

Suspension Shooting Technical Preparation: a necessity for basketball players in training

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ABSTRACT

The study focuses on evaluating the current state of the technical preparation of the suspended shot in basketball players of the 11-12 years old pioneer category. It seeks to address the deficiencies identified in this technique by presenting a methodology for its development. To achieve this objective, several research methods and techniques were used, including theoretical-methodological analysis and observation of training sessions and games. The results obtained revealed significant deficiencies in the technique of suspension shooting in this category of players, which underlines the need to implement a specific methodology for its improvement.

Keywords: Pioneer basketball; Technical preparation; Shooting in suspension; Exercises

Introduction

The ability to execute a jump shot with accuracy and consistency is a fundamental aspect of the game of basketball, both at the amateur and professional level. Since the earliest days of the sport, the importance of mastering this technique has been recognized as a necessity for players in training.

Today, with the increased competition and sophistication of the game, technical preparation of the jump shot has become a central aspect of basketball training at all levels. In this sense, the need to research and develop effective methodologies that allow basketball players in training to acquire and perfect this fundamental skill becomes evident.

In this sense, at present, significant changes are observed in competitive models, both in their conceptual and operational structure. These changes are influenced by the variations in the preparation systems of the athletes, as well as by the evolution in the scientific direction on the part of the coaches and the technological support in the training process. A distinctive element of this evolution is the emphasis on technical preparation.

It is essential not to underestimate any component of preparation, since a limited view of the demands of competitive activity can be counterproductive. Recent experiences underline the need for multilateral training, such as that established in the Programs for the Preparation of the Athlete, an official document of the Cuban Basketball Federation. These programs emerged in the seventies and eighties of the last century, based on predecessor programs for mass and special sports areas, which provided methodological indications for technical preparation in the categories in training.

The theoretical body of these programs outlined fundamental concepts (technical, tactical, physical, theoretical, psychological preparation, etc.) and offered guidelines for the dosage, structuring and organization of tasks for young basketball players.

Suspension shooting, as an essential part of the game, requires a deep understanding of the various game situations and social styles of player behavior. Although it is commonly viewed as a learned skill, its real importance for basketball performance goes beyond its simple execution.

A detailed analysis revealed significant deficiencies in the hanging shot technique in the 11-12 years old category in the municipality of Guantánamo. The correct execution of the technique was below 15%, which is considered unsatisfactory for that age group. Motivated by this situation, we proposed to investigate and propose specific exercises to improve this skill in the game.

Therefore, the main objective of this work is focused on evaluating the current state of the technical preparation of suspended shooting in the 11-12 years old pioneer category and to present a methodology for its development.

Development

The practice of basketball requires players to specialize in basic positions, which becomes an ideal model that should be developed from an early age. This preparation lays the foundation for future performance, given the variety of both offensive and defensive actions that players must master in this sport.

Technique is considered the main foundation of the game, coordinating the individual actions of the players in space and time. Among the offensive technical fundamentals of basketball, hoop shots stand out, whose characteristics may vary according to the category, from Mini Basketball to higher levels.

Experts such as Kirkov (1990) and Mora (2008) have stated that shooting at the hoop is fundamental in basketball, occupying a dominant position among the technical elements of the game. Pardo (2020) classifies the different types of hoop shots, while the Integral Program for the Preparation of the Athlete in Cuba and specialists such as Ayllón (2008) offer their own classifications.

It is important to note that the 2000 Comprehensive Basketball Athlete Preparation Program establishes the hoop shots that should be worked on in the technical preparation process for each category. However, in the cycle (2013-2016), suspension shooting was not contemplated for the 11-12 years old category, although this changed with the redesign of the program for the cycle (2017-2020).

All other individual and collective fundamentals, as well as teamwork in offense, are oriented towards shooting at the rim. The effectiveness of the game depends largely on the proper selection of training content, as various research has shown, including studies by Luperón & Guillen (2018), Ibáñez (2019) and De la Rosa (2020). In addition, studies such as those by Cañadas et al. (2018) and other authors have explored the relationship between cognitive and motor skills, as well as differences in training objectives at different stages and genders in youth basketball. Other studies, such as Matulaitis et al. (2020), have evaluated the effectiveness of different training programs in youth basketball players, highlighting the importance of a comprehensive approach combining physical and technical development.

In recent basketball competitions in the municipality of Guantánamo, a significant deficiency has been noted in the execution of basic offensive technical fundamentals by the men's teams in the 11-12 years old category. These teams represent the municipality in provincial competitions, where errors have been detected mainly related to the suspended hoop shot and the lack of general knowledge about basketball.

To address this problem, an investigation was carried out with basketball players belonging to the 11-12 years old category in the Guantánamo Municipality. Twelve male players were intentionally selected, which represented 25% of the total population, aged between 10 and 12 years and with at least 3 years of experience in the sport (see Table 1). In addition, 13 experts participated in the study.

Table 1. Characteristics of the basketball players selected for the proposed methodology

Muestra 12 baloncestistas categoría 11-12 Años										
2 años de experiencia	Edad (Años)	Talla (cm) promedio	3 años de experiencia	Edad (Años)	Talla (cm) promedio	3 años de experiencia	Edad (Años)	Talla (cm) promedio	Peso (Kg) promedio	Tiempo de preparación
2	10	160	6	11	167	4	12	170	67,4	+ de 6 meses

Source: Self elaboration.

The table above shows variability in the characteristics of the sample in terms of age and average height. This suggests that the height potential in this category is present among the team members.

A research procedure was carried out that allowed structuring the methodology for the development of the technical preparation of suspension shooting in basketball players of the 11-12 years old category. This process was divided into three interrelated phases:

1. Exploration and diagnostic phase:

1. An exhaustive analysis was made of the Integral Programs of Basketball Athlete Preparation, both current and previous, as well as a review of the technical preparation of the hoop shot in the teaching programs of this sport.
2. Observations during training sessions and games were used to record the work practices related to the technical preparation of suspended hoop shooting by the coaches, as well as the performance of the basketball players in terms of objectives, content, dosage, structuring, method and control.
3. Surveys were conducted with nine coaches and one commissioner to determine their level of knowledge about the hanging hoop shot, its applications and manifestations in basketball.

2. Methodology development phase:

1. Based on the results obtained in the exploration and diagnostic phase, a specific methodology was developed for the technical preparation of the suspended hoop shooting.
2. Current practices, identified needs and expert recommendations were taken into account to design an effective and appropriate approach to improve this skill in basketball players in training.

3. Phase of application and evaluation of the proposal:

1. The methodology developed in the previous phase was implemented during a determined period of time.
2. The results obtained were evaluated through direct observation, monitoring of specific indicators and feedback from the coaches and the players themselves.

Adjustments and modifications were made as necessary to improve the effectiveness of the methodology and its application in the technical preparation of suspended hoop shooting in basketball players of the 11-12 years old category.

The authors of this study have identified inconsistencies that have affected the technical preparation of suspended hoop shooting from the epistemological and praxiological profiles. These discrepancies have prompted the need for further research that integrates a systemic approach, paying attention to both the individual and group aspects. It is crucial to consider the unique characteristics of basketball players and team dynamics in order to achieve a higher level of quality in technical preparation.

Based on the above, a theoretical-methodological conception is presented for the process of technical preparation of suspended hoop shooting in basketball players of the 11-12 years old category (see Figure 1).

Source: Own elaboration. Adapted from Alexander Castro Figueredo, 2021.

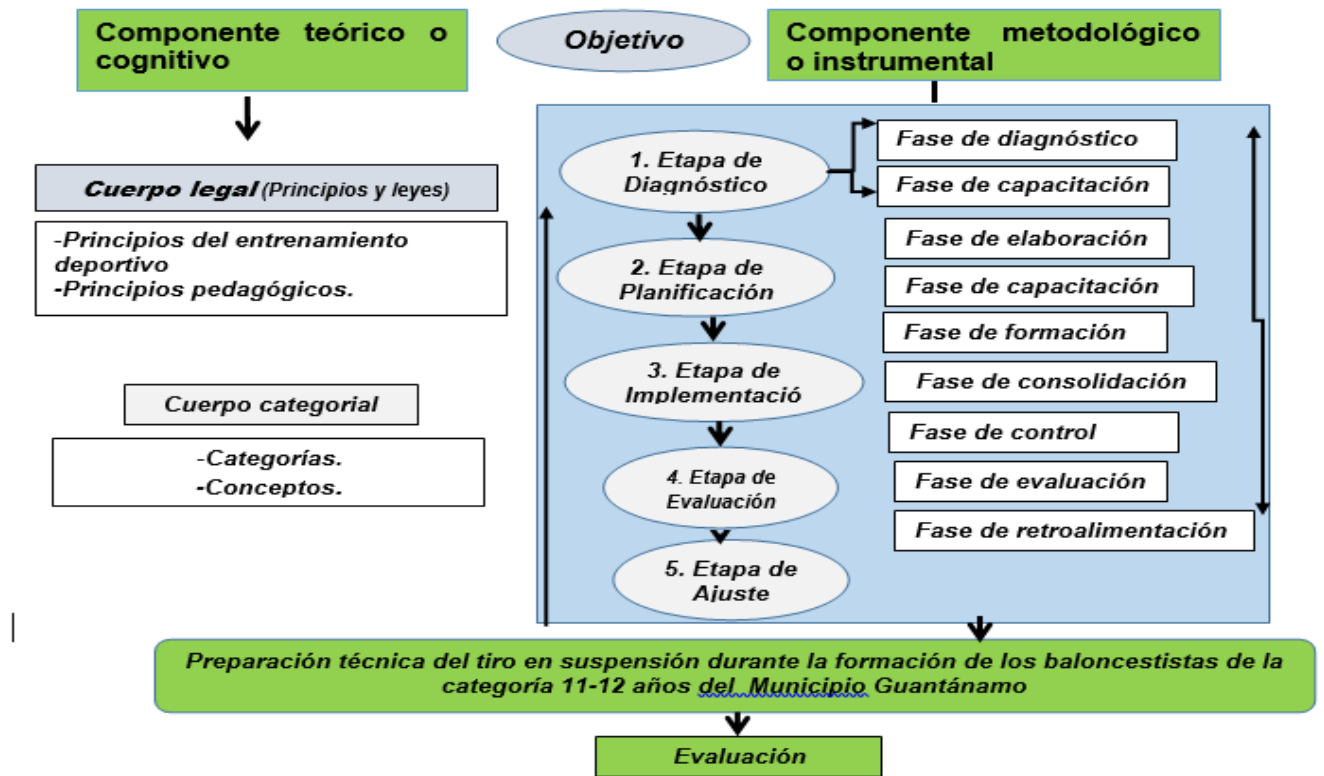


Figure 1. Theoretical-methodological conception for the technical preparation process of the suspended hoop shooting in basketball players of the 11-12 years old category.

In the process of technical preparation of suspended hoop shooting for the 11-12 years old category, methodological actions are designed that are fundamental for the relationship between the components that make up this preparation. These actions reveal the practical value of the conception in the technical training of basketball players in the new conditions that arise.

The methodological actions to implement this conception are structured and dynamized taking as a reference the work of Cuban researchers such as Bermúdez and Rodríguez (1996). These authors base it on two key aspects: the cognitive and the instrumental, applicable to teaching, learning and research in the field of basketball.

The objective of these methodological actions is to achieve a process of change that allows interpreting the results obtained, with the goal of involving coaches in a critical reflection on the conditions and the role of the coach in the process of technical preparation of suspended hoop shooting for the 11-12 years old category.

These methodological actions propose guidelines to contribute to the technical preparation process of suspended hoop shooting, taking into account the individual characteristics of the players and the context in which they develop. They are based on a diagnosis of the current and potential development level of the basketball players.

The methodological actions are distinguished and valued by:

- Their playful, contextualized and flexible conception, comprising fundamental elements for the technical preparation of suspended hoop shooting in youth basketball.
- The introduction of corresponding actions with proposed phases for the realization of the conception, offering coaches ways in the teaching process.
- The proposal of specific methodological actions for the technical preparation of the suspended hoop shooting in 11-12 years old players, taking into account the importance of the technical fundamentals and their contextualization according to the stage of the preparation process.

These actions guide the coach in his pedagogical activity, offering him methodological orientations to integrate knowledge and change the conception in the preparation process of technical fundamentals in players in training, adapting to individual and team particularities. An organization by stages is established, corresponding to the phases proposed as part of the conception (see figure 2).

Source: Self elaboration

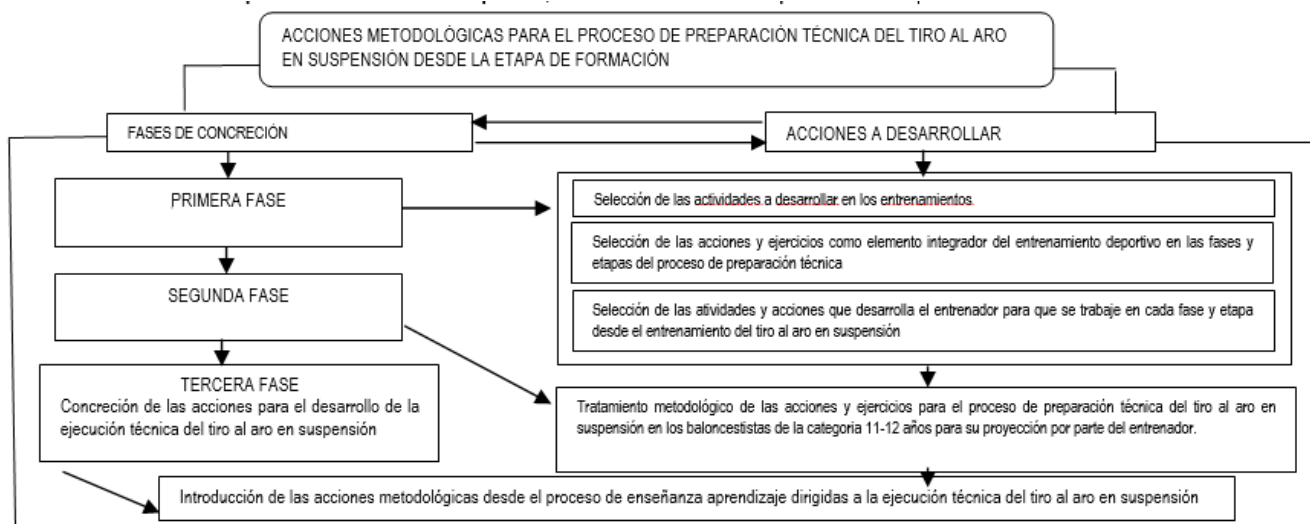


Figure 2. Methodological actions for the process of technical preparation of the suspended hoop shot.

To interpret the results of the technical test, it is useful to design a descriptive table (Table 2) that allows analyzing the data in a clearer and more precise way. Here is an interpretation based on the data provided:

It was performed in three different sessions of technical preparation of suspension shooting in training; it became necessary to design a table or descriptive table for a better analysis of the results.

Source: Self elaboration

Test	Coordinación del Movimiento			Ejecución Técnica			Resultado del Ejercicio		
	BIEN	REGULAR	MAL	BIEN	REGULAR	MAL	BIEN	REGULAR	MAL
# 1	1 8,3%	5 41,7%	6 50%	2 16,6%	5 41,7%	5 41,7%	1 8,3%	9 75%	2 16,7%
# 2	1 8,3%	4 33,3%	7 58,4%	1 8,3%	5 41,7%	6 50%	1 8,3%	9 75%	2 16,7%
# 3	1 8,3%	5 41,7%	6 50%	1 8,3%	5 41,7%	6 50%	3 25%	8 66,7%	1 8,3%
T.T%	8,3%	38,9%	52,8%	11,1%	41,7%	47,2	13%	72%	13%

Table 2. Results of the technical test.

The main results obtained are expressed as follows:

Coordination of movement: most of the results of the coordination of movement are distributed between the categories of “good” and “regular”, with a small percentage in the “bad” category. This suggests that most players show adequate or regular coordination in their movements during the execution of the suspended shot.

Technical Execution: as with movement coordination, most of the results for technical execution are in the “good” and “fair” categories, with a smaller percentage in the “poor” category. This indicates that most players demonstrate acceptable or fair technical execution during the hanging shot.

Exercise outcome: in terms of exercise outcome, the results are more balanced between the “good”, “fair” and “poor” categories, although there is a slight trend towards “fair” and “poor” results compared to “good”. This suggests that, in general, players have variable results in exercise execution, with some showing excellent performance, while others have more inconsistent performance.

In summary, the data suggest that most players have acceptable or fair movement coordination and technical execution during the hanging shot. However, the outcome of the exercise is more variable, with some players achieving good results while others have difficulty maintaining consistent performance.

In this sense, the following specific exercises are proposed for the execution of the suspended hoop shot in basketball players in training.

Exercise 1

Jump over one or two benches, from a height of thirty centimeters (30 to 40 cm), by means of an active work of the arms and legs. Place the ball over the head. Without shooting.

Exercise 2

Jump over one or two benches, from a height of thirty centimeters (30 to 40 cm), through active work of the arms and legs. Place the ball over your head. However, making the shot to the hoop with regulation of the height of the hoop or to a certain point on the wall.

Exercise 3

Perform auxiliary work to achieve the parabola with precision. The same procedure as above is done, but this time one of the zones is reduced to 2.00 meters, in which circles of two meters in diameter are painted. The athletes throw the ball, making a jump with

both legs; they must achieve that in the descent it falls inside the circle using sand bags in the legs and wristbands.

Exercise 4

To develop the correct verticality of the jump, two lines are drawn, each one at three meters (3 meters) from the imaginary perpendicular line; two rows are placed outside the lines, so that one is in front of the other. The athletes perform the shot to the front partner in suspension jumping over the rope, staying in the air and will perform the shot before falling.

Exercise 5

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

Finally, the authors of the work consider that the transformation of the technical preparation process and the implementation of a methodology that allows coaches a necessary tool to prepare adequately basketball players, also suggesting the application of dosage and planning of specific exercises for the execution of the suspended hoop shot in basketball players in training.

Conclusions

The detailed evaluation of the technical preparation of the hanging shot in basketball players aged 11-12 years in Guantánamo highlights the urgent need to implement a specific methodology to address the deficiencies identified in this technique.

The results obtained underline the importance of developing and applying an effective methodology to improve the technique of suspension shooting in basketball players of the 11-12 years old pioneer category, which can have a significant impact on their performance and development in the sport.