Problems and countermeasures in college table tennis course teaching

Charlotte Martin[1, a, *],

[1]Butterfly USA, Inc.,11941 Sherwood Plaza Ln, Houston, TX 77077, USA
a.charlotte2023_martin@ icloud.com
***Corresponding Author**

Abstract: Based on years of practical experience in table tennis teaching at Beijing Forestry University, this paper analyzes the existing problems and contradictions in college "Table Tennis" course instruction. It identifies unclear teacher explanations, monotonous practice methods, and simplistic assessment and evaluation as the key issues affecting the teaching quality of college "Table Tennis" courses. These problems have led to three major contradictions in college table tennis teaching: the contradiction between the complexity of table tennis and the limited overall class hours; the contradiction between the emphasis on scientific research over teaching and the focus on educational reform experiments rather than comprehensive promotion in universities; and the contradiction between the requirements for venues, equipment, and manpower to implement diverse teaching methods and the limited teaching conditions in colleges. To address these three major contradictions, this paper proposes reform measures for "Table Tennis" course teaching: diversification of classroom instruction, enrichment of practice methods, process-oriented assessment and evaluation, and integration of in-class and extracurricular activities. Only through these measures can the teaching quality of the "Table Tennis" course be further improved.

Keywords: college table tennis teaching, problems and contradictions, reform measures

1. Introduction

Current college PE curricula have evolved from the old "College Student Physical Fitness Standard" to the new "Student Physical Health Standard"[1], shifting from pure physical health focus to holistic well-being. The new guiding principle of "Health First, Lifelong Sports" has raised new requirements for college sports instruction.

Table tennis, a popular core course in Chinese universities, faces declining teaching quality due to enrollment expansion, reduced class hours, and limited facilities. Improving students' physical activity, technical mastery, and extracurricular participation within constrained class time has become a key reform priority.

Beijing Forestry University offers three progressive levels: Table Tennis I, II, and III. With ~600 students (50% female) enrolling annually in 30-student single-gender classes, freshmen take Table Tennis I in both semesters, while upperclassmen choose freely among levels without repetition.

Drawing on years of teaching experience, this study examines table tennis instruction in Chinese universities through literature review, field research, and interviews. It analyzes existing problems, explores underlying contradictions, and proposes reform directions for Beijing Forestry University's PE curriculum.

2. Problems and contradictions in college table tennis teaching

2.1. Problems in college table tennis teaching

Problems in table tennis teaching mainly exist in three stages: instruction, practice, and assessment.

In the instruction stage, due to varying teacher competence, limited experience, and inadequate preparation, teachers often fail to convey information clearly. This manifests as unclear teaching objectives and content, vague explanation of technical essentials, inability to identify or summarize common student errors, and insufficient analysis of causes behind technical mistakes.

https://doi.org/10.62852/css/2026/228

In the practice stage, the primary issue is monotonous practice methods. Current classroom practice mainly involves one-on-one single-ball rallies between teachers and students or among students themselves. For beginners with poor skills and high error rates, approximately one-third of time is spent retrieving balls, inevitably dampening learning interest and practice enthusiasm. While research on practice methods has progressed—including multi-ball teaching [2-3], cooperative learning [4], multimedia teaching [5-6], and competition methods [7]—these new methods lack detailed implementation guidance. Moreover, constraints in facilities, equipment, and teacher capacity prevent widespread adoption.

In the assessment stage, evaluation methods remain simplistic. Current testing uses single-ball rallying to examine technical mastery, typically measuring achievement and skill evaluation. This outcome-based testing has two drawbacks: first, it is affected by student nervousness, inaccurate serves, and insufficient spin affecting return quality, making accurate assessment difficult; second, it excludes regular performance, training attitude, and improvement—neglecting progress and undermining motivation. Though "regular performance" accounts for ~10% of grades, it primarily reflects attendance rather than cultivating learning interest.

2.2. Contradictions in college table tennis teaching

2.2.1. Contradiction between complexity of table tennis and limited class hours

According to the requirements of the National College Physical Education Curriculum Teaching Guidelines (hereinafter referred to as the "Guidelines") issued by the Ministry of Education in 2002, college physical education teaching should integrate five domain objectives: "sports participation, motor skills, physical health, mental health, and social adaptation." Colleges and universities have adjusted their requirements for table tennis technical movements to "mastering the basic theory of table tennis, basic technical movements and practical application abilities, so as to achieve the goal of promoting health." Although the new Guidelines have lowered the requirements for students in terms of "technical" standards, in reality, if students cannot enjoy the fun of table tennis through continuous improvement of their own skills, it will be difficult for them to incorporate it as part of their personal hobbies in their future study and life, and thus they will be unable to achieve the purpose of physical exercise and mental pleasure. Therefore, mastering the basic techniques of table tennis and their practical application to a certain extent is the key to table tennis teaching.

Mastering table tennis technical movements is no easy task. Because table tennis is a skill-based sport with relatively complex technical movements, it places relatively high demands on students' coordination and learning abilities. It is extremely difficult for students to fully master the basic theory and basic technical movements of table tennis within limited class hours. Taking Beijing Forestry University as an example, students have only one physical education class per week, approximately 100 minutes. Even if all the physical education class time in one semester were devoted to the practice of table tennis techniques (in reality, there are also physical fitness exercises and theory classes, etc.), it would amount to no more than 17 hours. It is extremely difficult to master the basic technical movements of table tennis within this time. In addition, due to the continuous expansion of college enrollment, the number of students selecting the "Table Tennis" course has been increasing, and the time teachers can spend on one-on-one guidance for students is very limited.

2.2.2. Research over teaching, experiments over scale

The current emphasis on scientific research in colleges and universities has brought some new developments to physical education teaching, with a large number of experimental results in physical education reform emerging continuously—undoubtedly a positive phenomenon. The author conducted a search using "China National Knowledge Infrastructure" (CNKI) for papers on experimental research in college table tennis teaching reform over the past decade. The results show that since 2005, the number of papers has increased significantly, as shown in Figure 1. On the one hand, this indicates that the policy environment attaches importance to college table tennis teaching reform; on the other hand, it also demonstrates that there is substantial demand in terms of how to accelerate the process of college table tennis teaching reform and continuously improve teaching quality.

https://doi.org/10.62852/css/2026/228

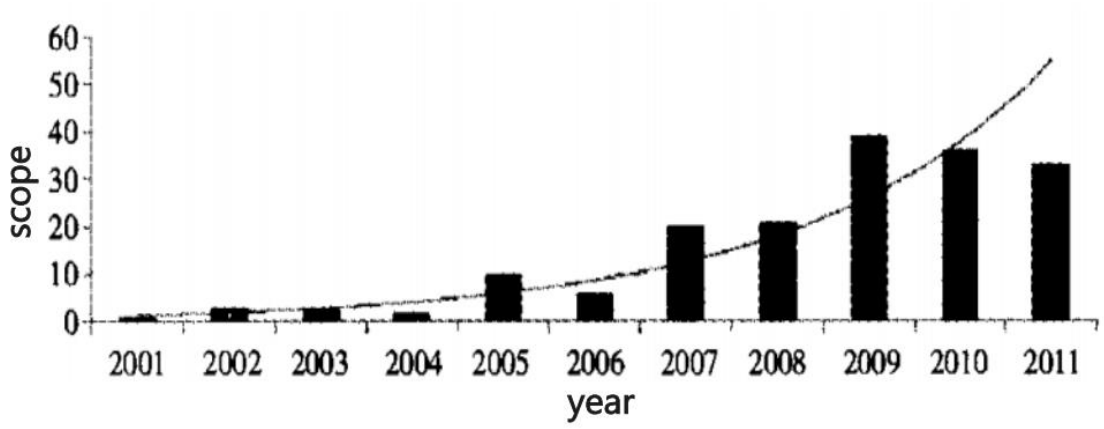

Figure 1 Number of Papers on "College Table Tennis" from 2001 to 2011

However, the application and promotion of research findings have not been implemented due to various reasons. According to the author's incomplete statistics on the teaching of the "Table Tennis" course in Beijing colleges and universities, among the 65 institutions offering the "Table Tennis" course, only 10% have popularized one of the following teaching methods: multi-ball teaching, stratified teaching, competition-based teaching, or cooperative learning. This approach of emphasizing reform while neglecting promotion undoubtedly pushes teaching reform experiments into an awkward situation of becoming merely formalistic.

2.2.3. Resource demands of diverse methods vs. limited institutional capacity

Table tennis has a relatively solid foundation in China. The achievements of systematic training and the application of various training methods in professional table tennis teams are evident to all. Practice has proven that the training methods of China's professional table tennis teams have been fully verified in terms of scientific rigor and applicability. Therefore, the diverse attempts by college table tennis teachers in teaching methods have also brought many new options to table tennis instruction.

However, the application of new teaching methods requires corresponding conditions. For example, when the author piloted the multi-ball teaching method in table tennis instruction at Beijing Forestry University, the first requirement was that each teaching class needed several hundred table tennis balls to meet teaching needs. For multi-ball teaching methods accompanied by music or multimedia, other corresponding equipment and venues were required. According to the author's research, most colleges and universities in Beijing offering the "Table Tennis" course remain at existing teaching conditions, with updates to venues and equipment lagging far behind the needs of teaching reform.

3. Reform measures for college "Table Tennis" course teaching

3.1. Diversification of classroom instruction

Although college students can grasp basic information of a technical movement in a relatively short time due to their cognitive level, the complexity of table tennis techniques places high demands on cognitive ability, motor coordination, and muscular control simultaneously. This sets high requirements for table tennis teachers' instructional methods.

Teachers should attempt diversified teaching methods. For example, they can use body language to communicate and convey technical information through movements and facial expressions; utilize multimedia teaching to demonstrate and display technical movements; and employ question-and-answer formats to promote active thinking, allowing students to review, summarize, or explore basic table tennis techniques and theoretical knowledge themselves. Regarding instructional content, besides clearly explaining the essentials of technical movements, teachers should strengthen guidance on learning and practice methods, as well as enhance direction for students' extracurricular physical exercise.

https://doi.org/10.62852/css/2026/228

3.2. Enrichment of practice methods

The enrichment of practice methods helps increase students' excitement in the classroom, and the introduction of new methods often strongly attracts students' attention.

The author employed multi-ball teaching in the "Table Tennis" course at Beijing Forestry University, feeding multi-balls to students in rotation to increase their hitting volume. This method brought a new look to classroom teaching: on one hand, it stimulated students' interest and improved their enthusiasm for classroom learning; on the other hand, it significantly increased students' physical activity. However, problems remain in implementing this method. First, due to the large number of students, the time teachers can allocate to each student is extremely limited within constrained class hours. Second, since students lack systematic table tennis training, their motor representations remain unclear, resulting in excessive unnecessary movements, frequent errors, poor coordination and continuity, and high error rates during multi-ball practice. Therefore, at the beginning of the semester, the author attempted to guide students in mastering multi-ball feeding techniques, followed by group practice, enabling students to conduct multi-ball practice among themselves. Statistics show that this method can increase students' hitting volume to 300% of that in single-ball practice within one class period. Although the application of this method is still limited by students' multi-ball feeding skill levels, it has produced significant effects in hitting volume, student interest, and classroom excitement.

Thus, how to continue enriching practice methods for the "Table Tennis" course, allowing students to engage in high-intensity training within limited time, remains a question that table tennis teachers should continuously explore.

3.3. Process-oriented assessment and evaluation

Assessment and evaluation constitute a crucial component of school physical education management, serving important functions of feedback, regulation, and certification [8]. To a certain extent, it determines whether table tennis courses have achieved their intended objectives, whether students can attain applicable results in classroom teaching, and whether students can maintain enthusiasm and capacity for active practice after the course concludes.

Reform of assessment and evaluation methods should tend toward process orientation. Process orientation refers to conducting various forms of assessment continuously throughout the teaching process, using assessment to provide timely evaluation and feedback on students' learning effects. Process-oriented assessment promotes teachers' adjustment of teaching methods, content, and scheduling, while also reflecting changing elements such as students' effort, learning attitude, and degree of improvement.

Therefore, process-oriented assessment and evaluation requires establishing a complete evaluation system. This system should include the following aspects: First, the temporal dimension—process-oriented assessment should be conducted before, during, and after each semester's course. Second, the indicator dimension—it should include not only traditional indicators evaluating students' mastery of technical movements, but also indicators reflecting students' degree of improvement and effort. Third, the feedback dimension—evaluation results should be used not only for teachers' feedback on students' technical mastery, but also to provide students themselves with effective feedback to clarify future directions for effort. Fourth, the evaluation method dimension—it should combine qualitative and quantitative evaluation, with appropriate inclusion of student self-assessment.

3.4. Integration of In-class and extracurricular activities

The integration of in-class and extracurricular activities refers to conducting extracurricular physical activities purposefully, organizationally, and systematically on the basis of maintaining regular physical education classes [9], thereby achieving mutual promotion between in-class and extracurricular physical exercise. Given the complexity, flexibility, and appeal of table tennis itself, the length of practice time and the amount of hitting volume play crucial roles in mastering this sport; relying solely on practice time in physical education classes is far from sufficient. Therefore, utilizing extracurricular exercise can not only achieve the goal of physical fitness but also promote students' improvement in table tennis skills. Thus, how to make good use of college students' spare time for scientific physical exercise will inevitably become one of the directions for future college physical education curriculum reform.

https://doi.org/10.62852/css/2026/228

The realization of in-class and extracurricular integration largely depends on teachers' active guidance and clear requirements during instruction. For example, in table tennis teaching at Beijing Forestry University, the author assigned practice of a certain technical movement in class and informed students before the end of the lesson that a competition on this technical movement would be held in the next physical education class, making students understand that a certain amount of extracurricular practice would improve their competition results in the next class. Practice has proven that this method effectively stimulates students' enthusiasm for participating in extracurricular practice. At the same time, a scientific evaluation mechanism for extracurricular physical exercise needs to be established. Currently, most colleges and universities generally adopt the "timing method" as the assessment method for students' participation in extracurricular physical exercise, that is, students swipe cards to enter and exit sports venues during their spare time, and as long as the total exercise time meets the requirements, it is counted as qualified. This evaluation method obviously has many drawbacks, so the problem of how to scientifically evaluate students' extracurricular physical exercise urgently needs to be solved.

Integration effectively resolves teaching contradictions: compensating for limited hitting volume in class, enabling off-peak venue use to alleviate facility shortages, and promoting reform experiences through teacher-student interaction across in-class and extracurricular settings.

4. Conclusion

In summary, reforming college "Table Tennis" courses requires a systematic approach involving coordinated advancement of educational philosophy, teaching methods, assessment systems, and resource allocation. Faced with inherent contradictions between technical complexity and limited class hours, as well as the practical dilemma of prioritizing research over teaching and experiments over scaled promotion, only by adhering to a student-centered teaching philosophy—diversifying classroom instruction to stimulate intrinsic motivation, enriching practice methods to enhance teaching efficiency, implementing process-oriented assessment to achieve mutual growth in teaching and learning, and integrating in-class and extracurricular activities to extend the time and space of physical education—can current teaching difficulties be truly resolved. Teaching practice at Beijing Forestry University demonstrates that these reform measures not only effectively improve the teaching quality of table tennis courses but also lay a solid foundation for cultivating students' awareness of lifelong sports. Looking ahead, college physical education curriculum reform should further break down barriers between in-class and extracurricular activities, building a new pattern of physical education that prioritizes health and promotes comprehensive development, enabling table tennis—China's national sport—to truly become an important vehicle for college students to strengthen their physique, develop their character, and temper their will.

5. References

[1] Cui Xian you. Research on Problems and Improvement Measures in College "Table Tennis" Elective Course Teaching [J]. Technology Wind, 2012(11): 217.

[2] Wang Baixiang. Experimental Study on Multi-ball Practice Method in College "Table Tennis" Optional Course Teaching [J]. Journal of Beijing Sport University, 2007, 30(Suppl. 1): 358-359.

[3] Qu Fang. Research on Application of Multi-ball Training Method in Ordinary College Table Tennis Training [J]. Journal of Guangdong Polytechnic Normal University, 2009(2): 46-48.

[4] Zhang Xuelian, Shi Dawei. Experimental Study on Cooperative Learning Teaching Model in Ordinary College "Table Tennis" Optional Course [J]. Bulletin of Sport Science & Technology, 2011, 19(8): 64-67.

[5] Zhang Yufeng. Application of Multimedia Teaching Methods in Ordinary College "Table Tennis" Specialized Optional Course Teaching [J]. Journal of Harbin Institute of Physical Education, 2005(2): 60-61.

[6] Hu Jianqiu. Application of Multimedia Combined Teaching in College "Table Tennis Technique" Course [J]. Journal of Hunan University of Science and Engineering, 2008, 29(10): 172-174.

https://doi.org/10.62852/css/2026/228

[7] Zhang Xiaolong, Li Fenghua. Research on Introducing Competition Incentive Mechanism into College "Table Tennis" Practical Course Teaching [J]. Journal of Shenyang Sport University, 2010, 29(1): 93-95.
[8] Chen Tianxia, Yu Lujun, She Yue, et al. Reflections on Implementing Integration Reform of In-class and Extracurricular Activities in College Physical Education Teaching [J]. Journal of Guangzhou Sport University, 2001(3): 98-101.
[9] Mao Zhen ming. Physical Education Pedagogy [M]. Beijing: Higher Education Press, 2005: 133-135.

https://doi.org/10.62852/css/2026/228