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METHODOLOGICAL ASPECTS OF TRAINING DIGGING TECHNIQUE IN VOLLEYBALL GAME AT THE BEGINNER LEVEL

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Abstract. *The general tendencies regarding the sports training are highlighted, as well as the particularities of the sports training of the beginner volleyball players. The study of the specialized literature, regarding the need of an adequate planning in the training of the beginner volleyball players, allowed to obtain some relevant information for the understanding the methodology of learning digging in volleyball at the level of beginners.*

At the same time, following the analysis of the studied literary sources, it was found that there are not enough examples of application in the process of training the methods and means of learning the technical elements and procedures of the game in order to improve the game performance of beginner volleyball players. However, in the literature there are very few literary sources that would refer to the methodology of training the technique of digging in the game of volleyball, these being elements of the defence game in volleyball.

Keywords: *volleyball, beginners, digs, technical training, technical procedures.*

Introduction. In parallel with the expansion of the practice area and its popularity on a global scale, volleyball is experiencing a strong development both in terms of content and structure parameters, as well as the level of psychic, biometric and technical-tactical demand of the players.

The characteristics of the different volleyball schools are generalized worldwide, the increased height of the players doubled by the special strength in attack and the defence with emphasis on blocking, promoted by the European school, together with the very varied and fast organization of the attack together with the defence based on acrobatic and effective of the second line promoted by the Asian school, are the strategic attributes propagated at the level of the current volleyball [3, 4, 5, 6].

The new provisions of the game regulations impose essential changes in the content of the actions and models of the game in the orientation of the selection and

prototype of the specialized player and last but not least in the content and methodology of training the athletes and the team as a whole.

The need to know the characteristics of the current game model, its development trends and the elements of progress is an essential requirement according to which the coach must always be oriented.

Summarizing the elements of strategy that the coach must rely on in establishing the concept of the game and training the junior teams, it must start from the parameters of the current model of game and player encountered in world volleyball practice:

- the game is designed and made to small technical-tactical details;
- lacking specially prepared improvisations, the teams playing a game of regularity, without oscillations of the efficiency of the game actions and of the evolution of the score;
- the specialization of the players on positions and areas of maximum efficiency in

line I and II for attack, blocking and digging is carried out on a broad background of training within the specialization of lifting players, central blocking and digging;

- the idea of involving players in game is to capitalize on the maximum efficiency in the system with 5 shooters and 1 lifter in the attack, based on the speed of combining actions with the entry of the lifter in all areas when serving and participating in completion in 3 further moments of the first and second line shooters;

- the defence supplements its contribution in the balance of victory, being organized in the system with the player from zone 6 withdrawn, with individual blocking against the combinatorial attack and with group blocking in the attack from slow lifting;

- regarding the content of the individual and collective technical-tactical actions from the players' baggage, these tend to be enriched on the line of specialization, determining the necessity of obtaining an increased efficiency in the game;

- the presence in teams of very tall players with a special motor potential, is a necessity to overcome the defences higher and better organized, the motor work and the nervous interest being raised to higher levels [1, 2, 3, 4, 7].

The rigors of competition and training can only be met by players who have accumulated in successive stages a high level of efficiency of technical-tactical actions of the game, a superior psycho-biomotor potential developed together with a special tactical thinking and gaming experience. In order to achieve these goals, it is mandatory to master the content expected for each level of training.

The player's transition to a higher training stage is not limited in time, it is conditioned by the acquisition of the content and the fulfilment of the requirements specified by the final standards for the respective value level.

The road to great performance has to go through several stages, with objectives, contents, tasks, means of action criteria well

defined and different from one level of training to another, depending on the real potential and the level of accumulation that each player achieves.

The actuality of the topic is the problem of acquiring the digs in volleyball, which is continuously discussed for several years, the objective is that volleyball players master all the possibilities of acquiring volleyball digs, but currently the sports training methodology let them to apply the digs in competitive games. We will try to contribute to the improvement of digging in different game conditions.

Working hypotheses. It was assumed that the practical application of the experimental methodology for learning digging in volleyball at the level of beginners, will substantially contribute to improving the level of their sports training, which is expressed by:

- increasing the level of learning digging in volleyball;
- increasing the level of general and specific physical training;
- increasing the qualitative indices of the game.

The aim of the research is to develop and apply in practice the experimental methodology for learning digging in volleyball at the beginner level.

Starting from the purpose of the paper, the following **objectives** were formulated:

1. Analysis and generalization of data from the scientific-methodological literature on the acquisition of the game of volleyball at the level of beginners.
2. Appreciation of the methodology content of training digging in beginner-level volleyball players.
3. Experimental argumentation to increase the efficiency of the game of volleyball by applying in practice the experimental methodology of learning digging.

Research methods. The following methods were used in the research:

1. Analysis of the literature.
2. Pedagogical observation.

3. Testing technical training indices.
4. The pedagogical experiment.
5. Statistical-mathematical methods.

Most experts point out that digging from serving and from the top, as well as the digs from the bottom, require more attention in the training of the junior volleyball players. Digging from the attack and from diving are very difficult for the juniors, although they are not excluded from the training program.

Therefore, the most requested digs by coaches are those in serving, top and bottom, which are actually most commonly applied in volleyball games at different levels.

Research results. The researches were carried out with middle school children from the volleyball sports classes within the “Speranta” sports school in Chisinau.

In order to appreciate the efficiency of the application of the method of acquiring the digging in volleyball, at the beginning of the experiment two groups were formed. The experimental group was the group that during

one semester of the study year was permanently led in the basic part of the training lessons of experimental methodology for mastering digging. The second group was called the control group. This group worked during the study year according to the curriculum, without using in the training process some experimental methods used by the experimental group.

Thus, the analysis of the technical indicators of the volleyball players clearly demonstrated that the application of the experimental methodology in the sports trainings contributed to the essential increase of the level of technical training of the children from the experimental group.

One of the basic criteria in the training of volleyball players is their qualitative training, which is expressed by the correct biomechanical acquisition of all technical elements and procedures. In our case, these are digs from serving in the game conditions. The results in this sense are presented in Table 1.

Table 1. The results of acquiring digging by beginner volleyball players included in the pedagogical experiment (n = 24)

No. d / o	Technical procedure	Group	Initial testing $\bar{X}_{1 \pm m}$	Final testing $\bar{X}_{2 \pm m}$	T	P	T Final	P
1	Digging from serving with 2 hands bottom, from 10 attempts	C	2.5 ± 0.33	5.7 ± 0.34	5.52	<0.01	4.56	<0.01
		E	2.4 ± 0.53	8.6 ± 0.45	6, 64	<0.001		
2	Digging from serving with 2 hands top, from 10 attempts	C	2.8 ± 0.49	7.1 ± 0.48	5.03	<0.01	2.71	<0.05
		E	2.8 ± 0.53	9.3 ± 0.64	6, 71	<0.001		
3	Mistakes when performing digging with 2 hands top (5 digs), no. errors	C	7.4 ± 1.86	4.7 ± 1.95	2.88	<0.05	5.74	<0.01
		E	7.3 ± 1.73	2.3 ± 1.98	9.56	<0.001		
4	Mistakes when performing digging with 2 hands bottom (5 digs), no. errors	C	8.3 ± 1.96	4.7 ± 1.99	4.47	<0.01	5.79	<0.01
		E	7.8 ± 1.87	2.3 ± 1.88	10.13	<0.001		

Thus, according to Table 1, beginner volleyball players were tested in two basic technical procedures related to digging, which in fact are most common in this period of training of athletes, it is about digging with two hands bottom and two hands top. Here we also examined the number of mistakes made, which also speaks about the qualitative level of mastering digging.

Analyzing the digging with two hands bottom to precision we notice, that at the beginning of the experiment both groups had approximately the same level of mastery of the given procedure, out of 10 digs only on average 2.4 - 2.5 were executed correctly. At the end of the pedagogical experiment the results were different. The number of exact digging in the experimental group was much higher than the number of digging in the control group. In the first case, the athletes recorded 8.6 correct digs out of 10 attempts, and in the second - 5.7 correct digs, the difference being statistically significant ($P < 0.01$) in favour of the experimental group.

The data obtained by the respective groups do not differ much in the case of precision two-handed digs, where the number of exact digs was slightly higher than the bottom digs, but quite low compared to the requirements of specialized schools. Both groups recorded an average of 2.8 precise digs so that at the end of the experiment their number increased in both groups, but much more pronounced being in the case of the experimental group, which reached the value of 9.3 precise digs compared to 7.1 in the control group. As in the previous case, the difference between the final results is statistically significant in favour of the experimental group ($P < 0.01$).

Thus, the two-handed digs from top and bottom were successfully mastered in both groups, but an obvious priority was registered in the experimental group, where the methodology proposed by us was applied and which proved its effectiveness.

Quite interesting are the results related to the quality of acquiring digging examined in the training experiment with the beginner volleyball players, where the number of mistakes made by the athlete in acquiring digging was analyzed. Possible mistakes were announced to the children at the beginning of the experiment where their maximum number was 10. Obviously, the lower the number of mistakes, the higher the level of mastery of the technical procedures.

Analyzing the number of mistakes at the beginning of the experiment we notice that their number is approximately equal in both groups, which on average were 7.3-7.4 mistakes. At the end of the experiment the number of errors decreased quite a lot in both groups, but this was lower in the case of the experimental group, which recorded 2.3 errors compared to 4.7 in the control group, in both cases the differences being significant from statistical view ($P < 0.01$).

We observe the same trend in the case of the analysis of the mistakes registered from the digging with two hands bottom. At the beginning of the experiment their number was approximately the same, varying between 7.8 - 8.3 mistakes, so that at the end of the experiment their number was reduced quite a lot for the athletes from both groups. As in the previous case, the number of mistakes was lower in the experimental group where the children recorded an average of 2.3 mistakes compared to 4.7 mistakes in the control group. Statistical calculations showed that the differences are statistically significant in both groups ($P < 0.05$), however the priority in this regard is given to the athletes in the experimental group where ($P < 0.01$).

Therefore, the application of the experimental methodology in the sense of mastering the elements and technical procedures of the game of volleyball in defence, in this case of digging, was quite effective and we consider that it can be recommended for implementation in the

practice of training beginner volleyball players by the specialists in the field.

Conclusions

1. Following the analysis and generalization of the literature, it was highlighted that in sports practice, including sports games, the vast majority of authors emphasize the methodology of learning the elements and procedures in attack and very few works are dedicated to mastering the game technique in defence, this also applies to the volleyball game.

2. The analysis of the literal sources on this given problem contributed to the selection and classification of the means for learning digging in volleyball at the initiation stage.

3. The quality of the beginners' volleyball players at the end of the pedagogical experiment also had a very good evolution, where the experimental group mastered them at a fairly high level, and the number of mistakes made was much lower compared to the control group, which confirmed the hypothesis put forward at the beginning of the research.

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