

Prospects in Utilizing Stratified Teaching in Table Tennis

Tong Zhang^{1, 2}, Maria Luvimi¹, Casihan^{3, *}

¹Doctor of philosophy in education with specialization in physical education and sports,
Adamson University, Manila, Philippines

²Lecturer at Nanjing Forestry University, Nanjing, China

³Graduate School, Adamson University, CO 1000, Manila, Philippines

* Corresponding author

Abstract

Higher education departments and educators emphasized that Students' needs should be considered into teaching goals. Students should not only learning what the educators provided, but also learn something that can be helpful and useful for their daily lives. Due to the reform of educational goals, the teaching mode and methods have to be developed at the same time. Therefore, this research is analyzing the current component and teaching content of table tennis classes in Nanjing, and discussing the feasibility of adapting Stratified teaching mode in Chinese Colleges. Stratified teaching mode is grouping students with different abilities, and providing information and training based on different groups. The semi-structured interview, lasting about a half hour, will be adapted to discover whether Stratified teaching mode can better satisfied college students' learning needs, improving their enthusiasm of practicing table tennis, as well as improving their mental health and healthy life style.

Keywords

College table tennis course, Stratified teaching mode, learning demand.

1. Introduction

College physical education course is an important part of the college education curriculum system. It is a public elective course for college students to strengthen their physique, improve their health and improve their physical literacy through reasonable physical education and scientific physical exercise process (Xu & Xie, 2024). It is an important way to implement quality education and cultivate all-round development talents. Physical education elective courses in colleges and universities refer to the elective tasks of students who are not physical education majors but need to complete corresponding physical education courses. In this kind of courses, the theoretical teaching part mainly includes the explanation of relevant knowledge and the imparting of theoretical knowledge. Teachers usually teach students sports science, sports history and basic sports techniques through lectures, presentations, discussions and multimedia. The practical training part of the physical education curriculum is usually the part where students do sports and exercise. At present, physical education in Chinese colleges and universities is mainly based on the class teaching system. In such a group teaching model, after the teacher explains the demonstration, the students form a team practice, and then the teacher corrects the problems presented by the students one by one. This is a common phenomenon in the physical education of many subjects. This is very suitable for situations where there is no foundation and large class teaching is required. However, with the rapid development of China's economy, material and education have been greatly improved. The education model has been solidified and is not suitable for today's Chinese education, especially table tennis teaching. Because with the improvement of living standards, some parents will begin to cultivate one or

more sports activities when their children are at the younger ages, and continue to stick to the university level. After years of persistent training, these students have achieved a certain or high level of exercise in some events. However, not all college students are in this situation, which will lead to the phenomenon of unbalanced ability of students who choose the same course. As table tennis has the title of national ball in China, it is more liked by the people, and many students are willing to choose table tennis lessons, so this situation is particularly common in table tennis courses.

As table tennis is a sport with great technical differences, if the level of the practice partner is not at the same level, the interest in the practice process will be very low, and the desire and enthusiasm of both students for the course will be reduced after a long time, which is not conducive to the long-term healthy development of the course. Many colleges and universities are concentrating on improving the quality of teaching, so there are about 30 students in a typical physical education course. As table tennis is a sport with great technical differences, if the training partners are not at the same level, the exercise process will be very less interesting, and both students' desire and enthusiasm for the course will be reduced after a long time, which is not conducive to the long-term healthy development of the course (Liu, 2020). Therefore, it is difficult for the traditional teaching methods to stimulate students' interest in learning. Traditional teaching methods ignore the individual differences of students and lack personalized teaching strategies for different students, making it difficult to meet diversified teaching needs (Gao, 2021; Wei, 2023). However, stratified teaching can better solve this problem.

The philosophy of teaching based on individuals' abilities can be traced back to around 2500 years ago in ancient China. Confucius had already put forward the concept of individualized teaching, which means that the teacher should not be static in the process of teaching knowledge, but should be flexible in teaching based on the situation of each student, so this concept is very much in line with today's student-centered teaching principle in China. Due to Confucius' teaching concept, his disciples also had great achievements and became important figures in morality, business, education, politics and other aspects at that time, which shows the importance of on-demand teaching. However, in the early 1980s, with the change of educational policy, education is not only serving a few students but is provided to all school aged children. A large number of students had opportunities to study at school, which brought a new situation that the situation of students with unbalance abilities was appearance.

In the modern, the approach of stratified teaching was initially appeared in the United States in the early 20th century (Shi et al., 2020). Stratified teaching in China mainly includes the class system and the class stratified teaching model. In the class system, students have fixed majors and classes, but will attend different classes in different courses. The class stratification means that the teacher first classifies the students' learning situation, knowledge level and own ability, and then groups the students according to their characteristics to form a learning group. Stratification teaching mainly includes the following four forms. The first type is based on learning styles, which divides students into different levels according to their learning styles and preferences. For example, in table tennis courses, some students are better at visual learning and can help improve their technique and tactics through observation demonstrations and video analysis; Some students are better at auditory learning and can improve by narrating and listening to the coach. In the table tennis online class, teachers have recorded lessons so that students can do video learning after class, and then make technical adjustments and corrections in the practical class. The second is based on learning goals, which mainly divides students into different levels according to their learning goals and interests. In table tennis courses, some students aim to improve the level of the game, they can be assigned to a special competition training group, while others aim to learn fitness and leisure, and can be assigned to interest groups. The third one is based on teaching content, which divides students into

different levels according to different teaching content. In the table tennis course, the test is carried out according to the existing basic teaching syllabus. Students can be divided into beginner, intermediate and advanced groups based on the technical knowledge and skills they already possess. Different groups of students will be taught with appropriate difficulty and depth to gradually improve their table tennis skills. The final one is stratifying based on students' abilities. In this stratification, teachers divide students into different levels according to their learning level and ability. Students can be divided into beginner, intermediate and advanced groups according to their technical level. Different groups of students will receive targeted technical training and teaching content. Stratification in the class can better help students choose learning content and teammates for public practice according to their own conditions, so as to meet their learning needs, which is also the stratification method mainly adopted in this topic.

The students of table tennis elective course in Chinese colleges and universities generally reflect that under the traditional teaching mode, when the teaching content does not match the level of personal ability, their knowledge absorption effect is not obvious. Therefore, this study aims to explore college students' attitudes and views on stratified teaching of table tennis in their class, and assess the best the teaching strategies to teach table tennis.

Specifically, this study aims to answer the following questions:

- 1.What are the different teaching methods used by your teacher in teaching table tennis?
- 2.What are the different skills and techniques you learned in table tennis when teachers used stratified teaching?
- 3.How does stratified teaching strategy used by your teacher affect your motivation and learning table tennis?
- 4.What are the problems or challenges you encountered when your teachers stratified teaching strategy in handling classes in table tennis?
- 5.What suggestions would you recommend to promote the use of stratified teaching strategy in handling classes in table tennis?

2. Research Design

This study is a qualitative research design that employed interviews. This method involves emerging questions and procedures, data typically collected in the participant's setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data. It describes qualitative research aligned with the nature of social constructs, the nature of reality which centers on the nature of the inquiry.

Qualitative data can be obtained through open-ended questions which give the opportunity to the participants to provide information that does not restrict the participants' opinion as noted by Creswell (2014) qualitative studies are guided by a broad primary or central research question that allows the researcher to conceptualize and explore the main idea or phenomenon under study.

According to Creswell (2013), researchers collect detailed information over a sustained period of time to be able to discover insights as well as develop an in-depth understanding of a case or an issue". The qualitative study incorporates the intention to seek to answer why and how questions and have little control of the research environment it is appropriate for current phenomena occurring within real-world experience and reveals many circumstances providing insight and understanding of individual, group, organizational, and related phenomena.

3. Sampling Method

This research followed the requirements of Adamson University Ethics Committee protocols. Participants involved in this class must have had a table tennis class at Nanjing Forestry University ahead of this research and were enrolled in the stratified table tennis class in the Spring semester of 2024. The researcher only conducted all individualized semi-structured interviews, and students were encouraged to express themselves with the outline. The interview was conducted in a private room or via Voom based on students' needs and preferences. Students used their own words to describe the experience of participating in the stratified teaching, which was recorded. All of the relevant information and interview videos will be kept for 3 years and will be destroyed after 3 years. Eventually, 10 native students in table tennis course were randomly chosen from the stratified teaching class as interview objects, and individual interviews were adapted to understand students' views and feelings on stratified teaching. The interviewer mainly asks questions that have been designed, but if some new questions closely related to the research topic are found during the conversation, the interview questions will be further improved.

After the interview, the researcher transferred all the audio documents into transcripts. Similar topics will be compared together, and similar ideas were identified and extracted to make the topic more concise. These themes are then validated and returned to the participants in the interview for their confirmation of the themes.

4. Data Analysis

In formulating and producing the results, the grounded theory was chosen. Grounded theory was initially applied in the field of sociology, but then gradually expanded to psychology, education, management and other disciplines. It minimally organizes and describes detailed data. This research study undertook the following procedures:

4.1. Generate concepts from data

The data is logged in step by step, and the data is broken up by open coding (also known as first-level coding or open logging), and the concept is given to form a preliminary concept.

Cross-compare the events in the interview and the concepts initially formed until a more abstract concept is formed and its theoretical integrity is reached.

Develop theoretical concepts and establish connections between concepts by systematically asking questions about generative theories related to concepts, constantly comparing data and concepts.

4.2. Theoretical sampling

Based on the theoretical analysis results of the above steps, carry out theoretical sampling and adjust the interview content to collect relevant data for the development of the theory. When the interview data obtained through theoretical sampling cannot further develop theoretical concepts after systematic coding, comparison and conceptual abstraction, theoretical saturation is reached and the interview research is ended.

4.3. Construct theory

Analyze and integrate the concepts and categories that have reached theoretical saturation, sort out the logical relations of different concepts and categories, and finally form a complete theoretical system that can reflect a certain social problem.

4.4. Features in theory construction

Emphasis on natural emergence: Grounded theory requires researchers to enter the research situation at the beginning of the study with a general and vague interest in a certain aspect of the problem, and naturally discover and propose research questions in the observation of the situation and the interaction of different subjects in the situation.

Emphasis on theoretical sampling and theoretical saturation: the sampling method of rooted theory is theoretical sampling, that is, the sampling and data collection guided by the concepts, categories or theories formed during the research process. Sampling and data collection should continue until the data in the category reaches "theoretical saturation".

4.5. Data analysis

In the whole process, data analysis is an important link, it is not only mechanical language coding, but should carry out theoretical coding. The researcher should continually build hypotheses about the content of the data, generate theories by comparing arguments between the data and the hypotheses, and then use these theories to encode the data.

5. Results and Discussions

After organized the transcripts into different themes, the Assessment of Traditional Methods of Teaching section presents the results of the use of the traditional teaching model, students may encounter various challenges and difficulties, which are not only reflected in the learning of skills but also involve interaction with peers and exam pressure. In the early stages of learning table tennis, one of the main challenges that students generally face is the lack of foundation, which is identified as the "lack of foundation" label. However, due to the lack of contact with table tennis or weak foundation, students often find it difficult in early learning. In addition, when studying with "high-performing classmates," the participants felt defeated by their inadequacies and even felt "beaten badly." This frustration not only affects the students' motivation to learn but also may lead to their resistance to table tennis learning.

Based on the coding on Informants Assessment in the Use of Stratified Teaching, the data shows the assessment of the participants in the use of stratified teaching. Based on the assessment of the participants, the dominant response is that they are in favor of the use of stratified teaching because the students are more engaged in their activities especially in terms of practice since everyone is given the opportunities to practice more and their skills were considered according to their abilities. Stratified teaching focuses on the uniqueness of the individual students.

Then, researcher compared the Similarities and Differences between Traditional Teaching and Stratified Teaching, the results show the similarities and differences between traditional teaching and stratified teaching. Students learn more efficiently and improve their skills as a result of stratified teaching since individual differences are addressed. Students are actively engaged in learning because the learning content is more targeted and challenging. The teachers delve more into the specific skills to be developed among students and can better master the skills needed by the students. Comparing the two teaching modes, stratified teaching is more advantageous to use.

6. Conclusions

Students prefer stratified teaching for several reasons. Firstly, it is considered ideal for individualized development, aiming at the optimum development of each student. Secondly, stratified teaching provides students with more learning challenges, catering to their diverse abilities and aspirations. Thirdly, the primary objective of stratified teaching is to revolutionize the traditional classroom teaching mode and method by designing different teaching goals,

contents, and tasks according to various teaching objects. This ensures that every student can gain knowledge, experience the joy of learning, and comprehend the significance of education. Lastly, the necessity of stratified teaching stems from its ability to address the personalized needs of students across different skill levels, fostering an inclusive and effective learning environment.

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