

## **Evaluating The Development About Professional Physical Fitness And Basic Techniques Of Talented Female Volleyballathletes From 13 To 15 Years Old After A Training Year Of An Giang Province.**

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**Abstract:** *The study aims to evaluate the development of professional physical fitness and basic techniques related to the effective training of talented female volleyball athletes from 13 to 15 after a training year of An Giang province. The study was conducted through some methods, namely integrated research and relevant literature reviews, pedagogical observation, interview, pedagogical examination, and statistic mathematics. The author has selected 11 tests about professional physical fitness and 7 basic techniques tests for talented female volleyball athletes in order to evaluate the effective training and the development of talented female volleyball athletes of An Giang province.*

**Keywords:** *volleyball, professional physical fitness, basic techniques.*

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### **I. Background**

As many other sports, Volleyball not only needs physical health features but also professional physical fitness and basic techniques. Moreover, its particularity is a highly rational and variable. It requires each athlete about physical fitness, speed, strength, endurance and ability to combine movements and basic techniques such as passing the ball with high and low hands, throwing and hitting the ball, etc. Based on the development about professional physical fitness and techniques after a training process, the author has re-evaluated the initial selection and continue to choose the athletes for advanced training. Therefore, evaluating athletes after training is an essential job.

To know about the development of professional physical fitness, basic techniques and scientific evidences for the training of talented female volleyball from 13 to 15 years old of An Giang is suitable.

From the above issues, we conducted the study: "Evaluating the development about professional physical fitness and basic techniques of talented female volleyball athletes from 13 to 15 of An Giang province after a training year "

Athletes whom I chose to study was about the development of professional physical fitness and basic techniques of talented female volleyball athlete from 13 to 15 years old of An Giang province.

Researchers: 14 female athletes from talented volleyball team of An Giang province from 13 to 15 years old.  
Study time: 2015-2016.

### **II. Research Methodology**

The study was conducted through some methods, namely integrated research and relevant literature reviews, interview, pedagogical observation, pedagogical examination, and statistic mathematics.

### **III. Results**

#### **3.1. The study identified the tests about evaluating profession physical fitness and basic techniques of talented female volleyball athletes from 13 to 15 years old of An Giang province:**

After the interview, we selected the tests over 75%. Checking the reliability and reporting of the test, the study was chosen 11 tests about professional physical fitness and 7 tests about basic techniques of talented female volleyball athletes from 13 to 15 years old of An Giang province.

\* *TEST about professional physical fitness:*

- Running 20ms high starter (s)
- Running 30ms high starter (s)
- Throwing the ball 1kg (m)
- High jump with momentum (cm)

- High jump without momentum (cm)
- Long jump 3 steps (cm)
- Long jump without momentum (cm)
- Running 1500ms (s)
- running 4x10ms (s)
- Standing bend body (cm)
- running pine (s)

\* *TEST about basic techniques:*

- Passing high hands in front of the face (time)
- Passing high hands after the head (time)
- Passing low hands (time)
- Passing high hands (time)
- hitting the ball No.4 (time)
- Hitting the ball No.2 (time)
- Hitting the ball medium No.32 (time)

### 3.2. Evaluating the development about professional physical fitness and basic techniques of talented female volleyball athletes from 13 to 15 years old of An Giang province after a training year.

#### 3.2.1. The development about professional physical fitness of female athletes

After a training year, the study was conducted tests to check professional physical fitness for talented female volleyball athletes from 13 to 15 years old of An Giang. On the basis of the data collected, the result of the study was shown in Table 3.1.

**Table 3.1:**The development about professional physical fitness of talented female volleyball athletes of An Giang Province.

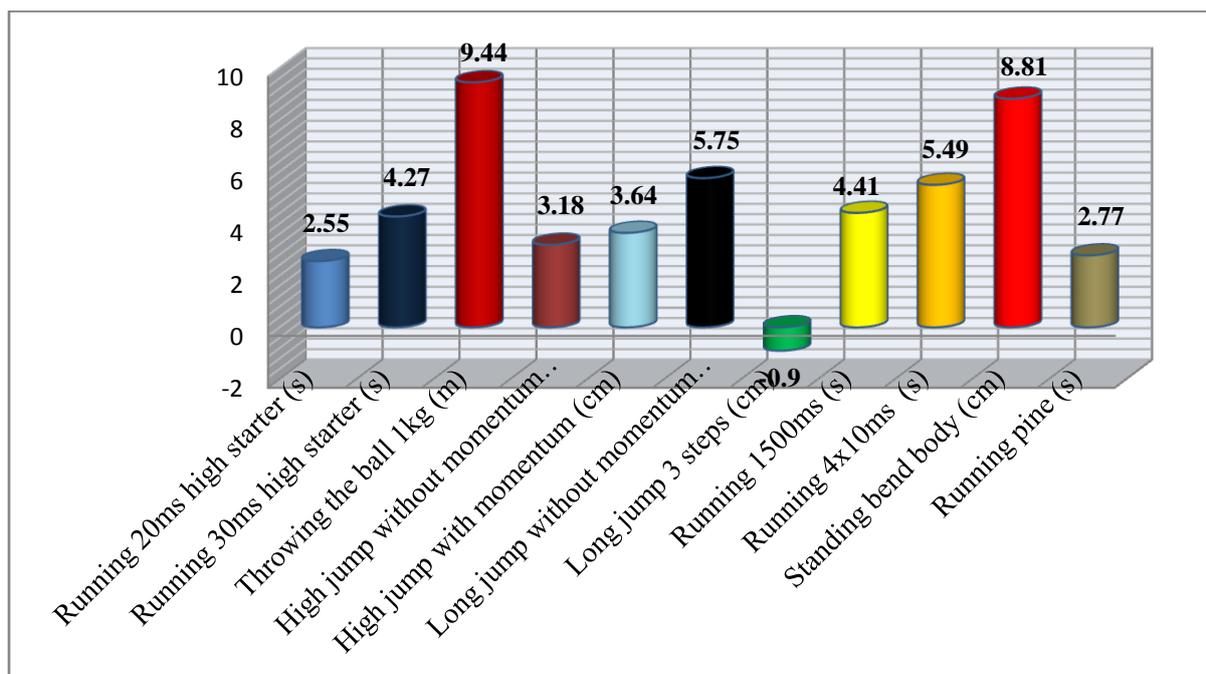
TEST	The beginning		After a year		d	W	t	P
	$\bar{X}$	$\sigma_x$	$\bar{X}$	$\sigma_x$				
Running 20ms high starter (s)	3.58	0.18	3.49	0.13	-0.09	2.55	3.03	<0.01
Running 30ms high starter (s)	4.54	0.23	4.35	0.23	-0.19	4.27	4.06	<0.01
Throwing the ball 1kg (m)	9.89	1.08	10.87	0.71	0.98	9.44	4.31	<0.01
High jump without momentum (cm)	253.93	10.22	262.14	6.99	8.21	3.18	2.59	<0.05
High jump with momentum (cm)	260.00	10.56	269.64	5.71	9.64	3.64	3.04	<0.01
Long jump without momentum (cm)	183.43	10.81	194.29	10.46	10.86	5.75	3.42	<0.01
Long jump 3 steps (cm)	223.21	20.63	221.21	65.42	-2	-0.90	1.63	>0.05
Running 1500ms (s)	612.86	73.98	586.43	65.15	-26.43	4.41	8.33	<0.01
Running 4x10ms (s)	16.67	1.51	15.78	1.15	-0.89	5.49	6.28	<0.01
Standing bend body (cm)	17.36	5.09	18.96	4.50	1.6	8.81	3.50	<0.01
Running pine (s)	26.03	0.88	25.32	0.58	-0.71	2.77	3.22	<0.01

According to the data in table 3.1, the study was shown that:

After a training year, the average achievement of evaluating about professional physical fitness tests of talented female volleyball athletes from 13 to 15 years old of An Giang province was increased significantly  $P < 0.05$  and  $P < 0.01$ , since  $t_{\text{result}} > t_{0.01} = 2.977$  (except for long jump 3 steps test).

The achievements of 10/11test about professional physical fitness of talented female volleyball athletes from 13 to 15 years old was increased significantly from 2.55% to 9.44%, while the achievement of throwing the ball 1 kg test was the highest increase (9.44%) and running 20m high starter test was the lowest increase (2.55%).

The study was shown that the growth of professional physical fitness tests of talented female volleyball athletes from 13 to 15 in An Giang province in figure 3.1.



**Figure 3.1:** The development about professional physical fitness of talented female volleyball athletes from 13 to 15 years old of An Giang after a training year.

**3.2.2. The development about basic techniques of talented female volleyball athletes from 13 to 15 years old of An Giang**

After a training year, the study was conducted basic technique tests for talented female volleyball athletes from 13 to 15 years old of An Giang province. On the based of the data collected, the results of the study were as follows:

**Table 3.2:** The achievement of basic techniques tests of talented female volleyball athletes from 13 to 15 years old of An Giang.

TEST	The beginning		After a year		d	W	t	p
	$\bar{X}$	$\sigma_x$	$\bar{X}$	$\sigma_x$				
Passing high hands in front of the face (time)	5.54	0.76	7.36	0.75	1.82	28.22	5.67	<0.01
Passing high hands after the head (time)	5.23	0.80	7.07	0.73	1.84	29.92	8.15	<0.01
Passing low hands (time)	5.91	0.83	7.50	0.65	1.59	23.71	24.02	<0.01
Passing high hands (time)	5.82	0.89	7.50	0.52	1.68	25.23	31.06	<0.01
Hitting the ball No.4 (time)	4.53	1.02	5.71	0.91	1.18	23.05	7.87	<0.01
Hitting the ball No.2 (time)	5.81	0.98	7.93	0.73	2.12	30.86	9.14	<0.01
Hitting the ball medium No.32 (time)	5.53	0.86	7.29	0.83	1.76	27.46	6.02	<0.01

Table 3.2 shows that:

After a training year, the average achievement of evaluating about the basic technique tests of talented female volleyball athletes from 13 to 15 years old was increased significantly  $P < 0.01$ ,  $t_{result} > t_{0.01} = 2.977$ .

7/7 tests about basic techniques of talented female volleyball athletes from 13 to 15 years old of An Giang province was increased significantly from 23.05% to 30.86%, while hitting the ball No.2 was the highest increase (30.86%) on the other hand hitting the ball No.4 was lowest (23.05 %).

The study was shown that the growth of basic technique tests of talented female volleyball athletes from 13 to 15 in An Giang province in figure 3.2.

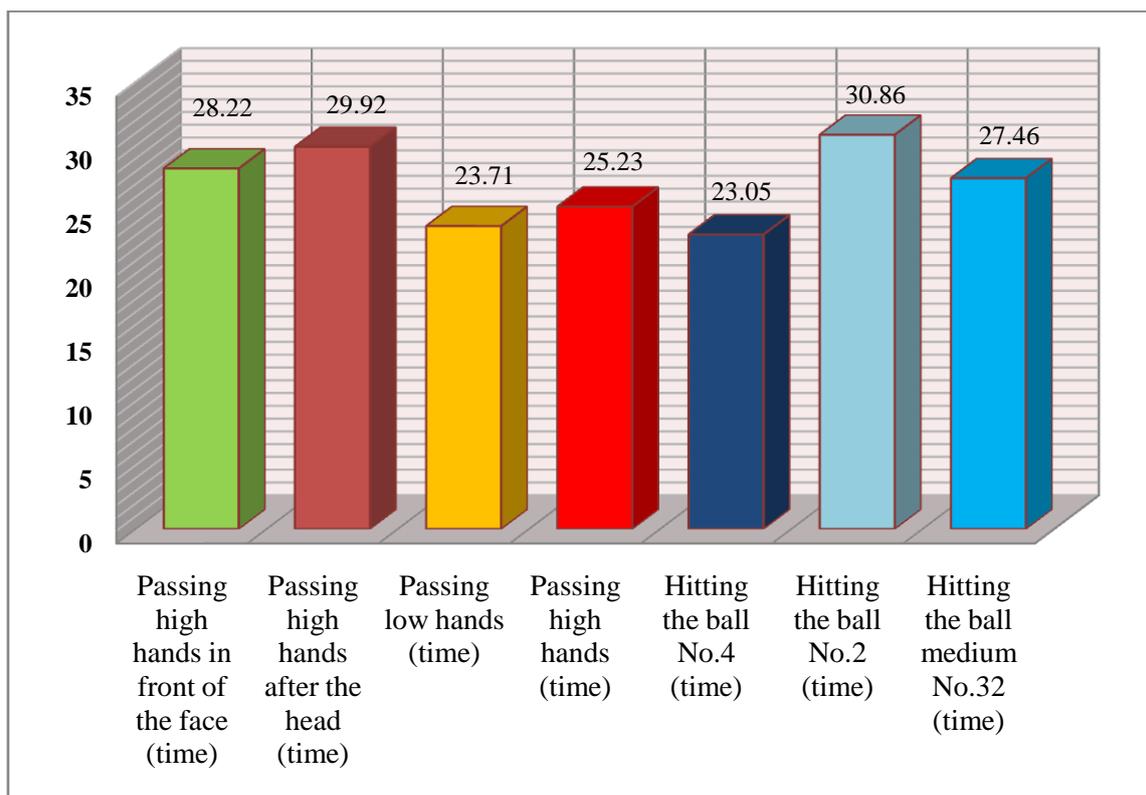


Figure 3.2: The growth of basic techniques of talented female volleyball athletes from 13 to 15 years old.

### 3.3.3. Discussing about the growth of basic techniques of talented female volleyball athletes from 13 to 15 years old of An Giang after a training year.

It is important to practice any sports that athletes must be interested in physical fitness and professional techniques because each movement affects the level of the player. Volleyball is a sport with various techniques. To gain good results the players must have the competent techniques. Basic techniques are a foundation to decide that volleyball players can become perfect or not.

Therefore, the practicing will actively support to have good and exactly techniques. For example, if the players are a power, it will give them a good result.

After a training year, professional physical fitness tests were increased significantly  $P < 0.05$  and  $P < 0.01$ ,  $t_{\text{result}} > t_{0.05} = 2.145$ ,  $t_{0.01} = 2.977$  with  $n = 14$ , the lowest growth rate was the running 20m high starter  $W = 2.55\%$  and the highest was throwing the ball 1kg  $W = 9.44\%$ . The average value of technical achievement was increased after a training year

$P < 0.01$ , the lowest growth rate was hitting the ball No.4  $W = 23.05\%$  and the highest test was hitting the ball No.2  $W = 30.86\%$ .

Some physical fitness elements and basic techniques of talented female volleyball athletes 13-15 years old of An Giang province were increased. The growth was completely suitable the rules of development in the field of sports and this demonstrated that the training process we applied completely scientific.

Through figures 3.1 and 3.2, I realized that professional physical fitness and basic techniques of talented female volleyball athletes were increased significantly after a training year.

## IV. Conclusion

Based on objectives and research results, the study has drawn the conclusions:

### 4.1. The training plan:

The training plan is suitable for talented female volleyball athletes from 13 to 15 years old of An Giang province. The content of the training plan includes the basic training contents such as:

- Professional physical fitness is suitable with the ability to receive techniques and tactics. There is endurance, strength and the speed of the movement.
- Basic techniques of volleyball.
- Practicing the simple tactics.

**4.2. The tests about professional physical fitness and basic techniques of talented female volleyball athletes from 13 to 15 of An Giang.**

The study has conducted a research and selected 11 tests about evaluating professional physical fitness and 8 tests about evaluating basic techniques of talented female volleyball athletes from 13 to 15 in An Giang, as follows:

- + About professional physical fitness:
  - Running 20ms high starter (s)
  - Running 30ms high starter (s)
  - Throwing the ball 1kg (m)
  - High jump without momentum (cm)
  - High jump with momentum (cm)
  - Long jump without momentum (cm)
  - Long jump 3 steps (cm)
  - Running 1500ms (s)
  - Running 4x10ms (s)
  - Standing bend body (cm)
  - Running pine (s)
- + Technically basic:
  - Passing high hands in front of the face (time)
  - Passing high hands after the head (time)
  - Passing low hands (time)
  - Passing high hands (time)
  - Hitting the ball No.4 (time)
  - Hitting the ball No.2 (time)
  - Hitting the ball medium No.32 (time)

**4.3. The development of professional physical fitness and basic techniques for talented female volleyball athletes from 13 to 15 years old in An Giang province after a training year.**

After a training year, the elements about professional physical fitness and the basic techniques of the talented female volleyball athletes from 13 to 15 years old were regularly increased except long jump 3 steps test. Specifically, professional physical fitness increased from 2.55% to 9.44%; Basic techniques increased from 23.05% to 30.86%. This result has identified that the training plan for talented female volleyball athletes from 13 to 15 in An Giang province was gained good results.

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