

## System of exercises to improve the jump shoot in the category 11-12 years

### Sistema de ejercicios para mejorar el tiro al aro en suspensión en la categoría 11-12 años

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#### ABSTRACT

The objective of this article is to propose a system of exercises for the shooting to the basket in suspension from the technical preparation in the pioneer category 11-12 years in the Guantánamo municipality. For the development of the research, research methods and techniques of different levels were used such as: historical-logical, analysis-synthesis, inductive-deductive, work with documents, observation and survey that allowed us to analyze the offensive techniques of basketball, that served as sustenance in the elaboration of the exercises that are proposed for the selected offensive technique.

**Keywords:** Pioneer basketball; Jump shoot; Exercises; Technical preparation

#### RESUMEN

El presente artículo tiene como objetivo proponer un sistema de ejercicios para el tiro al aro en suspensión desde la preparación técnica en la categoría pioneril 11-12 años en el municipio Guantánamo. Para el desarrollo de la investigación se emplearon métodos y técnicas de investigación de los diferentes niveles tales como: histórico-lógico, análisis-síntesis, inductivo-deductivo, trabajo con documentos, la observación y la encuesta que permitieron analizar las técnicas ofensivas del baloncesto, que sirvieron de sustento en la elaboración de los ejercicios que se proponen para la técnica ofensiva seleccionada.

**Palabras clave:** Baloncesto pioneril; Tiro en suspensión; Ejercicios; Preparación técnica

## INTRODUCTION

"Basketball or basketball (from English basketball) is a sport in which two teams of five players each compete." (Pérez and Merino, 2009, p.1) The objective is to introduce the ball or ball into the basket, basket or basket of the opposing team, which is located 3.05 meters high. For this reason, basketball is usually played by people of great height.

This sport was invented in December 1891 by the Canadian physical education teacher James Naismith, who sought to create an activity for young people to perform in a closed gym during the winter. It is considered unique because it is not only a team game, but also individual, improving one's technique as a player is a help for the whole team.

This sport more than any other requires the selfless integration of the talents of each individual into the team's play. First, it requires good preparation in the fundamental techniques that once learned are put into practice in the game.

About the technique in basketball (de la Paz, 1985) states that *"it is the way to rationally execute the elements and actions of the players."* (p.75) To acquire the fundamental technical elements that allow the athlete to develop effectively in their sport, it is essential to develop good technical preparation. In this regard, Nitsch, Neumaier, de Marées and Mester (2002) assert that technical preparation *"consists of the systematic optimization of these forms and variations to optimize performance, taking into account the specific circumstances of the people, the tasks they must perform and the environment in which they must work."* (p. 585)

In the last men's basketball competitions held in the municipality and province of Guantánamo in the pioneer category 11-12 years old, difficulties have been observed in the participating teams in relation to basic offensive technical foundations where the main deficiencies are due to little mastery of the technique of jump shoot.

In basketball, according to Crespo and Crespo (2014), shooting at the basket is *"the act of throwing. Main movement that players make during the game. Purpose of the game; throw or shoot to the basket."* (p. 1)

The jump shot, according to Wikipedia (2021), “is an attempt to score a basket by jumping towards the basket, and from a medium jump, to propel the ball with a certain arc towards the basket”. (p. 1) It is considered the least complex shot to take from a distance and is the most efficient in open play, although it requires good coordination of movements. The objective of jumping is to take the shot from a higher position and therefore prevent the defender's action from blocking, but it can be made difficult when this player is taller than the shooter.

For the jump shot it is necessary a good physical preparation that contributes to strengthen the muscles of the athletes necessary to execute this type of offensive action effectively. Physical preparation is defined by Díaz (2010), who coincides with Platonov (1993), as: *“the application of a set of body exercises, rationally directed to develop and perfect the perceptual-motor qualities of the person to obtain a higher performance physical.”* (Díaz, 2010, p. 29)

The jump shot is the most used shot and to execute it correctly it requires a lot of practice, like the other types of shot. To master it, it is essential to know the basic shooting technique, the free kick, as a good start before evolving into the jump shot, which is a more advanced and complex form of shooting.

According to Arteaga (2016) for its study, different authors have fragmented the shooting to the basket in three phases that are:

Preparation phase: feet shoulder-width apart, toes straight, knees bent, shoulders relaxed, balancing hand under the ball, shooting hand behind the ball, thumb relaxed, elbow in, ball high between ear and shoulder and look at the basket.

Execution phase: Jump and then throw, the jump height depends on the distance, extend the legs, back and shoulders, extend the elbow, flex wrists and fingers forward, push the ball with the index finger, balance hand on the ball until it is released, rhythm uniform, look at basket.

Follow-up phase: Keep the arm extended, index finger pointing towards the basket, shooting palm down, balancing hand palm up, looking at the basket and falling into balance. (pp. 19-20)

It can seem that the phases are clearly identified, in parallel this shooting modality consists of moments for study and they are:

First: Jump, a jump is made to rise above the defender and get closer to the height of the rim. While placing the ball overhead and in front of the head, remembering the free throw view, well, is valid for this type of shot. Fundamental line position to raise the ball, the jump must be vertical and balanced.

Second: Stay, it is the moment before reaching the maximum height at the moment the shot starts, it is the moment before the launch.

Third: Throw, fast, smooth and coordinated movement, never abrupt, look at the basket and take the throw over the basket, so that it enters from top to bottom. Remember, shoot when the body is immobile, so that the force of inertia does not influence the accuracy of the shot.

Fourth: Fall, you must fall in the same place where the jump begins and until you fall, the gesture must be demonstrated for: possibility of personal foul, performance of the gesture in good condition, not imbalance in the shot. (pp. 19-20)

In observations made in a covered way to the trainings carried out by the research team, it can be appreciated that the coaches did not have a set of established exercises for the development of this basic element of basketball discussed above. In the interviews carried out with several of these coaches, it could be detected that within their plans, no system of exercises was previously established that would promote a correct development of this basic element of basketball.

After analyzing the instruments applied in the training sessions of the men's basketball team in the category under study; It was possible to verify the existence of shortcomings that limit the correct execution of the jump shot, largely due to the non-existence of a system of exercises that reinforces the practice of this important offensive action. These shortcomings constitute the starting point for this investigation.

## **METHODS**

To carry out the research, a sample of 10 male athletes, pioneer category 11-12 years old, and 10 technicians from the same universe who belong to the Sports Combined "Reperto Obrero" of the Guantánamo municipality, who make up 100% of the universe, was chosen.

To determine the shortcomings that gave rise to the research, the collection of bibliographic data that constitute theoretical references that support the proposal, a documentary study was carried out where the parts of the investigated problem were logically analyzed and synthetic conclusions were reached that favored their better comprehension and understanding.

A significant number of observations were made to the team's training sessions and the conditions to determine the main insufficiencies in the execution of the jump shot and how it is treated, as well as matches played in municipal and provincial competitions to observe the execution. of technique during the game.

Several coaches who work with this category in the different Sports Complexes of the Guantánamo municipality were surveyed in order to obtain updated information on the elements that hinder the mastery of the technique of jump shoot that contributes to the elaboration of the system of exercises that is proposed.

## **RESULTS**

The following proposal consists only of a system of exercises for the teaching of offensive techniques, and especially the jump shoot, includes the steps and everything that is consider pertinent, that the coaches must take into account within the entire process, mainly related to the pedagogical principles (teaching) and the principles of sports training, for which a system of exercises is proposed which is described and exemplified below:

### **Proposal of a System exercises**

#### **Exercise 1**

Jump on one or two Swedish benches, from a distance of forty centimeters (40 cm), using active arm and leg work. Place the ball over the head. Without taking the shot.

#### **Exercise 2**

Jump on one or two Swedish benches, from a distance of forty centimeters (40 cm), using active arm and leg work. Place the ball over the head. But taking the shot at the basket.

### Exercise 3

Perform auxiliary work to achieve the parable accurately. The same previous procedure is done, but this time one of the areas is reduced to 1.90 meters, in which circles of two meters in diameter are painted. The athletes throw the ball, making a jump with both legs, they must make it fall within the circle on the descent.

### Exercise 4

Jumping on a rope, to develop the correct verticality of the jump, two lines are drawn, each one three meters (3 meters) from the imaginary perpendicular line, two rows are placed outside the lines, so that they are facing each other. Athletes take the shot at the partner in front in suspension by jumping over the rope, staying in the air and will take the shot before landing.

### Exercise 5

Stand on the bench and perform a jump using the movements of the previous exercise, when landing in front of the bench or jump box, cushion the fall. During the flight, the ball will be thrown to the student who is in front of the bench or the ring.

## **DISCUSSION**

The novelty of this research lies in the exercises that are proposed with a systemic approach that allow coaches to conceive and direct the process of technical preparation of the jump shot in the pioneer category 11-12 years, from the adequacy of the Comprehensive Athlete Preparation Program, in correspondence with individual, physical and psychological characteristics, which makes it possible to improve the domain of this offensive technique in the athletes under study.

For the development of the research, the criteria of several authors who approach this issue from different angles are assumed, which constitute theoretical references of this research, such as Pérez and Merino (2009) who propose the essential objective of basketball, which is to introduce the ball in the opponent's ring element that is taken into account as the main objective of the jump shot.

On the other hand, the definition of technique in basketball offered by de la Paz (1985) is assumed, considering that it is the one that best fits for this research. It

also agrees with what was stated by Nitsch, Neumaier, de Marées and Mester (2002) regarding the fact that technical preparation allows to optimize performance considering the specific circumstances, tasks and the environment in this case applied to basketball players in the pioneer category 11- 12 years in the Guantánamo municipality.

Those proposed by Crespo and Crespo (2014) in relation to basket shooting together with the definition of jump shoot offered in Wikipedia (2021) allowed to determine the importance of mastering the fundamentals of this technique from the pioneer categories so that it is reversed in better offensive performance of athletes in later categories.

It agrees with Días (2010) regarding the definition of physical preparation, which adjusts to the research needs as a complementary element for the correct execution of the jump shoot technique in the category under study. The exercises that make up the system were grouped according to the jump shoot phases proposed by Arteaga (2016), which favored the work of the coaches, as well as the assimilation of the athletes during the technical preparation process.

The theoretical foundations emphasize the importance of sports training in order to contribute to the development of basketball with regard to its technical elements and particularly the jump shoot in correspondence to the way this sport is played nowadays both in national and international competitions with emphasis on the pioneer category 11-12 years old as the base element of the competitive pyramid.

The technical preparation process for the jump shot that is currently carried out by basketball coaches in the pioneer category 11-12 years of the Guantánamo municipality is carried out in most cases empirically. In this sense, the proposal facilitates the process of technical preparation in correspondence with the characteristics in which the game of basketball is developed in these early ages, as well as fostering an optimal and adequate learning of the jump shoot.

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