## STUDY ON TECHNICAL-TACTICAL TRAINING IN A BASKETBALL TEAM UNDER 18

## ДОСЛІДЖЕННЯ ТЕХНІЧНО-ТАКТИЧНИХ ТРЕНУВАНЬ У БАСКЕТБОЛЬНІЙ КОМАНДІ ДО ВІСІМНАДЦЯТИРІЧНОГО ВІКУ

In the last years in the field of the theory and methodology of sports training, many new elements have appeared that have put into question some classic forms of training and planning of the training process for athletes. Increasingly, there are attempts to transfer some training methods that have appeared in other sports, adapted to the particularities of the respective sport.

The technical procedures with ball and without ball, integrated in various game actions, in a word the technique of attack and defense respectively, constitute the training content in the game of basketball, and their organization in various forms and based on principles of coordination, for example, in tactical combinations of passing the attack, preparing the attack, it is the tactics of the game in attack and defense.

If technical training is aimed at studying the structure of movements of a particular technique, then tactical training equips the player with the necessary knowledge and skills to apply the techniques learned appropriately in the context of a particular game environment. The ways in which the game is conducted are called the rational actions of the players (individual, group and team), which they use during game against the opponent. Ways of playing the game represent the qualitative content of the game process. All accumulated experience in the art of game management is studied, mastered, and on the basis of it the most rational ways of conducting a game are created, which are carried out in individual, group and team actions.

Individual actions are called independent actions of the player, aimed at solving specific tactical tasks set before the team, and carried out without the direct involvement of partners. Group actions are the interactions of two or more team players performing part of a team task. Team actions include the interaction of all team players, aimed at accomplishing team-wide tasks. Team actions are carried out in different ways, expressed in a variety of systems and combinations.

Key words: marking, demarcation, coaching, strategy, basketball, performance sports.

В останні роки в галузі теорії та методики спортивного тренування з'явилося багато

нових елементів, які поставили під сумнів деякі класичні форми тренувань та планування тренувального процесу для спортсменів. Усе частіше спостерігаються спроби запозичити деякі методи тренувань, що з'явилися в інших видах спорту, адаптовані до особливостей відповідного виду спорту. Технічні прийоми з м'ячем і без м'яча, інтегровані в різні ігрові дії, техніка нападу й оборони відповідно становлять зміст тренувань у грі в баскетбол, їх організації в різних формах і на основі принципів координації. Наприклад, у тактичних взаємодіях, пов'язаних із переходим до атаки, підготовки атаки,

а також тактичних дій в атаці й обороні. Якщо технічна підготовка спрямована на вивчення структури рухів того чи іншого технічного прийому, то тактична підготовка озброює гравця необхідними знаннями та вміннями доцільного застосування вивчених прийомів в умовах конкретної ігрової обстановки. Способами ведення гри називаються раціональні дії гравців (індивідуальні, групові та командні), що застосовуються ними в боротьбі із противником. Способи ведення гри уособлюють якісний зміст процесу гри. Увесь накопичений досвід у мистецтві ведення гри вивчається, освоюється, на базі цього створюються найбільш раціональні способи ведення гри, які здійснюються в індивідуальних, групових і командних діях.

Індивідуальними діями називаються самостійні дії гравця, спрямовані на вирішення окремих тактичних завдань, поставлених перед командою, і здійснювані ним без безпосередньої участі партнерів. Групові дії являють собою взаємодії двох або декількох гравців команди, що виконують частину командного завдання. До командних дій відносять взаємодії всіх гравців команди, спрямовані на виконання загальнокомандного завдання. Командні дії здійснюються різними способами, вираженими в різноманітних системах і комбінаціях.

Ключові слова: маркування, розмежування, робота тренера, стратегія, баскетбол, спортивні результати.

**Material and method.** Determining the necessity of establishing a knowledge and technical-tactical background according to the level of training in the preparation of the basketball team represents the hypothesis of the work.

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To answer this hypothesis we started from the following situations:

 how to organize the players on the field during the game and training sessions;

 carrying out technical procedures, actions, combinations and tactical, individual and collective systems in attack and defense in game and training.

The study was conducted on the basketball team S.S. "Unirea" – B.C. "Junior" Iasi. The tasks of the

paper were: Establishing the technical-tactical training in the plan of preparation of the basketball team, learning, consolidating, improving and applying this technical-tactical training in the training and then in the game, performing some technical-tactical control tests in the training, the replacement record sheets during the game and learn the rules of the game. The subjects of the research were the C.S.S. "Unirea" laşi team consisting of 10 players, coach C. G. the experiment group and the Axiopolis Cernavoda team coach L. I., the control group, children born 2002 and younger. Place of the research:

The school hall no. 15 "Ştefan Bârsănescu" laşi and the Polivalentă hall, with 6 workouts per week from

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Monday to Saturday, the training lasting 90 minutes. The tests were performed in the school hall no. 15.

The research methods used were: the study of the bibliography; method of observation; experiment method; statistical-mathematical method.

To verify the experiment, we used the following control samples.

Control tests specific technical and tactical training.

1. **Marking.** With the arms up in the fundamental position (defense), lateral movement with added step on a limited portion. Successful actions (in full outline) were recorded for 30 seconds.

2. **Demarcation.** On a surface of court, demarcations made within 30 seconds.

3. **"Give and go" with a defender.** Pass to teammate – lower to basket – return pass – lay-up shot. The efficiency of the actions is given by the number of baskets scored from 10 shots.

4. **Relationship, 1 vs. 1.** It is appreciated the technique of execution of individual tactical actions demarcation, "in-going", "overcoming" and execution of aggressive marking throughout the court, the decision-making ability of the players in concrete situations of play.

5. Throws-specific sample on the post (playmaker, forward, pivot). From a number of 12 attempts, the number of successes is noted.

6. **Free throws.** From 12 attempts the number of successes is noted.

The experiment started on September 15, 2018. The first test was held in the first semester on January 20, 2019. Anthropometric data were also made with this test. The last test was held on May 15, 2019 during the second semester. Specific technical-tactical tests were given in the gym under identical, initial and final conditions.

**Results.** Following the control tests, the following results were recorded (**GE** – represents the experimental group, **GM** – represents the control group):

#### Specific technical-tactical evidence

#### 1. Marking.

The total number of successful actions in 30 seconds were:

- at the initial GE test, the arithmetic mean x = 6.8 succeeded in 30 seconds S = ±0.8 succeeded. The coefficient of variability is 11,7% which characterizes a representative average of the data. Normal distribution includes 80% of the subjects tested. M = 2 successes.

- at the initial GM test, the arithmetic mean x = 4,9 succeeded in 30 seconds S = ±1 succeeded. The coefficient of variability is 20,4%, which characterizes a moderately representative average of the data. Normal distribution includes 60% of the subjects tested. M = 3 successes.

- at the final GE test, the arithmetic mean x = 8,3 obtained with the standard deviation

S  $\pm$  1,1 obtained with the same representative average as at the initial testing and a coefficient of variability of 13,2%. M = 3 successes. Normal distribution includes 60% of subjects.

- at the final GM test, the arithmetic mean x = 5,8 achieved with the standard deviation  $S \pm 1,1$  obtained with a representative mean and a coefficient of variability of 13,2%. M = 3 successes. The distribution shows a deviation because between  $\pm 1,1$  successes comprise 50% of the cases.

- the results show us that apart from the arithmetic mean which is higher, the standard deviation and the amplitude which is the same at the two final tests, indices show a small progress of the two groups compared to the initial test.

#### 2. Demarcation.

Each subject had 30 seconds, during this time the success was recorded:

- at the initial test the arithmetic mean at GE is 5.9 successful at the initial test with a standard deviation of  $\pm 1$ . The coefficient of variability is 16.9% having a representative average of the results, and M = 2 successes. The distribution is normal and comprises 80% of the subjects tested;

- at the initial test, the arithmetic mean at GM is 5 successes, with a standard deviation of  $\pm 0.8$  successes. The coefficient of variability is 16% having a representative average of the results, and M = 2 successes. The distribution registers a deviation because between  $\pm 0.8$  successes comprise 40% of the cases;

- at the final GE test, the arithmetic mean x = 8,3 obtained with the standard deviation S ±1,5 obtained with a moderately representative average and a coefficient of variability of 18,07%. M = 5 successes. Normal distribution includes 70% of subjects;

- at the final GM test we have x = 6,2 successes, S  $\pm$  1 successes, Cv = 16,1% and represents a representative average of the data. M = 3 successes. We have a normal distribution in which only 70% of the subjects enter;

- the results from the final test show that the indices show a progression of the experimental group compared to the control group.

## 3. "Give and go" with the defender.

The sum of this sample was obtained with the help of the results recorded by the subjects, out of a number of 10 trials:

- at the initial GE test a x = 5,5 successes are recorded. M = 3 successes and S  $\pm$  1,1 successes, Cv is 20% a moderately representative average. We have a normal distribution in which 60% of the subjects enter.

- at the initial GM test there are recorded x = 4 successes. M = 3 successes and S ± 1 successes, Cv is 25% a moderately representative average. We have a normal distribution that includes 90% of the subjects;

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- at the final GE test a x = 7.2 successes are registered. M = 4 successes and S  $\pm$  1,2 successes, Cv is 16,6% a representative average. We have a normal distribution in which 80% of the subjects enter;

- at the final GM test there are recorded x = 5,4 successes. M = 4 successes and S ± 1,2 successes, Cv is 22,2% a moderately representative average. We have a normal distribution in which 70% of subjects enter;

- the results show us that apart from the standard deviation and the amplitude which is the same at the two final tests, the other indices show a progression of the two groups in the final test compared to the initial test.

## 4. The relation "1 vs. 1".

At this test the results were:

- the arithmetic mean of the successful actions from a number of 10 shots given to each subject at the initial GE test was 4.1 successful. The standard deviation at the first test is  $\pm$  1 success, Cv is 24,3% a moderately representative average, characterizing a normal distribution of 80% of the subjects. M = 2 successes;

- the arithmetic mean of the successful actions from a number of 10 tests given to each subject at the initial GM test was 2,9 successful. The standard deviation at the first test is  $\pm$  1 success, Cv is 34,4% a moderately representative average, characterizing a normal distribution of 80% of the subjects. M = 2 successes;

– the arithmetic mean of the successful actions from a number of 10 tests given to each subject at the GE final test was 6.4 successful. The standard deviation is  $\pm$  1,1 successes, Cv is 17,1% a moderately representative average, characterizing a normal distribution of 60% of the subjects. M = 3 successes;

- the arithmetic mean of the successful actions from a number of 10 tests given to each subject at the GM final test was 4,3 successful. The standard deviation is  $\pm$  1,1 successes, Cv is 34,4% a moderately representative average. The distribution registers a deviation because between  $\pm$ 1,1 successes there are 50% of the cases. M = 3 successes;

- the results show us that apart from the standard deviation and the amplitude which is the same at the two final tests, the other indices show a progress of the two groups at the final test compared to the initial test.

5. Shooting – Shooting from the posts.

On this test the following were found:

- at this sample the arithmetic mean at the initial GE test is 7,5 successful shots from 12 tests with S =  $\pm$ 1,5 throws. Cv = 20% with a moderately representative average of the results, a normal distribution comprising 80% of the cases. M = 5 successful shots;

- in this sample the arithmetic mean at the initial GM test is 3,5 successful laps from 12 attempts with  $S = \pm 1,1$  laps. Cv = 31,4% with a moderately representative average of the results, a normal dis-

tribution comprising 60% of the cases. M = 6 successful shots;

- at the final GE test, x = 6 successful shots from 12 attempts,  $S = \pm 2,1$  shots. Cv = 23,3% with a moderate mean representative of the results and a distribution comprising 70% of the tested subjects. M = 3 successful shots;

- at the final GM test, x = 6 successful throws from 12 attempts,  $S = \pm 1,2$  throws. Cv = 21% with a moderate mean representative of the results and a distribution that shows a deviation because between  $\pm 1,2$  successes comprise 50% of the tested subjects. M = 3 successful shots;

 progress in this sample is given by the results recorded at the final testing of the experimental group and the control group.

#### 6. Free throws.

The number of successes from 12 free shots was recorded in this test:

- at the initial GE x = 6 successful shots test, S =  $\pm 1,2$  hp is 20% which characterizes a moderate scattering of the data. Normal distribution includes 80% of the subjects tested. M = 4 successes;

- at initial GM testing x = 3,3 successful launches, S =  $\pm$ 1,2 hp is 36,3%, which characterizes a broadly representative average of the data. The distribution e records a deviation because between  $\pm$ 1,2 successes comprise 50% of the tested subjects. M = 3 successful shots;

- the arithmetic mean at the final GE test is 9.2 successful, S =  $\pm$ 1,5, Cv = 16,3%, the average is representative. The normal distribution includes 70% of the tested subjects. M = 5 successes better than the initial test;

- the arithmetic mean at the GM final test is 5,4 successful, S =  $\pm 1$ . Cv = 18,5%, the average is moderately representative. The distribution registers a deviation because between  $\pm 1$  successes comprise 50% of the tested subjects. M = 3 successes same as at initial testing;

 the differences between the two final tests of GE and GM give us the progress made;

- the results show that apart from the arithmetic mean which is higher at the final test, the other indices do not show any progress of the group.

**Discussions.** Starting from the theme of the paper "Study on technical-tactical training in a basketball team Under 18" and analyzing the obtained results, we reached the following conclusions:

1) the aggressiveness of the defense system (man-to-man) and its maintenance throughout the game, regardless of the structure of the field team, increased;

2) each player acts, according to the individual and collective technical-tactical rules learned;

3) the knowledge was acquired regarding the fast play, on the counterattack, the defense of man-toman half-court and all-court and basketball regulation;

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4) the percentage of basket shots from dribbling, running and jumping was improved under normal and aggressive defense and the percentage of free shots;

5) there were thorough knowledge of the tasks game each player posts;

6) permanent contact with competitions has led to the formation of the team model, the player and the game;

7) the victories and defeats were analyzed with calm and lucidity, the correct attitude towards the victory or the defeat, reflecting the value of the psychological education and training work carried out in the training sessions;

8) overcome the fatigue that appears during the effort;

9) a large number of exercises were used and continue to be used for individual and collective technical-tactical actions of attack and defense;

10) the results from the two tests show that the experiment group has progressed during the experiment compared to the control group;

11)in the processes of technical-tactical training, using games to learn technical-tactical actions, the training lesson has become much more attractive. I searched and largely succeeded in making the games themed, which was learned in the technical and tactical training lesson to be applied in the game or in conditions close to the game;

12) the material basis was an important factor in the team's value leap. The use of materials has greatly facilitated the acquisition of technical procedures and tactical actions in play;

13) checking the subjects in the game for a longer time has two advantages;

14) check being made during the game causes the student to expand their knowledge, skills and abilities;

15) training lessons have become much more attractive and effective.

## **Recommendations:**

1. To use systematically a large number of exercises regarding individual and collective technical-tactical actions of attack and defense, following the safety in execution and their completion.

2. To increase the number of basketball competitions in order to ensure a large number of children known that the competition characterizes them.

3. In the training lessons to use the means of physical education and sport, realizing the connection between physical training and technical-tactical training.

4. Children to be engaged in a competition that keeps their interest awake throughout the entire competitive year.

5. To use audio-visual means by watching basketball games no matter the age.

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