

Tipo de artículo: Artículo original

Recibido: 11/03/2020

Aceptado: 26/09/2020

Evaluación de habilidades técnico-tácticas del bloqueo en jugadores de Voleibol de playa de iniciación. Una propuesta

Assessment of technical-tactical skills of blocking in initiation beach volleyball players. A proposal

Orestes Griego Cairo^{1*}, Johanny Rita Ojeda Valbuena², Edelsio Griego Cairo³

¹ Universidad Central “Marta Abreu” de Las Villas. Facultad de Cultura Física, Cuba. Orcid 0000-0002-8007-8195

² Universidad Politécnica Territorial de Maracaibo. Venezuela. Orcid 0000-0002-1297-2478

³ Universidad Central “Marta Abreu” de Las Villas. Facultad de Cultura Física, Cuba. Orcid 0000-0001-5985-2329

* Autor para correspondencia: griegoorestes@gmail.com

Resumen

En la actualidad se adolece de pruebas para evaluar el desarrollo de habilidades técnico-tácticas en el Voleibol de playa de iniciación, sobre todo en el bloqueo, elemento complejo y decisivo en esta modalidad. Las investigaciones realizadas sobre este deporte se han centrado en el máximo nivel de competición y fundamentalmente dirigidas, a identificar efectividad de elementos del juego y su relación con las capacidades físicas, o el establecimiento de indicadores de rendimiento, quedando poco estudiada la etapa de iniciación deportiva. El objetivo de la investigación fue diseñar una prueba para la evaluación de habilidades técnico-tácticas en la ejecución del bloqueo de jugadores de Voleibol de playa de iniciación. La investigación se realizó en tres fases: a) análisis de las necesidades de los entrenadores para la evaluación de los jugadores, donde se realizaron entrevistas y se determinaron las limitaciones de los estudios precedentes; b) diseño de la prueba, a través de talleres metodológicos; c) determinación de la validez de contenido de la prueba mediante criterio de expertos. El diagnóstico realizado evidenció la carencia de pruebas para evaluar habilidades técnico-tácticas de los jugadores de Voleibol de playa en la etapa de iniciación, lo que demuestra la necesidad de perfeccionar el proceso de evaluación de los mismos. Se obtuvo como resultado una prueba que permite evaluar, en cualquier momento de la preparación, las habilidades técnico-tácticas de los jugadores en la ejecución del bloqueo.

Palabras clave: prueba, habilidades, bloqueo, Voleibol de playa, iniciación

Abstract

Nowadays, tests are lacking to evaluate the development of technical-tactical skills in initiation beach volleyball, especially in blocking, a complex and decisive element in this modality. Researches carried out on this sport has focused on the highest level of competition and is primarily aimed at identifying the effectiveness of elements of the game and its relationship with physical abilities, or the establishment of performance indicators, with the stage of sports initiation being little studied. . The objective of the research was to design a test for evaluating technical-tactical skills in executing the initiation beach volleyball player block. The research was carried out in three phases: a) analysis of the needs of the coaches for the evaluation of the players, where interviews were conducted and the limitations of the previous studies were determined; b) design of the test, through methodological workshops; c) determination of the content validity of the test by specialists criteria. The diagnosis made evidenced the lack of tests to evaluate technical-tactical skills of beach volleyball players in the initiation stage, which shows the need to perfect the evaluation process of them. As a result, a test was obtained that allows evaluating, at any time during preparation, the technical-tactical skills of the players in executing the blocking.

Keywords: *test, skills, blocking, beach volleyball, initiation*

Introduction

Beach volleyball is a collective net sport that is played on an unstable surface. Its high unpredictability in game action requires the constant improvement of the analyzes and evaluations that are carried out on the players (Giatsis, López & Gea, 2015). Performance control allows analyzing the development of technical-tactical actions carried out by the players and the team. The mastery of technical-tactical skills can vary according to the competitive level of the players and the training process, therefore, it is essential to establish an adequate monitoring of the development of these skills (García, 2013); (Sáez, Ruano and Gutiérrez, 2019).

On the other hand, it is also considered that current high-level competition is highly increasing and demands a solid development of technical-tactical skills in players from their initial training stage (Palao, Manzanares and Ortega., 2015).

From the technical-tactical elements of the beach volleyball game, blocking turns out to be one of the most difficult and spectacular actions that a player can perform. The player who executes the blockade is always at a disadvantage against the rival attacker and its successful realization is very difficult to achieve, Palao (2001); (Conejero, Prado, Claver, González and Moreno, 2018). This

technical-tactical action is part of the team's first line of defense, becoming a benchmark for placing the defense of his teammate.

In recent years, research aimed at analyzing the performance of beach volleyball has been confirmed, but with limitations in its contextualization to competitive activity. Therefore, more effective evaluations are required to improve knowledge about the development of technical-tactical skills experienced by players throughout the entire sports preparation process (Gamonaes, Muñoz, León and Ibáñez, 2018); (Echeverría, C., Ortega, E., and Palao, J. M., 2020).

Currently it is essential to progress in the knowledge of the actions of the players in the context of the game. Only an effective control of the development of technical-tactical skills of the players since they begin in sports practice, can raise the results during the competition (Papadopoulou, S., Giatsis, G., Billis, E., Giannakos, A. , and Bakirtzoglou, P., 2020). This stage of sports initiation constitutes the fundamental element to organize and direct an adequate training process, where the development of technical-tactical skills is essential and has a high significance in the evolution of the players (López, 2012); (García de Alcaraz, 2013).

In Cuba, beach volleyball competitions begin in the 11-12 age category for both sexes, but very little information is available about this crucial stage in the development of future talents in this specialty. Scientific research on beach volleyball in this direction is still scarce, mainly focused on identifying the characteristics of technical-tactical actions and the physical responses that this sport modality demands (Medeiros, Marcelino, Mesquita, and Palao, 2014).

However, the specific blocking action in beach volleyball at its initiation stage has hardly been investigated. The studies are mainly aimed at the highest level of competition and are generic in nature (López, 2012); (Jiménez, 2015); (Palao, Manzanares and Ortega, 2015). There is no emphasis on tests that allow evaluating the level of development of the technical-tactical skills of the players throughout the preparation.

It has been found that nowadays there are no tests to evaluate the development of technical-tactical skills in initiation Beach Volleyball, especially in blocking, a complex and decisive element in this modality. The investigations carried out on this sport have focused on the highest level of

competition and mainly aimed at identifying the effectiveness of elements of the game and its relationship with physical abilities or, the establishment of performance indicators, being the sport initiation stage, little studied.

Faced with this limitation existing in the national and international literature, the objective of this research is to design a test to evaluate technical-tactical skills of blocking in beach volleyball players in the initiation stage, based on the internal logic of the game and the latest trends in sports training.

The importance of the study lies in the fact that a test is offered that allows evaluating, at any time during preparation, the technical-tactical skills of the players in executing blocking in Beach Volleyball.

Materials and methods

For the development of the research we worked with a population made up of the 14 coaches from Beach Volleyball in the province of Villa Clara. They had as characteristics having worked for more than 6 years in the basic initiation category (11-12 years old) or school (13-15 years old), all graduates in Physical Culture and ages between 22 and 40 years old. Also worked with an intentional sample of 10 specialists to determine the content validity of the test. It was considered that for a satisfactory validation, the use of a sufficiently large number of expert judges is required. In this direction, several authors indicate a minimum of 10 (Conejero et al., 2018).

The concept of expert was established as those people, Cubans with more than 20 years of experience in the field of Physical Culture and Sport, having at least 15 years of experience as a coach and a minimum of five linked to initiation Beach Volleyball. Possess the scientific category of Master or Doctor Degree and have carried out researches related to the theory and methodology of sports training, specifically in relation to the preparation of tests. These experts had the aforementioned characteristics.

The following methods and techniques were used:

Documentary analysis: to support the technical-tactical evaluation in Beach Volleyball. Such a review included training plans and teaching programs. Brainstorm: it was used in the design of the

test and in order to determine the aspects that it should contain. Interview: to know the criteria by which the coaches based their technical-tactical tests. Methodological workshops: used in the process of elaboration and theoretical validation of the test.

The research went through three phases, the first aimed to develop an evaluative analysis of the technical-tactical tests carried out by the coaches of the province, who worked with the initiation categories, since up-to-date there is no an Integral Program for Sportsman Preparation (IPSP) for this modality in Cuba. The coaches' needs were determined from the methodological point of view, in terms of evaluating the development of the technical-tactical skills of their players in the execution of blocking. A documentary analysis aimed at analyzing the demands of the game was carried out, assessing the current trends in Beach Volleyball training and its characterizing elements.

The Teaching Programs (TP) or Training Plans (TPI) of the 14 coaches of this sport in the province were analyzed, in order to verify the way of conceiving the technical-tactical control of their players during the preparation process. In this phase, an interview was conducted with all the coaches, focused on the demands and criteria of the tests used by them in the technical-tactical evaluation of their players, specifically in relation to blocking.

The second phase, with the aim of designing a test that would allow the development of technical-tactical skills in the execution of the block to be evaluated in initiation beach volleyball players. For this, three methodological workshop sessions were held with the aforementioned coaches, using the brainstorm. The first was held in January 2019, a specialized conference was held regarding the preparation and validation of tests in sports games. This action allowed them to increase their level of knowledge on the subject.

The second workshop was held in March of the same year and together with the coaches, there was a debate on their needs regarding the control and evaluation of the technical-tactical skills of the players at this level, during the preparation, evaluating the criteria of Zatsiorski (1989), Morales (1995), Quetglas (2012) and (Valero, Hernández, Pérez and Gutiérrez 2018) regarding the preparation of evidence. In addition, the characteristics of the blocking action in Beach Volleyball were analyzed, as well as the characterizing aspects of the technical-tactical tests established in its TP or TPI.

In the third workshop held in the month of April 2019, a brainstorm and discussion was developed, about the characteristics that a test should have to evaluate the development of technical-tactical skills of blocking, in the beach volleyball of the initiation categories. Finally a proposal of test was concreted by consensus.

In the third phase of the research, in a methodological meeting a survey of experts was carried out to assess the test designed in the previous phase and establish its content validity. According to Escobar and Cuervo (2008), there are several methods for obtaining judgments for experts, which are classified according to the evaluation carried out, either individually or in groups. The second is consensus, where the experts must be brought together and a high level of agreement is required. This variant was used because it had the possibility of bringing all the subjects together in a scientific framework, which allowed for a broader and more diverse discussion space, based on the needs of the coaches.

The objective, the description of the test, the necessary means and instruments, the standardization criteria and the way of scoring were reviewed. Taking into consideration that the effectiveness of blocking is not only measured by the points achieved, but it can also be effective when it limits the direction and type of hitting to be made by the attacker (Palao, Santos and Ureña, 2004); (Alfonso, Mesquita and Palao, 2005).

Content validity is generally evaluated through a panel or expert judgment, it is defined as the informed opinion of people with a background in the subject, who are recognized by others as qualified experts and who can give information, evidence, judgments and evaluations on the subject in question (Escobar and Cuervo, 2008). From the group of experts, two were female and three had a doctor's degree. They issued their assessment and through them it was possible to obtain the content validity of the test. Decision making by the group of expert was achieved by consensus, after an extensive process of debate and discussion.

Results and Discussion

In the first phase of the research, the main demands of the training process were identified, from a methodological point of view, which affect Beach Volleyball coaches who work with the initiation

categories. The result of the interviews carried out revealed the lack of theoretical and conceptual mastery of the elaboration of technical-tactical tests. It could be seen that the tests of this type carried out in relation to blocking are extrapolated from Volleyball, without taking into account the characteristics of the beach modality. Therefore, the need for coaches' orientation in order to contextualize evaluations of technical-tactical skills, to the current trends in sports training was revealed. In addition, the difficulties became evident when they did not have the IPSP of this modality.

In the second phase of the investigation, after the analysis of the previous results and the brainstorming under the guidance of the principal investigator, the design of the test was carried out. The budgets that are used for its preparation were: the player performs the test with the intervention of his partner, blocking is carried out considering the logic of the action in play, the exercise The test is carried out on both sides of the court and the test must assess the level of development of technical-tactical skills that the player possesses in executing the blocking action. As a result of the work sessions with the coaches, a technical-tactical test was obtained, which is shown below and takes into account several of the postulates of Zatsiorski, (1989) and Morales, (1995).

Name of the test: Blocking test for Beach Volleyball players in sports initiation.

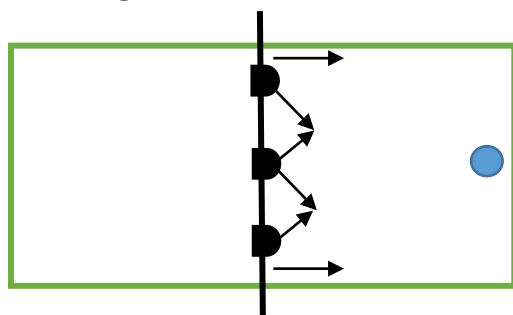
Objective: To evaluate the development of technical-tactical skills in Beach Volleyball players in the execution of blocking.

Methodology to carry out the test: The player will choose the side of the field where he wants to start the test. He will be located in the center near the net and its partner, also located on the ground in the center and next to the final line. The net for the 11-12 year old category stands at 2.15 meters high (female) and 2.20 meters high (male). In category 13-15, it will be located at 2.24 meters (female) and 2.43 meters (male), this responds to the provisions of the Cuban Volleyball Federation (CVBF). The blocker starts the actions by jumping to block a first shot that will be executed to the right. This is the area that the blocker must indicate to the defender (the line) before blocking the shot. At the end of this first action, he returns to the center of the court and stands to block a second shot to his left (the diagonal) and this is the area that the blocker must indicate to the defender to try to block the shot. He will again be placed in the center of the field to block a third shot to his left.

This is the area that the blocker (the line) must indicate to the defense to try to block the shot. Again he will be placed in the center of the field to block a fourth shot to its left (the diagonal), being this the area the blocker must indicate to the defense to try to block the shot. The player will be placed again at the center of the court and must make a fifth block to a shot that will be executed by the center of the opposite court. To do this, before starting the test, the blocker must define which direction, right or left, he wants the auction to take place (the auction must be carried out towards that chosen address).

The blocker must indicate to the defender the zone to be closed in the block and he will try to block, either to his left or right, according to his choice, favoring the location of the defender. In the same way, five blockings are made on the opposite court, under the same conditions to add 10 blocks, which are the total to be made. The teammate on defense will try to get to the finished balls but there will be no continuity of actions. It is important to take into account that the block is considered good not only if it manages to stop the auction, but also if the blocker is positioned correctly (in front of the auctioneer) and closes the area that corresponds to blocking (cover and creates difficulties for the auctioneer). This test will be carried out if there are players with physical conditions to blocking.

Test diagram:



Reading:




-  Player doing the blocking test.
-  Shot direction and the finishing zone.
-  Defense player.

Figure 1. Activate the player in the blocking test.

Standardization conditions:

- The test will always be carried out after having performed the general and special warm-up, in addition to jumping to the warm-up blocking.

- The player will have 10 seconds to perform the next blocking (the coach indicates this with a signal or whistle, but always in the same way) and 30 seconds to change sides and carry out the test on the other court.
- The auction will be made by another player (always the same) and it will be on a ball thrown by the teacher.
- The test will be carried out with at least two balls to avoid interruptions and delays, the rest of the players will be in charge of guaranteeing the execution and organization of the test.
- The player must define before starting the test which side and which zone he will block when making his fifth and tenth blockings.
- The test will be carried out in a field that presents the appropriate playing conditions.

Evaluators. At least three coaches will participate, for easier organization and truthfulness in collecting the information.

Rule. The test evaluates the percentage of results, taking into account the execution of the 10 blocking attempts that the player must make.

To establish the evaluation scale, it was taken into account that it was operational for the coach and was not very complex. It was assessed that the pedagogical tests or tests for the sports reserve of the National Volleyball Commission (NVBC) of Cuba, propose to evaluate the result of the players with criteria of Good, Regular or Bad. But only for physical tests, not being so in the case of technical-tactical tests, in the case of the latter no scale is offered. The scale will be modified according to the stage of the preparation that the players go through. The values will be established by the coaches according to their characteristics and the reference values that they have in the category.

Below is an example of a scale to assess the technical-tactical skills of school Beach Volleyball players in executing blocking previously to their fundamental competition.

Table 1. Scale to evaluate the result of the players in the technical-tactical test of blocking

Scale of evaluation	Ranks (%)	Evaluación
	80-100	VG (5 points)
	60-70	G (4 points)
	40-50	R (3 points)
	- 40	B (2 points)

Protocol: Model (table # 2) where a detailed description of the result obtained by the players in the technical-tactical blocking test is carried out through observation. It records the possible actions of the players constituting errors and successes. With (x) it is marked if the execution is carried out correctly and with (●) if it is not executed correctly. In addition, a tactical assessment is carried out based on certain criteria for the action, using the same way to record the result obtained.

Table 2. Scale to evaluate the result of the players in the technical-tactical test of blocking

	(Female)		Players		(Male)					
Team:	(1)		/							
	(2)		/							
	(3)		/							
	(n)		/							
		ET				TA				
		J	CLB	IBZ	CJE	AHW	CBZ			
		#	F	M	F	M	F	M	F	M
Blocking	1									
	2									
	3									
	4									

Legend: **CLB**- Correct location to block; **IBZ**- Indicates blocking zone; **CJE**- Correct jump execution; **AHW**- Adequate hand work; **CBZ**- Close the Block zone, **F**- Women; **M**-Male; **ETE**- Evaluation of technical execution; **TA**-Tactical Assessment. **P**-Player.

In this way there is a criterion on the technical-tactical domain of the player in the execution of blocking and the individual errors to work with each player. The information obtained from the test constitutes an important element for the coaches in the process of preparing their players.

Table # 3 shows the model where it is summarized, the result of the 10 blocks made by each player, as well as the percentage of performance obtained in the development of the test. In addition, the

evaluation of each player is captured from the evaluation scale established for the moment of preparation.

Table 3. Model of summary form of the observation protocol in the blocking test.

Players	Sex	B-1	R	B-2	R	B-3	R	B-n+1	R	B-10	R	%	Eval.
1													
2													
3													
4													
....													

Reading: (X) Is made is blocking is correct , (●) It is made is blocking is not correct, (B) blocking, (R) Results of the blocking made, (%) Percentage of the final result and (Eval) Evaluation obtained by scale results

As a result of the third phase and after having defined the test, a survey was carried out in a methodological meeting, in a formal space with the experts. Then there is the debate and discussion focused on some fundamental aspects, through which they had to issue their assessments of the test. Considerations were issued on: whether the structure of the test is adequate or not; if the test allows to control the development of the technical-tactical skills of the blocking in the initiation Beach Volleyball; if the test responds to the characteristics of the internal logic of the game at the initiation level; if the design of the test is in correspondence with the current trends in sports training and if the use of the partner in carrying out the test is adequate or not.

As a result of this action, it is obtained that 100% of the evaluating experts, agreed in affirming positively, that the test meets the aforementioned requirements. Highlighting as an element of great value and novelty, the presence of the partner (defender) in the test, since the block defines the location of the defender and his tactic to follow. They also highlight the fact that the test is based on the own and specific characteristics of the game of Beach Volleyball and that in its implementation it contemplates the actions of the player on both courts. However, they proposed that the test should be subjected to a more rigorous validation process based on the quality criteria established by Morales (1995) and the postulates of Zatsiorsky (1989).

In the validation of the content by the experts, steps such as those proposed by Escobar and Cuervo (2008) were followed: preparing instructions and spreadsheets, selecting the experts, explaining the

context and making the discussion possible. The experts by consensus considered the preparation of the test adequate, their analyzes focused on the recognition of the organization, standardization and structuring of the test. However, they expressed that it is necessary to deep into other aspects of the validation of this test and assess its adequacy in other contexts and levels to establish its reference values.

All of the aforementioned allowed determining the characteristics that identify the test carried out:

1. It is structured according to the characteristics of Beach Volleyball, with the player acting in the blocking on both sides of the court, which corresponds to the constant changes of court that occur during the game.
2. It allows the coach to plan and evaluate the percentages of results according to the stage of preparation that their players go through.
3. It takes into account the presence of his teammate (defender), so the player is evaluated in conditions closer to the reality of the game.
4. It offers the possibility to the player who is evaluated in the blocking test, to make decisions and consider their preferences, since during the game they do not have the presence of the coach to give directions.

Although the elaborated test, took the ones developed for Volleyball as a reference, it differs by taking into account the characteristics of the beach modality and including the presence of the partner in its development. In this way, the action of the test is closer to the reality of the game.

Conclusions

The diagnosis made evidenced the need to update the concepts related to the evaluation of the technical-tactical skills of beach volleyball players in blocking and the lack of evidence for their control during the preparation process.

As a result of the entire investigative process, a test was developed that allows Beach Volleyball coaches to assess the technical-tactical skills of their players in blocking, throughout the preparation process and adjusted to the characteristics and internal logic of the game.

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