

Experimental Study on Tennis Play-and-Stay Teaching Method in University Sports Course

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ABSTRACT

Tennis Play-and-Stay is a new tennis teaching method explored by the International Tennis Federation based on the research of tennis teaching experience, which overcomes the passive state in the process of tennis teaching through fun and practicality. Comparing Tennis Play-and-Stay and traditional tennis teaching methods and the analysis of experiments and questionnaires on the teaching status of college tennis classes, the application of Tennis Play-and-Stay in college tennis teaching is discussed. It is pointed out that Tennis Play-and-Stay can improve teaching methods, enrich teaching means and improve the learning atmosphere, which can effectively improve the teaching quality of college tennis general classes and promote the healthy development of tennis in China.

Keywords: Tennis Play-and-Stay; colleges and universities; physical education; experiments; countermeasures

Introduction

Tennis Play-and-Stay is a new concept of tennis teaching to achieve fun and practicality by enjoying sports and life to overcome the passive state of learners in the learning process. Tennis Play-and-Stay can solve the problem of inadequate space in the process of tennis teaching in colleges and universities and help teachers teach according to students' abilities. It is mainly used to help learners learn to control the ball by using three kinds of low-pressure balls: red, green and yellow, in order to stimulate learners' interest, and its application to small-court tennis teaching can help learners control the force of tennis strokes and achieve the goal of ball control in tennis teaching (Yuan, 2021).

Tennis Play-and-Stay originated in England and is among the four noble sports. Since Li Na won the championship

in the French Open in 2011, tennis has attracted much attention in China, and more tennis tournaments have been set up in China so that Chinese people have the opportunity to know tennis and get in touch with tennis at a close distance. After that, the universities also started to focus on improving tennis teaching methods, and the corresponding teaching reform was carried out to improve students' tennis skills and tactics (Zhu, 2020).

Tennis Play-and-Stay is a new method of tennis teaching proposed by the International Tennis Federation in 2007, a summary of the previous 20 years of tennis teaching experience. It is a simple and easy-to-understand method to teach tennis with red, green and yellow balls, improving the students' motivation and making them integrate into the tennis learning process quickly. As the Chinese people pay more attention to tennis, the Tennis Play-and-Stay teaching method has been introduced

to Chinese universities, which is applicable to all tennis lovers and learners without considering the learners' age so they can experience the rich fun of tennis (Chen & Wu, 2019).

The combination of Tennis Play-and-Stay and modern teaching concepts has improved the problem of inadequate tennis teaching venues and equipment while increasing students' interest in learning tennis. Students can choose the most suitable equipment in the process of tennis learning, which helps them to improve their self-confidence and makes them more willing to devote their time and energy to tennis learning, which improves the timeliness of tennis teaching (Li, & Liu, 2019).

Purpose of the Study

In this paper, we applied the Tennis Play-and-Stay teaching method to the optional tennis course of Xinxiang Medical College; divided the experimental group into experimental and control groups; compared the "Play-and-Stay" and "traditional" tennis teaching methods with each other, and analysed their test results to explore the practicality of the method. The teaching organization was enriched so that the beginners could master the basic skills of tennis quickly in a short time. After the experimental analysis, the teaching effect is significant, and the overall quality of the class is improved for the teacher in the tennis elective course.

Comparison Between Tennis Play-and-Stay and Traditional Tennis Teaching Methods

The difference in teaching philosophy: Tennis Play-and-Stay is mainly to guide students to enjoy tennis from the heart; to help students master tennis skills and tactics quickly and enjoy the game of tennis (Du, 2022). Tennis Play-and-Stay discards the traditional teaching of tennis in stages with the purpose of technical movements. It takes the student's ball sense as the standard of learning so the new tennis learner can quickly enjoy and master tennis skills, participate in the game and adjust their movements according to their own characteristics.

The difference in teaching role: Traditional tennis teaching is fill-in-the-blank teaching, where students passively observe and learn in the learning process, but Tennis Play-and-Stay is different from this. It emphasises the main position of students in the learning process and the leading role of teachers. The process of teaching tennis is an interactive process between teachers and students.

It can stimulate students' initiative and enthusiasm in learning tennis; students think more about how to play tennis well in the learning process, which is conducive to the sound development of tennis (Wu, 2022).

The difference in teaching equipment: The traditional tennis teaching is mostly is that the university provides the venue, and the students buy the racket, ball and other related equipment. The teaching equipment of Tennis Play-and-Stay is diversified and rich. There are different sizes of tennis balls, markers, marker lines and other auxiliary equipment, which are conducive to stimulating students' interests and promoting the efficient achievement of teaching objectives.

Research Subjects

Fifty-six students in the general tennis class of 2018 at Xinxiang Medical College were used as the study subjects.

Research Methods

Method of questionnaires: 56 questionnaires were distributed in the general tennis class of 2018, of which 56 questionnaires were returned, including 54 valid questionnaires with an efficiency rate of 96.5%.

Method of teaching experiment: Among 56 tennis students in the general education class, the traditional tennis teaching method and the Tennis Play-and-Stay teaching method were used, respectively, and statistics were conducted according to the effect of students' mastering and using tennis skills and tactics under the guidance of the two different teaching methods.

Method of mathematical statistics: SPSS13.0 statistical software was used to obtain data and statistics before and after the experiment.

Experimental Design and Implementation

Experimental Procedures

Firstly, 56 tennis students were tested and processed for physical index and technical level before the experiment.

Secondly, 28 students learned by the traditional approach of teacher's demonstration, where the teacher organised students' practice, corrected their mistakes and summarised the problems. Twenty-eight students

learned by the Tennis Play-and-Stay approach, where the teacher introduced main tennis techniques and students played creatively for entertainment. The teacher and students analysed the technical essentials together, and the students played after the teacher summarised the problems. Also, the teacher and students summarised the Tennis Play-and-Stay teaching method.

Thirdly, the experimental component: forehand and backhand stroke techniques.

Finally, 56 tennis students were tested and processed for physical index and tennis technical level.

Test Index

Firstly, the physical fitness test included the standing long jump, the 50-meter running and the 1-minute rope skipping.

Secondly, the tennis technique test included forehand and backhand stroke technique.

Finally, 56 students’ basic tennis skills were tested and processed.

Experimental Measurement Method

The experiment was conducted without the knowledge of 56 students to avoid psychological implication of students that would influence the experimental results. At the end of the semester, 56 students in two groups

were tested without their knowledge during the final exam, and the test was completed within three days after the experiment to avoid changes in students’ physical quality that could affect the results.

Analysis of Experimental Results

Comparison and analysis of the physical test between the two groups of students before and after the experiment

The physical test results of the two groups before and after the experiment are shown in Table 1. Before the experiment, the difference between the physical tests of 56 students in the two groups was not obvious; however, after one semester of tennis study, the physical quality of both groups was strengthened. It can be seen that tennis learning can improve students’ physical fitness greatly. The comparison and analysis of the physical test of the two groups of students after the experiment is shown in Table 2. After the experiment, we can find that the use of Tennis Play-and-Stay teaching method can cultivate students’ interest, promote their active participation in tennis learning, and improve their physical fitness significantly while they actively learn tennis skills and tactics.

The Effect of Tennis Play-and-Stay on the Technical Level of College Tennis Students

The tennis technical level test of the two groups of students before the experiment is shown in Table 3. The tennis technique test was conducted for the two

Table 1. Comparison of physical test index results between the two groups of students before and after the experiment

Test Items	Experimental Group		Traditional Group	
	Before the experiment	After the experiment	Before the experiment	After the experiment
Standing long jump (m)	2.01+1.0	2.5+1.1	2.1+1.1	2.4+1.05
50-meter running (s)	9.40+1.1	8.3+0.96	9.38+1.2	8.37+1.05
1-minute rope skipping	106+12	121+12	107+13	120+12
P value	< 0.05		< 0.05	

Table 2. Comparison of physical test index results between the two groups of students after the experiment

Test Items	Experimental Group	Traditional Group	P Value
Standing long jump (m)	2.5+1.1	2.4+1.05	< 0 . 05
50-meter running(s)	8.3+0.96	8.37+1.05	< 0 . 05
1-minute rope skipping	121+12	120+12	< 0 . 05

Table 3. Tennis technical level test of the two groups of students before the experiment

Gender	Group	Number of participants	X	S	P Value
Male students	Experimental group	18	70.24	2.48	> 0.05
	Traditional group	16	71.7		> 0.05
Female students	Experimental group	12	66.7	1.46	> 0.05
	Traditional group	10	65.6		> 0.05

Table 4 Tennis technical level test of the two groups of students after the experiment

Gender	Group	Number of participants	X	S	P Value
Male students	Experimental group	18	82.24	7.84	> 0.01
	Traditional group	16	76.8		> 0.01
Female students	Experimental group	12	79.6	6.25	> 0.01
	Traditional group	10	71.2		> 0.01

groups of students before the experiment, and the main techniques included forehand and backhand strokes. According to the data in the table, the difference between the two groups of students' tennis skills before the experiment was small.

Table 4 shows the tennis technical level test of the two groups of students after the experiment. The tennis technique level test was conducted for both groups of students before the experiment, and the main techniques included forehand and backhand strokes. According to the data in the table, the tennis skills of the 28 students who learned tennis with the Tennis Play-and-Stay teaching method were significantly higher than those of the 28 students who learned tennis with the traditional teaching method.

Conclusion

Fifty-six tennis students in the general tennis class selected for the experiment were all beginners in tennis. They were interested in tennis when they chose this program. After one semester of study, we could show through the questionnaire that the interest of the students in the experimental group increased by 95.7% on average for the Tennis Play-and-Stay method and 78.6% for the students in the traditional method. It could be seen that the Tennis Play-and-Stay teaching method made students more interested in learning tennis. The students who learned tennis using the Tennis Play-and-Stay method and the traditional method improved in the 60s rope skipping, standing long jump and 50-meter running. It was clear that after one semester of tennis instruction, students' physical fitness

improved regardless of the method used. However, the students who used the Tennis Play-and-Stay teaching method improved their physical fitness significantly, and their tennis skills were higher than those who used the traditional teaching method.

The Tennis Play-and-Stay teaching method is more conducive to stimulating students' interest in tennis learning, making students think during tennis practice and making tennis practice less boring. Tennis is one of the most popular sports activities for students. The quality of tennis teaching is common after the introduction of general tennis classes in colleges and universities, but the interest of students in tennis learning is increased through the Tennis Play-and-Stay teaching method. The students could also form a good atmosphere of friendly communication with teachers in the learning process, and the encouragement of teachers strengthens students' self-confidence.

Suggestions

Although site conditions do not restrict Tennis Play-and-Stay, it is necessary to improve college tennis courts, balls and equipment according to the teaching concept of Tennis Play-and-Stay to improve the application of Tennis Play-and-Stay in college tennis teaching. First, buy the low-pressure ball used in the Tennis Play-and-Stay teaching method. Reduce the difficulty of hitting the ball based on reducing the bouncing speed of the ball so that students can focus on the surface of the striking ball flexibly and freely when practising to stimulate students' interest in learning tennis. Second, upgrade the tennis court. The original tennis court is divided into four small

tennis training courts, and the student's participation and training time are improved based on the full use of the resources of the court.

The main target of the Tennis Play-and-Stay teaching method is beginners. It allows beginners to master the basic tennis skills quickly, but there are limitations in improving tennis skills. It is hoped that teachers interested in this approach will investigate it further.

The Tennis Play-and-Stay teaching method emphasises the student as the main body in the teaching process and improves the students' motivation and initiative. In the teaching of the optional tennis courses in colleges and universities, it is reasonable to cite the advantages of Tennis Play-and-Stay, make more use of the cooperation and competition mechanism in the teaching of Tennis Play-and-Stay, and use games to improve the tactical level of students to increase the interest of beginners in tennis effectively. The form of game competition for teaching Tennis Play-and-Stay can keep students in an excited state, improve the coordination of students' hands and feet during tennis matches based on mobilizing their thinking, make them judge whether the application of tactics and skills are reasonable and correct the problems that arise in time to improve the competitive level of tennis.

Competitive Interest Statement

I declare that there are no competing interests.

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Yu Ke was born in 1983 in Jiangxi, China. He studied at Jiangxi Normal University from 2003 to 2007 and received his bachelor's degree in 2007. He continued for his master's degree in 2018 at Guangxi Normal College from 2016 to 2018.



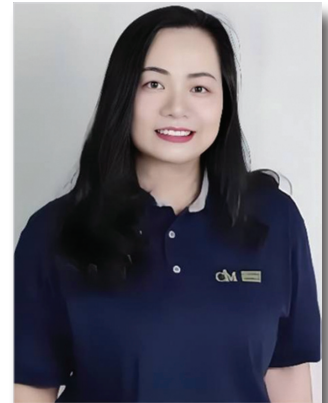
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