

DEVELOPING MOTOR QUALITIES SPEED AND SKILL USING MOTION GAMES AT FOURTH GRADE LEVEL

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Abstract

Through this study I want to confirm the need to use dynamic games in physical education classes and to demonstrate the efficiency that movement games have in the development of motor skills. In this study we started from the assumption that movement games play a key role in the development of motor skills in primary school students. At this level, the dynamic game used in the physical education lesson is the most effective compared to other means of training. During the physical education classes, the movement games will contribute to the improvement of the indices of motor skills, speed and dexterity, thus an evolution will be observed in terms of the initial and final results. Following the study, we calculated the arithmetic mean, the coefficient of variability and the standard deviation. The results obtained in the initial and final tests of the experiment group and the control group were interpreted graphically.

Introduction

The activity that involves a predominantly fun side, of relaxation, carried out in a group of individuals or individually, based on certain rules initially established and a final goal to achieve is represented by the game [2,3].

In the period of childhood, at the basis of the child's development, both at the mental and physical level, fundamental activity is represented by play [7,9,11].

The game has a special instructive-educational significance because within this activity the participants, who, although at first glance seem to be playing, assimilate new skills.

The game proposes some benefits, such as:

- The possibility of adaptation within different parts of the lesson.
- Fundamental movements are used at a broad level.
- It involves the integration of the student into a collective and at the same time imposes on him/her the observance of some norms in order to achieve his/her own interests but also to the collective ones.

- Through play, children acquire new skills of movement, educate their physical qualities and acquire vast mental skills, which play a decisive role in shaping future personalities.
- By interacting with different materials specific to the physical education class, carrying out some tasks and repeating some structures specific to motor skills, the students gain control over the environment.
- In order for the movement games to be effective in physical education classes and their influences to be beneficial for the students, the teacher has a major role.
- It must pay more attention to how the game is conducted in order to be able to capture the correctness of the execution of the moves and the observance of the imposed regulation. Thus, through careful observation by the teacher, he can correct some execution mistakes or physical deficiencies.
- Movement games have a liberatory character, so the teacher can very easily get to know the pupils and observe their individual peculiarities.
- During the game, the teacher must combat the attitude of certain students who want victory at any cost, and at the same time warn the students who do not follow the rules of the game or act harshly in relation to other colleagues.
- At the end of the class, the teacher must make certain assessments, the students who have shown an appropriate behavior must be highlighted and those who have had a negative attitude must be guided so that in future activities they can change their behavior.

Through this study I want to confirm the need to use dynamic games in physical education classes and to demonstrate the efficiency that motion games have in developing motor qualities [1,4].

The education of motor qualities has a positive effect on students, improving the ability to provide qualitative responses to known or unknown situations encountered both in school physical education classes and in activities carried out in their free time. [5]

Through the physical exercises performed with the purpose of educating the motor qualities, the state of health is improved, at the same time achieving a harmonious physical development [6,8,10].

Material-method

Hypothesis

In this study we started from the assumption that movement games have a primary role in the development of motor qualities in primary school students.

At this level, the dynamic game used in the physical education lesson is the most effective in comparison with other means of training.

Through dynamic games, the students of the fourth grade will register positive results in terms of educating the motor qualities of speed and skill.[1]

The purpose of the work

This study aims to confirm the role of movement games in physical education lessons. Through a systematic, conscious and continuous practice on the part of the students, but also a good capacity for management, involvement and careful coordination on the part of the teacher, this type of activity will prove its efficiency.

During the physical education classes, the movement games will contribute to the improvement of the indices of the motor qualities speed and skill, so an evolution will be observed in terms of the results initially recorded and the final ones [5,6,9].

Description of tests applied in the research

The students were initially tested in the following tests:

5x5m shuttle

The surface on which the sample was executed is a non-slip one.

On the sports field, two parallel lines were marked the distance between them being 5 meters. The student starts from behind one of the lines at the teacher's signal and runs to the other line then returns to the starting line. The student travels 5 times the distance between the 2 lines passing with both legs each time over the line.

The sample was repeated 2 times being noted the shortest recorded time.

Throw to a vertical target

The target, with a width of 0.5 meters, is positioned at a distance of 5 meters from the throwing point and at a height of 2 meters. Students will throw at target with one hand above their shoulder, using tennis balls. The students had 5 throws at their disposal. The sample was repeated 2 times, being noted the best performance.

During the initial tests, the students were instructed to keep their physical distance and disposable gloves and disinfectant were used to use the materials.

The final testing for these tests could not be sustained because starting with 09.11.2020 the physical education classes were held in the online system.

At the beginning of the online classes the students took the initial and then final test in the **tapping test**.

Each student is positioned in front of the desk sitting on both legs, the torso being slightly bent forward, the contact with the ground being made on the entire surface of the foot.

Subjects should be dressed in clothes that allow them, especially at the level of the arms, ample movements.

On the desk are placed 3 sheets of paper of the size A4. One sheet of paper is laid out in the center, and the other two sheets will be placed to the left and right of the middle sheet at a distance of 15 centimeters.

The subject must keep his left hand on the middle sheet and on the right one on the sheet on the right. At the start, the student must touch with his right hand the left sheet and return to the right sheet, this being a cycle. Each student will execute a total of 20 cycles.

Each student's working time is recorded and noted. The test is repeated twice, noting the shortest time.

The study was attended by the students of the IV-th grades, with a collective of 19 students, of which 10 girls and 9 boys and IV with a number of 19 students, 8 girls and 11 boys. The students are between the ages of 10 and 11.

The practical part, in which the development of motor qualities was aimed at speed and skill through movement games among the students of the two fourth grades, was carried out at Bosanci Secondary School in the period 14.09.2020-06.11.2020.

The physical activity was carried out on the sports field. In terms of materials, the school is equipped with a diverse range of materials and a sufficient number. Given the epidemiological situation, the materials used were few and carefully selected in order to comply with the imposed protection rules.

Between 09.11.2020-18.12.2020 the practical activity was carried out in the online system. The workspace was small, and the materials used were selected so that they could be made at home by each student with minimal resources.

Results

Following the study we calculated the arithmetic mean, the variability coefficient and the standard deviation. The results obtained in the initial and final tests of the experiment group and control group are given in the tables below.

Table 1 Results of experimental group

	5x5m shuttle (m)		Throw to a vertical target (success of 5)		Tapping Test	
	I.T	F.T	I.T	F.T	I.T	F.T
Average	10.35	9.81	2.84	3.23	12.67	11.63
St. Dev.	1.008		1.267		1.637	1.446
CV%	9.737		44.598		12.922	12.431

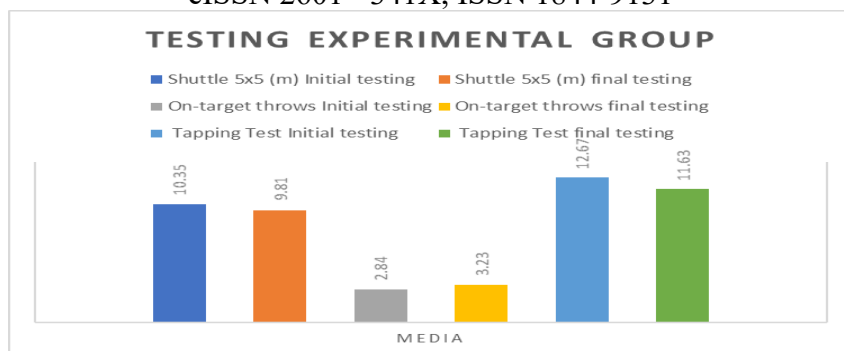


Fig. 1 Initial and final testing an experimental group

Table 2 Results of control group

	5x5m shuttle (m)		Throw to a vertical target (success of 5)		Tapping Test	
	I.T	F.T	I.T	I.T	F.T	I.T
Average	10.70	10.41	2.57	2.96	13.50	12.55
St. Dev.	0.952	1.005	1.269	1.1975	1.735	1.469
CV%	8.897	9.250	49.234	48.968	12.85	11.704

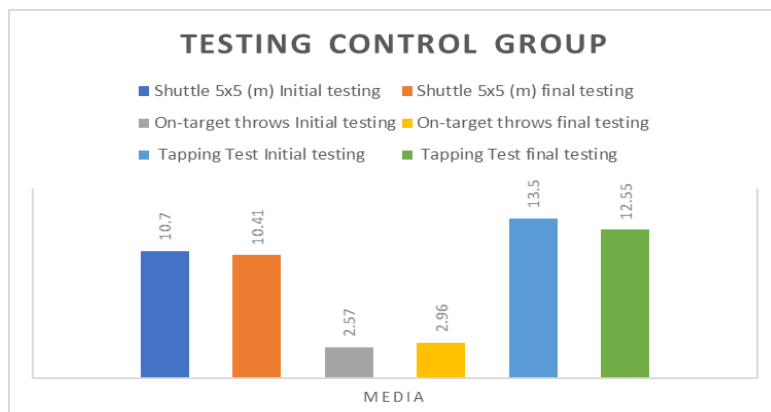


Fig. 2 Initial and final testing a control group

In the initial test held in the sample the shuttle 5x5 meters the experiment group obtains the score of 10,35 and in the throws test at the vertical target 2,84.

In the final test held in the sample the shuttle 5x5 meters the experiment group obtains the score of 9,81 and in the throws test at the vertical target 3,23. Significant progress is seen in the final testing.

According to the arithmetic average, the control group obtains the score of 10,70 in the shuttle 5x5 meters and in the throws at the target 2,57.

According to the arithmetic average, the students from the experiment group recorded at the initial testing supported in the tapping test the amount of 12,67 and in the final one 11,63, thus a positive evolution is observed following the application of the movement games for the development of the motor qualities.

According to the arithmetic average, the students from the control group obtained at the initial testing supported in the tapping test the amount of 13,50 and in the final test the amount of 12,55 recording an evolution from the initial values to the final ones.

In graphics, the results obtained in the final test are shown in both the experiment group and the control group. A positive evolution may be observed in the experiment group which obtained in the final test the sum of 11,63 compared to the control group that obtained the sum of 12,55 in the final test.

Conclusions

The motor qualities are the basis for the formation and consolidation of basic motor skills, applicative-utilitarian and specific to certain sports branches. The motor qualities educated at a high level offer the possibility of a better acquisition of motor skills and abilities; a low level of development of motor qualities involves an increased effort on the part of the subjects to acquire certain motor skills.

The motor qualities must not be developed only as a result of the activity of forming motor skills, but it is necessary to act in this respect by means appropriate and adapted to the particularities of the subjects.

In this study we used motion games as the main means to develop the motor qualities speed and skill among fourth graders. Dynamic games were carefully selected and adapted to the level of physical and mental development of the subjects who took part in the practical study.

In conclusion, the hypothesis of the study, according to which motion games have a primary role in the development of motor qualities, was verified following the collection and analysis of the data recorded by the subjects in the initial and final tests.

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