# STUDY REGARDING THE IMPROVEMENT OF THE BOTTOM FRONT TAKEOVER IN VOLLEYBALL GAME (GIRLS – 14 – 16 YEARS)

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**Abstract:** (maximum 200 words, TNR 12, justify, line spacing 1)

Current efforts are of organizational nature, both by gaining a large number of investors but also through development programs designed to attract important financial funding for a proper activity.

Development of volleyball, especially in children and youth and selecting talents at early ages, along with organizing centralized trainings and of some proper competition programs it is a major challenge of the present stage.

For a combination game, when time one is used for a very long time, it is adopted for blockage the relationship 1-1, and the players from the second line advance a lot, zone 6 till 6 m, and the extreme players till 4 m, adverse attack combination sending the ball especially in the half field from the net.

#### **Introduction:**

Nowadays, volleyball is practiced on every continent over 200 million official players, organized in over 210 countries affiliated to the International Volleyball Federation. It is a game with large outlet to the public, through the emotional content that it offers, by boosting the creating ability of players, the vast amount of consumed energy, as well as the total character of gearing up to battle, regardless of the score evolution.

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Contemporary volleyball underlines as a very important issue the development of new methods of training in order to widen the possibilities of the body.

These manifest through creativity in game development, new strategies and systems of modeling training, competitions as well as the emergence of motor actions within actions game.

The primary factor in the game of volleyball is the technique. The defense in the game becomes increasingly more aggressive and better organized having an increased percentage of 43% of which 24% for operations specific to second line and for blockage.

Defense is organized according to each tactic action for which devices and specific tasks are adapted. As the game system, in contemporary volleyball there is used the defense with center II retired (Z. 6.).

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#### **Material-method:**

Taking into consideration the paper's aim of improving the takeover from service and attack, we studied the following hypothesis:

We assume that acting with proper means of improvement the bottom takeover, from serve and attack, there can be obtained close parameters to the model of Romanian Federation of Volleyball.

As a consequence, the improvement of the takeover from service and attack can be improved.

The intention was to use a system of rational methods through a judicious planning, adapted to the peculiarities of individual and team, leading to increased performance, and to achieve the model parameters of F.R.V.

In order to check this hypothesis, we have experienced a special operational model of performance of the taking-over from service and attack in a peak period competition, from Junior National Championship, in order to contribute at improving the takeover from service and attack.

Within the experiment we used two types of tests and testing standards:

1. Tests and testing standards of the Romanian Federation of Volleyball

#### 2. Tests and own testing standards.

#### Tests and testing standards of the Romanian Federation of Volleyball

Tests and testing standards of the Romanian Federation of Volleyball chosen for the experiment contain the following:

- Long jump from the place;
- Movement  $6 \times 4$  these being appreciations of the physical training.

The experimental group represented by C. S. Ş. Piatra Neamţ team through the sextet and reserves is trained by the coach Voievod Mihaela.

The performance objectives of the group have been:

- Qualification for the final tournament;
- Selection of 1-2 players in the national junior squad;
- training 1-2 players for promotion to the first division.

#### Group presentation:

NR. CRT.	NAME AND SURNAME	HEIGHT (cm)	
1.	D. I.	177	
2.	M. A.	180	
3.	B. F.	171	
4.	C. I.	174	
5.	C. C.	180	
6.	R. P.	174	
7.	M. D.	186	
8.	S. S.	175	
9.	D. D.	179	
10.	V. A.	177	

Group has an average height of 177,3 cm.

The witness group – represented by C. S. S. Oneşti team trained by the coach teacher Laurenţiu Popescu, through the sextet and reserves. From the group we have selected for the study the top 10 players which represent the peak value of Oneşti team.

The performance objective of the group is:

- qualifying in the tournament semifinal.

#### Group presentation:

NR. CRT.	NAME AND SURNAME	HEIGHT (cm)		
1.	C. A.	176		
2.	M. L.	170		
3.	S.S.	179		
4.	S. M.	173		
5.	M. A.	174		
6.	M. N.	178		
7.	F. A.	176		
8.	A. G.	176		
9.	S. R.	175		
10.	M. I.	176		

#### **EXPERIMENT PERIOD**

- 26 weeks = 182 training lessons = 364 hours
- 20 competition games by the end of the semifinal term
- Training lesson = 120 minutes = 2 hours

#### **Results and discussions:** (TNR 12, justify, line spacing 1)

Taking into account the established tests to find out the training level of the actions in question, we have calculated two indices of efficiency for each test:

- 1. Takeover from service from zone 1 and 5 through the input area.
- K1 represents the efficiency index of the take over from serve through the input area.
  - 2. Take over from attack, with an emphasis on high active damping, through the input area.

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K2 – represents the efficiency index of the take over from attack performed through the input area.

Interpretation of the results I achieved it according to the formula in which:

x = successful actions are given a maximum weight of 100 %

y = unresolved actions are given an equal weight distributed between those two limits 50 %

z = wrong actions are granted a zero weighting.

Thus we have:

maximum efficiency when all actions are good (x = x; y = 0; z = 0); medium efficiency when the good actions are equal to the wrong ones (x = 0, y = y, z = 0);

Null efficiency when all the actions are wrong (x = 0, y = 0, z = z).

# The effectiveness of the results achieved by the experimental group during the experiment

As a result of initial tests and of obtained results, efficiency indices of the group presented the following values:

K1 – presents a value of 0,49 %, this fact indicates that the effectiveness of taking over from the service is close to the average one, the weight of unresolved actions is with 0,02% higher than successful actions.

K2 – presents a value of 0,66 %, value over medium average efficiency. Compared with the initial testing, the K2 index presents an increase in the rate of progress of 0.19%.

So after a period of time in which there were experienced the operational methods, it can be observed the qualitative leap of the experimental group. Thus the two indexes of efficiency have registered average values over medium efficiency.

Under final testing the two indexes, after data processing, are:

K1=0.83~% presents a value greater than the value of medium efficiency, with 0.17 % under the value of maximum efficiency. This fact leads to an increase in progress at the end of the experiment of 0.34 %.

K2 = 0.84 % presents a high efficiency value, where there was recorded a rate of progress at the end of the experiment of 0.37 %.

Table 1 K value experimental group

K value	Initial	Intermediate	Final	Recorded progress	
	testing	testing	testing	Intermediate	Final
	(%)	(%)	(%)	(%)	(%)
K1	0,49	0,71	0,83	0,22	0,34
K2	0,47	0,66	0,84	0,19	0,37
Average of K value	0,48	0,68	0,835	0,20	0,35

# The registered effectiveness between witness group and experimental group

Within the experimental group, testing the players that are component of Onești team, it had as a main purpose the possibility of comparing the recorded results after testing with the similar team C. S. S. Piatra Neamţ.

Witness group has followed its own system of technical training, it only sustain the tests at data close to those held by experimental group.

So, the initial testing as a result of the obtained data and their processing into results, the witness group presents the following values of the efficiency index.

K1 – with a value of 0,48 %, situated nearly on equality with the value of the witness group, presents an index of efficiency almost medium.

K2 – presents a value of 0,39 %, where the average of positive actions is below the medium one, but also under the experimental group with 0,08 %.

Under the intermediate testing it can be seen the first differences of value regarding the efficiency of performing the technical elements within tests, the witness group recording lower values.

So K1=0.63 %, has a value with the average efficiency over weight, but low compared to the experimental group K1=0.71 %, the difference being of 0.08 % .

For K2 = 0,50 %, the value of efficiency is medium for experimental group, while that of experimental group is 0,66 %, the difference being of 0,16 % .

After the final testing the witness group has recorded a progress compared with previous tests.

Table 2 K value – witness group

K value	Initial testing	Intermediate	Final	Progress rate	
	(%)	testing	testing	Intermediate	Final
		(%)	(%)	(%)	(%)
K1	0,48	0,63	0,66	0,15	0,18
K2	0,39	0,50	0,68	0,11	0,29
Medium	0,43	0,56	0,67	0,13	0,23
average of					
K value					

Average of the 2 K after final tests is 0.67% result that records a rate of progress compared to the initial testing of 0,13 %.

From a comparison of the results recorded by the experimental group and by the witness group we can see the difference between the obtained results.

The experimental group, compared to the witness group has achieved, after a technical preparation carefully led and guided, a qualitative leap in the efficient execution of specific technical elements of defense in all chapters.

After taking-over the data we can observe the difference in the values of the efficiency indexes, the experimental group showing also a rate of progress upper to the witness group, difference that can be observed from the chart below.

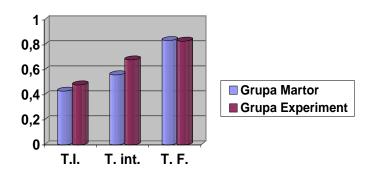


Chart no 1 Graphical representation of the differences of efficiency regarding the improvement of take-over at experimental and witness groups

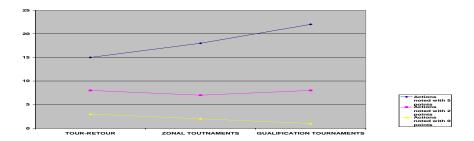


Chart no 2 Chart regarding the efficiency of service take over in the game

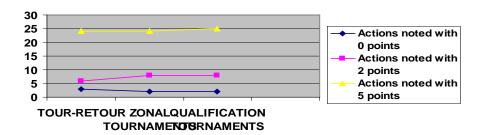


Chart no 3 Chart regarding the efficiency of take over from attack in the game.

#### **Conclusions:**

As a result of the above-mentioned experiment it can be concluded that preparing the defense technique which is performed in the defective mode at junior level, it can be improved through interference elimination and precise orientation of training according to the tactical training.

The progress that it has been achieved by the experimental group at specific tests and records relating to the efficiency of the takeover from service and attack, underlines the usefulness of the operational model and the effectiveness of the used methodology

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#### STUDIU PRIVIND PERFECȚIONAREA PRELUĂRII DE JOS DIN FAȚĂ ÎN JOCUL DE VOLEI (FETE – 14 – 16 ANI)

# Cuvinte cheie:perfecționare, preluare de jos, volei Rezumat:

Dezvoltarea voleiului, cu pondere la copii și juniori și selecționarea talentelor la vârste timpurii, alături de organizarea pregătirilor centralizate și a unor programe competiționale corespunzătoare este un deziderat major al etapei actuale.

Voleiul contemporan ridică ca o problemă foarte importantă, elaborarea unor metode noi de antrenament în scopul lărgirii posibilităților funcționale ale organismului.

Acestea se manifestă prin creativitatea în dezvoltarea jocului, noi strategii şi sisteme de modelare a antrenamentelor, concursurilor precum şi apariția unor acțiuni motrice în cadrul acțiunilor de joc.

Pentru un joc combinativ, când se folosește foarte mult timpul I, se adoptă pentru blocaj relația 1-1, iar jucătorii din linia a II-a avansează mult, zona 6 până în 6 m, iar extremele până în 4 m, atacul advers combinativ expediind mingea preponderent în jumătatea terenului dinspre fileu.