DEVELOPMENTS OF THE STRENGTH OF MALE STUDENTS IN THE D46 COURSE OF PEOPLE'S SECURITY ACADEMY IN LEARNING PEOPLE'S PUBLIC SECURITY MARTIAL ARTS

Bui Trong Phuong⁽¹⁾

Abstract:

On the basis of 15 tests assessing the strength capacity for D46 male students of People's Security Academy in learning People's Public Security martial arts (includes two modules: Module I – Techniques and Module II – Tactics, the subject has assessed the strength developments of the research subjects. The results showed that after the time of studying People's Public Security martial arts, the strength of D46 male students of People's Security Academy increased after each module. However, the strength capabilities of students is limited. At the same time, the development pace of each strength capacity of male students demonstrate inequity in the modules. The strength of male students at the time after Module II – Tactics (T 3) became better than the time after Module I – Techniques (T 2).

Keywords: Development, strength, martial arts , People's Public Security ...

INTRODUCTION

In the training program of the People's Security Academy, the People's Public Security Martial Arts both contributes to the implementation of the objective of training university-level police officers as well as a content directly serving the combating work for learners. Therefore, "... in order to ensure the working requirements of the People's Public Security Forces, the teaching work of the People's Public Security Martial Arts at the People's Security Academy aims to improve the combat effectiveness for trainees ... "[4]. One of the most important and decisive factors to the combat effectiveness of People's Public Security Martial Arts is strength.

To appreciate correctly the development of the strength of students will create the scientific basis for the impact on improving the efficiency of teaching People's Public Security martial arts , help to improve the quality and efficiency of the training process of People's Security Academy.

RESEARCH METHODS

The research process uses the following methods: Methods of analyzing and synthesizing documents; Pedagogical observation method; Method of test use; Method of statistical mathematics.

Examination, evaluation subjects: 20 male students of D46 course (second year students) at People's Security Academy who have trained beginning courses in People's Public Security martial arts and exercise regularly every day in the morning.

Examination, evaluation contents (see Table 1): 15 tests to assess the strength to assess the maximum strength (test 1-3), still strength (test 4,5), speed power level (test 5-11), durable strength (test 12-15).

Conditions to ensure the conduct of tests and assessments: Before entering the strength test, the person tested (male students) must ensure health, mental comfort, warm-up and rest properly [1], [2], [3]. After checking one test, make sure the strength of the person has recovered before checking another test. The assessment of strength recovery is determined through circuit and physical examination. The rest time between each test is about 5-10 minutes.

Test and evaluation process: Tests are conducted in 2 sessions. Session 1: Con duct the tests in the following order : 1, 6, 7, 11, 2, 14, 15, 5. Session 2: Conduct tests : 9, 8, 10, 3, 13, 12, 4.

Time of examination, evaluation: Before studying People's Public Security martial arts (T 1), after Module I - Techniques (T 2), after Module II - Tactics (T 3). The entire evaluation process takes place in the second semester of the 2016-2017 school year.

RESULTS AND DISCUSSION

1. Situation of strength level of male students D46 People's Security Academy in learning martial arts People's Public Security (Table 1)

Through table 1 shows:

- At the time before learning People's Public Security martial arts, (T1) shows, there are 12 /15 test with CV <10% ($4.52 \le CV \le 8.96$). This shows that the strength level of the subject is relatively evely.

- The strength level of students in the modules shows a statistically significant difference (t_{calculate} > t_{control}, with p <0.001). In other words, the strength of the research subjects is increased after each module. The growth rate of students' strength after each module shows an increase ($2.08 \le W \le 41.06$). However, the pace of development of each strength capacity in the modules takes place unevenly.

So, we can confirm that the strength exercises applied have the effect of developing the strength for learners, but may be due to short practice time, the strength has not yet developed a comprehensive way and has been influented by the technical contents of different lessons. In order to develop a good strength, it is necessary to select exercises and methods suitable to the technical and tactical contents of each lesson in the People's Public Security Martial Arts .

2. Assess the strength of D46 male students People's Security Academy in learning People's Public Security martial arts

On the basis of the strength status of male

D46 students at People's Security Academy, the topic compares the test results with the strength classification criteria that have been built by the topic. The results are presented in Table 2.

Through table 2 shows:

- At the time after Module I - Techniques (T_2) and Module 2, the strength level of 20 D46 male students at People's Security Academy is still poor at 5%, weak from 15 - 40%, average from 45-70%, fair at 10%, there is no good grade.

- At the time after Module II - Tactics (T₃), the strength level of 20 D46 male students at People's Security Academy had better results than T₂. There is no poor students (0%), weak reaches 25-30%, average reaches 45-55%, fair reaches 15-25%, there is no good grade.

Thus, the strength level of male students of the People's Security Academy increases after each module; After finishing the People's Public Security Martial Arts, there are no students with excellent grades, and there are still students who have weak grades.

CONCLUSION

Through the research we can confirm that, after the time studying People's Public Security martial arts of the D46 male students at People's Security Academy increased after each module with the reliability at probability and mathematic Statistics threshold p <0.01. However, the strength capacity of the majority of students was only average, but many students have poor and weak strength level and especially there is no good level. Also, the development pace of each strength capacity of male students in the module shown uneven in the modules. The results show that the strength level of male students at the time after Module II - Tactics (T_3) is better than the time after module I - Techniques (T₂).

REFERENCES

1. Aulic I. V (1982), *Evaluation of sport training level* (Translated: Pham Ngoc Tram), Sports Publishing House, Hanoi.

2. Duong Nghiep Chi (1983), *Sports Measurement*, Sports Publishing House, Hanoi, p. 77 - 103. Table 1 . Comparison of strength level of D46 male students of People's Security Academy

TIME T W12		at tiı	nes o	flearni	ing Pec	sple's	Public	at times of learning People's Public Security martial arts	ty mar	tial ar	ts (n =	: 20)				
$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	Lodr	É	ime T		Ĩ		5	Ľ					W ₁₋₃	•	+	•
34.28 2.64 7.7 38.6 3.09 8.01 44.41 3.83 8.62 11.86 14 2.83 3.63 6.46 8.427* 6.568* 7 70.46 5.7 8.00 117.61 8.64 7.35 121.96 9.94 8.15 2.83 3.63 6.46 8.907* 8.902* 26 46.45 5.77 8.09 7.34 8.73 8.57 6.568* 7.9 46.45 5.77 8.09 7.94 8.74 8.75 5.51 19.090* 8.915* 10 46.45 3.09 7.94 8.71 8.76 8.75 6.78 8.14 10.62 9.02 19.5904* 8.915* 10 47.4 2.09 7.94 8.71 8.74 8.75 7.044* 8.915* 17 10.4 1.45 1.95 1.93 5.21 18.6 1.43 5.75 7.044* 4.376* 13 10.4 1.47 <		X	₹	Cv	×	₹	Cv	×	Ę	Cv	(%)		(%)	u 1-2	^L 2-3	¹ 1-3
114.33 9.16 8.01 117.61 8.64 7.35 121.96 9.94 8.15 2.83 3.63 6.46 8.427 * 6.568 * 7 70.46 5.7 8.09 78.36 5.7 7.27 85.76 5.5 6.41 10.62 9.02 19.59 29.966 * 19.020 * 26 46.45 3.69 7.94 49.46 4.11 8.31 52.08 4.54 8.72 6.28 5.16 11.43 9.904 * 8.915 * 10 46.45 3.69 7.94 7.91 8.91 7.99 5.91 * 5.752 * 7 47.35 7.14 21002 15.94 7.59 20.29 13.94 8.41 6.75 8.64 4.376 * 13 16.4 1.47 8.96 17.85 0.93 5.21 13 13 13 13 13 13 13 13 13 13 13 13 13 13 13 13	1. Back pulling strength (kG)	34.28	2.64	7.7	38.6	3.09	8.01	44.41	3.83	8.62	11.86		25.75		10.969	26.477 *
70.46 5.7 8.09 78.36 5.7 7.27 85.76 5.5 6.41 10.62 9.02 19.59 29.966 19.020 26 46.45 3.69 7.94 49.46 4.11 8.31 52.08 4.54 8.72 5.36 5.16 11.43 9.904 8.915 10 48.47 2.19 4.52 49.49 3 6.06 52.12 4.19 8.04 2.08 5.18 5.752 7.7 203.36 15.73 7.74 210.02 15.94 7.59 220.29 13.94 6.33 3.22 4.77 7.99 6.281 8.5752 7.7 16.4 1.47 8.96 17.56 21.02 12.94 6.3 3.22 4.77 7.99 6.281 8.315 17 16.4 1.47 8.96 17.56 18.47 1.43 8.436 13.56 17 13.57 13 17.35 1.99 6.5 1.43	2. Back pulling strength (kG)	114.33	9.16	1	117.61	8.64	7.35	121.96	9.94	8.15	2.83			8.427 *	6.568 *	7.816 *
46.45 3.69 7.94 49.46 4.11 8.31 52.08 4.54 8.72 6.28 5.16 11.43 9.904 * 8.915 * 10 48.47 2.19 4.52 49.49 3 6.06 52.12 4.19 8.04 2.08 5.75 3.409 * 8.624 * 6 203.36 15.73 7.74 210.02 15.94 7.59 220.29 13.94 6.33 3.22 4.77 7.99 6.281 * 5.752 * 7 16.4 1.47 8.96 17.85 0.93 5.21 18.6 1.39 7.47 8.47 4.12 12.57 7.044 * 4.376 * 13 17.35 1.79 10.32 18.95 1.86 1.86 1.86 1.86 1.86 1.3 5.75 7.044 * 4.376 * 13 17.35 1.99 1.86 1.43 6.79 8.84 1.066 * 12.2277 * 23 17.35 1.98 1.016	3. Pull maximum weight barbell to the same level as shoulders (kg)	70.46		8.09	78.36	5.7	7.27	85.76	5.5	6.41	10.62		19.59	29.966 *	19.020 *	26.864*
48.47 2.19 45.24 5.06 52.12 4.19 8.04 2.08 5.18 7.26 3.409* 8.624* 6. 203.36 15.73 7.74 210.02 15.94 7.59 5.20.29 13.94 6.33 3.22 4.17 7.99 6.281* 5.752* 7 16.4 1.47 8.96 17.85 0.93 5.21 18.6 1.39 7.47 8.47 4.12 12.57 7.044* 4.376* 13 17.35 1.79 10.32 18.95 1.85 9.76 21.05 1.43 6.79 8.82 10.5 19.27 12.227* 23 47.35 3.08 6.5 48.7 3.21 6.49 9.36 7.25 2.81 8.60* 9 9 10.55 1.19 11.28 13.25 1.02 7.77 16.59 17.529 811 10.55 1.19 11.28 13.25 1.05 18.84 10.66 13.579 </td <td>4. Hang on the crossbar, perpendicular arms and forearms (s)</td> <td>46.45</td> <td>3.69</td> <td>7.94</td> <td>49.46</td> <td>4.11</td> <td>8.31</td> <td>52.08</td> <td>4.54</td> <td>8.72</td> <td>6.28</td> <td></td> <td></td> <td></td> <td>S I</td> <td>10.063 *</td>	4. Hang on the crossbar, perpendicular arms and forearms (s)	46.45	3.69	7.94	49.46	4.11	8.31	52.08	4.54	8.72	6.28				S I	10.063 *
203.36 15.73 7.74 210.02 15.94 7.59 23.22 4.77 7.99 6.281 5.752 * 7. 16.4 1.47 8.96 17.85 0.93 5.21 18.66 1.39 7.47 8.47 4.12 12.57 7.044 * 4.376 * 13 17.35 1.79 10.32 18.95 1.85 9.76 21.05 1.43 6.79 8.82 10.5 19.27 14.606 * 12.227 * 23 47.35 1.98 6.5 48.7 3.21 6.50 50.5 3.66 7.25 2.81 3.63 6.44 9.234 * 8.680 * 9 10.55 1.19 11.28 13.25 1.02 7.7 16 1.45 9.06 22.69 18.8 41.06 18.858 * 13.859 * 41 10.55 1.19 11.28 13.25 1.02 7.7 16 1.45 9.06 22.57 8.74 8.680 * 9 10.55 1.128 15.57 10.16 18.8 41.06 18.858 * 13.571 *	5. Embrace the chest of the partner (weight), do horse stance (s)	48.47		4.52	49.49	ю	6.06	52.12	4.19	8.04	2.08			3.409 *		6.165 *
16.4 1.47 8.96 17.85 0.93 5.21 18.6 1.39 7.47 8.47 4.12 12.57 7.044 * 4.376 * 13 17.35 1.79 10.32 18.95 1.85 9.76 21.05 1.43 6.79 8.82 10.5 19.27 14.606 * 12.227 * 23 47.35 3.08 6.5 48.7 3.21 6.59 50.5 3.66 7.25 2.81 3.63 6.44 9.234 * 8.680 * 9 10.55 1.19 11.28 13.25 1.02 7.7 16 1.45 9.06 22.69 18.8 41.06 18.858 * 13.859 * 41 10.55 1.12 11.28 15.76 18.407 * 17.529 * 31 36 349 36		203.36	15.73	4	210.02	15.94	7.59	220.29	13.94	6.33	3.22					7.477 *
17.35 1.79 10.32 18.95 1.85 9.76 21.05 1.43 6.79 8.82 10.5 19.27 14.606 * 12.227 * 23 47.35 3.08 6.5 48.7 3.21 6.59 50.5 3.66 7.25 2.81 3.63 6.44 9.234 * 8.680 * 9 10.55 1.19 11.28 13.25 1.02 7.7 16 1.45 9.06 22.69 18.8 41.06 18.58 * 13.859 * 41 10.55 1.124 10.16 14.6 1.43 9.79 18.5 1.05 17.91 23.57 41.04 18.407 * 17.529 * 31 12.2 1.24 10.16 14.6 1.43 9.79 18.51 10.79 23.57 41.04 18.407 * 17.529 * 31 31.25 2.47 7.9 34.95 18.51 18.51 11.18 16.54 27.59 15.706 * 13.571 * 26 36 36 </td <td>7. Spin kick the target in 10 seconds (times)</td> <td>16.4</td> <td>1.47</td> <td>8.96</td> <td>17.85</td> <td>0.93</td> <td>5.21</td> <td>18.6</td> <td>1.39</td> <td>7.47</td> <td>8.47</td> <td></td> <td></td> <td>7.044 *</td> <td>4.376 *</td> <td>13.148 *</td>	7. Spin kick the target in 10 seconds (times)	16.4	1.47	8.96	17.85	0.93	5.21	18.6	1.39	7.47	8.47			7.044 *	4.376 *	13.148 *
47.35 3.08 6.5 48.7 3.21 6.59 50.5 3.66 7.25 2.81 3.63 6.44 9.234* 8.680* 9 10.55 1.19 11.28 13.25 1.02 7.7 16 1.45 9.06 22.69 18.8 41.06 18.858 * 13.859 * 41 12.22 1.24 10.16 14.6 1.43 9.79 18.5 1.85 10.19 18.858 * 13.859 * 31.529 * 31 31.25 1.247 10.16 14.6 1.43 9.79 18.5 1.85 10.19 18.407 * 17.529 * 31 31.25 2.47 7.9 34.95 1.85 41.25 3.51 8.51 11.18 16.54 27.59 12.576 * 13.571 * 26 30.15 5.75 7.17 84.8 4.56 5.08 5.64 5.73 11.56 8.452 * 12 80.15 5.77 84.9 5.73 12.76	8. Horizontal pushing kick the target in 10 seconds (times)	17.35	1.79	10.32	18.95	1.85	9.76	21.05	1.43	6.79	8.82	10.5	19.27	14.606 *		23.170 *
10.55 1.19 11.28 13.25 1.02 7.7 16 1.45 9.06 22.69 18.8 41.06 18.588 13.859 41 12.2 1.24 10.16 14.6 1.43 9.79 18.5 1.85 10 17.91 23.57 41.04 18.407 * 17.529 * 31 31.25 2.47 7.9 34.95 1.67 4.78 41.25 3.51 8.51 11.18 16.54 27.59 15.706 * 13.571 * 26 31.25 2.47 7.9 34.95 1.67 4.78 41.25 3.51 8.51 11.18 16.54 27.59 15.706 * 13.571 * 26 80.15 5.75 7.17 89.8 4.56 5.08 5.64 5.73 11.36 8.078 8.452 12 38.75 3.09 7.97 34.5 5.25 4.98 13.81 14.1 27.78 25.877 16.401 38 38.75 2.4 6.77 5.10 3.08	9. Straight punch the target in 10s (times)	47.35	3.08	6.5	48.7	3.21	6.59	50.5	3.66	7.25	2.81	3.63			8.680 *	9.658 *
12.2 1.24 10.16 14.6 1.43 9.79 18.5 1.85 10 17.91 23.57 41.04 18.407 17.529 * 31.25 2.47 7.9 34.95 1.67 4.78 41.25 3.51 8.51 11.18 16.54 27.59 15.706 * 13.571 * 31.25 2.47 7.9 34.95 1.67 4.78 41.25 3.51 8.51 11.18 16.54 27.59 15.706 * 13.571 * 80.15 5.75 7.17 84.8 4.34 5.12 89.8 4.56 5.08 5.64 5.73 11.36 8.078 8.452 * 38.75 3.09 7.97 44.5 3.25 7.3 5.126 5.56 4.98 14.1 27.78 25.877 * 16.401 * 35.45 2.4 6.77 31.6 37.51 6.02 8.519 14.52 16.401 * 16.401 * 16.401 * 16.401 *	10. Lifting 30kg bend and extend legs for 20s	10.55	1.19	11.28	13.25	1.02	7.7	16	1.45		22.69		41.06		13.859	41.346 *
31.25 2.47 7.9 34.95 1.67 4.78 41.25 3.51 8.51 11.18 16.54 27.59 15.706 * 13.571 * 80.15 5.75 7.17 84.8 4.34 5.12 89.8 4.56 5.08 5.64 5.73 11.36 8.078 * 8.452 * 38.75 3.09 7.97 44.5 3.25 7.3 51.25 2.55 4.98 13.81 14.1 27.78 25.877 * 16.401 * 35.45 2.4 6.77 37.55 2.73 13.81 14.1 27.78 25.877 * 16.401 *	11. Lifting 30kg barbell sit down and stand up for 20s	12.2	1.24	10.16	14.6	1.43	9.79	18.5	1.85	10	17.91	23.57	41.04			31.305 *
80.15 5.75 7.17 84.8 4.34 5.12 89.8 4.56 5.08 5.64 5.73 11.36 8.078 * 8.452 * 38.75 3.09 7.97 44.5 3.25 7.3 51.25 2.55 4.98 13.81 14.1 27.78 25.877 * 16.401 * 35.45 2.4 6.77 37.65 2.77 41 3.08 7.51 6.02 8.519 14.52 16.398 * 12.539 *	12. Lift a person with the same weight, sit down and stand up (times)	31.25	2.47		34.95	1.67	4.78	41.25	3.51		11.18	16.54	27.59	15.706 *	13.571 *	26.261 *
38.75 3.09 7.97 44.5 3.25 7.3 51.25 2.55 4.98 13.81 14.1 27.78 25.877 * 16.401 * 35.45 2.4 6.77 37.65 2.7 7.17 41 3.08 7.51 6.02 8.519 14.52 16.398 * 12.539 *	13. Spin kick the target in 1 minute (times)	80.15	5.75	7.17	84.8	4.34	5.12	89.8	4.56	5.08	5.64					12.242 *
35.45 2.4 6.77 37.65 2.7 7.17 41 3.08 7.51 6.02 8.519 14.52 16.398 * 12.539 *	14. Punch 2 targets 3 meters apart in 1 minute (times)	38.75	3.09	7.97	44.5	3.25	7.3	51.25	2.55		13.81		27.78			38.125 *
	15. Push up maximum times (times)		2.4	6.77	37.65	2.7	7.17	41	3.08	7.51		8.519	14.52			18.776 *

PROCEEDINGS INTERNATIONAL SCIENTIFIC CONFERENCE - 2019

Table 2. Classification of strength levels of D46 male students atPeople's Security Academy

Classify	Poor	r (%)	Weal	x (%)	Avera	nge (%)	Fair	(%)	Good	d (%)
Test	T ₂	T ₃								
1. Back pulling strength (kG)	5	0	25	25	60	55	10	20	0	0
2. Back pulling strength (kG)	5	0	40	30	45	45	10	25	0	0
3. Pull maximum weight barbell to the same level as shoulders (kg)	5	0	15	25	70	50	10	25	0	0
4. Hang on the crossbar, perpendicular arms and forearms (s)	5	0	30	25	55	55	10	20	0	0
5. Embrace the chest of the partner (weight), do horse stance (s)	5	0	35	25	50	50	10	25	0	0
6. Long jump on the spot (cm)	5	0	25	25	60	55	10	20	0	0
7. Spin kick the target in 10 seconds (times)	5	0	25	35	60	50	10	15	0	0
8. Horizontal pushing kick the target in 10 seconds (times)	5	0	30	25	55	55	10	20	0	0
9. Straight punch the target in 10s (times)	5	0	20	25	65	50	10	25	0	0
10. Lifting 30kg bend and extend legs for 20s	5	0	25	25	60	50	10	25	0	0
11. Lifting 30kg barbell sit down and stand up for 20s	5	0	30	30	55	50	10	20	0	0
12. Lift a person with the same weight, sit down and stand up (times)	5	0	25	25	60	50	10	25	0	0
13. Spin kick the target in 1 minute (times)	5	0	25	25	60	50	10	25	0	0
14. Punch 2 targets 3 meters apart in 1 minute (times)	5	0	25	25	60	50	10	25	0	0
15. Push up maximum times (times)	5	0	25	25	60	50	10	25	0	0

3. Le Buu, Nguyen The Truyen (1986), Testing of physical fitness and sport capacities, Sports Publishing House, Ho Chi Minh City.

4. Bui Trong Phuong (2017), "The reality of the speed strength of students at People's Security Academy in learning People's Public Security martial arts", *Sports and Training Science Journal*, No.6 / 2018, p.31-32.

(Received 9/7/2019, Reviewed 19/9/2019 Accepted 25/11/2019)