Evaluation Research on Flipped Classroom in Bilingual Education of Acupuncture and Moxibustion

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Abstract—With the globalization of acupuncture treatment, the bilingual education of acupuncture is extremely imperative due to the gradual requirement of international communication base on acupuncture and moxibustion clinical language. The evaluation and research of Acupuncture and Moxibustion bilingual education are also required because of bilingual education of Chinese medicine. This paper studies the issues of bilingual education of Acupuncture and Moxibustion, and proposes a new teaching method----The Flipped Classroom Model to improve the quality of bilingual education of acupuncture. The Flipped classroom Model is the concept of improving students’ study passion by switching the characters of teachers and students. On the basis of the experience of The Flipped Classroom Model of bilingual acupuncture education reform in our school,students improve their ability of explaining the problems of TCM in English and the evaluation is highly positive. This kind of teaching mode can not only stimulates students’ passion of self-study, but also improves their medical English ability level. The further research is a beneficial exploration to train more high-quality bilingual Chinese Medicine doctors.

Keywords—Acupuncture and Moxibustion; Bilingual teaching; Flipped classroom; Research and evaluation

I. INTRODUCTION

With the coming of information age, the knowledge renewal speed, how to cultivate students’ autonomous learning ability to cope with the complex problem situation becomes the challenge for the universities. Since 2012, The Flipped Classroom Model has been introduced into China, and it focuses on the ability of students to participate in learning actively, which attracted the attention of teachers and students. Flip classroom also call as reversed the classroom, which switches the characters of teachers and students. Through the reverse arrangement of knowledge transfer and knowledge internalization, the flip classroom change the traditional teaching process, change the teaching status of teachers and students and enrich the traditional way of communication between teachers and students. In the flipped classroom, information technology provides a variety of teaching methods for teachers, and builds an individualized collaborative learning environment for the students. Since 2013, the popularity of MOOC has set off a boom in the construction of open teaching resources in Colleges and Universities, which provides an opportunity for the implementation of flipped classroom. Therefore, a group of teachers in Colleges and universities in China began to use The Flipped Classroom Model to improve teaching.

The flipped classroom model is also called as the reversed classroom, it abundant the communication between teachers and students by switching their characters which alter the traditional teaching method. Multiple teaching methods are provided by information technology so that individualized collaborative study environment can be constructed for every single student.[1][2]

Based on recent research and practice, the “three-step” module type teaching method of bilingual education of acupuncture is preceded. Through researching and preparing of teaching materials(which is issued), preparing of lesson plans...
and syllabus, teaching reform of the experimental class, writing teaching reform report and publishing teaching reform papers, hundreds of students have benefited, and the level of bilingual knowledge has improved significantly within two years. Several students are capable to perform clinical teaching translation in the First & Second Affiliated Hospital of TJUTCM, undertake translation work in various international academic conferences and communicate with foreign students in China. For example, the exchange students of Northwestern University for Chinese traditional medicine. Meanwhile, the related materials have been used in Chengdu, Shanxi, Hubei and Shandong. 

With the development of the bilingual education of acupuncture and moxibustion, most TCM Universities have made some achieve certain progress in curriculum, teaching material selection, teaching mode and bilingual teacher training. However, there are still some problems in bilingual education.

(1)How to practice Flipped classroom education more effectively, and cultivate excellent bilingual talents of acupuncture and moxibustion. How to inspire students’ study passion, master the bilingual knowledge of acupuncture and moxibustion, and use them in clinical situation and international communication.

(2)How to establish an efficient evaluation system to make the “flipped classroom model” combined with “three steps of bilingual teaching of Acupuncture and Moxibustion” together and spread to the whole country and the world; allows the teaching staffs to master the progress of the work accurately, closely follow the improvement of students’ bilingual ability, cover the shortage of teaching methods, and allows students to understand their own problems. Resulted in students would be able to adjust their learning plans in any time.

The absence of a complete and efficient evolution system creates difficulties to evaluate the teaching status of bilingual education, so it’s necessary to establish a reliable evaluation system for the solution. The “three steps” teaching of acupuncture and moxibustion is created to practice, research and reform the teaching method. The previous stage of teaching practice provides experiences so that the earlier teaching materials can be the basis of the creation of a reliable and efficient evaluation system to complete the education reformation.

Based on the earlier research and practice, with the bilingual teaching material of acupuncture and moxibustion, which was published earlier of teaching reformation in order to carry out the bilingual teaching of acupuncture and moxibustion effectively. The work of “Acupuncture and Moxibustion Flipped Classroom teaching combined with three step bilingual education method” is divided into the following two stages:

II. PRACTICE STAGE

Change the traditional classroom to bilingual classroom with the Flipped Classroom Model. Research different sections’ highlight contents.

The first module is to take an experimental class (30 people) proceed the practice. Before each class, the students follow the instruction of Acupuncturist Clinical Reception Manual(Directed by Xiang-wen Meng) as the main learning materials. The first module is autonomous learning which lasts for two weeks. Teachers provide guidance and improvement instruction during the class. In the second module, students were divided into study groups to imitate the situation of curing diseases, with teachers’ comments at the end of the class. The third module requires students to access information by themselves for translation and writing practice.

A. Disease name module flip practice
Although the students of traditional Chinese medicine have fundamental English ability, they lack the knowledge of professional medical English. In this situation, the “Three step modular teaching method” emphasizes the English name of diseases that suitable for acupuncture therapy. Not only master the acupuncture treatment of diseases, but also to understand the popular diseases abroad. During the learning procedure, students can study different branches of Medicine, and enhance which they learned through specific English cases. The Flipped Classroom improves the self-learning ability of students and their understanding. In their spare time, students can review by reading and asking each other.

B. Reception dialogue module flip practice
In the dialogue practice section, students proceed conversation practice during the class and also their spare time based on Acupuncturist Clinical Reception Manual(edited by Xiang-Wen Meng) and other medical English series as reference. Meanwhile, foreign students and native students are arranged together to participate in class discussion and the simulation of English reception. In practice, students should focus on performing the full characteristics of TCM and conduct a comprehensive and clear-aimed inquiry to explain the basic concepts of traditional Chinese medicine and acupuncture treatment principles. In the course of diagnosis, students should be able to explain TCM in a simple and understandable language, which requires students systematic summarize and practice in the usual learning.

C. English Writing about Acupuncture module flip practice
After a period of studying the diseases’ name and the dialogue, students’ vocabulary, listening and speaking ability have improved significantly. Based on this achievement, students are required to access information and knowledge for writing English summary or articles, which improves students’ capability to write in professional TCM English, for example, a brief introduction of a disease, the interpretation of the basic knowledge of acupuncture and moxibustion.

III. EVALUATION PHASE

The reformation of evaluation methods includes self-evaluation, group evaluation, teacher evaluation and written examination, which can be used to measure the feasibility and effectiveness of The Flipped Classroom Model in the three step teaching of the bilingual education of acupuncture and moxibustion.
Technical route as follows:

![Diagram](https://via.placeholder.com/150)

**Fig. 1. A technical roadmap for the study of flipped classroom evaluations**

The earlier teaching practice and teaching material provide experiences for flipped classroom so that a proper evaluation system and execution plan of bilingual education can be created. Based on the *Acupuncturist Clinical Reception Manual* (Edited by Xiang-Wen Meng) as the guidance, the reformation experimental bilingual class, the establishment of three-grades-evaluation standard and further improvement of teaching materials shall be achieved.

Teaching evaluation is an activity based on the teaching object evaluations so that it can be a reliable feedback for the administration. It is the process of judging the actual or potential value of teaching activities. It normally judges different elements such as teachers, students, teaching methods, teaching materials, environments and education management. Mainly focus on students’ efficiency of studying and evaluation teachers’ teaching process. The evaluation of the bilingual Flipped Classroom education of acupuncture and moxibustion can be divided into the following three stages:

A. **Self-appraisal evaluation**

Students will be divided into several groups; each group will arrange at least two foreign students who study in TJUTCM and several Chinese students to participate in group discussions. The members will follow the teaching materials to determine a topic in every single discussion. Members of the group should research the topic by searching the library and Internet. The discussion procedure is developed as the following stages: group discussion, simulate conversation and final summery. The team leader is responsible for judging each team member’s ability of doctor inquiry and the clinical solutions of different circumstances; the performance of team members will be classified it into three levels—excellent, good and poor.

B. **Teacher evaluation**

Teachers evaluate and judge students’ personal lecture, which is a student’s report after the research of relevant English document. They give their comments, suggestions or supplements according the lectures. Teachers’ evaluation mainly focuses on the following four points:

First: Mastery of knowing the clinical common diseases and its clinical classification.

Second: Whether the student can be able to explain the fundamental concepts of Traditional Chinese Medicine and acupuncture treatment principles based on the Traditional Chinese Medicine theory.

Third: Appropriate language (noticing the cultural differences between the East and the West, and the sensitive topics of them).

Forth: Whether the content of the speech contains clinical and scientific research ideas.

Teacher evaluation is classified into three levels—excellent, good and poor.

C. **Examination evaluation**

Examination has three sections: listening section, writing section and English writing section. Listening section involves a short conversation about interrogation. Writing section is about the common problem of acupuncture with English answer. English writing section is a brief introduction of how acupuncture treats a disease. This part is also classified into three levels—excellent, good and poor.

**IV. SUMMARY**

The execution of The Flipped Classroom Model would changes students’ concepts of “study only for the exam”. It is
more important to enhance the enthusiasm of the students to study acupuncture and to learn English, developing their ability of autonomous study, and enhancing the passion of using other language. The unity of “Teaching material”, “Teaching” and “Evaluation” provides a model not only can help teachers controlling the teaching situation, analyze and correct negative influences, but also assist students to figure out their own disadvantages and guide students to identify key issues and clear their objects.

Although students own more chances to arrange their study plan, task and the class in the Flipped Classroom Model, however it may possibly create a zero-communication circumstance between students and teachers. Therefore establishing an interactive platform for teachers and students is essential. The platform allows teachers can look after students’ learning progress and answer students’ questions in time. The Flipped Classroom Model of bilingual education of acupuncture and moxibustion has been executed smoothly based on traditional teaching material. However it still lacks of the evaluation criteria that students and teachers can rely on. The establishment of an accurate evaluation system for The Flipped Classroom Model in the bilingual acupuncture course should be profoundly improved.

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