

# *Implicit Knowledge Construction of Business English Based on the Flipped Classroom*

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**Abstract**—This paper aims to explore how to construct implicit knowledge of business English based on the flipped classroom. Guided by the new constructivism theory, it probes into three construction levels of implicit knowledge and proposes a practical implicit knowledge construction model to instruct the teaching practice. The implicit knowledge can be constructed in the flipped classroom from three levels of teaching environment, teachers and students, which make teachers' targeted guidance and collaborative learning between teachers and students run through the entire teaching process of the flipped classroom. The implicit knowledge construction model proposed in this study represents for an innovative teaching mode for business English instruction. Three stages of the teaching mode can effectively promote the efficiency of implicit knowledge construction of business English.

**Keywords**—*business English; flipped classroom; new constructivism; implicit knowledge; mode of construction*

## I. INTRODUCTION

As an interdisciplinary specialty, business English in colleges and universities has been undergoing teaching model reform in recent years in an effort to achieve three shifts: a shift from a knowledge indoctrination-based teaching model to a skill acquisition-based teaching model, a shift from a teacher-centered classroom teaching model to a student-centered classroom teaching model; a shift from a focus on language and business theory knowledge teaching to a focus on students' learning autonomy and enthusiasm and the development of their practical skills. The Outline of the National Plan for Medium and Long-term Education Reform and Development (2010-2020) specifies the strategic requirements of "promoting modernization in education through the informatization in education" and calls for adhering to the principle of people orientation, fostering the sense of the diversity of talents and professionals, respecting individuals' personal choices, and encouraging personalized development. The Medium and Long-term Development Plan for Educational Informatization in Anhui Province (2013-2020) clearly requires "taking informatization in education as a key area of informatization in Anhui" and points out "providing learners with information-based environment and services for personalized learning". This paper, from the perspective of new constructionism theory, intends to explore how to effectively tap and construct implicit knowledge in business English courses in the flipped classroom

teaching based on micro-lectures, MOOCs and mobile terminals with a view of achieving effective personalized teaching purpose.

## II. RESEARCH BACKGROUND

### A. Theoretical Review

So far, the flipped classroom has gone through three stages. Its infancy could be traced back to the mid-19th century and was represented by the teaching model of "distributing preview materials before class, in-class discussion and problem solving" adopted by the United States Military Academy at West Point; the development stage was marked by the establishment of Khan Academy in 2004, which adopted the model of recording in-class real-time instructions and slide presentations as videos and uploading them on YouTube video website and received good teaching results and social favorable comments; thanks to the rapid development of modern information technologies, the Internet+ teaching environment characterized by teaching platforms such as micro-lectures, MOOCs and mobile terminals and virtual visual teaching resources has completely changed traditional teaching models, causing the flipped classroom to step into the promotion stage, thus laying a solid material foundation for the extensive development of today's personalized teaching and research.

According to whether knowledge can be clearly articulated and effectively transferred, knowledge can be divided into two categories: explicit knowledge and implicit knowledge. From the perspective of teaching, knowledge that can be directly transferred to students through teachers' instructions is the explicit one, while knowledge that is difficult to be transferred through simple teaching is the tacit one. In the sense of acquisition, the effective acquisition of implicit knowledge is more meaningful. The acquisition of implicit knowledge depends largely on the introspection and reflection of students and the cooperative learning between teachers and students. It is easy to carry out creative reconstruction of knowledge and form knowledge innovation. Also, implicit knowledge is divided into absolute implicit knowledge and relative implicit knowledge. The formal is difficult to be articulated directly by means of written or verbal words or symbols, or in other words, "we can know more than we can tell"; while the latter requires in-depth tapping, then it is possible to articulate previously unrecognized knowledge by means of written or verbal words

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or symbols. In teaching activities, both explicit knowledge and implicit knowledge exist in the curriculum. [5]

The classical constructivism learning theory has a profound influence, and its core idea is the situation, cooperation, conversation and meaning construction. The new constructivism theory is a localized innovation of foreign classical constructivism theory by Professor Wang Zhuli, and is also a learning theory more applicable to the network information technology era [3]-[4]. Its basic concept emphasizes the importance of real context in the learning process, highlights the key role of collaboration and conversation in the learning process, and believes that the learning process is a meaning construction process and knowledge is relative rather than absolute [3]. In combination with the Internet+ learning context, the new constructionism endows the classic constructivism with new connotations to avoid the regular phenomenon occurring in the process of the application of foreign theories and models that the theory and practice depart from each other. The new constructionism theoretical system advocates the learning strategy of "fixed deposit by installments", integrates learning, application and innovation into an organic whole, and emphasizes that the meaning construction process includes knowledge innovation. Its core ideas can be summarized as "context, searching, selecting, writing, communicating, innovating and meaning construction". The theory holds that learning in the network era should construct a spidery personalized knowledge system based on individual needs; the spidery structure should be built with the concentration on interests and needs to make it more targeted and practical and closely combined with personal practice and experience. Since the spidery knowledge structure varies from person to person, it is much more apt to generate collaboration and complementation in the learning process, thus stimulating knowledge innovation. In view of the above-mentioned construction characteristics of the knowledge structure, the new constructionism theoretic system is not only adaptable to the teaching requirements in the information era but also more in conformity with the teaching characteristics at the university stage.

### *B. Research Status and Significance*

The flipped classroom, based on the Internet+ teaching environment, is a new model in today's education field that is now gradually accepted by numerous teachers and students, and is used to substitute traditional classroom teaching. In the flipped classroom, with the aid of technical equipment, such as the mobile terminal teaching platform, teachers can guide students to participate in teacher-student and student-student discussions, exchanges and sharing with questions, and arrange classroom tasks which are required to be completed by group cooperation to finally realize the understanding and internalization of new knowledge. According to the new constructivism theory, knowledge is also divided into explicit knowledge and implicit knowledge, and implicit knowledge may contain many factors conducive to knowledge innovation. Therefore, the theory highly focuses on the tapping of implicit knowledge. The theory emphasizes that under the effective guidance of teachers, students learn to search and select, and utilize learning strategies, such as "integral-ware writing",

"personalized rewriting" and "creative reconstruction" for carrying out a learning model featured by "fixed deposit by installments" to gradually construct a personalized "three-level knowledge structure" model, and then comprehensively utilize other learning strategies for participating in learning activities to maximize the explicit or implicit knowledge and finally to achieve the purpose of stimulating in-depth thinking and promoting knowledge innovation. At present, the new constructivism theory is still in the development stage. Although some researchers have applied this theory to information technology-based new teaching models in the past five years, which involves the applied research on micro-lectures in adult open education [6] and research on the teaching of a specific SPOC curriculum [7], the practice under the guidance of the theory is still insufficient, and a large number of empirical teaching researches are required to support and develop the theory from different angles.

In the spirit of the Chinese government's documents on education reform and development, guided by the new constructivism theory and based on the teaching practice of business English curriculum, this study selects the implicit knowledge in the flipped classroom of business English curriculum as the entry point for the study to explore how to tap implicit knowledge, stimulate knowledge innovation, cultivate applied talents with innovative abilities, and promote the development of informatization in education in the process of personalized teaching.

## III. CONSTRUCTION LEVELS AND IMPLICIT KNOWLEDGE CONSTRUCTION MODEL

### *A. Construction Levels of Implicit Knowledge*

On the basis of enriching information-based teaching resources and utilizing the flipped classroom teaching model, teachers and students can construct the implicit knowledge in the business English professional curriculum from two directions. During the constructive process, the tapping and cognition of implicit knowledge can be stimulated. The objective of effective personalized teaching and the improvement of knowledge innovation capabilities can also be achieved. Specifically, the exploration can be conducted from the following three levels.

#### *1) Level of teaching environment*

At the teaching environment level, the construction and application of the Internet+ learning environment and information technology-based teaching resources is to be deepened. To deepen the construction and application of intramural and inter-academic Internet+ learning environment and information technology-based teaching resources, teachers of business English major of Anhui Sanlian university have vigorously been developing the construction of large-scale online business English courses and high-quality video open classes for courses such as Foreign Business Correspondence and Business English Negotiation, continuously enriching the software resources in the learning center, and striving to promote the construction and application of university students' autonomous learning center. In addition, teachers of the major have also been trying to establish the appropriate flipped classroom model, accumulating experience in

effectively coordinating and correctly handling the relationship between flipped classroom and various teaching models in traditional teaching to strive to promote the information-based teaching reform in the university. Also, successful practical experience and research results have been being promoted through intramural and inter-academic activities such as information resource sharing and exchange learning.

2) Teacher level

At the teacher level, implicit knowledge helpful to stimulate knowledge innovation is to be constructed. Teachers of business English major of Anhui Sanlian university have been practicing flipped classroom model in the process of business English curriculum teaching in combination with the teaching reality, and making full use of completed MOOC and micro-lecture resources and mobile terminal teaching platform to enrich the teaching resources and instructional design of business English for constructing personalized implicit knowledge learning resources that are helpful to stimulate knowledge innovation. In addition, with the efforts made by teachers of the major to conform to the requirements of the network era, the guiding role of teachers can run through the whole process of learning activities through the changes in roles and tasks of teachers; the problem of differentiation of different learners can be earnestly solved through teachers' targeted guidance to students; students can actively participate in inquiry learning and collaborative learning, and ultimately realize the effective construction of implicit knowledge through the enrichment of teaching resources and optimization of activity design.

3) Student level

At the student level, the ability to tap implicit knowledge and the ability to innovate knowledge is to be cultivated. To cultivate students' ability to tap implicit knowledge in formal curriculum and improve their cognitive ability and innovative ability, teachers of business English major of Anhui Sanlian University has actively been introducing knowledge fragment sorting strategy in flipped classroom to stimulate students' in-class and after-class in-depth thinking and interactive communication and continuously promote students' various learning abilities, such as language performance ability, communicative ability, observation ability, memory association ability and logical thinking ability, especially their abilities to tap, sort out and innovate implicit knowledge.

B. Implicit Knowledge Construction Model

Under the guidance of the new constructivism learning theory, with the organic combination of the above-mentioned three levels, the construction model of implicit knowledge of business English based on the flipped classroom can be constructed, as shown in Fig. 1. The operation process of the construction model can be divided into three stages: the preliminary flipping stage, the medium flipping stage and the final flipping stage, which will be expounded with illustrations below.

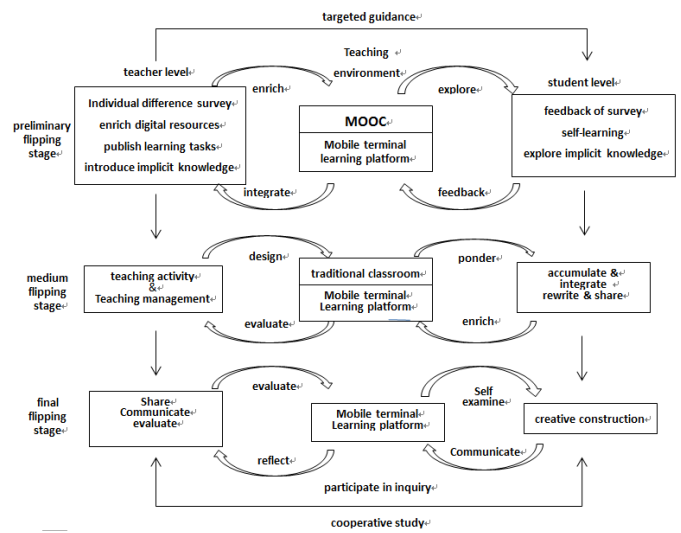


Fig. 1. The Construction Mode of Implicit Knowledge

1) Preliminary flipping stage

The construction model of implicit knowledge shown in the figure above is based on the flipped classroom teaching model. In the preparation stage, a flipped classroom teaching model must be first established for case curriculum of business English major, i.e., a teaching model featuring micro-lectures/MOOCs + mobile terminal + traditional classroom. Then, the model is comprehensively constructed through the analysis on five aspects: differences in students' individual characteristics, enrichment of teaching resources, design of teaching contents, optimization of teaching strategies, and teaching evaluation. In the preliminary flipping stage, teachers can use the mobile terminal learning platform to get a general understanding of students' starting level, learning motivation and attitude, learning style, information literacy and targeted individual difference elements before class through questionnaire survey. After students respond to the survey, an analysis is made on the feedback for teachers to adjust the instructional design in a timely manner. In the aspect of enriching teaching resources of flipped classroom, teachers can select self-made micro-lectures, network micro-lecture resources, network excellent course videos, MOOC resources on ehuxue (Anhui Online Courses Learning Center) and Moso Teach mobile terminal teaching platform to enrich micro-lecture and MOOC teaching resources. At the same time, teachers should try to avoid and reduce redundant information and knowledge, and intentionally introduce implicit knowledge tapping points. In the process of autonomous learning, students begin integral-ware mode writing accumulation, and consciously search for implicit knowledge tapping points, which are fed back to teachers through the mobile terminal learning platform. Combining with the feedback, teachers optimize the design of subsequent classroom teaching and teaching tasks, and integrate implicit knowledge with formal teaching content to guide students to perform further in-depth exploration.

2) Medium flipping stage

The medium stage of flipping is a traditional classroom teaching link. In addition to designing traditional course

content, teachers are also required to design relevant teaching content in the context of times according to the characteristics of the network era and utilize the mobile terminal learning platform in a timely and effective manner for assisted teaching. In the traditional classroom learning process, students continue to accumulate and integrate knowledge, and proceed personalized rewriting of tapping points of implicit knowledge found in the preliminary stage through teacher-student and student-student sharing and exchanges, or in other words, students write and submit reflective notes on the mobile terminal learning platform based on their own interest in the knowledge points and the tapping depth of the knowledge points. At the same time, teachers should play an active and guiding role on the platform and make effective evaluation in due time. In the teaching link, teachers should highlight the tapping of implicit knowledge and take the sorting of knowledge fragments as the focus of teaching strategy design.

### 3) *Final flipping stage*

The final stage of flipping is the key link in the construction of implicit knowledge. The main task of this stage is that both teachers and students introspect and reflect on the knowledge learned, and with the aid of the mobile terminal learning platform, students share and exchange internalized knowledge with teachers while teachers carry out teaching evaluation based on students' individual needs and problem solving and incorporate implicit knowledge construction and knowledge innovation into the evaluation to achieve creative construction of knowledge. In the teaching process under the whole flipped classroom model, the teachers' targeted guidance runs through the process, and teachers and students participate in the tapping and exploration of implicit knowledge through collaborative learning.

## IV. CONCLUSION

The construction of the flipped classroom teaching model has established an effective platform for students' autonomous and personalized learning, not only helpful for students to expand learning of explicit knowledge of business English, but also conducive to implicit knowledge tapping, thereby improving their knowledge innovation ability. The implicit knowledge can be constructed in the flipped classroom from three levels of teaching environment, teachers and students to make teachers' targeted guidance and collaborative learning between teachers and students run through the entire teaching process of the flipped classroom. Each stage of the teaching process is a cycle of teacher-student collaborative tapping, communication, reflection, integration, and evaluation, in which implicit knowledge is constructed and knowledge is innovated. The new business English teaching model featuring micro-lectures/MOOCs + mobile terminal + traditional classroom established for case curriculum of business English of Anhui Sanlian University enriches teaching resources of the

case curriculum on the one hand, and on the other hand enhances students' enthusiasm for autonomous learning and participation in teaching activities and significantly increases interactive communication related to the curriculum especially after-class interactive communication carried out with the aid of mobile terminal. The teaching practice of case curriculum in the application of the implicit knowledge construction model has also accumulated some experience and achievements for this study. The preliminary, medium and final stages of flipped classroom effectively integrate and enrich the explicit and implicit knowledge of the case curriculum, and connect the teacher-student collaboration, exchange, reflection, and evaluation in various links, thereby urging teachers and students to pay more attention to the tapping and introspection of implicit knowledge and better showing the teaching effect of the new model of flipped teaching. However, the implicit knowledge construction model is initially established, requiring numerous flipped teaching practices for testing and improvement. In the future, the experience can be replicated to other business English courses. Sharing teaching experience among teachers, for example, teachers should be familiar with teaching resources of MOOCs or micro-course and select appropriate teaching resources. Moreover, interaction between teachers and students, investigation of individual differences of students are particularly important. Further action research can be carried out based on the implicit knowledge construction model established in this study. In the concrete practice of the flipped classroom teaching model, in combination with the tapping points of implicit knowledge in business English courses taught and actual feedback of students, elements of each link in the construction model can be appropriately increased or decreased and improved, and the teaching information resources can be continuously enriched to accumulate teaching experience.

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