

# *An Empirical Study of “Tgfu” Teaching Method in Ball Sports Teaching in Vocational Colleges At Undergraduate Level under the Control of Discipline Core Literacy*

**Xiao Menglong, Zhao Qianjie**

*Guangdong Polytechnic University of Industry and Commerce, Zhaoqing, Guangdong 526060, China*

**Keywords:** “tgfu” teaching method, Ball sports teaching, Control of discipline core literacy

**Abstract:** Vocational education at the undergraduate level is an indispensable part of higher education. Vocational education at the undergraduate level focuses on “learning by doing” and “learning by doing”, which requires high subjective enthusiasm of the subject of education. TGFU teaching method, also known as comprehending ball teaching method, is a different way of teaching motor skills from the traditional. The results show that “TGFU” teaching method can well cultivate students' skills, competition performance, theoretical knowledge, learning attitude and other abilities, and can well develop students' subject core literacy except healthy behavior, which is a teaching mode to effectively implement the subject core literacy

## **1. Introduction**

### **1.1 The Relationship between Tgfu Teaching Method and Discipline Core Literacy**

“Physical Education and Health Curriculum Standards for Ordinary Senior High Schools (2017 Edition)” proposed the three-dimensional discipline core literacy of athletic ability, healthy behavior and sports morality. Many scholars generally think that understanding by collating the literature development type ball teaching is the main game tactics for the development of the main shaft, through games to thinking and realize their lack of action skills and construction need to use the tactics of strategic, begins with a formal game or the game, let each student to participate in the game through the actual game, Have a general understanding of the format or rules of the game, and then lead the students to think about how to successfully complete a game competition in the middle of their participation.<sup>[1]</sup>

### **1.2 Tgfu Teaching Process and Discipline Core Literacy**

In order to enable teachers to operate “TGFU” teaching method in a more systematic way, Bunker and Thrope (1986) further divided the model into six implementation processes, namely, game/competition, competition recognition, understanding tactics, making appropriate decisions, skill implementation, and competition performance. Later, Zhong Jingjing et al. adapted the process

and formed an understanding ball teaching process framework. On the whole, “TGFU” teaching method can achieve the goals of core literacy of all disciplines except for some indicators in “health behavior”: sports cognition and application of techniques and tactics, sports display and competition, awareness and habit of physical exercise, emotional regulation, environmental adaptation, sportsmanship, sportsmanship and sportsmanship.<sup>[2]</sup>

1.3 Behavior Analysis of Teachers and Students in “TGFU” Teaching Method According to the distribution of control power between teachers and students in different links such as content selection, management control, task explanation, participation mode, teaching interaction, training pace and project progress, it can be seen that “TGFU” teaching method has begun to transform from teacher-centered to student-centered. It also indicates that teachers and students have different responsibilities in different teaching links.

## **2. Characteristics Analysis of “TgfU” Teaching Method**

1) Based on the Theory of Constructivism. Highlights the centered on students' development the teaching idea of “TGFU” teaching method is based on “constructivism” teaching not only make students understand the learning is not a single ball game skills, and make students understand the ball games from the interesting teaching all operating skills and their implications.

2) The Top-Down Learning Mode is Conducive to the Cultivation of Students' Core Literacy. It changes the traditional bottom-up teaching method, which is more conducive to the cultivation of students' knowledge of sports, their mastery of the application of techniques and tactics, and their understanding of the rules and other disciplines' core literacy.

3) Games and Competitions Run through Learning to Create Situational Learning of Complex Thinking. Learners learn concepts such as attack and defense in sports situations, so as to understand the characteristics and rules of sports and the application of tactics.

## **3. Analysis and Discussion of Experimental Results**

### **3.1 Comparative Analysis of Each Skill Index of the Subjects Before the Experiment**

Before the experiment, the students of tennis major of class 2020 of Sports major in Guangdong Vocational And Technical University of Industry and Commerce were investigated. In order to better understand the students' understanding of tennis, the differences of their tennis skill level, competition performance, theoretical knowledge and learning attitude are tested.

### **3.2 Differences in Tennis Skill Levels between the Experimental Class and the Control Class Before the Experiment**

There was no significant difference between the experimental group and the control group in terms of tennis skill level, in terms of score, indicating that students only had a preliminary understanding of tennis before the experiment and could imitate various technical movements to achieve the goal of score. There was no significant difference between the experimental group and the control group in the initial tennis motor skill level, which to some extent verified the effectiveness of the comparison between the two.

### **3.3 Differences in Short Tennis Match Performance between the Experimental Class and the Control Class Before the Experiment**

Of the experimental group and control group before the experiment short form by playing tennis

situation investigation, according to the fixed evaluation standard to test the experimental class and control class before the trial organization of two pair of tennis playing performance evaluation, found before carrying out experiments, students in experimental class and that in comparative classes in short form by playing tennis, there is no obvious difference, It shows that it is reasonable to take these experimental classes as the investigation objects, and it has positive and positive influence on the scientific comparison results.

### **3.4 Differences in Theoretical Knowledge of Short Tennis between the Experimental Class and the Control Class Before the Experiment**

The investigation of students' theoretical knowledge of tennis is mainly carried out by means of written tests. In the process of testing, around the junior high school students to understand the situation of tennis, design a tennis related knowledge as the core of the written test related papers, mainly to find the bottom. In the specific test content, focus on the basic theoretical knowledge of short tennis, tactical knowledge, skill implementation and footwork and other related knowledge, the total score of 100 points. The results showed that the students in the experimental class and the control class just passed, and there was no significant difference between the two grades, indicating that the two groups have certain antagonistic characteristics.

### **3.5 Differences in Tennis Learning Attitudes between the Experimental Class and the Control Class Before the Experiment**

Student tennis learning attitude survey, mainly through the questionnaire to obtain first-hand data. The students' learning attitudes were investigated before and after the experiment. The results show that the students' learning attitude is general, accounting for 32.5%, and 33.8% of the students think that the development effect of short tennis is general, which does not fully show the effectiveness and intrinsic value of teaching. This has also been verified in the control class. Most students think that the development effect of tennis is very average, and it is difficult to show the value and effectiveness of teaching.

## **4. After the Experiment, Students Were Compared and Analyzed Before and after Each Skill Index of the Experiment Class**

### **4.1 Comparative Analysis of the Tennis Skill Level Analysis Indicators of Students after the Experiment**

The core of TGFU approach is give priority to in order to grasp, the modernized teaching method should be adopted in the process of teaching, and using the way of the game to deepen students' understanding of the short form of tennis, and in the process of practice, to find their own positioning, groped and out of a road to healthy development, makes comprehensive and systematic teaching environment optimization, Lay a solid foundation for the improvement of teaching effectiveness. The results show that the application effect of this method is good, and the skill level of the students in the experimental class is improved significantly before and after the experiment. The final results were significantly better than those of the traditional teaching methods.

### **4.2 Comparative Analysis of Tennis Performance of Control Class and Experimental Class Before and after the Experiment**

Before the experiment of tennis teaching, there was no significant difference between the

experimental class and the control class. However, after the implementation of TGFU teaching method, it can be seen from the scoring results of match performance that this is mainly skill-based teaching content. Although students have improved their tennis skills, the experimental class is better than the control class in terms of how to use skills to compete and maintain the flexibility of matches.

#### **4.3 Comparative Analysis of Theoretical Knowledge Before and after Experiment between Control Class and Experimental Class**

Before the experiment, the theoretical knowledge level of the control class was basically the same as that of the experimental class. Experimental classes “TGFU” teaching method is adopted, the application of this teaching method in tennis teaching, teaching arrangement, more emphasis on students' self knowledge comprehension ability, to meet some new knowledge, usually to be integrated into the teaching practice, makes the teaching emphasis more clear, content is more complete, makes the teaching effectiveness. Combined with the survey results, it is found that the students' cognition of tennis theory knowledge has changed significantly before and after the experiment, and their performance has improved significantly, showing a significant difference. It shows that the application of TGFU teaching method in tennis teaching has its unique charm and value, and the application effect is good.

#### **4.4 Comparative Analysis of Learning Attitude between Control Class and Experimental Class Before and after the Experiment**

There was no obvious change in the control class, who still thought tennis was not attractive. However, after the implementation of “TGFU” teaching method in the experimental class, the attitude of the experimental group students towards short tennis has changed significantly, believing that short tennis has its unique charm and can have a positive impact on their physical and mental health growth.

### **5. Conclusion**

1). “TGFU” teaching method can well cultivate students' skills, competition performance, theoretical knowledge, learning attitude and other abilities, and can well develop students' subject core literacy except healthy behavior. It is a teaching mode that can effectively implement the subject core literacy.

2). The content of tennis course is single, so the content of “TGFU” teaching method should be comprehensively optimized and designed, the core content of TGFU teaching method should be constantly supplemented and learned, and more game teaching content should be developed to make short tennis teaching more interesting, and the teaching environment should be supplemented and optimized from the side.

3). The paper mainly chooses questionnaire survey method, logical analysis method, mathematical statistics method, etc., and uses written tests and evaluation tools, etc. The methods chosen by different investigation focuses are obviously different. However, from the perspective of the evaluation results, the coverage and individual pertinence of the evaluation are not strong, resulting in the evaluation results of this study can not continue to play a role. Therefore, the evaluation method should be continuously optimized in the follow-up research to ensure the comprehensiveness of the evaluation method and make the evaluation results systematically optimized.

4). Comprehensively increase development advantages. Tennis itself is the development form of

school tennis, but the school still needs to improve the level of attention, from multiple aspects, make the game and competition process can be more effective, highlight the application value and effectiveness, for the maximum effect of teaching practice to lay a solid foundation.

5). “TGFU” teaching method is a way to effectively implement the core literacy of the subject. For physical education teachers, “TGFU” teaching method is a brand new method. By asking questions to mobilize students' independent thinking ability, so as to implement the core quality of the subject, a more comprehensive understanding of tennis.

## Acknowledgement

Higher Education Research Project of the “14th Five-year Plan” of Guangdong Association of Higher Education in 2021 (21GQN25) “Empirical Research on TGFU Teaching Method in College Tennis Special Teaching from the Perspective of Teaching Reform”; Research plan on The Theory and Practice of Undergraduate Pilot Reform of Vocational Education of Guangdong University of Technology and Industry in 2021 (GDGSGY2021024).

## References

- [1] Dang Linxiu, LUO Zongbao, Wang Shaowei, Dong Cuixiang. *Physical education teaching design and case study based on comprehending ball teaching mode [J]. Physical education teaching*, 2020,40(12):12-15.
- [2] Zhang Yang, Wei Jun. *Value and path of ideological and political construction in physical education colleges from the perspective of virtue and education [J]. Journal of shenyang physical education university*,2020,39(06):35-40.
- [3] Sun Tian-yao. *Collaborative Path research on the implementation of the fundamental task of Moral education in college public PHYSICAL education Curriculum [D]. Northeast normal university*, 2020. DOI: 10.27011 /, dc nki. Gdbsu. 2020.001708.
- [4] Dang Linxiu, SHEN Defeng, Qiu Yingjie, Dong Cuixiang. *Physical education teaching design and case study based on cooperative learning teaching mode [J]. Physical education teaching*,2020,40(10):15-17.
- [5] Dang Linxiu, DONG Cuixiang, Fang Qianhua. *Theoretical Analysis on The Cultivation of Core Literacy of Physical Education and Health subject by Comprehending Ball Teaching Mode [J]. Journal of capital institute of physical education*, 2020, 32 (5) : 454-460. The DOI: 10.14036 / j.carol carroll nki cn11-4513.2020.05.012.
- [6] Zhao L. *Research on the application of TGFU Teaching Method in junior high school short tennis teaching [D]. Liaoning Normal University*, 2020.
- [7] Wu Z Z. *Research on the application of TGFU in Tennis Teaching of Public Physical Education in Colleges and Universities [D]. Fujian Normal University*, 2018.
- [8] Zhang Qi. *Application of TGFU Teaching Method in primary school volleyball Classroom [J]. Quality education in west China*,2017,3(06):161.
- [9] Chen lirong. *Application of TGFU teaching method in primary school volleyball class [J]. Journal of changchun institute of education*, 2015,31(17):160-161.
- [10] Chen Q, Huang F Y. *Research on the Application of TGFU Teaching Method in college basketball teaching [J]. Sports science and technology*, 2015, 36(01):147-148.
- [11] Shen Shuai. *Research on the application of TGFU Teaching Method in Higher Vocational Badminton Teaching [J]. Cultural & Sports Products & Technology*, 2014(06):122.
- [12] Xu Bin, SONG Jianhua. *Application of TGFU Teaching Method in Middle school volleyball Teaching [J]. Combat (sports forum)*, 2013, 5(06):67-68+77.
- [13] Zhou Yongsong. *Discussion on the role of TGFU teaching method in public badminton teaching in colleges and universities [J]. Contemporary sports science and technology*, 2012, 2(26):8-9+26.
- [14] Li Shichao, Wang Lei. *Discussion on the application of TGFU Teaching Method in College Badminton Class [J]. Science and Technology Information*, 2012(08):314.
- [15] Huang Liming, DONG Jiukui. *The role of TGFU teaching method in higher vocational badminton teaching [J]. Journal of suzhou institute of education*, 2011,14(02):148-150.
- [16] Zhu Nianfeng, Tai Feng, Yang Yi. *Journal of jilin physical education university*, 2010, 26(03):116-118.