STUDY ON EFFICIENCY OF PLAYERS IN THE VOLLEYBALL WORLD CHAMPIONSHIP, ITALY / BULGARIA 2018

Adin-Marian COJOCARU, Marilena COJOCARU

Faculty of Physical Education and Sport, Spiru Haret University, Bucharest, Romania
adincojocaru@yahoo.com

Abstract: With every new major competition at the level of the world's top teams, there is progress towards the development of the game, teams always bringing some news that allows them to capture the opponent and climb the hierarchies. These novelties focus mainly on the model of attack and defense play, the content of some gaming actions, the level of efficiency, the peculiarities of specialization on the posts as well as some priorities given to the components of the training.

The purpose of the paper is to evaluate, in terms of quantity (weight) and quality (efficiency), the whole content of the actions and the game, as well as the degree of involvement of each player, according to the specialization in positions at the level of the World Volleyball Championship 2018.

The research hypothesis assumes that by highlighting the objective tendencies that manifest in the performance of volleyball players in the content and effectiveness of implementation action game, we can define the structure and content of the model of game that can be transferred in training coaches and athletes.

The research methods were the bibliographic study, the statistical-mathematical method, the graphic representation method.

The possibility of a dynamic approach to the content of the volleyball game is determined by the correct knowledge and understanding of the key aspects of the competitive game in the world, to be transferred and permanently present to the day-to-day concerns of coaches and players.

In conclusion, the key aspects of the game result from the actual situations faced by teams and players in an official game whose purpose is winning the game, namely winning sets and points by means of gambling actions that have to pursue a certain high level of effcience, to win the games.

Keywords: *volleyball, eficiency, skills, game, world championships.*

Introdution

The great progress made by the volleyball of the last decades, both in terms of content, structure and efficiency, as well as the spectacularity and extension of the value area of practice, finds its explanation in the massive scientific, human and technical and material investments that this sports discipline benefits from world scale [1].

Assessment is an exercise by which we measure and appreciate both the vocational predispositions and the availability of sporting gaming, as well as the performance capabilities acquired by athletes as a result of the training and gaming processes [2].

One of the characteristics of psychic regulation in volleyball-specific effort is efficiency. "Efficiency expresses the pragmatic value of the action. It is determined by the endpoints (performance, result) or by the magnitude of the adaptive effect, considering that the action was effective if the final state coincides with the goal or the standard value" [3].

In an integrative look at the present material, we will present the radiography of the actualities and trends in the great performance of the game, the content of the game and the players' model, in order to uncover the future trends to integrate our potential. Then based on the essential objectification parameters, we will specify the features, structure, demand, and functional efficiency that will shape the game and player patterns.

The possibility of a dynamic approach to the content of the volleyball game is determined by the correct knowledge and understanding of the key aspects of the competitive game in the world, to be transferred and permanently present to the day-to-day concerns of coaches and players [4].

Respecting individualization in training is not possible without an effort objectification in accordance with the game and its essence [5].

Research hypotheses

By objectively highlighting the trends in volleyball performance in terms of the content and effectiveness of game action execution, we can establish the structural and content elements of the game model that can be transferred to coaches and athletes training.

Methods of research

In the elaboration of the paper we have gone through several methodological steps:

▪ establishing the objectives of the concrete tasks that the initial work accomplishes;

▪ the specialized documentation made through the bibliography, through methodical discussions with different specialists and by the selection of some own experience conclusions;

▪ outline the contents of the paper and the elaboration methodology;

▪ analyzing the materials, interpreting and detailing the conclusions;

▪ content structure and drafting of the paper.

Method of data processing

The criteria defining the assignment of each action to the qualitative category of the three-step grid are the following:

SERVICE:

- won: realizes a direct point or reception in wrong;

- continuously: allows reception to ensure good setting;

- wrong: out of the court, in the net, with the interruption of the game.

RECEPTION:

- won: which reaches exactly the setting area;

- continuously: which not allow a good attack;

- wrong: which makes a point for service.

ATACK:

- won: realizes a direct point from attack;

- continuously: the ball stay in play and can continue;

- wrong: the ball won by the opponent (attack out, in net, blocked, technical mistake etc.).

BLOCK

- won: realizes a direct point from block;

- continuously: the ball stay in play and can continue;

- wrong: the ball won by the opponent.

DIGGER :

- good: which reaches exactly the setting area and is possible setting;

- continuously: the ball stay in play and can continue, but without setting;

- wrong: interruption of play following intervention or non-intervention on the ball.

SETTING:

- good: ensures optimal conditions for the spiker as trajectory, flight speed, distance along the length and depth of the net;

- continuously: does not allow combining or force, but only actions with lobed attack, placed or passing the ball over the net;

- wrong: no longer allows the intervention of any player.

Interpretation of results and conclusions.

Skills	First 5 players		
	Symbols	Total actions	Eficiency
Spike	Total	1127	0,69
	win	623	
	wrong	183	
	playing	321	
Block	T	327	0,51
	+	101	
	—	88	
	=	138	
Serve	T	661	0,43
	+	84	
	—	166	
	=	411	
Digging	T	514	0,67
	+	322	
	—	45	
	=	147	
Settind	T	3139	0,33
	+	1027	
	—	21	
	=	2091	
Reception	T	1022	0,39
	+	365	
	-	65	
	=	592	

Table 1 - Comparative results on the number, weight and effectiveness of the game the top 5 performers

Skills	Name of player	Country	Points direct or execution perfect	Mistakes execution	Continue playing phases	Total	Eficiency
Spike	Douglas Souza	Brazilia	129	28	71	228	0,57
Block	Ilyas Kurkaev	Rusia	20	19	21	60	0,54
Serve	Maxim Mikhaylov	Rusia	19	30	92	119	0,51
Digging	Alexey Verbov	Rusia	66	8	28	102	0,78
Setting	Micah Christenson	USA	293	8	473	774	0,65
Reception	Taylor Sander	USA	82	10	115	207	0,67

Table 2 - The most effective players on each action game World Championships

Nr.	Teams	Jocuri			Seturi		Puncte		
		Played	Won	Lost	Won	Lost	Won	Lost	Report by efficiency (%)
1	Poland	13	7	2	32	14	1068	936	1,141
2	Brasil	13	7	2	31	13	1024	925	1,107
3	SUA	13	6	3	32	13	1044	927	1,126
4	Serbia	13	7	2	24	21	1012	991	1,021

Table 3 - The number of games played, the sets ratio, the score and the efficiency of the first 4 teams participating in World Championships Volleyball - men

Discussions

Serve

Tend to be the main attack action, the expression of his tactical orientation under the biomechanics of execution, which directly follows the point. The flight duration of the ball, from execution to pickup, generally decreased due to both the straddling trajectory and the higher impact force. For jump service, the duration is reduced to 60-90 hundredths of a second.

From a statistical point of view, there were 661 services out of which only 84 have (12.7%) compared with the wrong ones 166 (25.11%) are justified by the fact that at this World Championships more than 90% of executions were executed from the jump, with great force, thus with a higher risk, with an efficiency index of 0.43.

Most players have abandoned other forms of execution that facilitate reception and therefore the possibility of organizing easier combinations attack.

Reception

Most of the teams participating in this World Championship are of particular concern for this technical process. The role of the "libero" player when he was the main "man" reception with approx. 60% of the executions, World Championships have frequently used other players, namely extreme players, zone 4.

Technical reception of service or rally was improved. Leading teams lose no more than 2-3 points per game in reception from service. There has been more and more frequent reception from the side with a lower position. Also, field settlements diverged with active participation of 2 or 3 players and an efficiency index of 0.39.

Spike

It is the technical element that is given great importance in individual and collective training. The first four teams have made 1127 attack, of which 623 have made the point directly, and 183 were wrong. At this World Championships, practically all of the attacks have been eliminated with fast trajectories, but attacks are being carried out at the distance from the net, to counteract the high degree of aggression of the adverse block.

The teams at this World Championship have executed more and more attacks in line II, about 40%. The emphasis was on the attacks with great force, without giving up the attacks placed or lifted, but which were more rare.

The superiority of 0.69 of this technical element is the natural consequence of the fact that along with the preoccupations of the specific training technicians there is an increase in the point of

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hitting the ball and the increasing stature of the players.

Block

The technical element, sometimes decisive in the volleyball game, is in continuous improvement, predominantly the three-player blocks at the time of the setting made over the attack line in its own field. There were 327 bocks, 101 of which brought direct points, 88 were mistaken and 138 attenuated the attack, the ball remaining in the game. Attacking higher and farther from the tab, they allow teams to organize the three-player blocking action frequently and with greater efficiency. This new tendency of the blocks also imposed a new layout of second-line defenders.

In many of the disputed games, the balance between attack and defense was largely possible due to this mode of execution of the block, which also demonstrates the efficiency of 0.51.

Teams in many moments of the game have also had to use blocking individually or collectively, keeping their effectiveness against adverse attacks. This fact demonstrating good individual training of this technical element.

Setting

It is the technical element closely linked to the reception from serve of partners, as well as the individual abilities and the creator of the set. We appreciate that this technical element is always in progress, because the current game requires mature, experimental creativity in distributing passes to spikers according to blocking opposition.

Conclusions

In order to establish the final model, you need to know the game of the best teams internationally, especially with regard to the basics and to predict the trends of the game. Of great importance is the efficiency of the final model, the introduction of novelties, especially the dominant actions in the structure of the game.

Valuable teams show a regular game on a high-level flat performance curve, eliminating the oscillations in playing the game and the evolution of the score.

The game is very elaborate, up to small details, lacking momentary improvisations and initiatives uncensored by the tactical idea.

The strategic idea of engaging in the game is to capitalize on the maximum yield of each component. Techno-tactical behavioral patterns for each player can be recognized, as well as collaborative models. Specialization of players on positions and areas of maximum effectiveness for attack, blocking or taking over, appears on a broad background of training in the specialization. The dominant game actions are perfected at a high level of craftsmanship as execution (style) and efficiency.

The somato-motor skills, the level of technical skill and the players' competition skills fall into higher value.

It is noted that the training method of the very high players is quite well defined in many volleyball schools as long as players over 2m, with a high level of skill and skill, manage to attack quickly in different phases, on the background of travel and multiple solicitation, to assume precision and acrobatics from attack and service.

References

[1]. Yiannis, L. and Panagiotis, K. (2005). Evolution in men's volleyball skills and tactics as evidenced in the Athens 2004 Olympic Games," International Journal of Performance Analysis in Sport, 5, 1–8.

[2]. Gâtej M. (2011). *Măsurare-evaluare-planificare- Aplicaţie în volei,* Editura Universitaria Craiova, p. 48.

[3]. Teodorescu, S. (2000). *Volei - Efort competiţional, planificare,* Edtura Printech, Bucureşti, p. 121

[4]. Şerban, M. (1999). *Gândirea, factor de optimizare în volei,* Edituira Printech, Bucureşti, p.97.

[5]. Zetou, E., Moustakidis, A., Tsigilis, N., and Komninakidou, A. (2007). "Does Effectiveness of Skill in Complex I Predict Win in Men's Olympic Volleyball Games?" Journal of Quantitative Analysis in Sports, 3, article 3.