

## IMPROVING MOTOR SKILLS THROUGH HANDBALL ELEMENTS FOR THE PRIMARY CLASS

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### Abstract

*Introduction.* In the III class is a development-intensive functions driving analyzer (whose training is natural during this period), which allows elements to refine technical and tactical practice model interim handball game.

The study is to determine whether acting through specific techniques and tactics handball allows skills education, its forms of manifestation.

*Purpose.* This paper aims to contribute through the study and experiments conducted in growth indicators using means skills characteristic game of handball, which is a way of ensuring the training of learning. The motivation of this choice of themes derived from the fact that handball is considered by specialists of the field, a happy synthesis of the basic driving skills of the human race that, lift, catching and throwing, I. Kunst – Ghermănescu (1983), is a means of physical education, but also an instrument through which the physical education teacher can provide the dynamism and attractiveness of the lesson, the need to stimulate interest of students to practice sports activities.

*Methods.* Period of experimental implementation of the strategy was about 6 months, divided into two phases: September- November 2017 and March-May 2018, effective work in 25 weeks, 54 hours of physical education. Experimental class, the average time affected experimental work every hour is 15 minutes.

*Results.* Improving students' class preparation confirms the experimental means used in the experiment, which contributed, on the one hand to develop the skills of practicing the game of handball, and on the other hand, have exploited the potential of students in terms of driving skills, especially of skill, favoring the development of complex forms of it. An important role in achieving these results it has applied the methodology, which has pursued an effective dosage of the ability to exercise choice forms the best place of business, to ensure an attractive and dynamic lessons, selecting appropriate resources for maximum efficiency in learning.

*Conclusions.* Results of experimental class students in the final samples of batteries of tests used in the experiment have confirmed the value of research in order to identify ways and means to address the learning content in a modern complex, expressed by the dynamism and attractiveness of physical education lessons. Progress in this class development of skills in general has shown that the game of handball is a significant contribution to achieving the objectives of physical education in school because the structure is its top of practice driving acts.

*Key words:* skill, handball game, students.

### Introduction

This paper shows how the identification of new methodical, specific enrichment of handball game helps develop motor skills, especially skill. Through applications, the paper presents the physical education teachers involved in teaching handball methodically appropriate material content of the national curriculum in secondary education cycle, necessary activities to class III was in the process of educating the driving qualities attractive and creative.

### The research hypotheses

In the III class is a development-intensive functions driving analyzer (whose training is natural during this period), which allows elements to refine technical and tactical practice model interim handball

game.

The study is to determine whether acting through specific techniques and tactics handball allows skills education, its forms of manifestation.

### Research tasks

Making anthropometric measurements and application of tests motricitate and skill specific to the game of handball, the classes involved in the experiment.

Analysis and interpretation of results of initial testing.

Development and implementation cycles of the lessons from handball to the specific means of developing skill game.

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Applying the final test, using the same parameters as the initial testing.

Recorded data processing and analysis of effectiveness used in the experiment.

Drafting of conclusions and proposals.

#### **Research methods and procedures**

Period of experimental implementation of the strategy was about 6 months, divided into two phases: September- November 2017 and March-May 2018, effective work in 25 weeks, 54 hours of physical education. Experimental class, the average time affected experimental work every hour is 15 minutes.

All experimental class students have received the same training as the driving tests and are applied within hours of physical education. School holidays and material conditions as those imposed on sharing air activity in two experimental phases and structure of lessons in different periods of atmospheric uncertainty.

The research was conducted within the School with classes I-VIII nr.39 Nicolae Tonitza Constanta, Constanta county, Class III-A is the experimental class, and class III-B of class witness.

School sports are a modest, consisting of a handball court size 40/20m and a sand pit for the lift, and a gym size 20/10m for the winter.

Sports materials used in the experiment are the specific game of handball (handball balls, vest) and others are used as auxiliary materials: rubber balls, balls of oina, milestones, mattresses, stopwatch, tape etc.

To throw in a practice we used two gates drawn on the wall, which we marked sixteen rectangular areas with different scores, each student making every throw and 4 in a final cumulative score.

Experimental Class (III-a A) is composed of 19 subjects, 9 girls and 10 boys, with an average age of  $\bar{x} + Ds = 9,18 \pm 0,82$  years. In this class to use particular operating system designed in the experiment.

Witness class (III-a B) consists of all 19 subjects, 10 girls and 9 boys, with an average age of  $\bar{x} + Ds = 9,26 \pm 1,02$  years. In this class used a normal operation, the appropriate methodology for conducting physical education lessons in class III-a.

The tests applied in the context of research aimed at both knowledge of subjects and demonstrate the effectiveness of systems used to drive development through specific of handball game skills. For this purpose, we used the following battery of tests: anthropometric measurements, specific of handball game tests (G. Carstea , 2000).

We selected anthropometric measurements and tests applied for the following anthropometric characteristics: height (height), weight, size, Adrian Ionescu index, because the particular development anatomic-functional at this age require careful tracking of these indicators, to maintain their optimum parameters (D. Colibaba – Evuleț, 1998).

In the battery of tests specific handball game we included both tests concerning the performance of a technical process isolation (passing movement in fundamental position, throwing distance / bearing to a ball handball, dribbling) and evidence concerning the execution of a technical and tactical (A. Dragnea, 1974).

Continuation of general physical preparation and the specific skills development concern:

a) developing general skills components: mobility, flexibility, coordination,

b) development of forms of expressed specific skills - in particular the "sense of the ball. "

To achieve these objectives we used the specific physical preparation of the previous stage gradually introducing some elements necessary for correct execution of tactical and technical procedures to be adopted in this phase.

a)Development of general skills (mobility, flexibility, coordination) :

- mainly through a combination of elements from handball using borrowed from gymnastics, athletics
- jump over obstacles, with the impetus and approach different obstacles from different angles - jump followed by rolling;
- exercises (bending, twisting) ball with sticks of gymnastics

- circular motion of the trunk, upper and lower states.

- travel in the triangle, zigzag, tortuous

- the fundamental position (I.Bota,1984);

b) Training and development of specific skills- through various processes with the ball :

- throwing and catching the ball (on the wall, soil, air)

- dribbling ball in different positions, with one hand and the other

- exercises trickery ball

- passing in different positions (sitting, lying, etc..)

- exercises passing and catching the tennis ball, rubber, for rugby (P. Cercel , 1975).

c) Development of speed of execution (skill as speed) by:

- passing the location of the race, run with maximum speed

- dribbling multiple alternatively among obstacles

- in the form of competitions, who makes it many passing in a minute
- throwing to gate drawn on the wall, with the shorter running time
- throw in a(of all known processes) which emphasize the need to increase speed of execution (M. Epuran, 1976).

Improving technical process was endorsed by reinforcing elements in the previous stage, and learning new elements was accompanied by an explanation and demonstration of their practice, with references and

their performance closer to implementation in the game.

Improving tactical actions and endorsed in the previous stage was based on known technical elements, aiming at raising awareness by students on the necessity of compliance with the principles and tactics to initiate their tactical application of complex schemes, which encourage motor skill development, particularly forms a specific skill.

### Results

**Table 1.** Physical characteristics of the subjects

| Variables        | FIRST TEST           |        |                           |        | SECOND TEST          |        |                          |        |
|------------------|----------------------|--------|---------------------------|--------|----------------------|--------|--------------------------|--------|
|                  | Witness Class (n=19) |        | Experimental Class (n=19) |        | Witness Class (n=19) |        | Experimental Class n=19) |        |
|                  | M±DS                 | CV (%) | M±DS                      | CV (%) | M±DS                 | CV (%) | M±DS                     | CV (%) |
| Body height (cm) | 132,73±3,87          | 4,68   | 131,10± 4,60              | 5,16   | 133,26±3.2           | 4,45   | 133,73± 4,06             | 4,65   |
| Body weight (kg) | 32,84±3,51           | 9,52   | 31,47± 4,33               | 1,25   | 33,05±3,51           | 9,22   | 32,73± 4,20              | 10,31  |
| Scale (cm)       | 142,21±7,12          | 5,01   | 148,36 ±5,08              | 3,54   | 144,15±7,01          | 4,86   | 143,42 ±4,63             | 3,12   |
| A. Ionescu index | 1,26±0,1             | 7,93   | 1,22 ±0,17                | 13,93  | 1,31±0,14            | 10,06  | 1,26 ±0,16               | 12,59  |

Established significance level at p<0,05.

M, average; DS, standard deviation; CV, variability coefficient; n, number of subjects

**Table 2.** Specific tests handball

| Variables                 | FIRST TEST           |        |                           |        | SECOND TEST          |        |                           |        |
|---------------------------|----------------------|--------|---------------------------|--------|----------------------|--------|---------------------------|--------|
|                           | Witness Class (n=19) |        | Experimental Class (n=19) |        | Witness Class (n=19) |        | Experimental Class (n=19) |        |
|                           | M±DS                 | CV (%) | M±DS                      | CV (%) | M±DS                 | CV (%) | M±DS                      | CV (%) |
| Passing the wall          | 19,15±2,03           | 10,6   | 19,21± 2,12               | 11,03  | 20,42±2,36           | 11,55  | 23,73± 2,8                | 11,79  |
| Trips triangle(s)         | 26,36±1,56           | 5,91   | 25,89± 1,69               | 6,52   | 24,31±1,6            | 6,58   | 20,73±1,93                | 9,31   |
| Throwing ball(m)          | 14,21±1,58           | 11,11  | 14,47±1,77                | 12,23  | 15,36±1,57           | 10,22  | 17,05 ±2,04               | 11,96  |
| Dribling 20m(s)           | 7,94±0,59            | 7,43   | 7,8 ±0,6                  | 7,69   | 7,67±0,58            | 7,56   | 7,32 ±0,59                | 8,06   |
| Throwing at the gate      | 9,31± 1,97           | 21,16  | 9,94± 1,92                | 19,31  | 10,78±2,04           | 18,92  | 12,47± 2,03               | 16,27  |
| Techn. and tact. route(s) | 38,78± 2,95          | 7,6    | 38,10± 2,74               | 7,19   | 36,15± 2,83          | 7,82   | 32,84± 3,23               | 9,83   |

Established significance level at p<0,05.

M, average; DS, standard deviation; CV, variability coefficient; n, number of subjects.

### Discussions

For students in the process of transformation anatomic - physiological, age-specific to 9-10 years p that passes, the specific training conducted within the research was a way to exploit the capacity of their general motive, but also highlighting the level of skill development their motive.

Increases in height and weight recorded by pupils between the two anthropometric tests are normal, fall in average values reported in literature for this stage of the evolution to maturity. The size and Adrian Ionescu index show yet persistent imbalance in age between the development of body segments.

Differences observed between initial and final testing of samples of general skills, and the differences recorded in this chapter between subjects and experimental class of the class can witness confirms improvement this age parameters driving skills, both in their general forms of manifestation, as and the specific combination ( skill as speed, force the regime of skill). The investigation carried out on developing students skill showed progress in this direction, both in the individual performance records as well as the homogeneity group.

Improving students' class preparation confirms the experimental means used in the experiment, which contributed, on the one hand to develop the skills of practicing the game of handball,

and on the other hand, have exploited the potential of students in terms of driving skills, especially of skill, favoring the development of complex forms of it.

An important role in achieving these results it has applied the methodology, which has pursued an effective dosage of the ability to exercise choice forms the best place of business, to ensure an attractive and dynamic lessons, selecting appropriate resources for maximum efficiency in learning.

Differences between the coefficient of variance obtained from specific handball evidence indicates that the evidence that was requested and strength, combined with skill and speed, the dispersion of results was higher, as explained by the peculiarities of the physical at this age. In the explosive development of height, in some subjects to balance the musculature in a slower rate, which influences the development and strength.

### Conclusions

Results of experimental class students in the final samples of batteries of tests used in the experiment have confirmed the value of research in order to identify ways and means to address the learning content in a modern complex, expressed by the dynamism and attractiveness of physical education lessons. Progress in this class development of skills in general has shown that the game of handball is a significant contribution to achieving the objectives of physical education in school because the structure is its top of practice driving acts.

This new approach involved students in contact forms of global movement and physical effort, with beneficial influences on the development process anatomic - working on it through the body at this age. Alternation of forms of organization of work and various types of exercises, games, relay race, competitions tested in the research contributed to the optimization lessons, grading and complexity of the request body as factors favoring learning fast and accurate processing of technical and tactical actions for designed themes.

Due to its complex structure, the game of handball is a favored driving skills development, field work involving movement and speed of execution, skill in handling the ball, force projection, detention, etc. resistance effort.

Through the study we demonstrated that the lessons into the themes of which have a share handball significant contribution to the development of motor skills in general. One of the hypotheses of experimental research aimed handball specific means

to determine their contribution to the development skill.

Analysis of test results specific handball validated this hypothesis, significant differences between the results of research subjects - experimental class students - and the class of witnesses confirming the operational structures experienced handball practice and the role in the development of specific forms, complex skill, and transferable to other areas activity daily.

### Recommendations

During such research we found the need to achieve, along with physical training and tactical and technical, a good preparation of students from the psychological point of view because at the onset of puberty occurring multiple transformations in the behavior, attitude, emotional. Any action involving driving specific handball, with different weight in making its driving qualities and skills, mental processes and cognitive, volitional, emotional.

Practicing handball, students develop their ability of self, is used to work as a team, are in solidarity, learn to know and to match its capacity to work, live the joy and satisfaction of success when their actions are successful, they will manifest when struggling to obtain performance.

Given that research carried out aimed specifically at the influence of specific handball skills development, I propose extending the research to determine the role that it has handball in the development of specific forms other driving skills. Methodological aspects, I believe that learning technical and tactical structures of the game of handball must be conducted on the basis of a rigorous design and a favored investment of operational structures, in terms of their link with the previous ownership. Also, to ensure an appropriate pace of development capacity of each learner drivers should be grading the difficulty of exercises and exercise groups value.

For this it is necessary to generalize the application of batteries of tests in all classes with a teacher who works as a comparative analysis of these samples give important information concerning the preparation and homogeneity of each group, but also on the evolution of individual subjects required in determining work priorities future.

Deepen the study on the determinants of psycho-emotional behavior of students in the practice games and sports industries in the school physical education will lead to a better knowledge of their



personality and will facilitate the selection and targeting those gifted with special skills to the practice of sports in the experienced of sports clubs.

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