

# SELECTING SOME TECHNIQUES DEVELOPMENT EXERCISES FOR FEMALE ATHLETES OF THE VOLLEYBALL TEAM AT PHAM VAN DONG UNIVERSITY - QUANG NGAI

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## Abstract:

By regular scientific research methods, the study has selected 23 techniques development exercises for female athletes of volleyball team at Pham Van Dong University - Quang Ngai.

**Keywords:** Exercises, volleyball techniques, Pham Van Dong University.

## INTRODUCTION

Volleyball is a modern sport that requires athletes to have a high level of physical fitness, good psychology and especially comprehensive tactics and techniques. Technique is an important stage to decide the performance of volleyball athletes in general and of female athletes of the Pham Van Dong University volleyball team in particular. But the technique level of female students participating in the school volleyball team is limited so the team has not been able to participate in major sports competitions outside the province such as the national students volleyball tournament.

Facing the above situation, the coaching board of the volleyball team at Pham Van Dong University has many plans to gradually stabilize and develop techniques for the women's volleyball team. For that reason, we conducted "Research and select some techniques development exercises for female athletes of volleyball team at Pham Van Dong University - Quang Ngai".

## RESEARCH METHODS

Reference materials, interview through questionnaires method, pedagogical examination, pedagogical experiment method and statistical mathematics method.

Study subjects: 18 female athletes of the Pham Van Dong University volleyball team - Quang Ngai.

## RESULTS AND DISCUSSION

### 1. Selecting techniques development exercises in volleyball from domestic and foreign authors

We proceed in 2 steps:

**Step 1:** Summarize documents by authors Phan Hoang Minh - Tran Duc Phan (2004), Dinh Lam - Nguyen Binh (1997), Bui Huy Cham - Ha Manh Thu (1989), Bui Huy Cham (1988), based on practical conditions, we selected 44 techniques development exercises for female athletes of volleyball team at Pham Van Dong University - Quang Ngai.

**Step 2:** Develop questionnaires twice. The first time with 23 people (17 experts and coaches, 2 managers and 4 referees). The second time with 21 people (15 experts and coaches, 2 managers and 4 referees). To test the coincidence of the results of two interview times, we compared them through the  $\chi^2$  index (when squared) (Appendix 1).

The research results from Table 1 show that in all the results of two interview times of the criteria,  $\chi^2_{\text{calculated}} < \chi^2_{\text{table}} (= 3.84)$ , at probability threshold  $P > 0.05$ , the results between the two interview times have a high consistency between answers.

Through the results of two interviews, we choose the exercises with the number of votes  $> 75\%$  of the total number of votes in both interviews. Based on the above principle, 23 techniques

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development exercises for female athletes of volleyball team at Pham Van Dong University - Quang Ngai team were selected as follows:

*Moving exercises:* Move in accordance with the signal, move in the direction of the ball

*Overhead pass exercises:* Practice posture of hands when touching the ball, pass the ball to the wall, pass the ball into the frame, pass the ball between two people in combination with moving horizontally

*Bump pass exercises:* Practice posture of hands when touching the ball, bump pass toss, pass the ball to the wall, bump pass in combination with moving horizontally, choose drop point of the bump pass, bump pass in different places

*Overhand serve exercises:* Practice tossing the ball, serve the ball at a short distance, serve the ball to the 3m at the end of the court, serve the ball into positions

*Ball spiking exercises:* Practice hand movements, knock the ball against the floor and bounce on the wall, spike hanging ball, spike ball toss, spike ball to line no.4, spike ball to line no.2, spike ball in groups.

**2. Evaluate the effectiveness of the techniques development exercises in volleyball from domestic and foreign authors**

**2.1. Develop an experimental planning program**

**Table 1. Growth of techniques assessment tests of female athletes of Pham Van Dong University volleyball team after one year of experiment**

No.	Test	Initial		After 1 year				
		$\bar{x}$	S	$\bar{x}$	S	$\overline{W\%}$	t	P
1	Overhead pass in front of face from point 3 to point 4 (points)	9.56	1.82	14.22	1.48	40.17	12.04	<0.01
2	Overhead pass flip from the back of head from point 3 to point 2 (points)	8.83	1.38	13.22	1.48	40.29	17.05	<0.01
3	Bump pass from point 5 to point 3 (points)	10.72	1.07	15.44	1.62	36.01	20.91	<0.01
4	Overhand serve in front of face (spin or fly) to 3m at the end of the court (points)	11.56	1.15	15.67	1.14	30.41	25.79	<0.01
5	Overhead spike 4 <sup>th</sup> line on the whole court (points)	9.89	1.08	15.17	0.86	42.43	19.86	<0.01
6	Overhead spike 2 <sup>nd</sup> line on the whole court (points)	9.67	1.14	14.61	1.33	40.92	24.04	<0.01
<b>W%</b>						38.37		

Df = 17, t0.05 = 2.109, t0.01 = 2.898,

We conducted building programs, process and lesson plans to apply techniques development exercises for female athletes of volleyball team at Pham Van Dong University - Quang Ngai.

Experimental subjects: 18 female athletes of volleyball team at Pham Van Dong University - Quang Ngai.

Experimental period: September 5, 2016 to June 30, 2017.

Experimental form: Sequence comparison

The organizers instructing the experiment process are the coaches of the volleyball team of Pham Van Dong University - Quang Ngai. These coaches are trained and agreed with the experimental plan.

Evaluate index: Overhead pass in front of face from point 3 to point 4 (points), Overhead pass flip from the back of head from point 3 to point 2 (points), Bump pass from point 5 to point 3 (points), Overhand serve in front of face (spin or fly) to 3m at the end of the court (points), Overhead spike 4<sup>th</sup> line on the whole court (points), Overhead spike 2<sup>nd</sup> line on the whole court (points).

**2.2. Evaluate the effectiveness of techniques development exercises for female athletes of volleyball team at Pham Van Dong University - Quang Ngai**

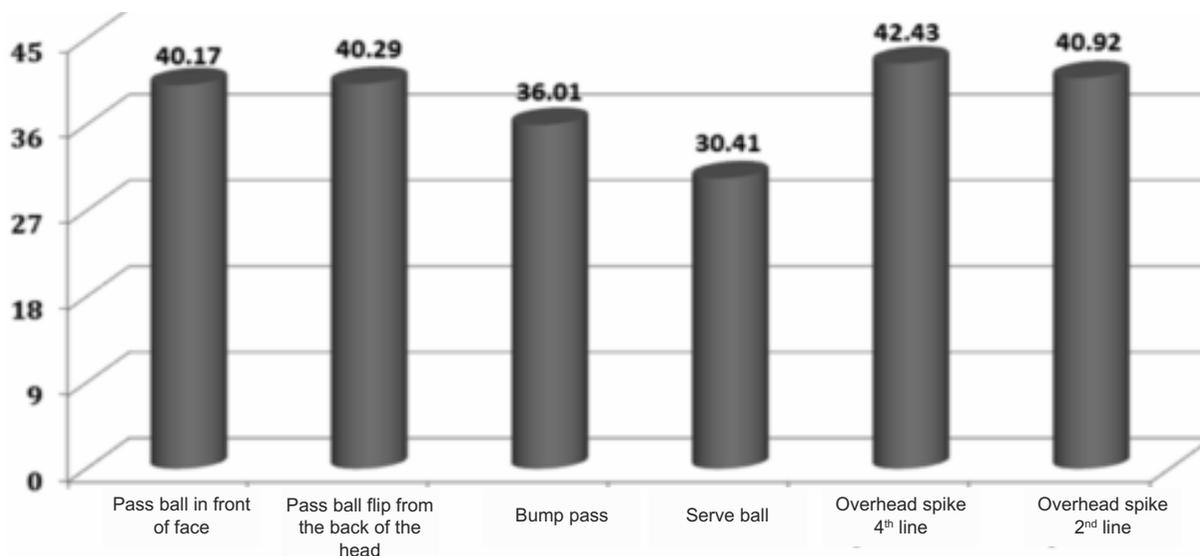
To evaluate the effectiveness of techniques

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development exercises, we use the growth rate of technique tests for female athletes of volleyball team at Pham Van Dong University - Quang Ngai before and after the experiment, the results are presented in Table 1.

The data in Table 1 shows that, after one year of experimenting, the techniques evaluation tests for female athletes of volleyball team of Pham Van Dong University - Quang Ngai all

grew, the average growth rate  $W\% = 38.37\%$ . In particular, the Overhead spike 4<sup>th</sup> line on the whole court (points) has the highest growth rate  $W\% = 42.43\%$  and the Overhand serve in front of face (spin or fly) to 3m at the end of the court (points) has the lowest growth rate.  $W\% = 30.41\%$ . The growth of techniques evaluation tests of the research group after one year of experiment is shown in Chart 1.



**Chart 1. Growth rate of techniques evaluation tests for female athletes of volleyball team at Pham Van Dong University after one year of experiment**

Through the above analysis and chart 1 shows that the effectiveness of the exercises selected from 2.2 has a good impact on the achievement of the techniques evaluation tests of the research subjects, thereby confirming the exercises we have chosen to be effective.

To confirm the effectiveness of the selected exercises to the achievement of the techniques evaluation tests of female athletes of the volleyball team at Pham Van Dong University - Quang Ngai, the topic conducted calculating the growth rate of each athlete. The results are presented in Table 2.

The data in Table 2 shows that after one year of experiment all techniques of athletes have grown, athlete Ho Thi Huong had the highest growth rate of 43.58% and athlete Dang Thi Nhan had the lowest growth rate of 32.39%.

The above analysis shows that after a year of experimenting, all athletes have a growth in each technique test, thereby confirming the exercises

we have chosen to practice are effective.

### CONCLUSION

The research results give the following conclusion

- 23 techniques development exercises are selected for female athletes of volleyball team at Pham Van Dong University - Quang Ngai including:

Moving exercises: Move in accordance with the signal, move in the direction of the ball

Overhead pass exercises: Practice posture of hands when touching the ball, pass the ball to the wall, pass the ball into the frame, pass the ball between two people in combination with moving horizontally

Bump pass exercises: Practice posture of hands when touching the ball, bump pass toss, pass the ball to the wall, bump pass in combination with moving horizontally, choose drop point of the bump pass, bump pass in different places

**Table 2. Growth rate of achievement in techniques evaluation tests of each female athlete of volleyball team at Pham Van Dong University - Quang Ngai after one year of experiment**

No	Full Name	Growth rate (W)						Athlete
		Pass ball in front of face (points)	Pass ball flip from the back of head (points)	Bump pass from point 5 to point 3 (points)	Over-hand serve (points)	Spike ball 4 <sup>th</sup> line (points)	Spike ball 2 <sup>nd</sup> line (points)	
1	Đào Thi Le Thu	24	26.09	42.86	37.04	34.48	46.15	35.1
2	Nguyen Thi Ngoc Tuyen	34.48	46.15	33.33	30.77	40	37.04	36.96
3	Ho Thi Nuong	33.33	43.48	24	33.33	56	54.55	40.78
4	Ho Thi Le	20.69	33.33	46.15	28.57	54.55	50	38.88
5	Ho Thi Ty	40	52.63	30.77	28.57	60.87	50	43.81
6	Nguyen Thi My Loc	40	40	34.48	30.77	46.15	40	38.57
7	Ho Thi Le Thu	80	35.29	37.04	26.67	30.77	33.33	40.52
8	Nguyen Thi Thinh	26.09	40	33.33	28.57	40	47.62	35.94
9	Nguyen Thi Thuy My	33.33	28.57	40	22.22	46.15	33.33	33.94
10	Truong Anh Tuyet	28.57	52.63	37.04	20.69	30.77	34.48	34.03
11	Nguyen Thi Đông Anh	54.55	66.67	28.57	34.48	40	36.36	43.44
12	Ho Thi Huong	66.67	43.48	42.86	32.26	33.33	42.86	43.58
13	Ho Thi Thanh Chi	40	50	28.57	20.69	60.87	50	41.69
14	Pham Thi Đình Thuy	28.57	26.09	37.04	40	33.33	33.33	33.06
15	Ngo Huynh Da Thao	40	43.48	46.15	37.04	46.15	43.48	42.72
16	Nguyen Thi Kim Thuy	40	40	37.04	28.57	30.77	33.33	34.95
17	Đang Thi Nhan	26.09	33.33	34.48	36.36	33.33	30.77	32.39
18	Vo Thi Thanh Tuyen	66.67	24	34.48	30.77	46.15	40	40.35

Overhand serve exercises: Practice tossing the ball, serve the ball at a short distance, serve the ball to the 3m at the end of the court, serve the ball into positions

Ball spiking exercises: Practice hand movements, knock the ball against the floor and bounce on the wall, spike hanging ball, spike ball toss, spike ball to line no.4, spike ball to line no.2, spike ball in groups.

- The results of applying the exercises into practice show that after one year of experimenting, the techniques evaluation tests for female athletes of volleyball team at Pham Van Dong University - Quang Ngai all grew, the average growth rate was  $W\% = 38.37\%$ . In particular, the Overhead spike 4th line on the whole court (points) has the highest growth rate

$W\% = 42.43\%$  and the Overhand serve in front of face (spin or fly) to 3m at the end of the court (points) has the lowest growth rate  $W\% = 30.41\%$ .

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