

# EVALUATING THE EFFICIENCY OF THE NEW BADMINTON TRAINING PROGRAM IN EXTRACURRICULAR COURSES AT VO THI SAU HIGH SCHOOL BINH THANH DISTRICT HO CHI MINH CITY

Nguyen Tien Tien<sup>1</sup>, Dam Quang Huy<sup>2</sup>

## Abstract:

The research results of the project has developed 120 periods curriculum and a one-year badminton course for 11th grade students of Vo Thi Sau High School. At the same time, evaluated the efficiency of applying the new badminton training program. After the experiment, the physical and technical qualities of male and female students in the experimental group were better than the control group.

**Key words:** Curriculum, badminton, students, extracurricular, high school...

## INTRODUCTION

Vo Thi Sau High School- Binh Thanh District- HCM City currently has many limitations in terms of facilities, teaching equipment is lacking in both quantity and quality. At present the school organizes the extra-curricular classes in sports, including badminton, but the teaching is based on the experience of teachers, there is no curriculum. At the same time, the amount of time spent on optional sports is only 20 periods, so basically it does not meet the learning needs of the students. Therefore, the standardization of subjects curriculum contents in general, badminton in particular, meeting the needs of students is very urgent..

## RESEARCH METHODS

Research methods used: Reading and analyzing documents; Interview; Pedagogical examination; Pedagogical experimental; mathematical statistics

## RESULTS AND DISCUSSION

**1. Choosing the contents of the badminton extracurricular training program for students of Vo Thi Sau High School**

To choose the content of the curriculum, objectivity, scientific basis has gone through two steps:

Step 1: Refer to, synthesize the main content for teaching through the professional materials, the curriculum of schools ... as the basis for determining the contents included in the extracurricular badminton course.

Step 2: Interviews with experts, teachers, experts, coaches who have experience teaching and training badminton. The contents with over 75% of votes will be selected. Selected results are as follows:

The content of theory teaching consists of 03 lessons (history of formation, technical principles and laws, methods of organizing competitions).

Practical teaching content: Including technical and tactical, including 09 basic techniques and 01 supplementary content. The tactics include three basic tactical (attacking, defensive and competitive tactics).

Physical Fitness: Includes 06 general and professional fitness exercises.

Form of examination and evaluation of subject results:

1. Associate Prof. Dr., Ho Chi Minh City University of Sports

2. Vo Thi Sau High School Binh Thanh District, Ho Chi Minh City

- Write essay on badminton theory and practice badminton techniques. The practice contents are examined and evaluated by the following tests: 10 shots of clear into 2m x 1m box (number of shots); 10 shots of straight smash into 2m x 1m box (number of shots); 10 slice drop shots into the box (number of shots); 10 long serves into 1m x 1m box at the end of the court (number of shots); 10 short serves into 1m x 1m box in the middle of the court (number of shots).

- Course score = [Theoretical score + (Practice score) × 2] / 3

## 2. Curriculum of Badminton extracurricular courses for students at Vo Thi Sau High School

**2.1. Characteristics:** All male and female students of the school, normal physical development, no congenital malformation. They all love and register to participate in badminton extracurricular practice.

### 2.2. Purpose:

- Develop physical strengths and the ability to coordinate mobility, promote the health of students in Vo Thi Sau high school.

**Table 1. Time division table of the badminton extracurricular training program for students in 11th grade, 2016-2017**

| Semester    | Training content                                                                                                                                                                                                                                                                                                                                                                                                                  | Duration | Number of periods |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------|
| Semester I  | <b>Theory</b><br>- Lesson 1: The formation history of badminton worldwide and in Vietnam<br>- Lesson 2: Principles of some basic badminton techniques                                                                                                                                                                                                                                                                             | 2<br>2   | 60                |
|             | <b>Practice</b><br>- Racquet holding technique<br>- Moving technique<br>- Clear technique<br>- Forehand long serve technique<br>- Slice drop technique<br>- Attacking and defending techniques<br>- Supporting techniques<br><b>General and professional fitness</b><br>- Rope skipping for 30 seconds<br>- Moving to two sides of the court, picking up shuttlecocks<br>- Moving back and forth, imitating push shots - Push-ups | 52       |                   |
|             | - Final examination                                                                                                                                                                                                                                                                                                                                                                                                               | 4        |                   |
| Semester II | <b>Theory</b><br>- Lesson 3: Basic laws and methods of organizing, refereeing competitions                                                                                                                                                                                                                                                                                                                                        | 2        | 60                |
|             | <b>Practice</b><br>- Drop shot technique<br>- Moving technique<br>- Clear technique<br>- Forehand long serve technique<br>- Backhand short serve technique<br>- Smash technique<br>- Attacking and defending techniques<br>- Compete                                                                                                                                                                                              | 56       |                   |
|             | -Final examination                                                                                                                                                                                                                                                                                                                                                                                                                | 2        |                   |

**Table 2. Growth rate of physical tests of two 11th grade males experimental groups and control group after experiments (end of second semester) n = 50**

| No | test                                                                         | Experimental Group |       |       |               |        | Control group |       |       |              |       |
|----|------------------------------------------------------------------------------|--------------------|-------|-------|---------------|--------|---------------|-------|-------|--------------|-------|
|    |                                                                              | 2                  | 3     | W%    | t             | P      | 2             | 3     | W%    | t            | P     |
| 1  | 30m running (s)                                                              | 4.61               | 4.48  | -2.93 | <b>14,658</b> | <0.001 | 4.92          | 4.88  | -0.79 | 1,377        | >0.05 |
| 2  | 4 x 10 m running (s)                                                         | 10.67              | 10.56 | -1.04 | <b>8,221</b>  | <0.001 | 10.58         | 10.56 | -0.21 | 0.893        | >0.05 |
| 3  | On-the-spot long jump (m)                                                    | 1.99               | 2.09  | 5.2   | <b>8,588</b>  | <0.001 | 2.03          | 2.07  | 2.01  | 1,941        | >0.05 |
| 4  | Crunches (time)                                                              | 19.84              | 21.52 | 8.12  | <b>5,853</b>  | <0.001 | 17.92         | 19.28 | 7.31  | <b>3,123</b> | <0.01 |
| 5  | 5 minutes running depending on physical condition (m)                        | 917.4              | 925.2 | 0.85  | <b>8,510</b>  | <0.001 | 910.8         | 912.4 | 0.18  | 0.811        | >0.05 |
| 6  | Hand grip strength (Kg)                                                      | 37.6               | 39.24 | 4.27  | <b>12,859</b> | <0.001 | 35.44         | 36.12 | 1.9   | 1,823        | >0.05 |
| 7  | 10 shots of clear into 2m x 1m box (number of shots)                         | 6.96               | 7.84  | 11.89 | <b>5,634</b>  | <0.001 | 6.24          | 6.44  | 3.15  | 0.693        | >0.05 |
| 8  | 10 shots of straight smash into 2m x 1m box (number of shots)                | 6.8                | 7.64  | 11.63 | <b>5,629</b>  | <0.001 | 6.44          | 6.56  | 1.85  | 0.592        | >0.05 |
| 9  | 10 slice drop shots into the box (number of shots)                           | 6.52               | 6.96  | 6.53  | <b>3,381</b>  | <0.01  | 6.4           | 6.56  | 2.47  | <b>2,138</b> | <0.05 |
| 10 | 10 short serves into 1m x1m box in the middle of the court (number of shots) | 6.28               | 7.08  | 11.98 | <b>6,197</b>  | <0.001 | 5.56          | 5.76  | 3.53  | 1,155        | >0.05 |

**Table 3. Growth rate of physical tests of two 11th grade females experimental groups and control group after experiments (end of second semester) n = 50**

| No. | test                                                                          | Experimental Group |       |       |              |        | Control group |       |       |             |       |
|-----|-------------------------------------------------------------------------------|--------------------|-------|-------|--------------|--------|---------------|-------|-------|-------------|-------|
|     |                                                                               | 2                  | 3     | W%    | t            | P      | 2             | 3     | W%    | t           | P     |
| 1   | 30m running (s)                                                               | 6.33               | 6.21  | -1.86 | <b>9.31</b>  | <0.001 | 6.55          | 6.48  | -1.03 | <b>2.7</b>  | <0.05 |
| 2   | 4 x 10 m running (s)                                                          | 13.03              | 12.93 | -0.78 | <b>6.78</b>  | <0.001 | 13.04         | 13    | -0.36 | <b>2.12</b> | <0.05 |
| 3   | On-the-spot long jump (m)                                                     | 1.5                | 1.62  | 8.18  | <b>8.61</b>  | <0.001 | 1.46          | 1.53  | 5     | <b>3.45</b> | <0.01 |
| 4   | Crunches (time)                                                               | 14.76              | 17.04 | 14.34 | <b>7.27</b>  | <0.001 | 11.72         | 12.32 | 4.99  | 1.24        | >0.05 |
| 5   | 5 minutes running depending on physical condition (m)                         | 823.6              | 832   | 1.01  | <b>9.85</b>  | <0.001 | 784.6         | 787.2 | 0.33  | 1.33        | >0.05 |
| 6   | Hand grip strength (Kg)                                                       | 26.76              | 28.4  | 5.95  | <b>12.86</b> | <0.001 | 25.84         | 26.52 | 2.6   | 1.74        | >0.05 |
| 7   | 10 shots of clear into 2m x 1m box (number of shots)                          | 7.2                | 8.08  | 11.52 | <b>6.06</b>  | <0.001 | 6.4           | 6.28  | -1.89 | 0.53        | >0.05 |
| 8   | 10 shots of straight smash into 2m x 1m box (number of shots)                 | 6.96               | 7.84  | 11.89 | <b>6.61</b>  | <0.001 | 6.64          | 6.84  | 2.97  | 0.89        | >0.05 |
| 9   | 10 slice drop shots into the box (number of shots)                            | 6.6                | 7.4   | 11.43 | <b>5.24</b>  | <0.001 | 6.28          | 6.4   | 1.89  | 1.81        | >0.05 |
| 10  | 10 short serves into 1m x 1m box in the middle of the court (number of shots) | 6.32               | 7.2   | 13.02 | <b>7.33</b>  | <0.001 | 5.8           | 6.12  | 5.37  | 1.69        | >0.05 |

(Note: n = 25; t0.05 = 2.064; t0.01 = 2.797; t0.001 = 3.745)

- It is a condition for the development of badminton practice, which contributes to the diversification of physical training activities at the school.

### **2.3. Mission:**

- Helps students to master the knowledge and practice of badminton techniques, thereby enhancing their moving skills.

- Ethical education, behavior, discipline, improvement of personality, strengthening solidarity, helping each other in learning, more conscious in training, meet the requirements and goals of the program.

### **2.4. Divide the time of the curriculum**

As a result of the selection of teaching contents, building time division table of the badminton extracurricular training program, presented in Table 1.

Developing training process during experiment: Based on the content of the program and duration of teaching 120 periods, we have developed the teaching process through 2 semesters to experiment.

### **3. Evaluate the efficiency of the practical application of badminton extracurricular training program at Vo Thi Sau High School in 2016-2017**

#### **3.1. Experimental application of new badminton extracurricular training program for Vo Thi Sau high school students in the school year 2016 - 2017**

The practical application of a 120-period badminton training program is available from September 2016 to May 2017, both semesters, each semester 15 weeks, 2 sessions per week. each session is 90 minutes (2 periods), totaling 30 weeks with 60 sessions. Organize pedagogic experiment by parallel method single sequencing on 2 groups of students in the 11th grade of Vo Thi Sau High School, specifically:



**Badminton is currently being developed strongly in both sports movements and high achievement sports**

- The control group: Consisting of 50 students (25 males and 25 females), participated freely in curricular study and extracurricular exercises without teacher.

- Experimental group: Including 50 students (25 males and 25 females) participated in curricular study and exercises, combined with extracurricular badminton exercises under the selected curriculum.

### **3.2. Experimental results**

Comparison of pre-experiment achievements.

Results of examination, calculation and comparison of physical tests of male and female students in grade 11 Vo Thi Sau High School, Binh Thanh District, HCM City showed that both males and females of grade 11 between two groups control and experimental, all of them had scores of 8/10 tests. There was no significant difference ( $t_{\text{calculated}} < t_{\text{control}}$  with  $P > 0.05$ ).

Evaluation of post-experimental physical development.

Through the second test post-experimental (end of second semester), using the formula of growth rate, the calculation results shown in Table 3 show:

Male students: After one year of study, the physical examination of both groups shown in Table 3 shows:



**Badminton  
lesson at Bac  
Ninh Sport  
University**

\* Experimental group: All 10/10 tests had a growth rate with  $W = 1.04\% - 11.98\%$ , the growth difference was statistically significant with  $P < 0.01 - 0.001$ , as there were  $t = 3,381 - 14,658 > t_{0.001} = 2.797 - 3.745$ .

\* The control group: All 10/10 tests had a growth rate with  $W = 0.21\% - 7.31\%$ , including 5/6 fitness tests and 3/4 technical tests. Growth difference was not statistically significant, with  $P > 0.05$ , since  $t = 0.592 - 1.941 < t_{0.05} = 2.064$ . For crunches test and 10 slice drop shots test, growth results were statistically, significantly difference with  $P < 0.01$ , since  $t = 2.138 - 3.123 > t_{0.05 - 0.01} = 2.064 - 2.797$ .

Female students: After one semester, the physical fitness test of both groups presented in Table 4 shows that:

\* Experimental group: All 10/10 tests had a growth rate with  $W = 0.78\% - 14.34\%$ , the growth difference was statistically significant with  $P < 0.001$ , as there were  $t = 5.237 - 12.859 > t_{0.05 - 0.001} = 3.745$ .

\* Control group: All 10/10 tests had a growth rate with  $W = 0.33\% - 5.37\%$ , in which 3/6 fitness test showed statistically significant difference in growth with  $P < 0.05$ , all have  $t = 2.12 - 3.45 > t_{0.05} = 2.064$ . The remaining 3 physical tests and 4/4 technical tests, growth were not significantly different with  $P > 0.05$ , as there were  $t = 0.53 - 1.81 < t_{0.05} = 2.064$ .

## CONCLUSION

As a result, 120-period curriculum and a one-year extracurricular badminton training program

were developed for the 11th grade students of Vo Thi Sau High School, Binh Thanh District, HCMC. Ho Chi Minh.

The results of the evaluation of the efficiency of applying the new badminton curriculum revealed that:

- Male students: After the experiment, the physical and technical level of the experimental group has higher growth with 7/10 tests in which there's difference in the growth, compared to the control group with only 2/10 tests in which there's difference in the growth.

- Female students: After After the experiment, the physical and technical level of the experimental group has higher growth with 10/10 tests in which there's difference in the growth, compared to the control group with only 3/10 tests in which there's difference in the growth.

## REFERENCES

1. Duong Nghiep Chi (1991), Sports Measurement, Sports Publishing House, Ha Noi.
2. Trinh Trung Hieu (2001), Theory and methods of physical education and school sports, Sports Publishing House, Ha Noi.

(Received 5/11/2017, Reviewed 19/11/2017,  
Accepted 28/11/2017.

Main responsible: Nguyen Tien Tien  
Email: nguyentientien.tdtt@gmail.com)