



Study Regarding Efficiency of Jump Service in Volleyball High Performance

KEYWORDS

efficiency, jump service, volleyball, senior

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ABSTRACT *In all cases the interaction of the hand ball (service to collect, setting, attack, block) movement has a nice character. Through these actions, the ball is intended to print on certain parameters of the speed and angle to the horizontal to allow sending the ball into a desired point after a precise trajectory. The research was conducted by watching matches at the European Championship tournament in men's volleyball, edition 2015. One thing to note, regardless of the skill of the players, is the presence of learning in all stages of training so that players constantly have mastered something new, be it a new action, whether it is a new combination tactic, which used optimally bring success to the team. To improve service training should be focused only on executions out of service in game conditions, and develop the ability to alternate execution decision in the best conditions of service.*

INTRODUCTION

The volleyball, just like other sports, has emerged as a means of recreation and its future evolution towards high performance steps it scored among competitive disciplines. All actions specific motor running game through body movements in space and time segments (Bac, O., 1999). Service bounce either in force or flat, on basic properties of motor skills, an initial position, a preparatory phase, a moment of execution itself and final position, of course, which is more complex. Since we hit the ball it performed in air.

In all cases the interaction of the hand ball (service to collect, lifting, attack, block) movement has a nice character (Papageorgiou, A., Spitzley, W, 1994). Through these actions, the ball is intended to print on certain parameters of the speed and angle to the horizontal to allow sending the ball into a desired point after a precise path.

Movements for displacement interactions impactor is based on the clash between the Athlete's body and moveable objects (Ivoilov, A.V. 1984). This impact can be direct - palm, as if in a game of volleyball service, or through an auxiliary object - hockey stick, tennis racket, baseball bat, etc. If hitting is done using sports material, the latter can be considered as an additional terminal link driveline body.

The forces of impact, which occurs under the action shot, are very large (M.S. Bril, Kleshev U.N., 1988). During the coup, but the direction is almost invariably forces impactor module is changed considerably. Following the impact (collision hand ball), mainly air that is an elastic medium compresses and creates a force ters contrary, contributing to the detachment ball by hand, it is obvious that the reaction forces that occur on the ball and palm depend on the degree of elasticity of the member execution.

The maximum initial velocity can be combined with precision launch the ball vertically least in volleyball. Flying speed of the ball depends on the initial speed collision of the linker hits (hand) and a ball launched (vertical) angle on top, and the ratio of their masses and degree of connecting palm entire body player (Pacuraru Al., 1999).

It is the first attack specific technical element which can

lead to winning points. Special peculiarity of the service, especially the bounce in force or floating is the decisive psychological impact that can have in the general evolution of a volleyball game (Sawula, L. 1980). As the first action of attack is aimed, since the beginning of set, making the opponent unable to stop playing ball or by sending the ball as hard as possible in order to obtain points directly or by forcing a player to err sending it to high team thus in a position to fail to build effective attack.

METHODOLOGY

The research was performed by watching matches at the European Championship tournament in men's volleyball, edition 2015 after watching matches in European Championship registration through the Internet and the CEV website. In total there have been a number of 6 games, whose results will be listed in the following table.

TABLE 1
REGISTERED MATCHES

Nr.crt	Match	Score
1	FranCE - slovenia	3-0
2	BULgaria - italy	1-3
3	BULgaria - FranCE	2-3
4	slovenia - italy	3-1
5	franCE - serbia	3-1
6	russia - italy	3-0
7	BULgaria - germanY	3-0
8	polAND - slovenia	2-3

The method of observation, basic research method, is considered a specific method of the natural sciences (Maroti, 2008).

Actografic technique, it facilitated the registration and data processing, which previously were coded and entered in the records. Actografia is a technique for recording specific actions of sports. Actografic study is directed on how actions, frequency, duration, accuracy and efficiency. It is used mostly in sports, boxing, wrestling, figure skating, both during training and competitions. This technique is used in the method of observation, entries may be submitted by hand or using actografe. (Hanțiu, 2003)

„Usually used to play volleyball statistics take into account a variety of situations among them reporting attacks, services, downloads, jams, etc. All these parameters can be reported for the entire match or different sequences thereof for each player or the entire team“(Niculescu, 2006).

The formula used to calculate the efficiency of the service was as follows:

$$E = \frac{[4 \times (A) + 3 \times (B) + 2 \times (C) + 1 \times (D) - 1 \times (F)] \times 100}{4 \times N}$$

Where:

- E = efficiency
- A = the number of executions evaluated 4
- B = the number of executions evaluated 3
- C = the number of executions evaluated 2
- D = the number of executions evaluated 1
- F = of executions evaluated 0
- N = total number of execution

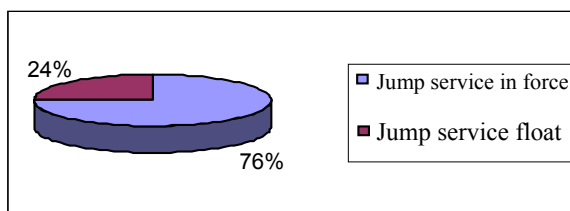


Figure 1 The share of services procedures

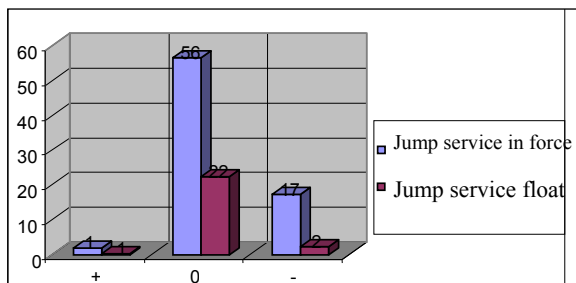


Figure 2 The frequency and efficiency of procedures

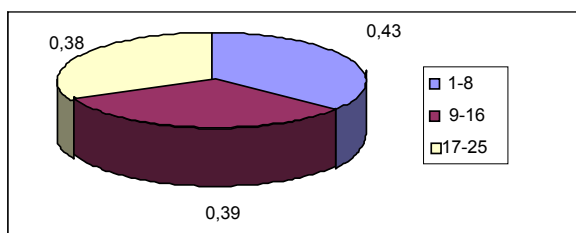


Figure 3 The efficiency of jump service in force according to the score

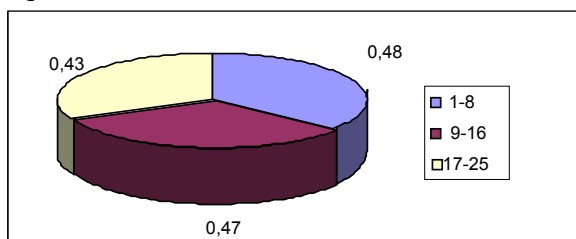


Figure. 4 The efficiency of jump service float according to the score

One thing to note, regardless of the skill of the players, is the presence of learning in all stages of training, so players have constantly something new learned, whether it is a new action, whether it is a new combination tactic, which used optimally bring to the team success. Throughout the training, will be automated service parts specific actions.

In the following stages, the consolidation, improvement and recovery will follow:

developing the ability to perform the service under similar conditions of competition, focusing on consistency, accuracy, effectiveness;

strengthening exercises will be used for tactical application;

requests will aim to increase actions to overcome the real conditions of the game.

In volleyball practice to competition at any stage, it will continuously looking to improve the efficiency index of service-specific actions. This will be followed not only in competitions, but also throughout training both in terms of respecting the game rules and procedures used in the assessment of effectiveness. The difficulty with that opponent plays the ball easily reveal the degree of effectiveness of the services performed by the player

FINDING

Data recorded on the two processes in part include: frequency and effectiveness of each set separately from all matches observed and noted by the score in sets 1-8, 9-16, 17-25 or first, second and third part, which may be extended in some cases, when the set entered the „extensions“.

Thus, the balance between the two processes is in favor of the process is carried out in force with 757 executions obtained approx. 76% (see figure no. 1).

Regarding workmanship (see figure no. 2), at the service of jump force and carried at floating executions marked „0“ 565 recorded in the blistering process and 222 float process, which is normal if we consider that the phase 1 game structure 1 have higher efficiency due to specialization in acquisition of players, especially with the use libero player.

In terms of frequency of procedures based on the score (see Figure No. 3 and 4) The highest value was registered at the force jump, 271 and 98 in the service of floating jump.

CONCLUSIONS

Following the results, we conclude the following:

1. The services „as“ there are a number higher process efficiency increases, but if erroneous executions increases, decreases efficiency, in terms of process and team play suffers.
2. Player of the service must be able to observe their opponents in takeover located so that it takes account of the fact that if the frequency of a process „customary“ opponents of takeover, he effectively use alternate service thus having a better chance at winning point.
3. Relating to the acquired data matches the total registered service efficiency of jump and float force decreases as it approaches the end of the set.
4. Number of executions „as“ both service bounce, float

and by that decreases towards the end of the set, due to accumulated fatigue and the tendency to eliminate the risk of error.

5. To improve service training should be focused only on executions out of service in game conditions, and develop the ability to alternate execution decision in the best conditions of service.

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