# An empirical study on the Teaching of traditional Chinese Medicine Translation based on reversal classroom

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**Abstract:** based on the analysis of the present situation of traditional Chinese medicine translation teaching, this paper combines the concept and mode of reversal classroom with the teaching of traditional Chinese medicine translation, constructs the teaching mode of traditional Chinese medicine translation based on reversal classroom, and carries on the empirical research for one semester. Through testing, questionnaire, interview and classroom observation, it is found that this model can greatly stimulate the interest of traditional Chinese medicine translation learning, is beneficial to the cultivation of learning autonomy, especially to consolidate the translation skills of traditional Chinese medicine and cultivate translation thinking.

#### 1. Introduction

In recent years, with the promotion of internationalization of traditional Chinese medicine, unprecedented achievements have been made in the external dissemination of traditional Chinese medicine culture. Traditional Chinese medicine has been widely spread in the world, the total medical services have spread to five continents, the products are exported to more than 160 countries and regions, and the Confucius Institute has reached nearly 300 all over the world. At the same time, with the enhancement of China's national strength, the strategy of "going out" of traditional Chinese medicine (TCM) has become an important topic to spread the ancient and profound medicine to the world in an appropriate language.

#### 2. The present situation of translation teaching of traditional Chinese medicine (TCM).

However, only a few colleges and universities of traditional Chinese medicine have offered Chinese medicine translation courses, and there are many problems and shortcomings in the existing teaching: if the school does not pay enough attention to it, most of them are elective courses; the teaching content is scattered and there is no sTable knowledge system; the most prominent problem is the antiquity and backwardness of teaching methods, which can not effectively stimulate students' interest in learning TCM translation, and learning is mainly about memorizing the English expressions corresponding to some traditional Chinese medicine contents. The class hours are too limited, the translation skills taught in the classroom are only mechanically remembered by the students, and the translation ability can not be cultivated. A Survey of Translation courses in Colleges and Universities (2014, Wang Fanglu) shows that there are outstanding questions about the existence of this course at present. The problem is that translation teaching basically follows the traditional mode, teaching too much, not enough class hours, translation theory can not be internalized, skills are difficult to form, translation thinking can not be exercised. Therefore, changing the teaching mode of infusion and cultivating translation thinking has become an important topic in translation teaching of traditional Chinese medicine (TCM).

#### 3. Flip the classroom

Flipping classroom (Flipping Classroom, is also translated into reverse classroom, upside down classroom, flip teaching, flip learning, etc.) is a new teaching mode, which is characterized by students' extracurricular self-study knowledge through video, mainly discussion, question

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answering and practice and work display in the classroom, such as "upside down" classroom. It originated in Woodland High School in the United States. Jonathan Berman (Jon Bergmann) and Aaron Sims (Aaron Sams), two chemistry teachers, uploaded videos combining real-time presentations and PPT presentations to the Internet for students who were absent from classes. People pay attention to it. (Hokekang, 2014) since then, thanks to Salman Khan and the Khan College he founded, the flipped classroom has become the hottest topic of educational reform and innovation in the world, and it has become the hottest topic of educational reform and innovation in the world.

#### 4. Theoretical Basis

### 4.1 Mastering the learning theory:

Mastering learning theory (the Theory of Mastery Learning) is a school classroom learning theory put forward by Blum (BLOOM), a famous educational psychologist and curriculum theory expert in the United States, which reflects Blum's basic educational thought and theoretical point of view. The so-called "mastering learning" is to provide students with the individualized help and extra learning time they need under the guidance of the idea that all students can learn well, so that most students can meet the mastery standards stipulated in the curriculum objectives.

## 4.2 Constructivism learning theory:

Contemporary constructivism argues that the world exists objectively, but the understanding and meaning of the world is determined by everyone himself. We construct reality on the basis of our own experience, or at least explain reality. Everyone's empirical world is created with our own minds. Because our experience and belief in experience are different, our understanding of the outside world is very different. Therefore, learning is not a simple transfer of knowledge to students by teachers, but a process of constructing knowledge by students themselves. Students do not simply passively receive information, but actively construct the meaning of knowledge. It can't be replaced by others.

## 5. The construction and application of reverse classroom in traditional Chinese medicine translation

#### (I) Construction model

Through the typical case analysis and research of American woodland high school, Khan College, Lemmon College of Canada, and domestic translation teaching flip classroom, the main characteristics, basic links and constituent elements of the reverse classroom teaching model based on micro-class are obtained. Starting from the present situation of English translation teaching of traditional Chinese medicine, based on the concept of constructivism, using new media technology, combining the cognitive characteristics of college students in the new era, drawing lessons from typical cases at home and abroad, boldly reconstructing the teaching process, that is, subverting the traditional teaching process of "teaching first and then learning", replacing it with "learning first and then teaching", optimizing the teaching content, reforming the teaching method, and constructing the teaching method on this basis. This paper presents a teaching mode of traditional Chinese medicine English translation based on flip classroom.

Before class: post micro-class on campus network or qq group, WeChat group, students click on computer, pad or mobile terminal anytime, anywhere click for personalized autonomous learning, free choice of task list, release classroom time for TCM translation practice and practice.

In class: based on the content of micro-class, a large number of teachers and students carry out a variety of interactive activities. Students ask questions, teachers answer questions, meet personalized learning needs; discuss cases of traditional Chinese medicine translation, deepen the understanding of theoretical knowledge; practice translation skills; organize cooperative learning, cooperate to complete translation tasks, experience the fun of cooperative communication, enhance the drive of translation; display translation works, teacher comments, students' mutual evaluation,

timely feedback.

After class: review the content of micro-class, introduce the resources of expanding learning, and issue after-class exercises, divided into two difficulty levels, students are free to choose grades. Specify the time to conduct learning feedback, discussion or answer questions in learning communities such as qq or WeChat groups.

## (2) Application cases

A.Teaching chapter

English translation skills of metaphor in traditional Chinese medicine

Teaching objectives: to understand the metaphorical characteristics of traditional Chinese medicine language; to master the common methods and skills of translation of traditional Chinese medicine metaphors.

## B. Teaching process:

I.Before class, we will focus on learning content: English translation of traditional Chinese medicine metaphors into 8 minutes of micro-lessons, attached to the independent task list, published to QQ group shared files. There are two aspects to the task list. What are the metaphors in the language of traditional Chinese medicine, please give 2 examples? 2 Please try to translate the following words: Qi is the most, if the fish swallows the hook bait, the qi is the most, such as the depth of Yan's place.

Teachers check the completion of thestudents'self-learning task list before class, collect problems and refine difficulties.

#### II Class

- 1) comment on autonomous learning before class, praise and encourage, relive the micro-class, in view of the difficulties reflected by the students' homework before class, explain the difficulties in detail to all
- 2) grouping to complete the translation task: divide the students into 4 groups and assign translation tasks. The task of this class is to translate five traditional Chinese medicine sentences with metaphors. The task is to complete within 30 minutes. The group members can discuss, cooperate and finally select the best translation. One student in each group is selected to report on the translation, and the principles on which the translation is based and their own translation ideas are expounded. In this process, teachers can provide auxiliary resources, such as online translation dictionaries, Chinese medicine terminology website address, students can use mobile phones, Tablets and other tools to access information at any time. The transformation of a teacher from a lecturer to an active group Weaver and helper, resource provider, learning partner. Walk between groups, observe students' participation and performance, and provide help if necessary.
- 3) Teachers summarize the completion of translation tasks in each group, comment on the achievements and shortcomings of translation, and record the universal problems existing in translation
- 4) interpretation of typical translation examples: this paper makes a comparative analysis of Li Zhaoguo's and veith's translations of stomach metaphors to guide students to think deeply from many angles.

#### III. After class:

Issue after-class expansion exercise: a paragraph of Huangdi Neijing words, containing metaphorical words. Students independently use resource tools to complete translation tasks, through online communication and interaction, translated into public mailboxes, teachers and students together to select the best translation.

#### (3) Application cases

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#### 5. empirical research

The research group applied this model to the English translation teaching course of Chinese medicine communication major in our university, and carried on the teaching experiment for one semester.

#### (1) Study subjects

2014 Chinese medicine liberal arts two parallel classes 1 and 2 were selected as subjects. Before the experiment, all the students completed the basic courses of intensive reading, listening, oral English and English major of traditional Chinese medicine, but did not receive translation training.

#### (2)Research tool

The main results are as follows: 1) the test papers used in the pre-test and post-test are the Chinese medicine translation competition questions compiled collectively by the subject group, including the four-character phrase of traditional Chinese medicine, the sentence of the basic theory of traditional Chinese medicine, and the name of traditional Chinese medicine prescription. Two sets of questions were tested by Cronbach alpha coefficient test reliability (reliability), validity (validity) test. The reliability and validity are in the qualified range.

At the end of the experiment, a questionnaire was compiled to investigate the students' attitudes and views on the translation teaching. The questionnaire is divided into three parts, a total of 15 questions, the last question is an open question, let the students fill in the suggestions and opinions

on the implementation of the flip classroom. The first part examines the students' attitude towards the new model, the second part investigates the students' adaptability to the new model, and the last part investigates the problems existing in the implementation of the new model in order to improve the model.

#### (3) Experimental design

The method of pre-and post-test was carried out by equal group. Before the experiment, the pre-test (pre-test) was carried out on the two groups of students; in the experiment, the traditional teaching mode and the flip classroom teaching mode were used in text 1 and text 2, respectively, the control group was the control group, and the experimental group was the experimental group. After the experiment, the post-test (post-test) was carried out on text 1 and text 2, and the experimental hypothesis was verified by analyzing and comparing the test results. A questionnaire survey and interview were conducted to understand the students' views on the two models.

## (4) Teaching process

Compared with the traditional mode, the teaching mode of the experimental group realizes two flips: first, the study of traditional Chinese medicine translation skills is handed over to the students through self-study micro-class before class; second, the traditional classroom explanation-practice model is replaced by the students' translation workshop model. The traditional mode is subverted in the teaching process and the main body of classroom activities.

I. Teaching design of experimental group

The experimental group adopted mixed learning style. Watch the teaching video before class, the classroom is mainly used for questioning, discussion, group cooperation to complete the translation task, after class revisit the video, complete the expansion task.

II. Teaching week: every single week of flipping classroom mode teaching, that is, 1,3, 5, 7, 9, 11, 13, 15 weeks

Flip the allocation of class hours in the classroom, 3 hours at a time, a total of 24 hours

Teaching content: the basic situation and characteristics of traditional Chinese Medicine Translation in the first week

The method of translating the names of traditional Chinese Medicine prescriptions into English in the third week

Translation methods commonly used in Chinese and English Translation of traditional Chinese Medicine from week 5 to week 7

English Translation form and usage of expression structure commonly used in traditional Chinese Medicine papers in week 9

English Translation of Abstracts of traditional Chinese Medicine papers in the 11th and 13th weeks Matters needing attention in translating Chinese Medicine classics into English in the 15th week

#### 6. Teaching procedures

Before class: post micro-class on campus network or qq group, WeChat group, students click on computer, pad or mobile terminal anytime, anywhere click for personalized autonomous learning, free choice of task list, release classroom time for TCM translation practice and practice.

In class: based on the content of micro-class, a large number of teachers and students carry out a variety of interactive activities. Students ask questions, teachers answer questions, meet personalized learning needs; discuss cases of traditional Chinese medicine translation, deepen the understanding of theoretical knowledge; practice translation skills; organize cooperative learning, cooperate to complete translation tasks, experience the fun of cooperative communication, enhance the drive of translation; display translation works, teacher comments, students' mutual evaluation, timely feedback.

After class: review the content of micro-class, introduce the resources of expanding learning, and issue after-class exercises, divided into two difficulty levels, students are free to choose grades. The appointed time is used for learning feedback and discussion in learning communities such as qq or WeChat group.

#### (2) Teaching design of control group

According to the traditional teaching mode, no pre-class teaching video is adopted, the classroom is dominated by teachers, students listen to lectures, take notes, and carry out a small number of discussions and questions under the guidance of teachers.

Teaching week: 1 week 16 weeks

Allocation of class hours, 3 hours at a time, a total of 48 hours for 16 times

The teaching content: the basic situation and characteristic of the first week's translation of Chinese medicine

English Translation of the names of traditional Chinese Medicine prescriptions in the 2nd and 3rd weeks

Translation methods commonly used in Chinese and English Translation of traditional Chinese Medicine in the 7th week

English Translation forms and usages of expression structures commonly used in papers of traditional Chinese Medicine in the 8th and 9th weeks

English-to-English translation of the Abstract of Chinese medicine in the 10th to 13th week

Matters needing attention in translating Chinese Medicine classics into English from 14 to 16 weeks

Teaching procedures:

Teaching translation skills-student exercises-teacher comments-after-class translation tasks

#### 7. Results and discussions

#### 1) Post-test results

At the end of the experiment, the two groups were tested with another test paper of the same difficulty, the score was counted by spss, and the independent sample t test was carried out. The data showed that the average score of the experimental group was 74.74, that of the control group was 73.82, and that of the experimental group was slightly higher than that of the control group (p value 0.439, > 0.05), indicating that there was no significant difference between the two groups. From the relevant data, there is no significant difference between the experimental group and the control group, it seems that the reversal of the classroom model does not significantly improve the translation performance. The analysis of this phenomenon by the research group is as follows: 1. Maybe the teaching experiment is not long enough to show Show the effect of the new model. For the revolutionary teaching mode of flipping the classroom, students have a process of gradual adaptation, after which they can give full play to their advantages and functions. 2. The effect of pre-class self-study will also have an impact, according to statistics and observation, not all students adapt to pre-class self-study, some students are not strong in learning autonomy, rely on the supervision and explanation of teachers, some students do not respond to extracurricular time, can not study video well, the natural classroom learning is lack of foundation. The activity design of flip classroom focuses on the translation case analysis of different translators, which can stimulate interest in learning and activate the classroom atmosphere, but the design of translation task may also be It is not enough to promote the consolidation of translation skills.

## 2) questionnaire and interview results

At the end of the teaching experiment, five students in the experimental group were selected according to five scores, one from each. The semi-structured interviews were carried out, and the whole process was recorded, and the students' attitude towards flipping the classroom mode was analyzed in detail.

The students with excellent test results have the best evaluation of the mode of flipping the classroom. They think that the flipped classroom is very suiTable for themselves and cultivate their self-study ability. Watching the micro-class before class makes their learning progress very easy. The activities in the classroom can exercise their language expression ability, grasp the translation skills more firmly, and discuss problems with their peers so that the study is full of fun. The learning efficiency is very high, and the practical ability of traditional Chinese medicine translation is greatly enhanced. Students with medium grades reflect that flipping the classroom can stimulate

interest in learning more than the traditional teaching model, but it takes some time to adapt to this way of learning, sometimes the pre-class learning is not enough. Unable to participate in translation tasks well in class. The lower score of the test found it difficult to adapt to this new model, feeling unable to keep up with, and not learning the same. According to the relevant data, more than 85% of the students are very interested in this model and have high satisfaction. It is hoped that the model will continue, and 92% of the students think it is conducive to the exercise of translation skills. In the reverse classroom of traditional Chinese medicine, the study of translation skills is put before the class, and a large number of classroom time is released for students' translation practice. Through independent translation, group cooperative inquiry, teacher comments, question answering and other activities, translation skills have been internalized and consolidated. Some students agree with this. However, there are still a small number of students because of various reasons, self-study before class did not learn well, nor did they consult teachers and classmates. Teachers no longer teach translation skills in the classroom, resulting in no good foundation in translation practice, and the mastery of translation skills is naturally not ideal.

What is the effect of learning before class, are you willing to communicate with other members of the group in class, and have you been solved when you encounter problems? The positive rates of these three items were 59%, 51% and 46% respectively. It can be seen that there are great problems in these three aspects in the process of the implementation of the teaching mode. This is also very related to the fact that the final performance has not been significantly improved. The self-study based on micro-class before class does not achieve a good learning effect, which may be related to students' autonomous learning habits, the production effect of micro-class and the management of pre-class self-study. Before the implementation of the new model, students are used to the traditional model, self-study strategies and abilities. It's not enough. It's very dependent on teachers. There are also students who reflect that they are very busy after class and sometimes forget to study themselves.

Most students reflect that the explanation of micro-class knowledge points is clear, which is very helpful to self-study and review, but it is too serious and formal, the knowledge points are not small enough, the use of multi-modal elements is not enough, and the attraction is not enough. Because there is no online learning platform system, there is no strict record of students' self-study, only through autonomous learning practice to understand students' self-study, which also makes some students who are not very conscious are in an unconstrained management state, and to a certain extent, it also affects the implementation effect of turning Chinese medicine English translation teaching based on micro-class. In this section of the group discussion, the feedback is the worst, because of the size of the class, people Many students are not very familiar with each other, coupled with the temporary formation of groups according to their seats in the classroom, which fails to fully reflect the wishes of the students, and the grouping does not take into account the high level, medium and low collocation, resulting in the result of the cooperative discussion is not very ideal. Some students feel that the problem has not been solved through the group discussion, and their interest is gradually reduced.

3) classroom observation: through the design of classroom observation scale to observe the attendance rate, speech, participation in the discussion and other aspects of observation records, to investigate the learning initiative of the two classes. The attendance rate of the experimental class was 95%, which was significantly higher than that of the control class (87%). The students spoke actively in the classroom. In this respect, the experimental class was also significantly superior to the control class, which reflected that the experimental class was more active in learning, more active in the classroom and stronger in the learning atmosphere.

#### 8. Conclusion and suggestion

Through the analysis of the results of post-test results, classroom observation and questionnaire interviews in the two classes, we can draw the following conclusions: flipping the classroom can stimulate interest in learning, is conducive to the cultivation of autonomous learning ability, is conducive to the formation of a good learning atmosphere, the consolidation of translation skills,

the cultivation of translation thinking, plays a role in promoting translation teaching of traditional Chinese medicine, but there are also many limitations in its implementation. Such as the management of autonomous learning before class, the quality and type of micro-class, the design of classroom activities, teaching resources, class size and other issues will affect the whole teaching effect. Among them, the quality of micro-class and the design of classroom activities are the key.

How to apply this new teaching mode to teaching practice and improve the teaching effect instead of being mere form. Teachers should study carefully according to the actual situation and characteristics of the school, curriculum, and students, and strive to explore a suiTable reverse classroom teaching mode. This study is a preliminary exploration of the reverse classroom teaching mode based on micro video. In the future teaching, the research group will continue the research of this topic, strive for excellence in the design and production of micro lessons, according to the visual thinking and situational teaching theory, make more exquisite micro lessons, at the same time, delve into the classroom activity mode and evaluation mode based on flip classroom, and constantly improve the classroom activities and evaluation methods based on the visual thinking and situational teaching theory. The reverse classroom teaching mode of microvideo.

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- 2) Research and Practice of Training Mode of Chinese Medicine English Interpretation Specialty in Jiangxi Provincial Teaching Reform Project(JXJG151215).

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