

Construction and Empirical Study of "Flipped Classroom" Teaching Model in Public Sports

Taking "Cheerleading" Course Teaching as an Example*

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Abstract—In this study, flipped classroom teaching mode as the main research object, using the method of literature, investigation method, questionnaire method, experimental method, expert interview method, mathematical statistics method combined with the teaching characteristics of public sports courses in Colleges and universities, the construction of "university sports public class teaching mode three flip seven link", and the application in teaching comparison of practice. Through the study of the specific teaching experiment, this paper explores the design of the teaching model of "guided learning, classroom interaction and feedback after class" in College Public Sports.

Keywords—*Flipped Classroom; Public Physical Education Curriculum; application research*

I. INTRODUCTION

In 2011 promulgated the "education informatization ten year development plan (2011-2020)" pointed out that, in order to promote the integration of information technology and education in depth, and on the basis, optimize the teaching mode, promote the reform of education and teaching. The new flipped classroom teaching mode as the information society produces, provides new ideas and methods to promote the teaching reform of our country, compared with other subjects, the sports teaching is the movement in sports practice experience inheritance, pay attention to the purpose of consistent practice characteristics and flip classroom model. However, the research in the field of teaching public flipped classroom courses of college sports is almost blank, rare research focused on the process design of a sports teaching flip classroom teaching, focus on the technical level, lack of fit for flipping the classroom and the sports teaching of the deep. With the analysis of the existing teaching model at home and abroad, flip the advantages and disadvantages, to flip the classroom into the physical education as the research object, aiming at the typical problems existing in physical education teaching in China, discusses the core value of flipping the classroom into the physical education, and according to the structure

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characteristics of sports, construct the teaching model of turnover suitable for ordinary university sports public class multiple movements of the project, through the practice, make the model more perfect, to provide new ideas for the reform of college physical education.

II. RESEARCH METHODS AND CONTENTS

A. Research Method

1) *Documentation method*: The investigation carried out before, by Chinese HowNet (CNKI) database, Wanfang database, National Library and other resources, access to a large number of origin, connotation and Practice Research on the literature of Tang Jian flip, combing and summarizing domestic and foreign related research, basic research and the research direction of the thesis.

2) *Questionnaire survey method*: Before the flip classroom teaching practice, carried out a questionnaire survey on students' initial attitude, attitude based demonstration flipped classroom teaching practice, according to survey results, combined with the education of pre-test results, set up the experimental class and the control class.

3) *Contrast experiment method*: Before the experiment, many classes were tested (pre-test). According to the result of the test and the attitude questionnaire, the experimental class and the control class were set up.

4) *Experimental design*: In the specific teaching research, a number of classes of comparative teaching experiment, the object of the experiment is Wuhan industrial and commercial college sophomore cheerleading class students. According to the research design, from the 10 class the second grade cheerleading option class, two classes were randomly selected as the experimental class, the new flip classroom teaching mode; and then randomly selected two classes as the control class, still adopt the traditional teaching mode of teaching, experiment four classes 120 name. The experiment was carried out before and after the experiment. September 2016 --2016 December, a total of 12 weeks of teaching experiments. Each class has 1 lessons a week, 85 minutes each. In the experiment, the subjects unified the previous test, then according to the previous test situation, two classes were randomly selected as the

experimental class in the test class, and the two classes as the control class. The experimental class took flipped classroom teaching, while the control class took traditional teaching. The experimental class is set up by the squad leader of a class of WeChat group, the test object to join the group, so that the experimental class students in the WeChat group to watch the overturned classroom, "La Cao Cao" teaching, related video, graphics and other materials.

5) *Experimental procedure*: The pretest: the experimental group and control group two groups of students to test the differences with the basic situation of the index before the experiment, the test content includes students' theoretical knowledge, physical quality, sports skills, testing personnel for the class teacher. In order to reduce the experimental error, the test data were collected on the spot.

Contrast teaching experiment: the experiment aims at the characteristics of "cheerleading" teaching in Colleges and universities, and applies the teaching process of "flipped" classroom teaching design. The content of teaching is the basic routine of Cheerleading exercises. The experimental class takes flipped class teaching, and the control class adopts traditional teaching.

After the experiment: after the experiment, the experimental class and the control class were given theoretical knowledge and technical level, and the grade and attitude of the flipped class were evaluated and investigated.

6) *Experimental teaching process*: Transfer stage before class - the importance of knowledge: the teacher needs to carry out the work are: the analysis of teaching materials and students, the teaching objectives, heavy and difficult; collection of text and video data, make video data used in this experiment; learning will upload the information to the students in the class of WeChat group, complete information sharing; receive and feedback arrangement students' learning. What students need to do before class is to download video materials, conduct independent learning, complete physical exercises, actively participate in the class WeChat exchange, organize learning, and feedback learning problems.

In the course of the course, the internalization of knowledge is emphasized: teachers are explained according to students' learning problems - classroom group cooperation, cooperative learning - learning evaluation - teacher and student exchange learning outcomes.

After class stage, emphasis on the consolidation and expansion of knowledge: teachers need to organize the teaching of this section, and further improve the teaching design. Students need to sum up the knowledge and skills they have learned, complete consolidation exercises, and look for more information online on their own interests.

B. Research Contents

This study takes the flipped classroom teaching model as the main object of study and constructs the overturned classroom teaching model of PE public courses in Colleges and universities, and applies it to teaching practice. Through

the specific teaching experiment of this study, it is explored whether the new teaching model can be applied to the teaching of PE public courses in Colleges and universities.

- using WeChat public platform to build mobile sports learning platform based on mobile learning.
- construct the theoretical system of college sports flipped classroom based on WeChat public platform
- experimental study on reversal mode of classroom teaching in public course of physical education in Colleges and universities, applied to specific physical education cheerleading curriculum, comparative teaching experiment, found in the mode of problem in the application and effect analysis.
- According to the result of the contrast experiment, the paper explores the prospect and the existing problems of turning the class into the university physical education.

III. RESULTS AND ANALYSIS

A. Students' Knowledge of Physical Education Theory

In the post test theoretical knowledge test session, students of "sports and health course" cheerleading master four parts theory was investigated by theoretical problems: basic steps related concepts, scientific training principle, training content, cheerleading and effect of exercise prescription to improve the body. The results showed that there was a significant difference between the experimental class and the control class in the mastery of sports knowledge, and the mastery of basketball theory knowledge in the experimental class was obviously higher than that in the control class. Although students are required to learn a lot of knowledge, but because students are learning online, so did not take too much time to exercise in class, students still can guarantee that each class for 85 minutes of exercise.

B. Students Grasp the Skill Level of Movement

In the 12 week trial in a week 1 PE classes, each class is 85 minutes, the class content for cheerleading routines, after the teaching experiment, respectively. The various parts of the body movements of each single step of La in the experimental class and the control class to complete and complete routines for the two quantitative evaluation, and carry out the statistical analysis on the test data, the results show that the P test was performed on the data found, have obvious difference after the experiment of 12 basic steps for the experimental class and the control class skill level, the level of technical movements have been significantly improved, the difference in the overall level of technical movement is not significant.

C. Students' Attitudes and Evaluations to Flipped Class

In the comparative teaching experiment with two weeks, researchers in the experimental class were randomly selected 15 students, one-on-one interviews, time control in 10-20 minutes each, all kinds of problems interview selection problem focused on preparing students for each class before and in the process of curriculum implementation, and a set of 30 problems the satisfaction survey. The results show that

the students generally think the flipped classroom is an exciting and attractive teaching mode, students love the flipped classroom, that flipped classroom highlights the new teaching mode, the quality of online video, highlighting the good interaction with students as the center of the class and teaching status.

IV. CONCLUSION

A. *It Is Feasible to Apply the Flipped Classroom Teaching Model in Physical Education in Colleges and Universities*

It plays a significant role in training students' technical action, theoretical knowledge, active participation and technical mastery ability. The students' love for this model and the characteristics of mobile learning at any time and place have also been reflected to a certain extent. Because of the short-term teaching practice and the influence of the traditional teaching model, this model does not highlight the advantages of promoting students' comprehensive and comprehensive movements. Students have a positive attitude towards the combination of "turn over hall" and "mobile learning".

B. *Analysis of the Application of Flipped Classroom Teaching Mode in Sports*

Because of the thought of "learning first and teaching later", the content of video teaching should be easy to learn, and the emphasis and difficulty of teaching should be emphasized. In order to turn over the class teaching mode, there should be definite individual technical classification, and the sports events such as football, basketball, volleyball, cheerleading, Wushu, tae kwon do and so on, which need comprehensive use of individual techniques. Turn over the classroom model, to cheerleading exercise comprehensive effect less, and the individual technology mastery effect is obvious.

C. *The Application of Flipped Classroom Model in College PE Common Course Teaching*

Teaching must be self-learning attitude and ability, communication platform should choose teachers and students generally applicable, easy to operate, functional communication platform, such as WeChat, QQ. Because the model is mainly based on students, the effect of learning is different. Therefore, the teaching content and schedule should be re established. The teaching evaluation should be connected with the teaching feedback of each link of the class before, after class and after class. In the course of teaching practice, the teaching schedule is difficult for small class teaching has certain learning experience and self-learning ability, independent learning to provide teachers with teaching video, learning effect is different, aggravating the teachers in the classroom practice of counseling tasks.

D. *Optimize the Information Environment of Physical Education Service in Colleges and Universities, and Innovate the Teaching Mode of Physical Education.*

First of all, colleges and universities should increase their financial input, support and guarantee the supply and maintenance of hardware and software for the application of

relevant sports education information technology, and implement the optimization of the intelligent basic environment. Secondly, colleges and universities should focus on training teachers who understand information technology and understand physical education. On the basis of the existing open courses, micro classes, flipped classes, MOOC and private placement (SPOC) courses, the innovation, development and application of school-based curriculum resources in sports programs are carried out.

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