

# Particularities of the Education of the Coordination and Acquisition of the Curriculum of Physical Education by Using the Specific Means of Playing Basketball

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**Abstract:** Sports games, due to their many positive valences, have made them one of the main means of physical education, with important contributions to the achievement of the general and specific competences of this educational discipline.

The purpose of the present study is to explain experimentally the role of using basketball-specific means in the training of coordinating abilities in the preadolescence in the physical education lesson, and on the other hand the surprise of the influence of these means on the qualification, training and development of the contents of the school curriculum of physical education and school sport.

It is well-known that among all the contents of the curriculum, sports play is the main point of interest for students of all ages regardless of whether they belong to a gender category or another. This attractiveness is justified by the fact that practicing a sports game, such as basketball, leads to an increase in interest in movement that, in meeting the needs of relaxation and recreation, is of great importance if we take into account the intense intellectual demands imposed by the school curriculum. Taking advantage of the favorable framework offered by the practice of sports games, the teacher has to use the technical procedures in order to develop conditional and coordinating capacities, so that he / she needs to undertake a series of activities of organizational, material and methodical nature.

**Keywords:** *coordination; lesson; sports play; role; influence.*

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## 1. Introduction

Viewing the multilateral development of children and young people, society in line with its needs determines an educational ideal from which the educational goals and objectives are born. The integrated part of the educational system along with the structure and its contents of the physical education, is part of a broad framework called to meet the requirements and determinations by the complexity of the formative act, having the student's center.

The ideal of physical education is influenced by general educational requirements, based on the formation of active harmoniously developed and healthy people, which requires restructuring, improving and optimizing the physical education of children. The national curriculum establishes performance standards that the graduate student of the gymnasium cycle must achieve for all educational subjects.

In order to achieve the objectives and tasks proposed, as well as the educational ideal in physical education and school sport, a decisive role is played by combining the specific means with the non-specific ones choosing the optimal didactic strategy necessary to achieve the performance standards. It can be said that physical education through its formative character, is an essential element of permanent education (Cucos, 2006).

## 2. Problem Statement

In this idea, the activity of physical school education is oriented towards finding and applying a modern method and means, having at the center of activity the personality of the student, his physical and psychic possibilities, his desires and his options. The activity of physical education and sport, through its formative valences, is a good socialization environment for pupils, because at this age, their integration into a complex group (class, group, team) develops the personality in all aspects, helping them better integrate into society (Hopper, Butler, & Storey, 2009).

Following the success of the formative perspective of school physical education, it is still necessary for the first classes to act in order to ensure the acquisition (skills, knowledge, skills, driving skills) that are transferable during free time and independent student activities (Lipnevich & Smith, 2009).

For this purpose it is necessary to intervene the specialist in the field, to take actions for the selection and use of those forms, methods and means with high degree of effectiveness, variety and attractiveness, leading to the

formation of the habit of systematic exercise of physical exercise and movement, to the development of children's interests for their own development and formation (Moy, Renshaw, Davids, & Brymer, 2015).

Among the modern means and methods of achieving and achieving the objectives of physical education are sports games. Basketball, as well as other collective sports games, through its main feature, team play, compete to achieve the goal and objectives of physical education.

The curriculum of Physical Education and Sport is developed according to a new model of curricular design centered on competences representing the totality of knowledge, skills and attitudes developed through learning, which allows the solving of specific problems (Dragnea, Pehoiu, & Păunescu, 2009). At the level of physical education and school sport, general competencies trace and define student acquisitions throughout the gymnasium cycle. Mainly, these competences aim at developing the student's general motricity, familiarizing him / her with the skills necessary for a healthy life and harmonious physical development. It assimilates the motor skills necessary for practicing different branches or sports samples in school and leisure, forming personality traits favorable to integration in society.

Basketball is a sporting game of great attractiveness and spectacularity, based on the speed of movement and execution of players, which require high athletic training, strength and resilience, tactical thinking and perfect alignment and action within the team (Moanță, Ghițescu, & Ghițescu, 2008).

Basketball is part of the collective games, whose actions are running in the race, sometimes at high speed, being very dynamic and spectacular. Players' actions are subordinated to the ball - the object of play - the ball being played with the hand, which gives the game a very high accuracy. Because of this, it can be easily learned and practiced at different ages by both sexes.

Many authors state that basketball is a "specific way of showing and practicing having a playful and sporadic character in corporal activities and physical exercise, in which team participants who are in a game of unpopular adversity called sport rivalry, battles on a special basketball court to win, each attempting to make more successful throws in the opponent's basket, with the basketball ball maneuvered under the conditions of the game's rules" (Predescu & Moanță, 2001; Vasilescu, 1999).

From the point of view of sporting activity, basketball can be considered a competitive sport. It is included in the general sphere of the notion of sport, defined as a specific activity of competition in which the

moves are intensively utilized in the physical exercises within the class, as well as the improvement of the morpho-functional and psychic possibilities, materialized in a record, a self-sufficiency of the possibilities or the overcoming of a partner. Considering basketball as a sport along with other games, it also confers status and implicitly, the name of sports discipline. The sport discipline status is conferred on him by the national and international organizational and sporting framework, along with many other sporting disciplines that make up the sphere of sports activity (Savu, 2017).

From the point of view of physical school education, basketball play is a very important means of physical education, with essential attributions in the achievement of its general objectives through the attractive and varied set of specific motor skills used on the one hand for the development of motricity general education of children, and on the other hand, for the education and training of motor skills and abilities. The quality of the specific means of basketball play, is influence on the development of the general motricity, and the formation of the personality of the children in the period of growth and development ensures an important place in the school curriculum in all classes (primary-lyceum), being distributed a large number of lessons throughout the year (Savu, 2015).

Basketball is present in physical education lessons in all schools starting with grades 5 or even earlier, in which activities of learning and acquiring technical elements and basic tactical actions are designed and carried out by using preparatory games ("school ball"), then they grow in complexity, and basketball is practiced as a whole game. For these reasons, we can say that basketball can be practiced as organized through the didactic process, but also as loisir type activity, as a mass sport, as a performing and high-performance sport, the area of its encompassing and practicing is great, attracting both girls and boys of all ages. The ever-increasing development of basketball in the last years among children and young people calls for solving organizational and methodological requirements.

Basketball requires a general and special physical condition on the part of those who practice it, on the basis of which the correct driving skills of the game are achieved. Also, in basketball game there are a number of moves with and without the ball performed, always alternating the motor quality speed with skill / coordination and resistance, under different conditions: working with co-workers or opposing opponents. This game is loved by children because it combines the precision of ball management with the show of basketball.

The increasingly spectacular evolution of this game has prompted specialists to look for the most effective training and organization methods.

Among the traditional methods of success in acting as a didactic approach to learning and acquiring technical skills are the method of play, the problem in which the student player acts so creatively by finding the best solutions to resolve situations spontaneously occurring during the game, under form complex attack and defense phases, assuring him a strong educational and educational role (Stănescu, Ciolcă, & Stoicescu, 2016).

### **3. Research Questions/Aims of the research**

#### ***3.1. The purpose of the study***

In this paper we aim to try to do a study on the means for the development of the students' skills (coordinating skills) using elements of basketball game in the physical education lesson in two groups, one control and one experimental, which are in the composition pupils of the fifth grade.

A second objective of the study is the experimental argumentation of the influence of the forms and means used on acquiring the content of the school curriculum in the discipline of physical education and school sport.

#### ***3.2. Working hypotheses***

If in the physical education lesson at the gymnasium cycle, basketball specific means are used to achieve the goals of physical education, then they will have a positive influence on the development of the overall driving ability of the students so implicitly on the coordination skills.

If in the physical education lesson at the gymnastics cycle is used to play the basketball game in order to achieve the goals of physical education, then they will have a positive influence in achieving the objectives and acquiring the content of physical education and school sport.

### **4. Research Methods**

#### ***4.1. Period, location and subjects***

The present study was conducted in the school year 2015-2016 at an urban school. In the experiment, 52 pupils from two V-grade classes were included, one experimental with 26 subjects and another control with the same number. Throughout the experiment we were helped by the specialist teacher in that school and following the parents' consent to participate in the experiment.

#### **4.2. Research methods**

The research methods used for the study are: the method of studying the bibliographic material, the observation, the pedagogical experiment method, the method of statistical processing, the method of graphic representation (Dragnea, 1984).

#### **4.3. Means used**

Throughout the physical and sport education lessons that took place between the initial testing and the final testing, in the experimental group basketball specific means were used to develop the coordinating skills of students. Three categories of exercises were used in the study: exercises for coordinating development, exercises for the development of strength (force-speed) and exercises specific to the basketball game content.

#### **4.4. Tests and measurements**

Subjects from both classes were tested twice, at 8 motricity tests in September 2015 and final in May 2016. Of the tests used, 3 (three) are part of the National School Assessment System for Physical Education and Sports (speeding 50m, long jump on the spot, lifting the trunk from the back). Besides these, there have been used another 5 (five) basketball-specific tests (the little marathon, stick to the wall, dribbling trough the goalposts, shuttle 2x15m, shuttle 2x20m).

### **5. Findings and discussions**

**5.1.** By calculating the arithmetic mean of the performances performed by the subjects, for each sample in the national system, at the two projected tests, we can observe the efficiency of the proposed program in the experiment (Table 1).

Observing the data in the table with the average of *50 m running speeds* scores for both girls and boys, we find that compared to the control group, the subjects in the experimental group managed to improve the level of capacity manifestation the average being in this case 9.3 seconds versus 9.7 seconds in the experimental group and 9.5 seconds versus 9.6 seconds in the girls control group and in boys 8.7 seconds vs. 9.2 seconds in the experimental group and 8.9 seconds versus 9.1 seconds to control group.

**Table 1.** The average of the initial and final results at the specific national system samples

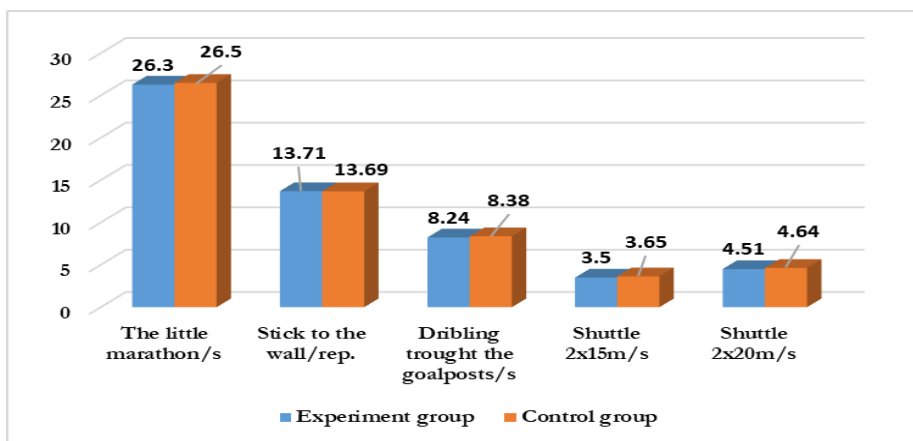
The moment of testing	The name of the group	Speeding 50m (sec)		Long jump on the spot (m)		Lifting the trunk from the back	
		W	M	W	M	W	M
Initial	experiment	9.7 s	9.2 s	1.32 m	1.55 m	19 rep.	22 rep.
	control	9.6 s	9.1 s	1.44 m	1.52 m	21 rep.	24 rep.
Final	experiment	9.3 s	8.7 s	1.54 m	1.80 m	23 rep.	25 rep.
	control	9.5 s	8.9 s	1.48 m	1.55 m	21 rep.	24 rep.

In *the long-distance jump* we found an appreciable improvement in the performances obtained at the end of the experiment by the subjects of the experimental group being 1.54 m from the 1.32 m for the girls and 1.80 m from the 1.55 m for the boys.

For the abdominal force testing, *the dorsal stem lifting sample for 30 s* was used. In this case, there was an improvement of the results, averaging 23 repetitions in the end, compared to 19 repetitions initially. For the girls in the experimental group, no changes in the average of the initial testing were recorded in the control group. For boys, the mean was 25 repetitions versus 22 repetitions for those in the experimental group versus those in the control group where there was no change in the results compared to the sample of girls.

**5.2.** Following the two initial and final tests with the basketball specific tests applied to the experimental and control groups, the initial data were collected, which have been processed and interpreted for the experimental group, for control group and between the control and the experimental one according to the samples, tests (initial and final) and sex (girls, boys).

Thus, at the level of the two groups, the averages of the 5 samples in the initial testing are approximate as value (Figure 1).



**Figure 1.** Initial testing - comparative study group control / experimental group

Compared with the initial testing, the final test of the experimental group presents the following values in the table below.

**Table 2.** The average of the final results in the basketball specific tests

Testing	Experimental group				
	15m	20m	Dribling troughht the goalposts	Stick to the wall	The little marathon
Initial testing	3.5 s	4.41 s	8.24 s	13.71 rep.	26.3 s
Final testing	2.95 s	4.34 s	8.00 s	16.31 rep.	25.5 s

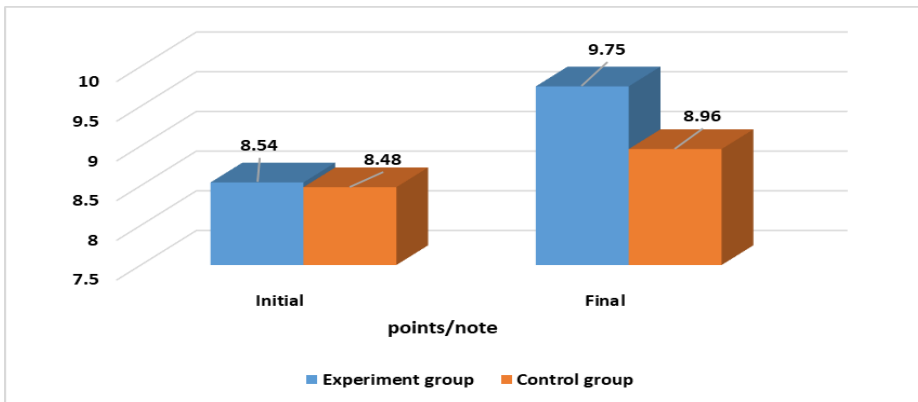
**5.3.** The second objective of this study was directed to experimenting with the role of the means used to acquire and train the other contents of the school curriculum of physical education. In close connection with the formation of competences, skills and attitudes specific to school physical education, as well as the structure of the exercises used, in the case of the subjects of the experimental group, for acquiring, training and improving, the execution of acts and driving actions provided by the specialized school curriculum, we used only the types of exercises mentioned.

Regarding the sport game Basketball, students have learned, formed and perfected some of the specific technical elements (catching and passing



the ball, multiple dribbling, throwing to the basket, stopping in a while and pivoting, etc.). The results recorded at the end of the experiment were in the same ascending rhythm corresponding to the previous ones - the experimental group being also superior from this point of view.

The components of the experimental group improved their average score, if the technical procedures specific to this sports game improved by 1.21 points (8.54 points to 9.75 points) compared to those in the control group that jumped 0.5 points (8.48 points to 8.98 points), with the experimental group's progress being around 120% (Figure 2).



**Figure 2.** The average scores obtained by the subjects of the two groups in the Basketball discipline

## 6. Conclusions

Based on the analysis of the results at the end of the experiment, it can be stated that the use of basketball specific means has a favorable influence in educating the motor skills of force and speed of the subjects compared to the use of a traditional developmental system during physical education and sports lessons, where we conclude validating hypotheses, which means that the proposed experiment has achieved its purpose.

The analysis of the results in the study confirms the superior acquisition of the specific skills in the school curriculum of physical education by the subjects of the experimental group compared to those in the control group.

This increase can be explained by the fact that, in addition to some traditional means, the three categories of exercises have been used, the content of which, being simplified, has provided a positive effect of the transfer of motor skills.

This finding is to confirm the role of the specific means of sports games (in our case basketball) in achieving the objectives and the final requirements imposed by the curriculum of physical education and sports.

a. If in working hypotheses, the use of basketball specific means in order to achieve the functions and objectives of physical education were thought to play a positive role in developing the driving capacity of V-class students, this was confirmed in the experimental study.

b. Introduced appropriately in the didactic approach specific to physical education and sports, physical exercise exceeds the sphere of human motricity through their influence, while acting and positively influencing the other aspects of the personality (intellectual, moral-volitive or affective-emotional).

The development of the educational and instructional process of physical and sports education, based on collective actions (work on pairs, groups or teams), fosters the social integration of the individual, a particularly important aspect in the working relations and in the future social life.

c. The systematic and consistent use of physical exercise, action and action-specific sporting games - in our case of basketball - falls within the requirements imposed by the achievement of those performances necessary to fortify the body, to acquire, train, and improve motor skills, which lead to the attitude of ethical and moral standards.

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