

# APPLICATION AND EVALUATION OF PRACTICAL TEACHING METHODS GROUP FOR STUDENTS SPECIALIZED IN TABLE TENNIS IN PHYSICAL EDUCATION DEPARTMENT AT BAC NINH SPORTS UNIVERSITY

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## Abstract:

By regular scientific research methods, we apply and evaluate a group of practical teaching methods for students specialized in table tennis, Physical Education (PE), including methods: presentation method (explanation); visual presentation, division; intact; stable training; transformational training; self-learning; game; competition; method of using technology support (Simi-Motion 3D software). Divided into 3 teaching groups: Initial teaching; specialize teaching and consolidating - completing, the initial application of the teaching methods has brought good learning results for students in physical education department.

**Keywords:** Application, evaluation, teaching methods group, students, specialized, table tennis, Physical Education, Bac Ninh Sports University.

## INTRODUCTION

Through many years of practical research in the Table Tennis subject, it shows that there has not been an agreement of practical teaching methods for students specialized in table tennis, Physical Education department. The table tennis practical teaching methods of the teachers now are mainly based on self-experiences accumulated over years of working. On the other hand, the use of practical teaching methods during the process of teaching still lacks a scientific basis, not verified and the strength of each practical teaching methods has not been assessed, as well as there has not been a regular combination between traditional and modern practical teaching methods. Therefore, the quality of teaching practical table tennis is still limited, does not stimulate self-awareness, positiveness and passion in practice of students. That means correctly and flexibly apply table tennis practical teaching methods for specialized students, Physical Education department is one of the factors that has a significant role and means to effectively teaching table tennis in articular and the quality of training at Bac Ninh Sports University in general.

## RESEARCH METHODS

The research process used the following methods: pedagogical observation method; pedagogical examination method; Pedagogical experiment method and statistical mathematics method.

## RESULTS AND DISCUSSION

**1. Organizing experiment of practical teaching methods group for students specialized in table tennis, Physical Education department of Bac Ninh Sports University**

*Contents and pedagogical experiment organizing plan.*

To apply teaching methods effectively, we base on the program of table tennis, table tennis curriculum, table tennis questions and answers bank, teaching schedule of specialized classes K49, K50 and K51 in school year 2016-2017. Experimental contents include 30 practical exercises for the experimental group, which we have compiled.

Using the group of practical teaching methods helps us apply reasonable, scientific methods for each lecture, divided into the stages as follows:

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*Preparation stage:* Divided into 2 steps.

Step 1: Develop a plan to apply the experimental group of practical teaching methods for students specialized in table tennis, Physical education department, Bac Ninh Sports University.

Step 2: Compile experimental lesson plans according to the schedule of specialized classes K49, K50 and K51. Coordinate with the faculty teachers to agree on the tasks, contents, experiments organization and how to assess the learning outcomes of students .

*Experimental phase:* Divided into 2 steps.

Step 1: Adjust the experimental lesson plan to suit the experimental plan, the teaching process of the school and exchange information with the instructors for subjects in the control group.

Step 2: Organize mid-term test for both experimental group and control group

*After experiment phase:*

Coordinate with subject teachers to conduct tests and assess the results of practical learning for both the control group and the experimental group.

Building an application plan of table tennis practical teaching methods for specialized students, physical education department at Bac Ninh Sports University.

Based on the experimental content, we proceeded to develop a plan to apply practical teaching methods group for specialized students, physical education department through the interview results presented in Table 1.

**2. After experiment results**

The results of practical tests of K51, school

**Table 1. Interview results of the reasonable level of the application of practical teaching methods group for students specialized in table tennis physical education department at Bac Ninh Sports University (n = 47)**

Content of the lecture	Plan for applying the table tennis teaching methods group	Interview result					Total	Average
		5	4	3	2	1		
1. Fast forehand flick	Presentation method, visual presentation method, division method, technology use method	50	48	48	18	0	164	3.48
2. Fast backhand flick	Presentation method, visual presentation method, intact method and technology use method	50	36	57	18	0	161	3.42
3. Forehand push	Presentation method, visual presentation method, division method, technology use method	55	44	52	16	0	167	3.55
4. Backhand push	Presentation method, visual presentation method, intact method and technology use method, self-study method	60	32	60	14	0	166	3.53
5. Combine move and fast forehand, backhand flick	Presentation method, visual presentation method, intact method, method of practicing continuously, repeatedly and stably, self-study method	45	48	48	20	0	161	3.42
6. Combine move and forehand, back hand push	Presentation method, visual presentation method, intact method, method of practicing continuously, repeatedly and stably, self-study method	55	36	48	22	0	161	3.42
7. Serve and receive ball	Presentation method, visual presentation method, division method, technology use method, self-study method	50	48	51	16	0	165	3.51
8. General fitness	Presentation method, visual presentation method, method of practicing continuously, repeatedly and stably, self-study method	55	36	51	20	0	165	3.51
9. Forehand smash	Presentation method, visual presentation method, intact method, technology use method, self-study method	70	40	45	16	0	171	3.63
10. Forehand drive	Presentation method, visual presentation method, division method, technology use method	60	52	45	14	0	171	3.63
11. Forehand and backhand chop	Presentation method, visual presentation method, division method, technology use method, self-study method	50	44	51	16	0	161	3.42
12. Backhand drive	Presentation method, visual presentation method, intact method, technology use method, self-study method	75	40	39	18	0	172	3.65
13. Forehand and backhand drive	Presentation method, visual teaching method, stable practice method (continuous + discontinuous), self-study method	60	40	52	22	0	174	3.70

14. Move and do forehand drive	Presentation method, visual teaching method, stable practice method (continuous + discontinuous), self-study method.	80	44	39	14	0	177	3.76
15. Fast backhand flick combine with attack	Presentation method, visual presentation method, transformation practice method (continuous + discontinuous), self-study method.	55	40	60	12	0	167	3.55
16. Combine move and forehand, backhand drive	Presentation method, visual teaching method, stable practice method (continuous + discontinuous), self-study method.	55	36	48	22	0	161	3.42
17. Combine fast forehand flick, step around, forehand drive into empty corner	Presentation method, visual presentation method, transformation practice method (continuous + discontinuous), self-study method.	45	64	45	14	0	168	3.57
18. Perfecting defensive techniques	Presentation method, visual presentation method, stable practice method (continuous + discontinuous), self-study method.	50	52	51	14	0	167	3.55
19. Push combine with attack	Presentation method, visual presentation method, transformation practice method (continuous + discontinuous), self-study method.	40	56	48	18	0	162	3.44
20. Serve combine with attack	Presentation method, visual presentation method, transformation practice method (continuous + discontinuous), self-study method.	35	64	42	20	0	161	3.42
21. Strong techniques and tactics	Presentation method, visual presentation method, stable practice method (continuous + discontinuous), self-study method.	60	36	54	16	0	166	3.53
22. Combine fast backhand flick, step around, forehand drive	Presentation method, visual presentation method, stable practice method (continuous + discontinuous), self-study method.	45	44	54	18	0	161	3.42
23. Combine move, forehand and backhand chop	Presentation method, visual presentation method, stable practice method (continuous + discontinuous), self-study method.	30	72	45	16	0	163	3.46
24. Forehand and backhand push, combine with attack	Presentation method, transformation practice method (continuous + discontinuous), Game method, Competition method, Technology support method, self-study method	70	68	39	6	0	180	3.82
25. Fast forehand flick into the square	Presentation method, visual presentation method, stable practice method (continuous + discontinuous), self-study method.	40	48	58	16	0	162	3.44
26. Fast backhand flick into the square	Presentation method, visual presentation method, stable practice method (continuous + discontinuous), self-study method.	50	44	54	14	0	162	3.44
27. Forehand drive combine with smash	Presentation method, transformation practice method (continuous + discontinuous), Game method, Competition method, Technology support method, Self-study method	90	68	27	6	0	191	4.06
28. Combine forehand and backhand flick into the square	Presentation method, stable practice method (continuous + discontinuous), technology support method, self-study method	55	40	48	20	0	163	3.46
29. Forehand, backhand chop combine with attack	Presentation method, transformation practice method (continuous + discontinuous), Game method, Competition method, Technology support method, Self-study method	45	64	36	20	0	165	3.51
30. Professional fitness	Presentation method, transformation practice method (continuous + discontinuous), technology support method, self-study method	75	44	39	16	0	174	3.70

year 2016-2017 are organized according to the Semester 1 and Semester 2, the results are criteria for evaluating academic results in presented in Table 2.

**Table 2. Comparison of exam results for the K51 course of the experimental group and control group**

Semester	Object	Results of classification						$\chi^2$ calculated	$\chi^2$ control	P
		Excellent	Ratio %	Good-Fair	Ratio %	Average	Ratio %			
Semester 1	CG $m_i = 7$	0 (1.5)	0	2 (3)	28.57	5 (2.5)	71.42	8.66	7,824	<0.02
	EG $m_i = 7$	3 (1.5)	42.85	4 (3)	57.14	0 (2.5)	0			
Semester 2	CG $m_i = 7$	0 (2)	0	3 (3)	42.85	4 (2)	57.14	8.0		
	EG $m_i = 7$	4 (2)	57.14	3 (3)	42.85	0 (2)	0			

Table 2 shows that: The results of practical learning of the control group and experimental group in school year 2016-2017 are different, through statistical mathematics method: Semester 1:  $\chi^2_{calculated} = 8.66 > \chi^2_{control} = 7,824$ . at the threshold  $P < 0.02$ . Semester 2:  $\chi^2_{calculated} =$

$8.0 > \chi^2_{control} = 7,824$ . at the threshold  $P < 0.02$ . The results of practical exams of specialized K50 in the academic year 2016-2017 are assessed according to the academic results standards in Semester 5 and 6 for K50 students, the results are presented in Table 3.

**Table 3. Comparing the results of K50 practice tests of the experimental group and control group**

Semester	Object	Results of classification						$\chi^2$ calculated	$\chi^2$ control	P
		Excellent	Ratio %	Good - fair	Ratio %	Average	Ratio %			
Semester 5	CG $m_i = 7$	1(1.87)	14.28	5(4.67)	71.42	1(0.47)	14.28	2.39	5.991	> 0.05
	EG $m_i = 8$	3(2.13)	37.5	5(5.33)	62.5	0(0.53)	0			
Semester 6	CG $m_i = 7$	1(3.27)	14.28	6(3.73)	85.71	0	0	5.53	3.841	<0.05
	EG $m_i = 8$	6(3.73)	75.00	2(4.27)	25.00	0	0			

The results in table 3, showing: Semester 5: The study results of the control group and experimental group have no difference, using statistical mathematics method it shows that,  $\chi^2_{calculated} = 2.39 < \chi^2_{control} = 5,991$ , at threshold  $P > 0.05$ . Semester 6: The study results of the control group and experimental group have a significant difference, using statistical mathematics method, it shows that  $\chi^2_{calculated} = 5.53 > \chi^2_{control} = 3,841$ . at the threshold  $P < 0.05$ . The results of practical tests of K49

specialized students in the 2016-2017 school year will be held according to semester 7 result assessment standards for K49 students, the results are shown in Table 4 .

Table 4 shows that: The study results of semester 7 of the 2016-2017 school year of the experimental group are much higher than the control group, which are processed by statistical mathematics method: Semester 1:  $\chi^2_{calculated} = 6,031 > \chi^2_{control} = 5,991$ ,  $P < 0.05$ .

**Table 4. Comparison of test results of the experimental group and control group of specialized students in K49 Physical education department**

Semester	Object	Results of classification						$\chi^2$ calculated	$\chi^2$ control	P
		Excellent	Ratio %	Good - fair	Ratio %	Average	Ratio %			
Semester 7	CG $m_i = 8$	1(3.29)	12.5	5(3.76)	62.5	2(0.94)	25	6.031	5.991	<0.05
	EG $m_i = 9$	6(3.71)	66.67	3(4.24)	33.33	0(1.06)	0			

**Table 5. Comparison of level 2 exam results of the experimental group and control group K49**

No.	Tests	Test results ( $\bar{x} \pm \delta$ )		$t_{calculated}$	$t_{control}$	P
		CG	EG			
1	Fast forehand flick into the right diagonal square (count number of good ones)	30.62 ± 1.86	39.25 ± 2.81	6.051	2.977	<0.01
2	Fast backhand flick into the left diagonal square (count number of good ones)	30.87 ± 3.08	39.5 ± 2.07	8.699		<0.01
3	Forehand drive from 1 point to 1 point (count the good ones)	22.12 ± 1.72	26.12 ± 1.45	5.025		<0.01
4	Move horizontally and pick up balls 42 balls x 4.5m (s)	133.87 ± 1.82	131.62 ± 1.68	3.393		<0.01

Table 5: Semester 2: The examination results at level 2,  $t_{calculated} > t_{control}$  with  $P < 0.01$ . Thus, professional qualifications of the experimental group and control group are different, the professional qualifications of the experimental group is better than those of the control group.

**CONCLUSION**

The practical teaching methods group selected through the pedagogical experiment process has brought positive results, proving that teaching by the practical teaching methods group has a better result than the teaching methods in the previous Table Tennis department, with difference of ( $P < 0.05$ ). The effectiveness of the practical teaching methods group has been highly appreciated by the teaching committee of Bac Ninh Sports University and has been positively reflected in students' feedback.

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