

Choose Exercises Developing Speed Power for Men Students Application Martial Arts Team at People's Security Academy

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Abstracts

Based on theory and practice, along with basic scientific research methods in the field of Sports, we have selected 24 exercises to develop speed-strength (Speed Strength) and 05 tests to evaluate strength and speed for male students of the Applied Martial Arts team at the People's Security Academy. On that basis, use the pedagogical experimental method to apply and evaluate the speed strength development exercises for the research object.

Keywords— Exercise, speed strength, Applied Martial Arts, People's Security Academy.

ARTICLE SOURCE

The article is extracted from the results of the experience initiative: "Research on exercises to develop speed-strength for male students of the Applied Martial Arts team at People's Security Academy". People's Security Academy, 2018.

I. INTRODUCTION

In the practice and competition of martial arts content for students in the People's Public Academy, the development of martial arts skills in the People's Public Academy is an urgent need to serve society in the new situation...

In practice and crime suppression, speed power in applied martial arts plays a particularly important role in attack and defense, locking and controlling objects. Although some teams and teams apply for and teach a part of the Applied Martial Arts program in the Security Academy in particular, as well as the Ministry of Public Security in general, training the strength and speed of male students of the Security Academy. The recruitment of People's Public Security Applied Martial Arts at the People's Security Academy has not received adequate attention and research. Therefore, it is very urgent to study speed power for male students of the People's Police Applied Martial Arts team at the People's Security Academy.

In the process of researching the topic, the following research methods were used: Analysis and synthesis of references; pedagogical observation; interview; pedagogical examination; pedagogical experiments, and mathematical statistics.

II. RESEARCH RESULTS AND DISCUSSION

2.1. Selection of exercises to develop speed power and test to assess speed strength for male students of the Applied Martial Arts team at People's Security Academy

2.1.1. Select exercises

Choose exercises to develop Speed Strength through the following steps:

- Selection through reference to documents, pedagogical observation
- Selected through direct interviews with experts, teachers, and coaches
- Selection through a large-scale interview by questionnaire

The results of selecting 24 exercises to develop Strength of Speed for research subjects include:

- Group of exercises to develop physical strength (08 exercises)
- Group of exercises to develop techniques (16 exercises)

2.1.2. Select the test

To evaluate the Strength and Speed of male students of the Applied Martial Arts team at the People's Security Academy, we used 05 tests to assess physical fitness, including:

1. Lie on your stomach and do push-ups for 15 seconds (times)
2. Clenching punches continuously for 15 seconds (times)
3. On the spot kick the ball continuously for 30 seconds (times)
4. Surf the ball into 2 consecutive goals with a distance of 3m 30s (times)
5. Move sideways to kick the shuttlecock for five 30s (times)

2.2. Application of exercises to develop strength and speed for male students of the Applied Martial Arts team at the People's Security Academy

2.2.1. Experimental organization

- Experimental method: Parallel comparison experiment

- Experimental time: The experiment was conducted for 3 months (from March to May 2017) including 12 weeks with 03 training sessions a week. The total number of training sessions is 36. The time to practice the selected Strength and Speed exercises in one session is 30 minutes in the end.

- Experimental subjects: Including 20 male students of the Applied Martial Arts team and divided into 2 groups by random drawing:

+ Group 1 (called experimental group): 10 students practice according to the 24 exercises we have selected.

+ Group 2 (referred to as control group): Including 10 students practicing according to the old exercises at school, according to the program and lesson plan that has been developed by the school's QS-VT-Sports subject.

- Experimental Location: People's Security Academy

The experimental procedure is shown in detail in Table 1.

Table 1. Experimental progress of the exercise to develop Strength and Speed of Applied Martial Arts content

Exercises	Lesson Plan																																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
Exercises 1	x	x		x				x			x			x			x		x			x			x	x			x	x								x		
Exercises 2	x		x						x				x			x			x							x			x											
Exercises 3						x				x					x			x					x				x				x				x			x		
Exercises 4					x			x			x				x				x					x				x					x			x			x	
Exercises 5			x				x					x			x				x					x				x					x				x			
Exercises 6	x	x		x		x			x			x				x					x				x													x		
Exercises 7			x		x			x				x				x									x				x										x	
Exercises 8						x			x					x													x												x	
Exercises 9	x			X			x			x					x											x													x	
Exercises 10		x				x																																	x	
Exercises 11		x			x						x																												x	
Exercises 12				x			x				x																													x

Exercises	Lesson Plan																																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
Exercises 13	x				x			x			x			x			x				x			x				x				x	x		x			x		
Exercises 14	x	x						x				x			x			x					x				x													
Exercises 15										x									x				x				x	x						x			x			
Exercises 16		x				x			x				x							x				x			x									x			x	
Exercises 17			x		x		x					x										X					X						x			x		x		
Exercises 18	x		x		x			x			x				x				x	x							x						x		x				x	
Exercises 19		x		x			x			x			x					x					x					x					x	x				x		
Exercises 20	x					x			x					x				x	x						x	x									x		x		x	
Exercises 21				x			x				x						x										x										x		x	
Exercises 22					x					x							x																						x	
Exercises 23				x					x									x																					x	
Exercises 24			x			x				x																														x

Notes:

- Exercise 1: Lie on your stomach with 30s push-ups (3 times x 2 groups, 1-minute rest between groups, active rest)
- Exercise 2: 30s variable speed jump rope (3 times x 2 groups, 1-minute rest between groups, active rest)
- Exercise 3: Jumping toads and reaching forward 20 meters (3 times x 2 nests, resting for 1 minute in the middle, resting actively)
- Exercise 4: Run high knee 30s (3 times x 2 groups, rest for 1 minute, rest actively)
- Exercise 5: Run 30m at 30s speed (3 times x 2 groups, rest 1 minute in between groups, rest actively)
- Exercise 6: Run 60m at a speed of 30s (2 times x 2 groups, rest 1 minute in between groups, rest actively)
- Exercise 7: Lifting weights and switching legs continuously for 30 seconds (3 times x 2 groups, 1-minute rest between groups, active rest)
- Exercise 8: Turn on the podium and change legs for 30 seconds (3 times x 2 groups, 1-minute rest between groups, active rest)
- Exercise 9: On the spot, perform a horizontal punch first and kick a footbridge after 15s (2 times x 2 groups, rest for 1 minute, rest actively)
- Exercise 10: On the spot, perform straight back punches and 15s front kicks (2 times x 2 groups, 1-minute rest between groups, active rest)
- Exercise 11: On the spot, perform horizontal pedaling with the front leg and a straight punch after 30 seconds (3 times x 2 groups, 1-minute rest between groups, active rest)
- Exercise 12: Move to attack 2 straight punches and perform 1 knock-down technique (3 times x 2 groups, 1-minute rest between groups, active rest)
- Exercise 13: Move counterattack with 2 arms and 1 leg attack (2 times x 2 groups, 1-minute rest between groups, active rest)
- Exercise 14: Move to counterattack with 1 leg and 2 arms move for 15 seconds (2 times x 2 groups, 1-minute rest between groups, active rest)
- Exercise 15: Move to perform a combination of 2 15s freestyle techniques (2 times x 2 groups, 1-minute rest between groups, active rest)
- Exercise 16: With two hands holding small weights, perform straight punches left and right for 15s (2 times x 2 groups, rest 1 minute in the middle, rest actively)

- Exercise 17: With both hands holding the elastic band, perform a straight punch left and right for 15s (2 times x 2 groups, rest 1 minute in the middle, rest actively)
- Exercise 18: Legs tied with rubber bands perform left and right round kicks for 30 seconds (2 times x 2 groups, 1-minute rest between groups, active rest)
- Exercise 19: Legs tied with rubber bands perform horizontal pedaling left and right for 15s (3 times x 2 groups, 1-minute rest between groups, active rest).
- Exercise 20: Move to perform a combination of 3 15s freestyle techniques (3 times x 2 groups, 1-minute rest between groups, active rest)
- Exercise 21: Move to the semi-finals with the goal of 15s (3 times x 2 teams, 1-minute rest between groups, active rest)
- Exercise 22: Move to perform a combination of legs and arms to attack and counterattack in 15 seconds (3 times x 2 groups, 1-minute rest between groups, active rest)
- Exercise 23: Semi-match in pairs for 30 seconds (2 times x 2 teams, 1-minute rest between groups, active rest)
- Exercise 24: Coordinate attacks and counterattacks continuously changing people for 30 seconds (2 times x 2 groups, 1-minute rest between groups, active rest)

2.2.2. Results of the exercises to develop Strength and Speed of male students of the Applied Martial Arts team at the People's Security Academy

Before the experiment, we used 05 tests selected in part 1 to test and compare the difference in speed strength level of the experimental group and the control group. The results show that: Before the experiment, the speed level of the experimental group and the control group did not have a statistically significant difference ($t_{\text{Calculate}} < t_{\text{Board}}, P > 0.05$). In other words, before the experiment, the speed power levels of the experimental and control groups were similar, that is, the grouping was completely objective.

After 1 semester of the experiment, we continue to use 05 selected tests to test the speed strength of the experimental and control groups and compare the difference in test results. The results showed that: After 03 months of the experiment, the test results of the two experimental and control groups had a significant difference as shown in $t_{\text{Calculate}} > t_{\text{Board}}$ at the probability threshold $P < 0.05$. This shows that the exercises we initially selected have a better effect on developing strength and speed for male students of the People's Public Security Applied Martial Arts team at the

People's Security Academy than the exercises. commonly used practice at the People's Security Academy.

Table 3. Results of Strength and Speed test of control and pre-experiment groups

TT	Test	Group 1 (n=4)		Group 2 (n=4)		t	p
		\bar{x}	$\pm\sigma$	\bar{x}	$\pm\sigma$		
1	Lie on your stomach, do push-ups for 15 seconds (times)	28.0	1.22	27.5	1.15	1.77	>0.05
2	Punch continuously for 15 seconds (times)	49.75	2.96	50.75	2.96	1.48	>0.05
3	On the spot, kick the ball continuously for 5 minutes (times) 20	27.63	1.13	27.06	1.27	1.06	>0.05
4	Surfing and kicking the bridge with 2 consecutive goals at a distance of 3m 30s (times)	18.64	1.05	18.06	0.92	1.10	>0.05
5	Move sideways to kick the shuttlecock for five 30s (times)	15.66	1.21	15.92	1.17	1.16	>0.05

Table 4. Strength and Speed test results of control and post-experiment groups

TT	Test	Group 1 (n=4)		Group 2 (n=4)		t	p
		\bar{x}	$\pm\sigma$	\bar{x}	$\pm\sigma$		
1	Lie on your stomach, do push-ups for 15 seconds (times)	28.8	1.34	31.2	1.26	2.53	<0.05
2	Punch continuously for 15 seconds (times)	50.52	3.03	53.31	2.84	2.60	<0.05
3	On the spot, kick the shuttlecock continuously for five minutes the 30s (times) 20	28.36	1.28	30.25	1.35	3.00	<0.05
4	Surfing and kicking the bridge with 2 consecutive goals at a distance of 3m 30s (times)	19.06	1.23	21.12	1.34	2.53	<0.05
5	Move sideways to kick the shuttlecock for five 30s (times)	16.45	1.29	18.35	1.39	2.48	<0.05

III. CONCLUSION

Through research, 24 exercises have been selected and proven to be effective in developing speed strength for male students of the Applied Martial Arts team at the People's Security Academy. clearly shown in the test results after 3 months of the experiment of the experimental group. Specifically, the exercises include:

- *Group of exercises to develop physical strength (08 exercises)*

- *Group of exercises to develop techniques (16 exercises)*

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