QUALIFIED VOLLEYBALL PLAYERS’ TECHNICAL READINESS DEVELOPMENT

Tinykov A.B. — senior lecturer
Federal State Budgetary Educational Establishment of Higher Education “Ulyanovsk State Pedagogical University named after I.N. Ulyanov”, 432700 Ulyanovsk, area of 100th anniversary of V.I. Lenin’s birth, house 4

e-mail: ld_nazarenko@mail.ru

Annotation. A natural process of volleyball development, the rules of competitions change, sportsmanship improvement of the leading players condition the search for new directions of sports training system development. Special literature offers different approaches to the level of technical readiness increase among volleyball players of different qualifications, however, as a rule, only separate questions are considered, which doesn’t help to solve the problem in general. The article offers different directions of technical readiness indices increase among qualified volleyball players, the realization of which gives an opportunity to gain a new level of the training process organization. Research methods: scientific-methodical literature analysis and systematization, pedagogical experiment, survey, testing, statistical data manipulation. Materials. Theoretical importance substantiation of technical readiness level increase among qualified female volleyball players. Results. The author formulates the main conceptual theses, which help to realize the main principles of the training lessons organization, the essence of which is to deprive a player of the opportunity to fulfill a motor act with the deflection from a rational technique at every training. It is important for a trainer and a volleyball player to realize, that the technique of the playing actions is created for each sportsman individually, taking into consideration his height-weight indices, the level of physical and functional readiness, the leading motional-coordinating qualities development. As the research results showed, most respondents (volleyball trainers) think that a modern methodology of sports training among qualified volleyball players doesn’t correspond to world standards of sportsmanship and demands improvement. The methodology is created of technical readiness level increase, which provides a creative atmosphere at the lessons and creates a positive psycho-emotional atmosphere, as the condition for original ideas appearance concerning the training process or the technique of a definite playing method development. The characteristics determination of each motor act was fulfilled taking into consideration individual indices of the training level, morphofunctional peculiarities, the level of motional-coordinating qualities development. Conclusion. The results of the pedagogical experiment showed the expediency of this methodology use, which is proved by a considerable improvement of technical and physical readiness indices among female volleyball players form the experimental group. A rational training lesson can’t provide wrong motor skill formation; a trainer should control the technique of each motor act in different situations of the training and competitive activity. At the same time, it is important that self-control can’t replace pedagogical control over spatio-temporal and spatio-power parameters of a motor act.

Keywords: volleyball, technical readiness, physical readiness, methodology.

Urgency. Volleyball is one of the most difficult kinds of sport, which is conditioned by unpredictability of the opponent’s physical actions character; by the necessity to model constantly own behavior on the ground in suddenly appearing game situations, the indices improvement of speed of reaction to exogenous and inner irritants, the skills of...
techniques extrapolation development depending on the conditions of their fulfillment. V.Y. Shneyder, V.Y. Losev, 2015, mention that nowadays the methodology of training is oriented at qualified sportsmen and a long-term period of sports training, moreover, the technique of special physical actions is mastered by means of cut-and-test method. According to M.P. Spirin, G.Y.Shipulin, O.E. Serdykov, L.V. Zhilin, O.V. Chernykh, 2007, the effectiveness of competitive activity of volleyball players is conditioned by their ability to fulfill effective defensive actions. One of the most important and widely-spread kinds of defense is blocking, which determined tall players involvement. In order to break the block a definite development level of the specific for volleyball motional-coordinating qualities is demanded: muscular power, speed of motor acts fulfillment, accuracy of movements, spring ability, dexterity, which provide physical and technical readiness improvement of attackers [2, 5, 7, 8, 13]. This conditions the necessity to increase the effectiveness of the defensive actions of volleyball players.

The aim of this work is theoretical importance substantiation of technical readiness level increase among qualified female volleyball players.

Objectives:
1. To reveal the directions of technical readiness indices improvement among qualified female volleyball players.
2. To create the methodology of technical readiness level increase among volleyball players and check its effectiveness during a pedagogical experiment.

Materials. Considerable changes in the content of game activity of volleyball players: the use of power serving jumping, short-cut servings of tactical orientation; frequency increase of serving with two hands from above; the opportunity to return a ball by any part of a body and others conditioned the necessity to develop the methodology of sports training. Scientific and scientific-methodical literature analysis showed, that the specialists in volleyball offer different approaches to the effectiveness increase of the training process. According to A.V. Goncharova, 2007, one of the most difficult problems of sportsmanship level increase among qualified volleyball players is reliability provision of competitive motional objectives solution. The author considers, that reliability of game actions fulfillment remains behind the opportunities of volleyball players because of sports training methodology imperfection, which doesn’t provide their readiness to an effective opposition. The results of the research held by P.V. Pustoshilo, 2010, showed, that the level of psychophysiological readiness increase among volleyball players is a necessary condition for high sports results achievement. A.L. Sidash, 2012, offers to use local poundage as the means of accuracy increase of the upper pass, often used in a game. EzhiNovik, 2007, thinks that one of the most important components of sports training among volleyball players is the use of training simulators, which help to fulfill a complex of exercises of power and speed-power orientation. All these approaches helped to make a conclusion that modern volleyball demands many-sided universal readiness of highly qualified players.

Results and their discussion. We created a questionnaire for volleyball trainers of different qualification and experience. The trainers from Ulyanovsk, Tolyatti, Samara and Saratov took part in the questionnaire, in general 96 people. Materials handling helped to reveal that 89% of the respondents consider that modern methodology of sports training of qualified volleyball players doesn’t correspond world standards of sportsmanship in volleyball. 77% of the respondents are sure that most trainers are not able to organize a creative atmosphere of a positive psycho-emotional state among players in order to help them produce original ideas on the training process or the technique of a definite game method improvement. 64% of the respondents mentioned, that an important component of pedagogical mastery of a trainer is the ability to form the players’ skill of the opponents’ actions prediction: his precise direction of movement along the ground determination, height of flight while fulfilling an attacking
action or blocking the power of a strike on a ball; speed, direction and trajectory of flight;

**Questionnaire**

for volleyball trainers

**Aim:** to reveal the attitude of the specialists to a modern methodology of qualified volleyball players sports training.

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<thead>
<tr>
<th>№</th>
<th>The content of a question</th>
<th>Variants of answers</th>
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<tbody>
<tr>
<td>1</td>
<td>Do you consider a modern methodology of sports training of qualified volleyball players effective?</td>
<td>Yes</td>
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<tr>
<td>2</td>
<td>What, in your opinion, is typical for a modern methodology of volleyball players training?</td>
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<td></td>
<td>- the training process organization by means of “cut-and-test method”;</td>
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<td></td>
<td>- lessons orientation at the level of speed-power training increase;</td>
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<td></td>
<td>- training simulators use, which provide the leading qualities development: accuracy, spring ability, dexterity;</td>
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<td></td>
<td>- separate game techniques mastering: power serving jumping, from a short tactical serving; block setting and breaking; a ball taking with two hands from above and below.</td>
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<td>3</td>
<td>In what direction a trainer should improve his mastery?</td>
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<td></td>
<td>- a trainer should know, that a rational technique provides a precise correspondence of game actions to the laws of physics: about the centre of gravity, about the quantity of movements, about the key factors and angles of fall;</td>
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<td>- all movements of a player should be predicted in accordance with these laws;</td>
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<td>- a trainer should prevent a player from a wrong skill formation, controlling the technique of each motor act;</td>
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<td></td>
<td>- a trainer should remember that game actions technique demands constant correction, without control it gradually distorts;</td>
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<td></td>
<td>- a trainer should know that any physical action technique is individual and demands its specific features revelation;</td>
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<td>- the technique of physical exercises should be developed with the sportsmanship improvement;</td>
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<td></td>
<td>- a trainer should remember that accurate, clear, short directions, orders and explanations decrease the time needed for a technique mastering.</td>
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</table>

Thank you. The questionnaire is anonymous, you may not sign it.

The received questionnaires analysis showed, that the methodology of sports training among qualified volleyball players needs improvement. The results of own research works, the experience of pedagogical activity helped to create conceptual theses, directed at the training process in volleyball development:

- cause-effect dependence of volleyball players’ competitive activity results on technical readiness conditions the
necessity to create the conditions for its increase;
- morpho-functional restrictions can be enlarged by means of a rational activity regulation during a long time period[6].

In order to realize these theses the methodology was created of technical readiness development among qualified volleyball players, the content of which was directed at the conditions creation, which provide ideas-images understanding of game actions, their essence, role and place in technical readiness. Each motor act has the definite spatio-temporal and spatio-power parameters and it demands the ability to distribute and redistribute timely muscular efforts; rational correlation of the form and content of a game action. Technically precise fulfillment of the action is connected with the use of visual and sound guiding lines, marking, figurative comparisons, physical actions estimation and self-estimation; self-uttering of the reproduction algorithm of each phase; a clear notion of the developed muscular efforts volume, their correspondence with the structure of the given game technique. The characteristics determination of each motor act was fulfilled taking into consideration individual indices of the training level, height-weight data, correlation of the length of the upper and the lower extremities, the level of muscular power development, quickness of motional reaction, the level of “the sense of the opponent” formation.

During the training game the estimation was given to the effectiveness of the attacking and defensive actions, self-rating was revealed, the degree of discrepancy between them was determined. Volleyball players gained the skills of their own actions modeling in every difficult game situation, which demanded its objective consideration, the most difficult moment revelation, which conditioned the search for a new non-standard approach, actions coordination with the partners, the character of opponent’s game techniques prediction. The sportsmen fulfilled physical actions with the further revelation of their effectiveness: the accuracy of the set aim realization, the set volume of muscular efforts, direction, speed and a flying path of a ball, height of jumping out, power of the attacking strike, timeliness of the block making and others. The parameters measuring of each game technique helped to estimate objectively its effectiveness. The players by turns took the roles of forwards, full-backs, sweepers and connectives.

Insufficient level of motional-coordinating qualities development conditioned the necessity to use special exercises, which provide the indices increase of shoulder-girdle muscular power, broadest muscles of back, hands, arms; the lower extremities. Accuracy of game actions increased while using visual guiding lines, set at a determined height with a gradual distance increase: ring at a stand of a definite diameter with its further decrease; triangle at a stand, the form of which demands a clear choice of a ball movement direction and muscular efforts differentiation; good eye estimation, visual acuity and depth; rhomb at a stand with the help of which a ball flying path and its other parameters are mastered. In order to increase the indices of spring ability the following exercises were used: spring down with a bounce to the speed of push off from the support; multiskips with a gradual speed-up; outleap from a crouch stand with the height increase of the start, with poundage use and others.

In order to check the effectiveness of this methodology a pedagogical experiment was held. 28 female volleyball players (17-20 year-old) of the I and the II categories took part in the experiment. The control group (CG) and the experimental group (EG) were organized, each included 14 people. Before the pedagogical experiment the initial level of physical readiness was revealed with the help of the following tests: shuttle running 6х5m (seconds); speeding-up 30 m (seconds), standing long-jump (centimeters), standing high-jump (centimeters), 2000 meters running (minutes), stuffed ball throwing (1 kg) jumping with the right and the left hand; pull-up hanging (quantity). The received results analysis didn’t reveal considerable differences according to the level of physical readiness of
The sportsmen from the CG and the EG (p>0.05).

The initial level of technical readiness was determined according to power serving jumping fulfillment, short-cut servings of tactical orientation; the attacking strike; the attacking strike from the depth of a ground; height of outlet and the accuracy of the block fulfillment. Comparative analysis of the research data didn’t reveal considerable differences among volleyball players from the CG and the EG (p>0.05). In the CG the training lessons were held according to a traditional, generally adopted methodology, in the EG created by us methodology of technical readiness development of qualified volleyball players was used.

After the pedagogical experiment one more testing of physical and technical readiness was held among the sportsmen from the CG and the EG. The results of the pedagogical experiment showed, that the indices improvement was in both groups: the CG and the EG, however, the volume of their increase was different. In shuttle running in the CG with the initial results 10,11±0,23 seconds to the end of the pedagogical experiment the results increased to 10,06±0,36 seconds (p>0,05); in the EG with the initial results 10,13±0,51 seconds to the end of the experiment the results improved to 10,04±0,37 seconds (p>0,05); in standing high-jump in the CG with the initial results 38,19±0,19 centimeters, to the end of the pedagogical experiment the indices increased to 38,79±0,35 centimeters (p>0,05); in the EG with the initial data 38,27±0,39 centimeters to the end of the pedagogical experiment the results increased to 41,93±0,22 centimeters (p<0.05). The same character of the indices increase of physical readiness in the EG was revealed according to other tests.

**Technical readiness** indices analysis also proves the results improvement in the CG and the EG. With the initial effectiveness results of power serving jumping fulfillment in the CG 3,27±0,29 points to the end of the experiment results improved to 3,42±0,20 points (p>0,05); in the EG with the initial indices 3,36±0,04 points to the end of the pedagogical experiment the results increased to 4,19±0,18 points (p<0,05). In the CG with the initial effectiveness data of an attacking strike from the depth of a ground 3,23±0,15 points to the end of the pedagogical experiment the indices increased to 3,53±0,16 points (p>0,05); in the EG with the initial indices 3,31±0,15 points to the end of the experiment the results improved to 4,49±0,3 points (p<0,05). The same character of indices increase of technical readiness was revealed according to other control exercises.

**Conclusion.** Thus, the results of the pedagogical experiment showed that the effectiveness increase of the training process among qualified volleyball players, time period decrease for their sportsmanship improvement are mainly conditioned by the approach to training lessons organization, when a sportsman is in the conditions, which don’t let him fulfill any wrong movement. One of the prospective directions of the players’ technical readiness indices development is the methodology creation, which provides the essence understanding of each physical action; conditions creation for its fulfillment in terms of correspondence of spatio-temporal and spatio-power parameters to the model of an ideal motor act for every volleyball player, taking into consideration his height-weight indices and the indices of the training level.

Pedagogical control and self-control over each game technique are an important structural component of the methodology of technical readiness development among qualified volleyball players, which prevents from a false motional skill formation.

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Tinykov Alexei Borisovich - article. lecturer of the department of sports games VPO "Ulyanovsk State Pedagogical University named after IN Ulyanov ", 432700, Ulyanovsk, area of 100 th anniversary of Lenin’s birth, house 4. e-mail: ld_nazarenko@mail.ru