES IN PRIMARY SCHOOL STUDENTS

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Abstract

In Romania, primary education is the first stage of the compulsory education system and has as main objectives the education of psychomotor and mental values of students, which lead to the sanogenetic optimization of the body at this age. Studying the literature and having the opportunity to work with primary school students, led me to draw some conclusions regarding the development of their motor skills and the importance of introducing movement games in physical education and sports lessons. Considering that movement games can develop motor skills at this age, I conclude it that it was necessary to research this topic further in order to observe its particularities. The experiment group significantly improved its results in the final tests compared to the control class, due to the application of movement games in the physical education and sports lesson, which contributed more to the development of motor skills.

Introduction

According to the specialized literature, the movement games are attractive due to their originality, they produce a state of emulation on the students, they have a spectacular character.

The movement games can also be "an alternative for spending free time practicing motor activities" [4].

These means have stimulating effects on the student's body, developing different motor qualities depending on the objectives of the physical education and sports lesson. Movement games generally ensure an increased intensity and density of the lesson.

Regarding the development of motor skills in students through movement games, in physical education and sports lessons, the teacher will focus on the development of reaction speed, execution and movement, the ability to perform more and more complex motor actions accurately, the ability to succeed in performing technical procedures, motor acts in various conditions and with increased difficulty and the development of general strength [3].

Movement games can be used in all stages of the physical education lesson. In the preparatory part of the lesson we can use games to capture attention, raise the emotional state, in the fundamental part we can choose games that contribute to the education of motor skills and basic motor qualities (speed, force, skill). At the end of the lesson we will use games with a relaxing character [8], "movement games also favor the education of important group relationships, collaboration, mutual help, teamwork, discipline, the desire to win" [2].

At the current stage there are discussions about the development of motor skills at this age because some experts say that their development "is achieved as a result of training and consolidation of skills, that the effort required for their development leads to student fatigue," while others believe that choosing those "methods, procedures and means that have proven to be effective, optimal" [1] can be beneficial in physical education and sports lessons.

Some authors believe that "music-based movement games "allow an intense sense of movement experiences, they provide a greater scale of moral sense, and the challenge to act or give a state of biological balance and a balance of the soul, engages the entire personality of the students. Students learn to understand each other better and to know the world in which they live" [7].

The author Elena Lupu considers that "Within a game and through games, children assimilate motor skills and, at the same time, learn to learn. In this way, children will develop their creativity, gaining the opportunity to seek and find solutions suitable for the moment and to find the path that leads to success " [5]. In conclusion The movement game is a main means in achieving the objectives of physical education and in particular it can be used in the development of motor skills in primary school students.

Material-method

The present paper aims to use movement games in order to develop motor quality in primary school students while pursuing the acquisition of general and specific skills.

The implementation of movement games as a means in physical education and sports lessons in students of grades III and IV, will develop motor skills such as speed, skill, strength and endurance, in order to meet general skills and specific aspects of the school curriculum.

The place of our research was at the Ipotești Gymnasium School, and the working time was the school year 2020-2021, the beginning of September 2020 until November 2020, we worked onsite, from November 2020 until January 29, 2021 we worked online, and from February 8, 2021 until June 25, 2021 we worked onsite (face to face).

In our research were engaged 4 classes of students, 2 experiment classes (III-A and IV-A) and 2 control classes (III-B and IV-B). Each class included a

number of 26 students, including 12 girls and 14 boys. The experiment groups worked according to my schedule, and the control groups worked according to my colleague's schedule. All students agreed and accepted the challenge of our study and they fit the normal somato-functional parameters.

The descriptive statistic includes average, diferences and t test.

Means of action for the development of students' motor skills.

Considering the movement games used in this research through their characteristics, they correspond to a large degree to those motor and mental peculiarities of primary school students, and therefore they have become special in physical education, giving great satisfaction among students. All the Games listed are implemented in the physical education lesson from the easiest to the most difficult, allowing teachers to work in the appropriate sequence of students' skills. Games applied in the physical education and sports lessons in the third grade A: "Butterfly catching net, Mouse and cat, Snake catches its tail, Countries, Wheelbarrow transport, The best sighters, The ball through the tunnel".

Results and Discussions

In table 1 you can see the difference between the initial and the final test in the two groups subjected to the experiment for 3rd and 4th grades girls. At 3rd grade the average difference in the 25 m speed test is 0.37 seconds. In the two-legged rope jump test, the average is 1.17 repetitions, in the long running test it is 0.10, at The test of extensions of the torso from facial lying down, the average difference is 2.00 repetitions, and in the test Lifting of the torso from dorsal lying down, the average is 5.92 repetitions. At the 4th grade the difference between the initial and the final test in the two groups subjected to the experiment. The average difference in the 25 m speed running test is 0.57 seconds, In the two-legged rope jump test, the average is 3.25 repetitions, in the long running test it is 0.20, at The test of extensions of the torso from facial lying down, the average difference is 5.25 repetitions, and in the test lifting of the torso from dorsal lying down, the average is 9.83 repetitions.

Table 1. Progress registered by 3rd and 4th grade girls

Group	25 m speed running test	Two-legged rope jump test	Long running test	Extensions of the torso from facial lying down	Torso from dorsal lying down
		3rd grade			
Experiment	0,53	6,67	0,17	7,58	14,67
Control	0,17	5,50	0,08	5,58	8,75
The difference	0,37	1,17	0,10	2,00	5,92
		4th grade			

Experiment	0,81	7,67	0,26	9,25	13,58
Control	0,24	4,42	0,07	4,00	3,75
The difference	0,57	3,25	0,20	5,25	9,83

In table 2 it is represented the differences between the initial and the final test in the two groups subjected to the experiment for 3rd and 4th grade boys. At the 3rd grade the difference of the average in the 25 m running speed test is 0.52 seconds, In the two-legged rope jumping test, the average is 1.86 repetitions, in the long running test it is 0.10, at The test of extensions of the torso from facial lying down, the average difference is 2.14 repetitions, and in the test Lifting of the torso from dorsal lying down, the average is 3.36 repetitions. The difference between the initial and final testing in the two groups subjected to the experiment at 4th grade, the average difference in the 25 m speed test is 0.36 seconds. In the two-legged rope jump test, the average is 3.86 repetitions, in the long running test it is 0.41, at the test of extensions of the torso from facial lying down, the average difference is 1.07 repetitions, and in the test lifting of the torso from dorsal lying down, the average is 4.36 repetitions.

Table 2. Progress registered by 3rd and 4th grade boys

Group	25 m speed running test	Two-legged rope jump test	Long running test	Extensions of the torso from facial lying down	Torso from dorsal lying down
		3rd grade			
Experiment	0,71	6,79	0,19	8,79	12,43
Control	0,19	4,93	0,09	6,64	9,07
The difference	0,52	1,86	0,10	2,14	3,36
		4th grade			
Experiment	0,87	6,57	0,49	8,79	9,14
Control	0,51	2,71	0,07	7,71	4,79
The difference	0,36	3,86	0,41	1,07	4,36

In the table 3 it can be observed in some tests significant results, according to the interpretation of the T test according to Fisher's table.

Table 3. Intragroup statistical analysis

Group	Assessment tests / Statistical analysis				
	25 m speed running test	Two-legged rope jump test	Long running test	Extensions of the torso from facial lying down	Torso from dorsal lying down

Experiment 3rd grade girls	t=1,06 p>0,05	t=3,61 p<0,001	t=1,13 p>0,05	t=2,41 p<0,05	t=4,03 p<0,001
Control 3rd grade girls	t=2,43 p<0,05	t=2,75 p<0,05	t=2,74 p<0,05	t=1,33 p>0,05	t=1,80 p<0,05
Experiment 4th grade girls	t=1,76 p<0,05	t=3,78 p<0,001	t=1,28 p>0,05	t=3,50 p<0,001	t=2,70 p<0,01
Control 4th grade girls	t=4,54 p<0,001	t=2,45 p<0,01	t=3,02 p<0,01	t=0,001 p>0,05	t=4,62 p<0,001
Experiment 3rd grade boys	t=2,17 p<0,01	t=1,52 p>0,05	t=2,86 p<0,01	t=1,54 p>0,05	t=1,21 p>0,05
Control 3rd grade boys	t=0,06 p>0,05	t=1,01 p>0,05	t= 3,34 p<0,001	t=4,92 p<0,001	t=5,66 p<0,001
Experiment 4th grade boys	t=1,95 p<0,05	t=1,63 p>0,05	t=1,44 p>0,05	t=1,41 p>0,05	t=1,41 p>0,05
Control 4th grade boys	t=2,67 p<0,01	t=0,01 p>0,05	t=3,39 p<0,01	t=1,69 p>0,05	t=5,69 p<0,001

The results obtained in the study confirm the efficiency of the means used in physical education lesson with pupils and the benefits for physical fitness and their quality of life [9,10, 11].

Conclusions

The movement games can be used both in physical education and sports lessons and as fun activities for primary school students.

The experiment group significantly improved its results in the final tests compared to the control class, due to the application of movement games in the physical education and sports lesson, which contributed more to the development of motor skills.

We can state that the hypothesis was confirmed in our research.

The impact of movement games in the development of motor skills, exerts a positive influence on primary school students.

References

[1]. Badiu, T., (1995). Exerciții și jocuri de mișcare pentru clasele I-IV. Galați: Editura Imprimeria Alma.
[2]. Cioacă, L., Cioacă, Ș., Arghirescu A., (2001). Jocuri pentru orele de educație fizică. Editura Ștefan.
[3]. Coman, S. (1995). Educația fizică și metodică predării ei la clasele I-IV. Chișinău Editura Tehnică
[4]. Leuciuc, F.,V. (2015). Activități de loisir. Suceava: Editura Universității "Ștefan cel Mare".

[5]. Lupu, E. (2011). Study regarding the impact of motion games in the intellectual motric development of preschool children, Procedia - Social and Behavioral Sciences, 30, 1209-1214.
[6]. Pangrazi, P., R., Beighle**,** A. (2020). Dynamic Physical Education for Elementary School Children-19th Edition. Champain: Human Kinetics.
[7]. Pasăre, D., Raţă, E. (2014). The developmentof young school children through the psychomotor activity, The annals of the "Stefan cel Mare" University, 8(1), 127-134.
[8]. Teodorescu, D. T. (2012). Educație Fizică pentru învățământul primar, culegere de exerciții și jocuri. Editura DPH
[9]. Popovici M., Leuciuc F. (2015). Contributions of the movement games to the development driving skill speed in the primary school**,** The Annals of the "Ştefan Cel Mare" University, Physical Education and Sport Section, The Science and Art of Movement, 8(1), 38-45
[10]. Halip V., Leuciuc F. (2015). Study concerning development of the driving skill strength by using applicative and utilities skills at the primary school pupils, The Annals of the "Ştefan Cel Mare" University**,** Physical Education and Sport Section, The Science and Art of Movement, 8(2), 71-81
[11]. Leuciuc F.V., Ghervan P., Popovici I.M., Benedek F., Lazar A.G., Pricop G. (2020). Social and educational sustainability of the physical education of romanian students and the impact on their physical activity level, Sustainability, 12(21), 9231.