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**Dr. Phan Thanh Hai**  
Assoc. Prof. Da Nang Sports and  
Physical University, Vietnam

**Dr. Nguyen Xuan Hung**  
Da Nang Sports and Physical  
University, Vietnam

## Selecting exercises to enhance the efficiency of quick spiking forward the face at the third position for young male volleyball players in Nghe An province

**Dr. Phan Thanh Hai and Dr. Nguyen Xuan Hung**

### Abstract

In actual volleyball tournament, spiking the ball hard may not work because the opponent is very good at blocking the ball, so in order to win, the problem is to change the pieces in attack or counterattack situations, and quick combination of surprises for the opponent. Especially today height, resilience, level of athletes develop, the trend of rapid attack shows clearly its importance.

Quick spiking is often used in the third position because this position is very convenient in attack, near the second pass is the center to organize attacks and coordinate tactical quick change: Wide angle of the ball can hit in many different directions makes it difficult for the opponent to detect his team's tactical intent.

**Keywords:** Select, exercise, smash the ball, the third position, athletes, Nghe An province

### Introduction

#### Put The Issue

Nghe An is a province with a thriving sports movement. In recent years, the province has paid attention to investing in sports that have strengths such as football, volleyball, badminton ... and Volleyball is a sport that is also focused and invested heavily, but recently the province's volleyball background tends to go down for many reasons such as: The training of the adjacent athletes is still poor, the training and training methods are not reasonable, the movement techniques are limited.

Therefore, the province's volleyball background in recent years has not been able to keep its high position so that there is additional force next to the higher level.

### Research Method

During the research process, the topic uses the following research methods: method of analyzing and synthesizing documents; method of interview; pedagogical observation method; sociological investigation method; experimental method of pedagogy; statistical mathematical methods.

### Research Results and Discussion.

Selecting and applying exercises to enhance the efficiency of quick spiking forward the face at the third position in the training process for young men in Nghe An volleyball.

### Rationale for selecting exercises

Based on reference to some professional and practical documents observed through the teaching and coaching process. In order to enhance the efficiency of quick spiking forward the face in third position should have the following factors:

1. Athletes must have a level of comprehensive physical preparation, especially the resilience to enhance the body's focus and the ability to control themselves in a fulcrum state.
2. Athletes must have good discipline combined with high coordination ability: fast judgment, fast stopping, good sense of space, accurate movement.

**Corresponding Author:**  
**Dr. Phan Thanh Hai**  
Assoc. Prof. Da Nang Sports and  
Physical University, Vietnam

3. Athletes must have arm, wrist, and hand strength that are the key factors in solving the task of quick spiking the ball.

### Selecting exercises

To ensure the objectivity in the selection process of the exercises, we conducted interviews with 30 experts including teachers, coaches with seniority in the occupation from 10 to 20 years, the average age is 40. The interview results are presented in Table 1:

**Table 1:** The results of the interview to enhance the efficiency of quick spiking forward the face at the 3rd position in the tournament for the young boys volleyball team in Nghe An province (n=30)

Serial	Content of the interview	Number of interviewers (n = 30)	
		Number of the agreements	Percentage (%)
1	Weightlifting stand up and sit down	20	66,6
2	Weightlifting compounded jump	25	83,3
3	Broad jump	12	40
4	Throw the ball stuffed through the net	9	30
5	Stretch the rubber band for shoulder rotation	21	70
6	Stand upright with 5kg dumbbell handles pushing forward continuously	9	30
7	Crunches	19	63,3
8	Spiking through the net with people blocking	16	53,3
9	Spiking fixed	28	93,7
10	Knock the ball cushion and defense	8	26,6
11	Tospin	9	30
12	Self-spiking through the net	24	80
13	Spiking continuously	16	53,3
14	Quick spiking in combination with other techniques	25	83,3
15	Spiking to toss	13	43,3
16	Spiking several times with double passes	29	96,6
17	Spiking far from the net	22	73,3
18	Spiking to stimulate steps	13	43,3
19	Collective antagonistic games	8	26,6
20	Turn on the sand pit	25	83,3
21	Jump rope	10	33,3
22	Shrink hand with the horizontal bar	14	46,6
23	Hold 3kg dumbbells with your wrist extended	25	83,3
24	Plank	12	40
25	Exercise tournament	29	96,6

From the results in Table 1 we use the exercises from 60% or more of the people agree to choose to put into the experimental process.

From the current situation, through practical study at Da Nang Sports University, through analysis of professional materials and observation of practice and competition sessions of the young men volleyball team in Nghe An province and youth teams throughout the country. We interviewed and selected 12 exercises to enhance the efficiency of quick spiking forward the face at the third position for the young men's volleyball team in Nghe An province.

The exercises are divided into 2 groups:

- Group fitness exercise
- Group of technical exercises

To obtain the accurate and objective results, we interviewed volleyball experts and coaches about the priority of the number of training sessions and exercises to enhance the efficiency of quick spiking in a week of training practice and get the following result:

**Table 2:** The result of the interview on the priority of the number of training sessions to enhance the efficiency of quick spiking in a week of training (n=30)

Number of training sessions	1	2	3	4	5	6
Number of people asking	30	30	30	30	30	30
Number of the agreements	0	3	16	7	4	0
Percentage (%)		10	53,3	23,3	13,3	

The results obtained in Table 2 show that most of the respondents agree to practice the exercises to enhance the efficiency of quick spiking the ball forward the face at the third position conducting 3 sessions in a week accounting for 53.3%.

After having 3 training sessions in a week, it is important to set the time for each training session. We interviewed volleyball experts and coaches about the priority of the time for coaching to enhance the efficiency of quick spiking the ball at the 3rd position in a training session. The results are as follows:

**Table 3:** Interview results on the priority of using the time for each training session to improve the efficiency of fast spiking forward the ball in position 3 (n=30)

Time for a training session	15-25'	25-30'	30-40'	40-45'	on 50'
Number of people asking	30	30	30	30	30
Number of the agreements	0	6	20	3	1
Percentage (%)	0	20	66,7	10	3,3

Through Table 3 shows that the majority of agreeing to exercise 30 - 40 minutes in a training session, accounting for 66.7%.

### Identifying the evaluation test

To select the assessment tests we base on the characteristics of volleyball, the relationship between physical and technical

factors, the level of development of physical characteristics, correlation between physical strength and professional skills of athletes, through the research process, have identified the physical characteristics and specific technical factors of volleyball athletes:

On that basis, we selected 2 tests to check and evaluate the efficiency of the technique of quick spiking the ball forward the face at the 3rd position including:

- Test 1: Turn on with momentum (cm)
- Test 2: Quick spiking the ball forward the face at the 3<sup>rd</sup> position into the required fields (score) Evaluation methods: Appraisal direct grading.

### Experimental organization

Based on the exercises that we choose, before putting them into practice, we conduct the offense and correct the common mistakes of athletes (Presented in the thesis)

### Experimental method

In order to evaluate the efficiency of the selected exercises we conducted experiments including: 18 young male volleyball players in Nghe An province aged 16 -18 are divided into two groups, each group of 9 athletes is randomly divided.

- Experimental group (Group A) including 9 athletes who

do the exercises that we have chosen.

- Verified group (Group B) including 9 athletes who practice exercises according to the coach's program.

The application of the selected exercises is carried out throughout the experiment. The exercises are usually conducted at the beginning of the session immediately after the warm-up session (about 10-15 minutes) and at the end of the training session on physical content (about 10-15 minutes). The whole experimental process took place in 3 months from April 2013 to July 2013, 3 times per week, 30-40 minutes each session in a practice lesson plan.

With the above time fund, the project will build a training process for experimental subjects in 3 months with a total of 36 lesson plans presented in the appendix.

### Experimental results

To ensure the science for evaluating the efficiency of the exercises. Before applying the selected exercises into the experimental process, we conducted a test to assess the physical strength and the efficiency of quick spiking the ball forward the face at the 3rd position of the 2 groups: The experimental group and the verified group. The results are presented in Table 4.

**Table 4:** Results of pre-empirical evaluation

Test	Turn on with momentum (cm)		Quick spiking the ball forward the face at the 3rd position (points)	
	The experimental group	The verified group	The experimental group	Control
$\bar{x}$	317,11	316,55	6,33	6,11
$\sigma^2$	5,94		0,49	
$t_{count}$	0,47		0,63	
$t_{table}$	2,101		2,101	
P%	0,05		0,05	

The results of table 4 shows:

\* Test 1: Turn on with momentum (cm)  $t_{count} = 0,47 < t_{table} = 2,101$

\* Test 2: Quick spiking the ball forward the face at the 3rd position into the required fields (score)  $t_{count} = 0,63 < t_{table} = 2,101$

From the above results, it can be concluded that, before the experiment, the ability to perform the quick spiking technique forward the face at the 3rd position and the physical strength of the two groups are equivalent.

After the experimental process (by putting the selected exercises into training) we conducted a test to assess the

fitness and efficiency of the quick spiking technique forward the face at the 3rd position on both experimental and verified groups to determine the level of the two groups after the experiment and determine the efficiency of the exercises we have chosen. The results are presented in Table 5.

**Table 5:** The results of the evaluation test after the experiment

Test	Turn on with momentum (cm)		Quick spiking the ball forward the face at the 3rd position (points)	
	The experimental group	The verified group	The experimental group	The verified group
$\bar{x}$	322,33	318,44	8,55	7,22
$\sigma^2$	4,48		0,46	
$t_{count}$	3,81		4,03	
$t_{table}$	2,101		2,101	
P%	0,05		0,05	

The results of Table 5 shows:

\* Test 1: Turn on with momentum (cm)  $t_{count} = 3,81 > t_{table} = 2,101$

\* Test 2: Quick spiking the ball forward the face at the 3rd position (points)  $t_{count} = 4,03 > t_{table} = 2,101$

From the calculation results obtained, there are the comments following:

After 3 months of the experiment, the achievements of the experimental group were more developed than the verified group. In other words, the difference of the experimental and verified groups was statistically significant. From this we can confirm that the selected exercises and applications in training have the effect of improving the efficiency of quick spiking the ball forward the face at the 3rd number for young male

volleyball player in Nghe An province to ensure reliability at probability threshold  $P = 5\%$ .

In order to confirm once again the efficiency of the exercises that we put into practice, we have conducted statistics of the spiking effect of the young boys volleyball team in Nghe An province through the Nghe An youth volleyball tournament expanded in 2013 at Vinh City Stadium in Nghe An province. The results obtained in table 6.

**Table 6:** The results of the usage and the efficiency of ball spiking techniques of young men volleyball teams in Nghe An province at Nghe An volleyball tournament expanded in 2013 (n=5)

Number of matches	The ball spiking technique	Number of the implementations	Percentage (%)	Number of points scored	Percentage (%)
5	Stretching No. 4	120	23,9	77	22,6
	Stretching No. 2	75	14,9	58	17,0
	Ball spiking No. 3	105	20,9	90	26,4
	The arrow spiking No. 4	65	12,9	37	10,9
	Ball spiking on the average	70	13,9	40	11,7
	Other types of ball spiking	68	13,5	39	11,4
	Total	503	100	341	100

Through Table 6 shows that the number of times used as well as the efficiency of the fast spiking technique forward the number 3 of the young men volleyball team in Nghe An is much higher than the statistics of the level of the usage and the efficiency of quick ball spiking technique forward the 3rd position at the Youth Tournament held in Bac Ninh Stadium in 2008, specifically as follows: Number of the implementations achieved 105 times increased by 5.6% but the number of points scored reached 90 points, increased by 10%. Therefore, we can confirm once again that the exercises we have chosen and applied have the effect of enhancing the efficiency of quick ball spiking forward the face at the 3rd position for the male volleyball player in Nghe An province.

### Conclusion

From the above research results, we draw some conclusions as follows:

In the research process, we selected two groups of exercises to be applied in the experimental process with high practicality, which contributed to enhance the efficiency of the fast smashing technique forward the third position in the initial training session period for male volleyball player in Nghe An province. Guaranteed reliability and notification.

- Group of the fitness exercises:
- Group of the technical exercises:

The two groups of exercises that we have selected and applied in the experimental process have been successful in ball spiking technique training for young male volleyball players in Nghe An province.

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