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Ways of Optimizing the Elementary Collective Attack Tactics by Using the Cooperative Learning Technique for the Girls' Basketball Team (U13)

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Abstract

This article is an excerpt from an experimental study which aimed at showing the practical use of the cooperative learning technique in the sports training session. The purpose of the research was focused on the need to find solutions to increase the efficiency of elementary collective tactics of attack by using the cooperative learning technique with the girls' basketball team (U 13) - Sports High School (L.P.S). Globally, the research program was focused on the initial and final testing of specific motricity (2016-2017 control tests/ season tests, according to RBF) and on the testing of elementary collective technical and tactical components of attack in women's basketball players in the U13 category by summarizing the observation forms. The tests proposed and performed by the players have completed the means used in the training sessions. The dynamics of the processed data highlights an evolution of the spostswomen' training recorded at the final tests in the 2016-2017 competition year. The obtained results confirm that the learning through cooperation technique can be used in the learning-consolidation stages for the assimilation of simple elementary tactical collective attack actions for basketball players from LPS Galați category U13 and thus the research hypothesis is confirmed. The learning through cooperation technique has also contributed to the formation of collaborative skills in players, during the game preparation and competition stages, but also the prerequisites of practising those social skills that will be needed later in one's personal life (family, career, etc.). This article summarizes a teaching model, comprising a theoretical presentation and the practical use of the learning through cooperation technique to acquire the elementary collective tactical combinations for attacking in the basketball game, in the U13 category.

Keywords: *Cooperative learning technique; collective elementary tactics; attack.*

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1. Introduction

The basketball game in terms of international performance is at a time of crisis, generally similar to sports games practised in Romania.

The goal of each basketball player is to get a position in the main board of team scorers. Thus, the athlete gains fame, social recognition, improves her self-esteem because a shot is also the basic technical element in completing a team's attack but in most situations the collaborative relationships within the team are also very important.

Based on the assumption that the modernisation of the basketball game on offense requires as priority in today's training of athletes the improvement of the counterattack, the quick attack but also the game systems, the selection of the most effective methods and means can determine an increase in the effectiveness of the team in official games.

The elementary collective tactical actions have a degree of specificity determined by the size and characteristics of the game or competition area, the number of participants but also the regulatory requirements. Also referred to as fundamental tactical combinations, they form the basis of the fundamental collective tactical attack actions, being integrated into the team's offensive system (layout, circulation of players and of the ball).

The theory and methodology of the basketball game specifies that any tactical combination consists of coordination of actions of two or three teammates, with a definite purpose and in relation to the offensive phase: favouring cut, penetration, cross over and completion [2], [10], [13], etc. Sports training as a supercomplex process of perfecting the human being uses a complex of methods specific to pedagogy, didactics, psychology plus those of ergo physiology, biomechanics, and methods specific to physical training or some, to physical education [2], [12], [14].

2. Problem Statement

There are still enough possibilities to increase the efficiency of sports training lessons, to improve the motor qualities and anthropometric indices by practising basketball, if a selection of preparation methods and means is focused on. The educational process in the game of basketball faces various and complex issues that require a new way of thinking, ideas, new information and implicitly a new way to learn and use efficiently players in the court. Thus learning through cooperation is a didactic method also known as: collaborative learning, collective learning, community learning, mutual learning, team learning,

etc. This method is used for small groups in order to work together, monitoring each member of the group (team) to improve their own performance and to contribute implicitly to increasing the performance of the other members of group (team) [3], [4], [7], [9], [16], [17]. According to studies in the literature of specialty, the majority of studies on the cooperative learning method aimed at involving the group in the process of learning, decision-making and problem solving, presentation of learning models, [6], [16] development of interpersonal communication skills, of interactions, of competences and social behaviours in various fields [1], [5], [8], [15]. Although it is a method used in various fields including physical education, actual studies on the application of a theoretical and practical model in the performance sport and implicitly in the basketball game are almost non-existent.

3. Research Questions/Aims of the research

The idea of this research was based on the need to find solutions for the formation in the girls' basketball team (U13)-LPS Galați of collaborative skills in *simple collective tactical actions* during the stages of game preparation and competition by using the cooperative learning method.

The aims of the research were the following:

- a. Modernisation of the game in the offensive phase requires as a priority at present- the simplification of offensive phases.
- b. The simple, basketball-specific elementary tactical actions can be assimilated to a qualitative level by the (U13) L.P. S Galați team players if the teaching focuses during the learning– consolidation stages on the use of learning through cooperation method.

4. Research Methods

The research methods used: the study of specialized bibliography, the observation method, the experimental method, the learning through cooperation method, the mathematical-statistics, the graphical and tabular method.

The sample structure comprises 12 athletes between 12-13 years of age corresponding to U13 category. The research was carried out during the National Girls' Basketball Championship (U13), 2016-2017 season at the Sports High School of Galați, during 1.09.2016– 26.05.2017

The tests proposed and performed by the players, completed the means used in the training lessons. Globally speaking, the research

concerned in particular the basic elementary tactical collective preparation of attack in the U13category, as well as the efficiency of the main means used in training but without eliminating the other components (physical, technical, psychological, theoretical, etc.). Initial and final testing of the basic technical-tactical collective attack components of the basketball players in the U13category were performed by centralizing the observation forms. We mention that the values of the model game parameters were recorded at the beginning of the competition year 1.09.2016 (initial testing) and at the end of the competition year in 26.05.2017 (final testing).

The tasks of the research were carried out during the following stages:

Stage I: Studying and efficiently using the speciality documents and the practical and methodological experience of coaches; *Stage II:* Initial testing of the level of the athletes' training (1.09 2016), respectively the final test of the level of the athletes' training (26.05.2017); *Stage III:* processing and using efficiently the data obtained from the tests; presentingconclusions and practical and methodological recommendations.

The article presents the way to apply and use efficiently the method of learning through cooperation and the results obtained in the testing of the elementary technical and tactical collective offensive components of the basketball players in the U13 category -LPS Galați.

Description and practical use of the learning through cooperation method

The use of this method within the research was aimed at cooperation and collaboration in the learning– consolidation process of the elementary tactical collective actions of the team for the U13 category.

The method was used in pre-competition and competition training periods during the training sessions according to the planning documents. This method was important for the organization, so that the athletes were initially determined to learn through cooperation, all the combinations specific to the age category, to be actively involved in the learning process and at the end (in the 5x5game) to form the habit of carrying out a task together with a teammate without feeling pressure and to become aware that the task of a group is a common one and in order for it to be accomplished, each athlete has an individual task, for which he assumes responsibility.

The grouping of athletes in pairs or in small groups has increased the chances for them to become involved in running combinations of 2-3 players during theoffensive phase in the bilateral game.

The use of the method monitored two components:

a. Group learning:

- The activity of a group of athletes who can cooperate or not.

- Athletes have been rewarded on the basis of individual performance.
- *b. Learning by co-operation:*
- A learning situation in which the athletes work within groups with heterogeneous skills and knowledge is presented.
- Athletes were rewarded based on the group performance.

The formation of the working groups was essential and represented an objective opportunity for the coach to explore the application of the level of technical and tactical knowledge, the offensive phase of the athletes in relations to the other team members.

In the present research, the method was applied according to the training steps as follows:

In the first stage we used the **formal study groups** - they were formed in a training lesson and worked for 8 weeks. During this period, the athletes were actively involved in learning and acquired theoretical and practical information related to the organization of the group, by explaining the combinations of 2-3 players, the offensive phase, the integration of the new notions with the existing ones (known technical procedures were executed in the presence of opponents: give and go, simple criss-cross, pick, etc.) in exercise and combination structures.

In the second stage we used **spontaneous study groups** ad-hoc established during training with a duration of operation from a few minutes to the end of the session. This way of organizing was used when presenting the combinations, the structures to channel the attention of the athletes to the new notions and to prepare them for working with the partner regardless of the level of relationship, location on the court, position, etc. It has been specified during the application of the method that every athlete in the group must be responsible for what she is learning.

In the third stage we used **the basic groups** - long-term heterogeneous groups (at least one year), with athletes who demonstrated a very good level of execution techniques, elementary individual and collective tactical offensive actions whose main purpose is mutual aid, encouragement, communication skills, etc., in the relations with other teammates.

To check the hypothesis of the research but also the practical use of the tactical collective team actions by the athletes, individual registration forms were used. These were filled in during 10 sessions, two stages corresponding to the two tests: initial (September 2016) and final (May, 2017). The registration forms were useful in staging the training of athletes and contributed in the orientation of their specialization on positions. Their

content allowed to obtain data related to the ultimate goal of the game (scoring points: free throws, lay-ups, jump shots) the tactical collective team actions (give and go, simple crossing, cut, 2:1, 3:2 attack) and their application under the conditions of compliance with the simple notions of the regulation: deviations (walking, double dribble, leg touching), mistakes (personal mistake).

The methodical course of learning for the elementary collective tactics (combinations of 2-3 players) for the girls' basketball team U13, was the general one used in the literature of specialty, but during these training lessons in which they aimed at topics related to the elementary collective tactical combinations the method of learning through cooperation was also used to verify the proposed hypothesis. Although the preparation of a team involves combining all the training factors, and the individual and collective tactical offensive training cannot be accomplished without defence training, we have analysed the attack phases in this paper.

5. Findings

The results were determined considering the recordings made during the official games of the competition year. The objective assessment of the basic collective tactical actions of 2-3 players applied in the 5 to 5 game specific to the preparation of U13/girls, was carried out on the basis of the record forms elaborated for each combination, and the evaluation of the rules of the game was monitored. They were filled in during the basketball training of the competition period corresponded to stage III of the application of the cooperative learning method. Thus, there were 12 forms for each athlete, a total of 24 forms (initial and final testing). The dynamics of the acquisition of elementary collective tactical actions (combinations of 2-3 players) and the notions of regulation in the game are presented in table 1 and figures 1-3.

Table 1. The dynamics of the elementary collective technical-tactical components and the notions of regulation recorded in the game of the LPS basketball team (U13)

Parameters	Testing	Technical Components / Shooting			Tactical- collective elementary/ Attack					Infractions	
		Free throws	Lay-up	Jump Shot	Give and go	Simple crossing	Block	2:1	3:2	Violations	Fouls
$\bar{X}$	TI	27.07 %	42.28 %	43.42 %	40.42 %	27.25 %	39.21 %	29.07 %	30.08 %	10.83 %	3.08 %
$\bar{X}$	TF	32.70 %	51.58 %	55.26 %	47.48 %	33.13 %	48.33 %	38.67 %	36.91 %	11.83 %	1.5 %
Percentage difference (-)	TF - TI	5.63 %	9.3 %	11.84 %	7.06 %	5.08 %	9.12 %	9.6 %	6.83 %	1 %	1.58 %

Legend - $\bar{X}$ = Arithmetic mean
TI = Initial testing
TF = Final testing

It is found that the values of the arithmetic mean have increased in percentage to the final test as follows: technical components-free throws (5.63%), lay-up 9.3%, standing shots (11.84%); elementary collective tactical actions –give and go,attack (7.06%), simple criss-crossing (5.08%), pick (9.12%), 2x1 (9.6%), 3x2 (6.83%) and decreasedwhen centralising data on simple notions of regulation: fouls (1%) mistakes (1.58%).

Figure 1. Shots percentage chart Figure 2. Basic elementary collective tactical offensive actions percentage chart

Figure 3. Fouls percentage chart

There were differences in the arithmetic mean values in favour of those recorded in the final testing for all the technical-tactical components and the regulation knowledge required.

6. Discussions

During data processing, higher values were recorded in all components assessed for final testing. Thus, it is found that the values increased their percentage in final testing as follows: free throws increased by 5.63% lay-ups by 9.3% standing throws by 11.84%. The data obtained from the centralization of elementary collective tactical components –attack reveal that the level of training during the preparation determined an increase in the execution between the two testings of the combinations thus: give and go 7.06%, simple criss cross 5.08%, pick 9.12%, (2x1) 9.6%, (3x2) 6.83%. The values of the arithmetic mean in the terms of regulation and its percentage differences recorded in the initial and final testing are the following: for deviations 1% and mistakes 1.58%.

The centralization of the data obtained from the forms confirms the hypothesis of the research, namely that simple, basketball-specific elementary tactical actions can be assimilated to a qualitative level by the (U13) L.P. S Galați team players if the teaching is focused during the learning-consolidation stages on using the cooperative learning method.

Previously processed data underline the high level of sports training of the athletes in the final testing of the 2016-2017 competition year, due to the selection of effective means and methods, but also due to its planning. The differences consisted in organizing the preparation process, the volume of training, the competition activity, the percentage of the training components, the performance objectives.

7. Conclusions

The centralization of the data obtained at the two tests confirms that the cooperative learning method can be used in the learning-consolidation stages for the acquisition of the simple elementary tactical collective offensive actions specific to basketball players from LPS Galați category U 13 and thus the research hypothesis is verified.

The content of the preparation proposed by us also contributed to the improvement of individual progress, supported by the data recorded in the initial and final tests of the basketball players LPS Galați-category U13.

The efficiency of the method was demonstrated by using the data obtained when centralizing individual technical component record forms (shots), basic collective tactical actions – attack (combinations of 2-3 players) and simple notions regulation (fouls and mistakes) in the bilateral game 5x5. The use of the method of learning through cooperation of simple elementary tactical collective actions specific to the game of basketball in category U 13, girls has the following advantages:

- Provides an interactive approach to the teaching-assessment process;
- The method involves exploiting cooperation under two aspects: learning itself (technical components and tactical actions, etc.) and social learning (communication skills, solidarity, devotion, personal support, tolerance, collegial relations, etc.);
- Actively involves athletes and encourages personal contribution at all stages of training;
- Form the skill to accomplish a task with a teammate without feeling pressure;
- Athletes become aware that the task of a group is a common one and to accomplish it, each has an individual task, for which it assumes responsibility.
- Stimulates and develops the ability of athletes to communicate (through questions and answers) what they have just learned;
- Completes any gaps in the knowledge of athletes;
- Accomplishes quick feedback in an attractive way.

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