

Efficiency of actions in attack of diagonal players in female volleyball

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Purpose: to define efficiency of technical and tactical actions of the diagonal player in the attacking actions of a team depending on schemes of a defensive play of the rival.

Material & Methods: the competitive process with participation of 10 players of the role –the diagonal forward of qualification and the adult category was investigated in the pedagogical supervision. The efficiency of actions in attack of diagonal players of women's teams of Student's volleyball league of Kharkov was defined by mathematical processing of the obtained data.

Results: we carried out the analysis of references on a condition of a problem of training of the diagonal player, defined tactical combinations in attack in which the diagonal player and efficiency of game actions of the diagonal player take part in the attacking actions of women's teams of Student's volleyball league of Kharkov defining indicators of efficiency of technical and tactical actions of the diagonal player in the attacking actions of women's teams of Student's league of Kharkov against various schemes of a defensive play of teams of the rival.

Conclusions: the offered methodical approach based on a quantitative assessment of the competitive activity will allow to rationalize the structure and distribution of means of trainings and to increase the efficiency of the whole educational and training process of training of diagonal players for a game in attack against teams which build a defensive play according to various schemes.

Keywords: student's volleyball, diagonal player, tactical schemes of a game.

Introduction

Modern volleyball is an undisputed leader by the popularity in the world. The international federation of volleyball (FIVB) combines 220 countries in the volleyball family. We will note that it is more, than in any other sport. This popularity of a game is reached thanks to staginess which depends not only on productivity of actions of players, but also on beauty of movements, plasticity, coordination abilities of volleyball players.

The competitive activity of a volleyball player is a set of movements in anaerobic (sometimes alactate) and mixed modes. These movements alternate with short many numerical pauses during which skilled players owe an opportunity to relax and even to renew in some measure [1]. It became clear on statistical data of numerous supervisions that one draw of a ball lasts 35–40 seconds on average. 45 points are played on average in each party [3]. Therefore, on average 45 episodes in each party demand from a volleyball player of a maximum of physical and nervous efforts.

Not in view of the fact that the considerable attention is paid to training of sportsmen for the competitive activity in scientifically methodical literature, the attention actually isn't paid to a problem of the increase of efficiency of actions in attack of diagonal players, as defines the relevance of materials of the given research.

Communication of the research with scientific programs, plans, subjects

The research was conducted according to a subject of the plan of the RW of Kharkiv State Academy of Physical Culture 2.8. "Improvement of the educational and training process in sports games" (number of the state registration is 0111U003126).

The purpose of the research

To define indicators of the efficiency of technical and tactical actions of a diagonal player in attacking actions of women's teams of Student's league of Kharkiv against different schemes of a play in defense of teams of the rival. The following tasks are defined for the achievement of this purpose:

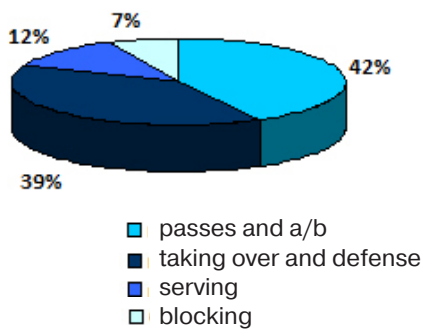
- to carry out the analysis of references concerning a condition of a problem of training of a diagonal player.
- to define tactical combinations in attack in which a diagonal player takes part.
- to define the efficiency of game actions of a diagonal player in attacking actions of women's teams of Student's volleyball league of Kharkiv.

Material and Methods of the research

We investigated indicators of the competitive activity with the assistance of a diagonal player in attacking actions of women's teams of Student's volleyball league of Kharkiv; such methods of the research were used in the research: the analysis of scientific literature, pedagogical supervision, mathematical processing of the obtained data. 10 players of a role – a diagonal forward of the adult I category were investigated.

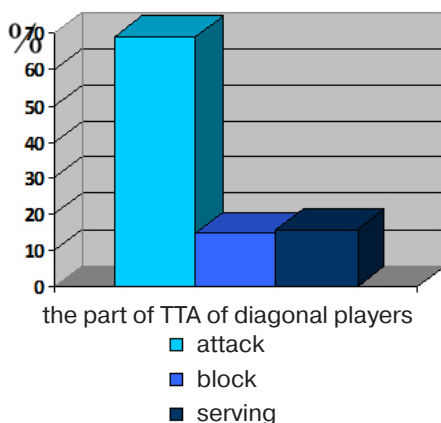
Results of the research and their discussion

We established that teams performed 14256 technical operations during 24 games (80 parties). It comes up from this indicator that the team executed 178 technical elements per a set on average. The main part of elements is occupied by passes and attacking blows – 42%. Serving taking over, defense and secure occupy 39%, serving 12%, and least of all technical actions were executed on blocking – 7% (pic. 1).



Pic. 1. A percentage ratio of performance of different technical elements during a game in volleyball

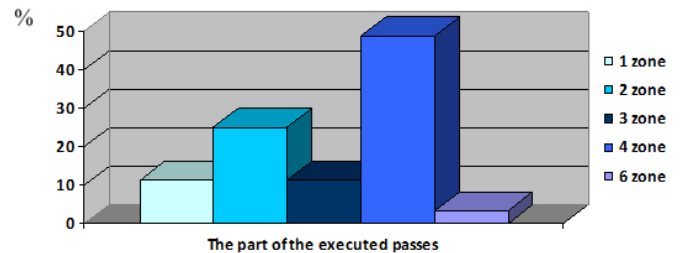
Diagonal team players performed 89 technical operations per a set from the analysis of the received results on average. Diagonal team players won on average 82 technical actions in attack in a game. The essential part of points in a game was undertaken by attack – 69%. The block and serving made 15% and 16% respectively (pic. 2).



Pic. 2. A percentage ratio of the won technical and tactical actions by diagonal players on average for a game

In general it answers to the accepted model of the diagonal player in general to whom the main technical and tactical actions present actions in attack, serving and blocking [2].

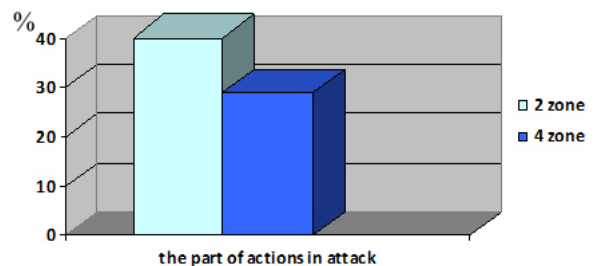
192 transfers for an attack were carried out on average for a game. The most part of passes were executed in the fourth zone 95 (49%), in the second zone a quarter (25%) of all passes (48), in the first and third zone on 11% (22 and 20) were executed, least of all attacks were executed from the sixth zone of 3% (7) (pic. 3).



Pic. 3. The number of passes which are executed in different zones for the organization of attack on average for a game

Questions are appeared by us that were more loaded from zones in attack. In this regard five zones of attack were analyzed (1, 2, 3, 4, 6). We didn't consider the fifth zone as any attack blow wasn't executed from it for three games.

Also the quality of the executed attacking actions on zones was analyzed. The analysis showed that forwards in the fourth zone won only 29% from all blows, and from the second zone of 40% (pic. 4).

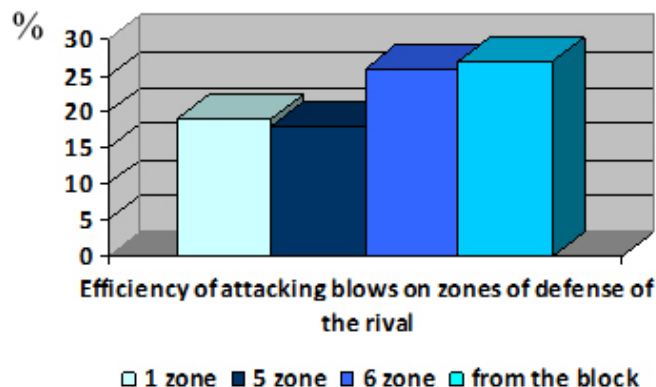


Pic. 4. Indicators of the won game actions on the main zones of attack of women's teams of Student's volleyball league of Kharkiv

The percent of winning from the second zone is more than the percent of winning from the fourth in women's teams of SVL of Kharkiv because the number of passes for the attacking blows which are executed from the fourth zone exceeds total of passes to the second zone. In our opinion, it is connected with what the main loading in the absence of high-quality reception of a serving or an unsuccessful defensive play is born by players of the fourth zone. It is always much simpler for a setter of a team to execute a high pass in the direction of own movement by the platform, than to do it in an opposite direction. Proceeding from this supervision, we have an opportunity to claim that a setter carries out a pass for a diagonal player to the second zone from more advantageous game positions, than for players of the fourth zone therefore the percent of winning from the second zone is more than the percent of winning from the fourth. The quantity of the driven balls from the fourth zone is much more, because also the number of the done passes by a setter is much more in this direction.

Analyzing the received data during the pedagogical supervi-

sions over the competitive activity, we found out that there are some features in a game of diagonal forwards depending on schemes of a game in attack of team of rivals. So, in 10 games of teams which play on the system of 5 forwards – 1 setter and insure «the outside hitter» as for the rule, these players of the first and fifth zones, from the teams won diagonal in attack of points of 28% sent to the sixth zone, 26% – game from the block, 27% – in the first and 19% – the fifth zone (pic. 5).



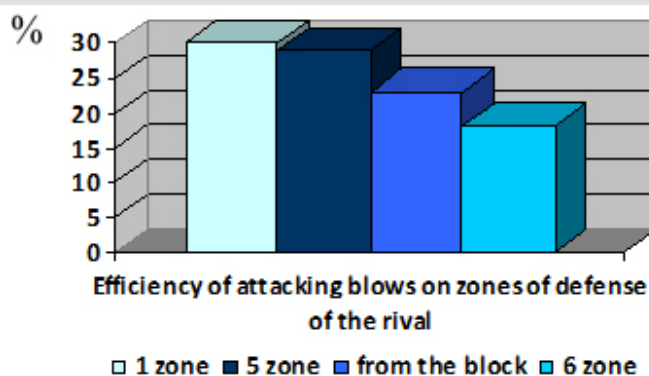
Pic. 5. Indicators of efficiency of attack of diagonal players against teams which play on the system 5–1 and insure “an outside hitter”

Despite of the fact that many balls were benefited from the block at attack, nevertheless the percent of winning of the attacking blows is more in the first and sixth zones. Therefore, teams which play on the system of 5 forwards – is 1 setter that is insured by “an outside hitter” of the back line, have weak points in the sixth and first zone. In our opinion, it can be connected with the fact that as for the rule, in the first zone the setter of the rival who at the system of 5 forwards, – is 1 setter has to come from the zone forward for performance of the second pass for the organization the attacking actions of the team plays. The player of the sixth zone has to protect not only “his” sixth zone in such game situation, but also the part, as for the rule, bigger, than the first zone from where there is a setter, for performance of the second pass to blow for the purpose of the organization of attack.

Watching ten games between teams which play 4 forwards on the system, – 2 setters and insure «a corner forward», against teams which play on the system of 5 forwards, – 1 setter, we obtained the following data: diagonal players among the attacking blows of 30% and 29% executed in the first and fifth zone, 23% – from the block and 18% – in the sixth zone (pic. 6).

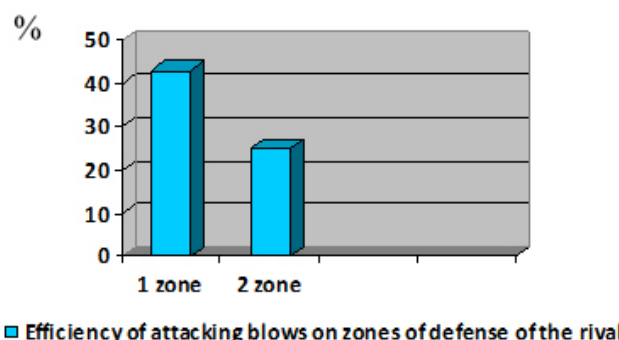
In spite of the fact that it is visible according to the chart that there were a lot of won balls at game from the block, the percent winning nevertheless is higher in the first and fifth zones that demonstrates that these zones are protected worst of all at an insurance by “a corner forward”. In our opinion, it is connected with the fact that as for the rule, defenders of the first and fifth zones choose the place in defense, considering the need of defense of a long distance for the sixth zone which defender is on secure of the group block.

In four games between teams which play on the system of 5 forwards – 1 setter and insure by «free against the block» the player of the forward line, from the points won in attack diagonal teams, 43% were executed in the first zone and 25% – in



Pic. 6. Indicators of efficiency of attack of diagonal players against teams which play on system 4–2 and insure “a corner forward”

another (pic. 7).



Pic. 7. Indicators of efficiency of attack of diagonal players against teams which play on system 5–1 and insure “free against the block”

At teams which play on the system of 5 forwards – 1 setter and insure by «free against the block» the player of the forward line, the weakest points in defense are in the first and second zone. And in spite of the fact that the quantity of the driven in points is more in the first zone, nevertheless there is a probability of blockage of a ball in the second zone. In our opinion, it is connected with the fact that as for the rule, in the first zone the setter of the rival who at the system of 5 forwards, – 1 setter has to come from the zone forward for performance of the second pass for the organization of the attacking actions of the team plays. The same player plays on the forward line in the second zone, and, as for the rule, his main function – a pass for the organization of the attacking actions therefore all other players direct the actions in defense with the purpose to exclude him, whenever possible, from actions in defense [3].

Conclusions

The methodical approach is offered which is based on the quantitative assessment of the competitive activity will give an opportunity to rationalize structure and distribution of means of trainings and to increase the efficiency of the whole educational-training process of training of diagonal players for a game in attack against teams which build a defensive play according to various schemes.

The results of researches can be used for the analysis and the assessment by coaches of actions in attack of diagonal players against different schemes of defensive play and secure.

We think on the basis of the made research that the trace is more attention to pay to blocking and attack in training of diagonal players (as from the first and second line). Also it is necessary to reconsider priorities of the choice of the main zone of attack depending on the schemes of game which are offered by team of the rival, to connect more often to attack of players of the back line, as changes in Rules of a game are rather severely refereed a grid contact by a player during a performance of game actions in the last. It is also necessary to pay attention to indicators of productivity of the attacking actions of forwards from different zones and lines. It will give

the chance to a coach to work in the training process under the use of various combinations in a game of forwards.

Prospects of the subsequent researches. In the future we see the need to analyze the interrelation between types of preparation on the basis of the obtained data of the analysis of the competitive activity of diagonal players of the women's volleyball teams SVL of Kharkiv in our research. It will give an opportunity to coaches of teams to optimize the training process of preparation for competitions and to define the main directions of the improvement in types of preparation.

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