



Assessing the growth about professional physical fitness and basic techniques of female volleyball students at an Giang University after a practice year

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Abstract

The study aims to evaluate the growth of professional physical fitness and basic techniques related to the effective training of female volleyball students at An Giang University after a training year. 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 10 tests about professional physical fitness and 7 basic techniques tests for female volleyball students in order to evaluate the effective training and the growth of female volleyball students at An Giang University.

Keywords: volleyball, professional physical fitness, basic techniques

1. Introduction

As many other sports, Volleyball not only needs physical health features but also professional physical fitness and basic techniques (Thuc, 2015). 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 (Thuc D.C, *et al*, 2017) ^[2, 6]. Based on the growth about professional physical fitness and techniques after a training process, the author has re-evaluated the initial selection and continue to choose the students for advanced training. Therefore, evaluating students after training is an essential job (Toai, 1996) ^[8]; (Thuc D.C, *et al*, 2017) ^[2, 6].

To know about the growth of professional physical fitness, basic techniques and scientific evidences for the training of female volleyball students of An Giang University is suitable.

From the above issues, we conducted the study: "The growth about professional physical fitness and basic techniques of female volleyball students at An Giang University after a training year"

Students whom I chose to study was about the growth of professional physical fitness and basic techniques of female volleyball athlete at An Giang University.

Researchers: 32 female student's volleyball at An Giang University from 18 to 22 years old.

Study time: 2017-2018.

2. Research methodology

The study was conducted through some methods, namely integrated research and relevant literature reviews, interview,

pedagogical observation, pedagogical examination, and statistic mathematics.

3. Results

3.1 The study identified the tests about evaluating profession physical fitness and basic techniques of female volleyball students at An Giang University

After the interview, we selected the tests over 75%. Checking the reliability and reporting of the test, the study was chosen 10 tests about professional physical fitness and 7 tests about basic techniques of female volleyball students at An Giang University (Thuc D.C, *et al*, 2017) ^[2, 6].

- TEST about professional physical fitness:
 - 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 growth about professional physical fitness and basic techniques of female volleyball students at An Giang University after a training year.

3.2.1 The growth about professional physical fitness of female volleyball students

After a training year, the study was conducted tests to check professional physical fitness for female volleyball students at

An Giang University. On the basis of the data collected, the result of the study was shown in Table 1.

Table 1: The growth about professional physical fitness of female volleyball students at An Giang University. (M±SD)

TEST	The beginning	After a year	W%	t	p
	M±SD	M±SD			
Running 30ms high starter (s)	4.69±0.33	4.41±0.24	6.15	3.12	<0.01
Throwing the ball 1kg (m)	9.73±1.09	10.47±0.77	7.33	4.61	<0.01
High jump without momentum (cm)	249.98±10.12	262.14±6.99	4.75	2.89	<0.01
High jump with momentum (cm)	257.08±10.66	265.64±5.31	3.28	3.09	<0.01
Long jump without momentum (cm)	181.43±10.81	191.29±10.06	5.29	3.92	<0.01
Long jump 3 steps (cm)	212.21±20.63	220.11±65.12	3.65	3.69	<0.01
Running 1500ms (s)	609.86±53.91	583.43±55.15	4.43	8.03	<0.01
Running 4x10ms (s)	16.87±1.61	16.08±1.15	4.80	4.28	<0.01
Standing bend body (cm)	17.46±5.19	18.76±4.50	7.18	3.58	<0.01
Running pine (s)	26.53±0.98	26.02±0.51	1.94	3.02	<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 female volleyball students at An Giang university was increased significantly P <0.05 and P <0.01, since $t_{result} > t_{0.01} = 2.576$. (Thuc D.C, *et al*, 2017) [2, 6]

The achievements of 10/10 tests about professional physical fitness of female volleyball students was increased significantly from 1.94% to 7.18%, while the achievement of Standing bend body test was the highest increase (7.18%) and Running pine high starter (s) test was the lowest increase

(1.94%).

The study was shown that the growth of professional physical fitness tests of female volleyball students at An Giang University in column W% of table 1.

3.2.2. The growth about basic techniques of female volleyball students at An Giang University.

After a training year, the study was conducted basic technique tests for female volleyball students at An Giang University. On the base of the data collected, the results of the study were as follows:

Table 2: The achievement of basic techniques tests of female volleyball students at An Giang University. M±SD

TEST	The beginning	After a year	W%	T	p
	M±SD	M±SD			
Passing high hands in front of the face (time)	5.14±0.56	7.06±0.55	31.48	7.07	<0.01
Passing high hands after the head (time)	5.03±0.50	7.01±0.70	32.89	8.05	<0.01
Passing low hands (time)	5.51±0.80	6.5±0.65	16.49	14.12	<0.01
Passing high hands (time)	5.62±0.59	7.5±0.50	28.66	11.06	<0.01
Hitting the ball No.4 (time)	4.73±0.55	5.71±0.81	18.77	7.07	<0.01
Hitting the ball No.2 (time)	5.51±0.78	7.33±0.83	28.35	7.14	<0.01
Hitting the ball medium No.32 (time)	5.53±0.86	7.29±0.75	27.46	5.02	<0.01

Table 3.2 shows that

After a training year, the average achievement of evaluating about the basic technique tests of female volleyball students was increased significantly P <0.01, $t_{result} > t_{0.01} = 2.576$.

7/7 tests about basic techniques of female volleyball students at An Giang university was increased significantly from 16.49% to 32.89%, while Passing high hands after the head (time) was the highest increase (32.89%) on the other Passing low hands (time) was lowest (16.49 %).

The study was shown that the growth of basic technique tests of female volleyball students at An Giang University in column W% of table 2.

3.3.3. Discussing about the growth of basic techniques of female volleyball students at An Giang University after a training year.

It is important to practice any sports that is students 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 <0.01, $t_{result} > t_{0.01} = 2.576$ with n = 32, the lowest growth rate was the running pine high starter (s) high starter (s) W = 1.94% and the highest was standing bend body W = 7.18%.

The average value of technical achievement was increased after a training year P <0.01, the lowest growth rate was Passing low hands in front of the face (time) W= 16.49% and the passing high hands after the head (time) was highest increase W = 32.89%.

Some physical fitness elements and basic techniques of female volleyball students at An Giang University were increased. The growth was completely suitable the rules of growth in the field of sports and this demonstrated that the training process we applied completely scientific.

4. Conclusion

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

4.1 The training plan

The training plan is suitable for female volleyball students at An Giang University. 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 female volleyball students at An Giang University.

The study has conducted a research and selected 10 tests about evaluating professional physical fitness and 7 tests about evaluating basic techniques of female volleyball students at An Giang University, as follows:

- About professional physical fitness
 - 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 growth of professional physical fitness and basic techniques for female volleyball students at An Giang University after a training year.

After a training year, the elements about professional physical fitness and the basic techniques of the female volleyball students were regularly increased except long jump 3 steps test. Specifically, professional physical fitness increased from 1.94% to 7.18%; Basic techniques increased from 16.49% to 32.89%. This result has identified that the training plan for female volleyball students at An Giang University was gained good results.

5. References

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