

THE EFFICIENCY OF THE PHYSICAL EDUCATION AND SPORTS LESSON BY APPLYING THE MEANS OF HANDBALL TO THE GIRLS IN THE GYMNASIUM CYCLE

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Abstract

Physical education is an important factor in the development of the individual and in increasing the physical and mental potential of the individual. The handball sport game is a basic means of physical education through the motor actions carried out organized during the lessons. The lesson is coordinated by the teacher, who in the activities he carries out must ensure an attractive climate, optimal for movement and with maximum efficiency in the exercises he carries out. The activity climate must be one based on mutual respect, thus preventing conflicts between teacher and student. The method of studying the literature allowed us to study the specialized works of physical education, the method of observation made it possible to observe the attitude of students in the experiment, the statistical method helped us to process the results obtained from a mathematical-statistical point of view. graphs and tables in the presentation of data using tables and graphs. The test method aimed to ascertain and highlight the evolution of the groups of students previously established specifically for the game of handball. The aim of the research is to apply the means specific to the game of handball at the level of the gymnasium cycle, in the seventh grade, in order to achieve the objectives of physical education and school programs in order to increase the efficiency of the physical education and sports lesson.

Introduction

Physical education in the vision of Dragnea A. [2] contributes to the transmission of information about the human body, the parameters of effort, exercise and the rules of sports games. The same author considers that physical education is a motor activity consisting of systematized motor actions, is performed in an instructive-educational process for personality development, is practical and theoretical forming a series of ideas, rules and norms and forms a system of influences that applies to individuals.

Any physical education lesson, held outdoors or in a less appropriate space, requires a good organization of this activity. In organizing the lesson, the teacher must be very careful about the space where the instructional-educational process

takes place, the materials available, the number of students, the effectiveness of the chosen exercises, the achievement of the proposed objectives. The measures taken in order to carry out the physical education lesson represent the basic components of the didactic technology with an important role in the realization of the proposed topics.

According to some authors, [6,8] the lesson is considered the basic form of the instructive-educational process of physical education consisting of contents that lead to increasing the efficiency of the whole activity.

From a methodical point of view, a good organization of the lesson offers a high efficiency of the students in relation to the links of the lesson, with the proposed objectives and themes, the type of lesson, the level of effort, the age, sex and the level of preparation of the participants.

In order to increase the efficiency of the physical education lesson from the perspective of Scarlat E. [9] we must take into account the following considerations: ensuring the educational content of the lessons, achieving through a high level the requirements of the curriculum, designing and conducting the lesson specialty, ensuring the density and attractiveness of the lesson, ensuring a good relationship between teacher and student, using modern methods and designing exercises and exercise structures according to age, gender and level of training.

For the students in our schools, almost any activity in which they participate is a game, in which they develop their skills in a proper way. Being a means of physical education, the game requires the need for movement, interaction with people, implementation of simple rules, easy to understand, supports patience, calm, perseverance, creativity.

The sport of handball [1,3] is a basic means of physical education through motor actions organized in lessons. Due to its special features, handball contributes effectively to the development of basic and specific motor skills [4,5,7,10], to the acquisition of motor skills, to the learning of knowledge related to technique and tactics, to the learning of teamwork, as well as to the development of the competitive sense, as well as the promotion of fair play. Due to the fact that the game of handball through its means leads to the achievement of the objectives of physical education, learning, consolidation and improvement must have the simplest, most direct and effective way in which information is transmitted to students. In organizing the process of teaching the game of handball in school at the level of the gymnasium cycle, the emphasis should be on learning and consolidating the basic procedures and basic tactical actions that can allow the practice of the game.

Material-method

This experiment was attended by 20 pupils, from the seventh grade, 10 girls representing the experiment class 10 girls representing the witness class from the Technological High School "Iorgu Vârnab Liteanu", Liteni city, Suceava county.

During September - November 2019 and September - November 2020, the students from the experiment class, carried out activities according to a special planning created with handball means. The control class completed activities in accordance with the training-specific curriculum.

The method of studying the literature allowed us to study the specialized works in the field of physical education, the method of observation made it possible to observe the attitude of students in the experiment, the statistical method helped us to process the results obtained from a mathematical-statistical point of view. graphs and tables in the presentation of data using tables and graphs.

Test method.

To assess the game-specific procedures we used the following tests:

Dribbling between 30 m straight line - simple dribbling was performed with the deft arm from the starting line at a distance of 30 m. A single repetition was given and the result is recorded in seconds and tenths of a second using the digital stopwatch.

Dribbling between 30 m cone drills - multiple dribbling was performed over a distance of 30 m between cone drills, these being placed at a distance of 3 m between them. Only one repetition was given and the result is recorded in seconds and tenths of a second using the digital stopwatch.

Three steps and throw - the handball ball was thrown with the deft arm, behind a line marked on the ground, following the 3 - steps, the distance being measured in meters using a roulette wheel. Only one repetition was granted.

Triangle movement - performed, after the signal, moved with added steps from the left side of the triangle to the right, moved with added steps forward to the top of the circle, moved with added steps backwards, towards the base of the circle, then in the opposite direction to the place of departure. The triangle is marked as follows: the base of the triangle consists of a straight line of 3 m, drawn on the ground, from its middle rises a perpendicular of 3 m and will be the height of the triangle. Join the 3 points obtained and obtain the triangle. Only one repetition was given and the result is recorded in seconds and tenths of a second using the digital stopwatch.

In order to establish the level of preparation of the students for the 3 technical-tactical structures and for the bilateral game, marks were awarded according to the National Assessment and Examination System in Romania, and for the other tests the results obtained were noted as follows: throwing the handball with momentum of 3 steps - meters and dribbling in a straight line 30 m, dribbling between milestones 30 m and moving in a triangle in seconds and tenths of a second.

Results

The testing period was during the 2019-2020 school years in September the initial testing, in November the intermediate testing and 2020-2021 in September

the final testing, both in the experiment group and in the control group (7th grade). In order to appreciate the specific procedures of the game, we used the following tests: dribbling in a straight line 30 m, dribbling between milestones 30 m, throwing the handball with 3-step momentum, moving in a triangle.

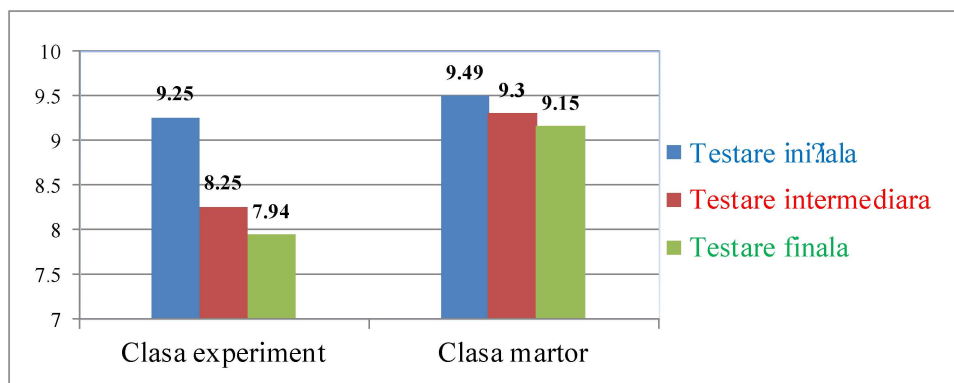


FIG. 1. Graphic representation of the results for the specific tests of the handball game of the students from the experiment and witness girls classes at the initial, intermediate and final test, dribbling in a straight line 30m

In the specific test, dribble in a straight line 30m, (Figure 1.) in the initial test, the arithmetic means in the experiment group, girls, is 9.25 seconds, with an average error of ± 0.21 , in the intermediate test 8, 25 seconds, with an error of ± 0.36 and at the final test with an average of 9.15, with an average error of ± 0.20 . In the same test, the control class, girls, the arithmetic mean at the initial test is 9.49 seconds, with an average error of ± 0.21 , at the intermediate test 9.30 seconds, with an error of ± 0.20 , and at the test the final value obtained is 9.15 seconds, with an average error ± 0.20 .

The data obtained by the experiment group show $P < 0.001$, with a value of 5.05, between the initial test and the intermediate test, 4.38 between the intermediate and final test and 7.83 between the initial and the final test, thus representing significant differences in statistically. In the control group, from a statistical point of view, we have significant differences between the initial test and the intermediate test, where the value obtained is 2.81, so $P < 0.05$, at the intermediate and final test the value obtained is 5.67, $P < 0.001$, and at the initial and final testing we have a value of 4.31 representing $P < 0.001$.

Comparing the results obtained by the experiment and control groups, girls, in the handball game-specific test, 30m straight line dribbling, in the initial test, $P > 0.05$, (0.85) noting that the differences are insignificant, at the intermediate test $P < 0.05$, (2.55) and at the final test $P < 0.01$, (3.22), the differences being significant.

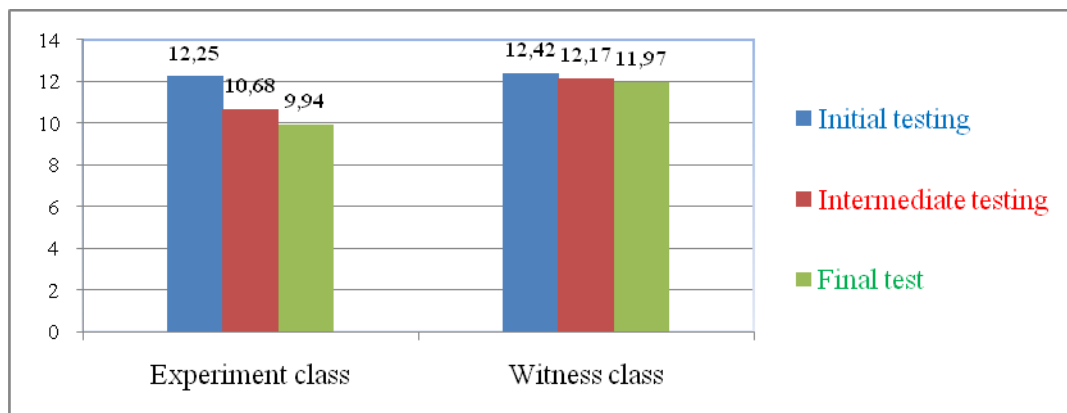


FIG. 2. Graphic representation of the results for the handball game-specific tests of the girls in the experimental and witness classes in the initial, intermediate and final tests, dribbling through 30m milestones

In the specific test, dribbling between 30m milestones, (Figure 2.) the value obtained by the experiment group, girls, in the initial test has an arithmetic mean of 12.25 seconds, in the intermediate test 10.68 seconds, and in the final test it obtains an average of 9.94. In the same test, the control class, girls, the arithmetic mean in the initial test is 12.42 seconds, in the intermediate test 12.17 seconds, and in the final test the value obtained is 11.97 seconds.

The results from the experiment group between the initial test and the intermediate test have a value of 9.29, representing $P < 0.001$, between the intermediate and final test the value 7.07, $P < 0.001$, and between the initial and the final test the value 10.16, $P < 0.001$, representing statistically significant differences between the three tests. In the control group, between the initial test and the intermediate test we have the value 2.59, $P < 0.05$, in the intermediate and final test the value obtained of 4.88, $P < 0.001$, and in the initial and final test we have a value of 3, 84, $P < 0.001$, the differences being significant between all the tests performed.

Interpreting the differences obtained by the experimental and control groups, girls, in the test specific to the game of handball, dribbling among 30m milestones, in the initial test, the value is 0.38 ($P > 0.05$) the differences are insignificant, at intermediate testing 2.75 ($P < 0.05$) and 3.54 final testing ($P < 0.01$), the differences being significant.

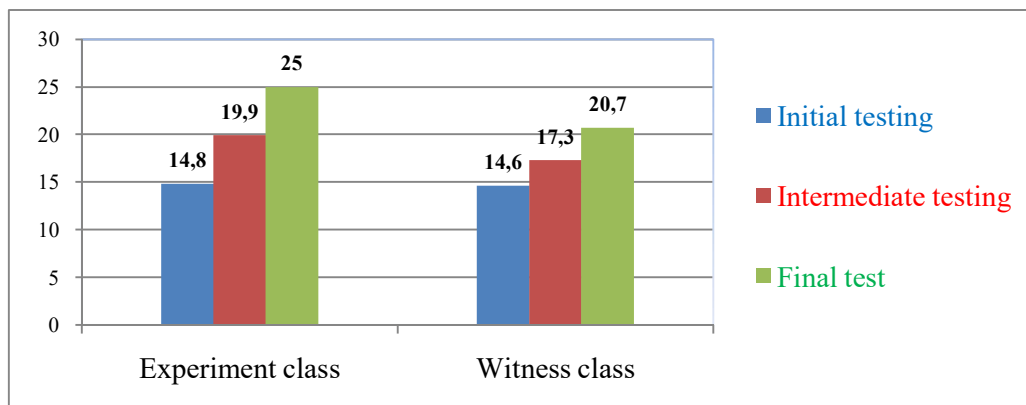


FIG. 3. Graphic representation of the results for the handball game-specific tests of the girls in the experimental and witness classes in the initial, intermediate and final tests, throwing the handball ball with enthusiasm

In the test, throwing the handball ball with momentum, (Figure 3.) in the initial test the value obtained by the experiment group, girls, has an arithmetic mean of 14.8 m, in the intermediate test 19.9 m, and in the final test it obtains an average of 25 m. In the same test, the control class, girls, the arithmetic mean in the initial test is 14.6 m, in the intermediate test 17.3 m, and in the final test the value obtained is 20.7 m.

The results obtained by the experiment group between the initial test and the intermediate test have a value of 10.58, between the intermediate and final test the value 9, and between the initial and the final test the value 19.12, representing statistically significant differences between the three tests, $P < 0.001$. The control group, obtains between the initial test and the intermediate test a value of 9, at the intermediate and final test a value of 10, and at the initial and final test we have a value of 14.7, the differences being significant between all the tests performed, $P < 0.001$.

Analyzing the differences obtained by the experiment and control groups, girls, in the specific test of the handball game, throwing the handball ball with momentum, in the initial test, the value is 0.32 ($P > 0.05$) the differences being insignificant, at the intermediate test the value was 2.67 ($P < 0.05$) and at the final test 4.5 ($P < 0.001$), the differences being significant.

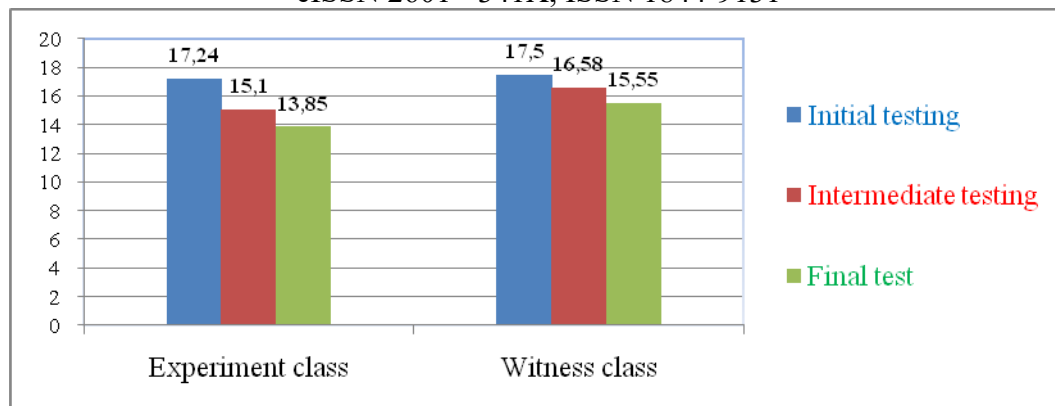


FIG. 4. Graphic representation of the results for the handball game-specific tests of the girls in the experimental and witness classes in the initial, intermediate and final tests, triangle movement

In the specific test, triangular movement (Figure 4.) in the initial test, the arithmetic mean in the experiment group, girls, is 17.24 seconds, in the intermediate test 15.1 seconds, and in the final test with an average of 13,85. In the same test, the control class, girls, the arithmetic mean in the initial test is 17.5 seconds, in the intermediate test 16.58 seconds, and in the final test the value obtained is 15.55 seconds.

The data obtained by the experiment group show $P < 0.001$, with a value of 7.16, between the initial test and the intermediate test, 6.64 between the intermediate and final test and 17.88 between the initial and the final test, thus representing significant differences in statistically. In the control group, from a statistical point of view, we have significant differences between the three tests, $P < 0.001$, where the value obtained between the initial test and the intermediate test is 6.18, in the intermediate and final test the value obtained is 7.82, and at the initial and final testing we have a value of 9.05.

Comparing the results obtained by the experimental and control groups, girls, in the test specific to the game of handball, triangular movement. In the initial test, $P > 0.05$, noting that the differences are insignificant, in the intermediate test $P < 0.001$ and at the final test $P < 0.001$, the differences being significant.

Conclusions

In the handball-specific tests applied in the research, there are differences between the tests performed both in the experiment class and in the control class. Girls at the initial test do not show significant differences between groups. In the intermediate test in the 30m straight dribbling tests, 30m dribbling between milestones, throwing the handball ball with momentum, moving in a triangle, the results from the experiment class are better, $P < 0.05$ or $P < 0.001$. Following the application of handball medics in physical education lessons, the girls in the experiment class, at the final test, obtain significant results compared to the control class in all the applied tests mentioned above.

The application of handball in physical education and sports classes has led to an improvement in the results of students in the experimental class compared to the control class and to an effective increase in motor and functional density, thus increasing the level of efficiency of lessons.

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