Exploration of Medical English Teaching Model Based on Flipping Classroom

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Abstract: In the process of teaching English, there are generally many methods of teaching, such as less single teaching, less class time, and more limited limitations in the teaching process. In order to effectively improve the efficiency of English teaching, this paper introduces the concept of flipping classroom, and analyzes the teaching method of flipping classroom in medical English, in order to solve the problems existing in traditional pathology teaching, stimulate students' autonomy and improve the comprehensive utilization of knowledge by medical students. At the same time, the use of this modern information technology to reform the teaching methods and models, enrich the teaching resources of medical professional English, improve the teaching quality of English teachers, and meet the individualized learning of students.

1. Introduction

With the development of modern multimedia information technology, a new round of teaching reform climax has been launched nationwide. The new teaching mode of flipping the classroom is getting more and more accepted in China, and the college English course has also joined the reform. For medical colleges, the medical English course as a follow-up course for college English plays a vital role in improving the professional English proficiency and ability of medical students and promoting their future career development. However, medical colleges and universities have always attached great importance to public English teaching, ignoring the tendency of professional English, and the teaching mode taught by traditional teachers can not fully mobilize students' autonomy and other factors, leading to medical English teaching has not achieved the desired results. Therefore, fundamentally changing the traditional teaching mode, in essence, enhances the effect of medical English classroom teaching, which is crucial to the improvement of students' professional English ability[1].

2. The concept and essence of flipping classroom

The Flipped Class Model is a revolution in the traditional teaching model. It changes the role of teachers and students in traditional teaching and re-plans and effectively uses the use of classroom time. It is a kind of audio or video file created by a teacher. Students listen to or learn instructional videos during class time. In the classroom, they conduct a face-to-face communication between teachers and students and a new teaching mode of joint questioning and collaborative inquiry. It

reconstructs the student's learning process and subverts the traditional knowledge transfer in the class and the internalization of the knowledge process. The study of knowledge is done autonomously by students before class, and the internalization of knowledge is realized through interaction between teachers and students in the classroom and interaction between students and students. In the flipping classroom mode, teachers have turned from knowledge owners and instructors in traditional classrooms to active helpers and instructors of student construction knowledge. Students are transformed from passive recipients of the original knowledge to active participants in the construction of knowledge[2].

In essence, flipping the classroom is to free the teacher from the role of a simple knowledge transferer, so that it has time to solve practical problems and improve the efficiency of teaching. For students, flipping the classroom is to train students to learn. Enthusiasm and initiative enable it to overcome inertia, enhance the motivation of learning, and consciously conduct independent learning, so as to truly learn things and improve their creative ability and comprehensive application ability.

From the teaching link, flip the classroom before, during and after class, which is completed online before and after class, online under the class; From the teaching and learning environment, on the line and offline; Offline Refers to the classroom, online refers to the network teaching platform. It can be seen that for students, flipping classrooms is actually an online learning supported by modern educational technology. Table 1 is about the design of the teaching mode of flipping the classroom.

Table 1 Teaching design for "Food and Table Manners"

Teaching design for "Food and Table Manners":
● Preparation before class: provide students with self-study materials such as instructional videos, audio and texts for students' online materials
● Classroom teaching: PPT reporting in English, raising issues involving key and difficult issues, interactive discussion between teachers and students
● After-school assessment: view and read medical materials and video cases through networks, libraries

3. Application of teaching mode based on flipping classroom in medical English teaching

3.1 Medical English flipping classroom online teaching method

For medical students, the medical English resources that can be used to flip the pre-class (online) study are very rich. These professional English teaching resources can play a role in cultivating the practical application of professional English by medical students. The key issue is Students' learning initiative and consciousness. The pre-school (online) learning resources related to medical English mainly include three categories: 1)network multimedia medical English learning resources; 2) British and American medical film and television drama resources; 3)English versions of various medical journal paper resources.

First, network multimedia medical English learning resources. The network multimedia medical English learning resources include various medical English listening, speaking, reading and writing resources that can be studied in autonomous learning classrooms or on computers, such as medical English reading literature, medical English writing skills and essay writing materials, medical English audiovisual materials. Speaking materials, as well as medical English translation skills and translation practices. Students can learn these medical English resources on their own computers or in their own classrooms. The key is to spend time, and to have the motivation and self-control of

learning. Through the study and practice of a large number of medical English listening, speaking, reading, writing and translating resources, students' practical application ability will be greatly improved, and students can grasp the progress and time of learning according to the teaching requirements of teachers, and truly integrate learning. Self-learning, online learning, distance learning, and mobile learning are integrated into their own learning, greatly improving the efficiency of learning[3].

Second, the British and American medical film and television drama resources. With the rapid development of multimedia and information technology, there are many medical-related movies and TV series available for download and viewing on the Internet, especially many medical movies and TV series filmed by Britain and the United States. These resources are not only helpful for learning medical English, but also for the professional study of medical students. It is both effective and attractive to study medical English by watching movies. It can greatly improve the efficiency of medical English learning. Many people who learn English well are successful in watching movies.

Third, the English version of various medical journal paper resources. Improving the writing ability of professional English by reading these medical professional papers should be a shortcut, just as learning swimming in swimming can achieve twice the result with half the effort. The reading and writing of medical professional papers is actually a process of imitating the "going to the countryside". As long as you look at it, the professional English reading ability and writing ability of medical students will naturally increase, because many things in professional journals such as disease names, the abbreviation of professional vocabulary, the expression of statistical data, and the format of the paper are basically fixed.

3.2 Medical English flipping classroom offline teaching method

After the flip, the professional English classroom teaching should be student-centered, and the teacher only plays the role of classroom teaching activity organizer and facilitator. The purpose of teaching is to develop the independent learning ability, independent thinking ability, problem solving ability and comprehensive application ability of medical students. The offline teaching activities can be carried out in the following ways: 1)Problem-based Learning; 2)Presentation Teaching Practice Method ; 3)Assignment-based Teaching.

First, the Problem-based Learning Method (PBL). It is a way of learning that emphasizes student-based inquiry. That is, under the guidance of the teacher, the student selects the research project or topic in the study, and actively collects information, analyzes the information, acquires knowledge, applies knowledge, and solves the problem learning activities by means of research. It emphasizes the process of inquiry and resolution of problems, focusing on the cultivation of students' abilities. Therefore, unlike the traditional teaching theory, under the PBL framework, students need not only the ability to memorize, understand, master, and reproduce the knowledge of books, but also need to know how to use various sources of information to find the information they need. Information is analyzed, summarized, refined, and based on information collection and refining, it can accurately express its own opinions and opinions, and can write academic papers in a standardized way[4].

Second, the Presentation Teaching Practice Method. Presentation is a comprehensive teaching practice that can not only exercise students' self-learning and teamwork skills, but also exercise their written writing and oral expression skills.   This kind of teaching practice is especially suitable for the teaching and practice of medical English, which can train students' ability in all aspects. For example, an English-speaking instructor can ask students to do some presentations according to their major. The teacher must first explain the precautions of the presentation and the requirements of the professional English presentation, and then let the students collect various materials on the

Internet, including templates and video materials that others make presentations. After the student finishes the presentation in the classroom, the teacher reviews and guides the student's presentation in terms of content, format, and language expression[5]. Table 2 is an analysis of the effect of students' learning before and after the implementation of the medical English teaching model based on the flip classroom.

Table 2 Comparison of average scores between formative and final evaluation of experimental group and control group

Group	Formative evaluation average score	Final evaluation average score	Average score
Experimental class	90	87	88.2
Control class	82	72	76

Third, Assignment-based Teaching. The instructor can arrange some extracurricular learning content or homework according to the teaching requirements, so that the students can learn before the class, and then the teacher checks the extracurricular learning effect in the classroom. For example, let students translate an article in the hall, or give a comment on an issue; Or talk about the symptoms of a disease and the method of treatment, or write an essay. This not only checks the completion of the student's homework, but also obtains feedback on the teaching. It can also urge the students to carefully control themselves outside the classroom and complete the learning tasks that the teacher requires. The teacher can use the results of the homework examination as a formative assessment. This encourages students not only to pay attention to the final evaluation at the end of the period, but also to truly carry out the whole learning process. Through careful thinking and research, they really understand what they want to learn, instead of ignoring them.

4. Conclusions

In the new round of national college English teaching reform, flipping classroom and other teaching modes, self-learning based on network and multimedia, and professional English called ESP are getting more and more people's attention. The ultimate goal of teaching is to develop students' self-learning ability, independent thinking ability, problem-solving ability and comprehensive application ability. The professional English teaching in medical colleges has its own characteristics. With a strong variety of network multimedia resources as a support, combining these resources with the flipping classroom to organize the teaching practice of professional English will greatly improve the efficiency of professional English teaching in medical colleges, and will also greatly enhance the ability of medical students to apply professional English.

Acknowledgement

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