Research and Practice on the Blended Teaching Mode of College English Based on the MOOC + SPOC Platform

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Abstract

Based on comparison and contrast between the blended teaching mode and the traditional one, this project takes the college English course at Harbin Institute of Technology as an example to design and practice the blended teaching mode based on the MOOC + SPOC platform. This mode aims to develop cross-cultural communicative competence of college students in an all-round way. On the basis of the teaching resource database set up by ourselves, blended teaching is led by an open and collaborative faculty and also driven by various communicative activities. With diversified assessment as a guarantee, an "Internet+" oriented college English learning community centered on students is established. This mode consists of online education and face-to-face instruction with miscellaneous activities such as discussions, presentations, role-play and reports, which reflects the Internet ethos of openness, participation, collaboration and sharing, as well as the concept of research-based learning and team work. The results show that blended teaching not only makes full use of the advantages of MOOCs but also gives full play to the strengths of face-to-face approaches, thus optimizing the overall educational experience.

Keywords: blended teaching mode, MOOC, SPOC

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Introduction

In the "Internet+" era, the development of conventional college English classrooms is hindered. Conventional face-to-face and one-way instruction in class can no longer meet the needs of college students who have grown up in a digital world. For them, such an English class lacks vitality, which results in declining student interest in learning English. Thus, only through the effective integration of information technology and the Internet with English classrooms, and constant innovation in teaching modes, can the students' commitment be assured. In 2016 the Ministry of Education for the People's Republic of China issued The College English Teaching Guide, which proposes to combine information technology with curriculum design at a grass-roots level, thereby giving full play to the advantages of information technology in teaching. This in turn encourages teachers to implement the blended teaching mode based on micro class, Massive Open Online Course (MOOC), Small Private Online Course (SPOC) and flipped class models, so as to develop their students' abilities in active learning, independent learning and personalized learning. In recent years, more and more college English teachers are interested in flipped classroom. The blended teaching mode based on the internet platform will be the main mold for teaching organization in the future.

Rationale of the Blended Teaching Mode

Flipped classroom (AKA flipped teaching or flipped learning) is a pedagogical model in which content instructions normally conducted within the classroom are performed by the learners as homework, and classroom time is used for practice and application (Alvarez, 2011; Leis, Tohei, & Cooke, 2015; Mc Carthy, 2016). Flipped classroom is very different from the conventional mode where the teacher is typically the central focus of the class and the primary disseminator of information and knowledge during the lesson. To be specific, students are introduced to the course content prior to class by means of videos, podcasts, PPTs etc. for direct instruction so as to conserve class-time for collaborative work. The flipped classroom is an inversion of the conventional teaching approach, which requires students to learn by themselves beforehand and discuss with their teacher and classmates in class (Fischer, 2013). The teacher responds to questions while students refer directly to him or her for guidance and feedback. The distinctive feature of flipped classroom is that the input of knowledge is finished before class while the internalization of knowledge is achieved in class. Students construct knowledge positively, instead of acquiring knowledge passively. They are the focus of the class, while the teacher is the organizer, instructor, and supervisor as well. This kind of teaching model saves classroom time, enhances the interaction between teachers and students, and helps cultivate students' self-learning and cooperative communication potential.

The theoretical basis for our flipped classroom is constructivist theory (Piaget, 1973) which views learning as the result of mental construction. In constructivist thinking, learners are given the opportunity to try out ideas and hypotheses and to invent their own solutions. They assimilate new information to pre-existing notions and modify their understanding in the light of new data. In the process, their ideas gain in complexity and power, and with appropriate support they develop critical insight into how they think and what they know about the world as their understanding increases in depth and detail.

Within the framework of cognitive constructivism, the role of the learner in knowledge construction is highlighted, and meaningful learning is emphasized. Each student is different, and thereby brings to the learning process different cognitive abilities and previous experiences alike. As such, students must be taught individually, learning these things they see as relevant to their own needs. Each student should be taught at his or her own rate, and allowed to be involved in decisions about what to learn and how to approach it. As each individual will never have exactly the same environment or experiences, people will never form exactly the same understanding of reality (Jonassen, 1991).

The constructivist views of learning and cognitive development provide an important theme in understanding the design of multimedia language-learning environments with learners viewed as active constructors of their knowledge (Boyle 1997). Based on these assumptions, educators need to provide learning environments that capitalize on inconsistencies between the learners' current understandings and the new experiences they encounter. Learning environments should be designed to challenge their understandings, while learners should be encouraged to compare conflicting ideas and discuss conflicting views based on their existing knowledge as they try to accommodate new knowledge that is internally inconsistent. Activities require learners to compare and contrast similarities and differences (Perkins, 1991) and they have to be arranged to meet the individual needs of students.

Unlike Piaget, Vygostsky places the origins of learning firmly in a social context. His argument is that cognitive development is socially located, and individual learning follows social learning. Knowledge is seen as embedded in a social context and often referred to as "situated cognition". From a social constructivist perspective, people through interacting with the world construct text and refine cognitive representations to make sense of them. Social construction emphasizes the dynamic nature of the interplay between teachers, learners and tasks, and provides a view of learning as arising from interactions with others. Since learning never takes place in isolation, the importance of the learning environment or the context within which the learning takes place should be recognized. Teachers, learners, tasks and contexts are regarded as four key factors that influence the learning process, and none of these factors exists in isolation (Williams & Burden, 2000).

As knowledge is highly likely to be constructed through social interaction, technological affordance such as the Internet and MOOCs could be appropriately used to form communities of inquiry, thereby providing learning environments which encourage critical dialogue and enhance understanding (Vygotsky, 1978). In view of this, educational technology could become a platform from which to accomplish the goals of social constructivism. In other words, social constructivist learning may be implemented through blended teaching and learning based on the MOOC + SPOC platform.

Construction and Practice of the Blended Teaching Mode of College English Based on MOOC + SPOC Platform

Our project takes the college English course at Harbin Institute of Technology (HIT) China as an example to illustrate the blended teaching mode based on the MOOC + SPOC platform. We started this reform in 2018 with around 600 college students.

This blended teaching mode was designed to develop cross-cultural communicative competence in an innovative way, and consisted of online learning and face-to-face instruction in class with miscellaneous activities such as presentations, role-play, forum discussions and reports which involved the social constructivist learning described above.

We provided the MOOC "Speaking and Writing as a New Scientist" for all students in our study. The course was designed and implemented to develop productive skills of postgraduates and undergraduates in English communication. Oriented towards intercultural communication, the course empowers university students, doctoral students, master students and undergraduates to have their voice heard in the form of spoken or written communication for knowledge advancement and technical innovation. The emphasis is on the "transfer" from spoken English to written English, and vice versa. Through spoken English, university students will learn to communicate their ideas in relation to new developments in science and technology, whilst through written English they will learn to articulate their ideas concisely and appropriately, thus learning to construct academic discourse and strongly express their contribution to knowledge advancement and technical innovation. The course was developed in the light of the actual needs of university students specializing in science and technology. It provides a variety of exercises to cultivate their capability fully in academic discourse construction, starting from giving presentations at an international conference and ultimately culminating in writing abstracts and research papers for international journals. The students were offered abundant opportunities to experience intercultural communication in different styles, including frozen, formal, casual, consultative and intimate. Through personal experiences, university students were expected to develop practical skills in the real life context of English communication, enhancing their intercultural communicative competence and their employment competitiveness in the global market.

1. Blended Teaching: Combination of MOOC + SPOCs + flipped classroom

Blended learning is defined as the "thoughtful integration of face-to-face, classroom-based experiences and online learning" (Garrison & Kanuka, 2004, p. 96). In view of this, we asked students to watch online lectures after class. In the flipped classroom, the teacher's interactions with students were more personalized and less didactic, and students were encouraged to involve themselves actively in knowledge acquisition and construction as they participated in and evaluate their learning. The guiding ideology of the mode is presented in Table 1 which shows that flipped classroom intentionally shifts instruction to a learner-centered model in which class time explores topics in greater depth and creates meaningful learning opportunities.

Table 1: Guiding ideology of the mode

Online teaching	Face-to-face teaching
Input-oriented	Output-oriented
Exercise-oriented	Communication-oriented
Address general issues	Address major and difficult issues
Create personalized learning chances	Create cooperation and communication
	opportunities

2. Period arrangements

There are twenty-four periods for this course per semester, three hours per week, and eight weeks in total. All students were required to attend the flipped classroom, where they were divided into several study groups each consisting of four to five students.

3. Class organization

The class consists of two parts: oral presentations on academic research, and scientific paper writing. These are organized in two different ways, described in detail below.

(I) Oral presentations with reference to research work

- i) Students watched MOOC after class to learn discourse structure and language expressions for English academic reports.
- ii) Students were required to understand what they had learned online and presented this information in the form of an English report in class. Teachers randomly invited students to give a presentation, encouraging and supervising them to learn online lectures after class.
- iii) After a student finished his or her presentation, other students would ask questions. In this way, all students practiced addressing an audience spontaneously, a major part in international conferences, which not only developed their question-answering skills but also helped them master corresponding communication skills
- iv) Both students and teachers gave detailed comments on the students' presentations in terms of content, structure, form and expression. They also provided valuable suggestions for improvement.
- v) The teacher guided students to further understand and discuss the difficult problems in their English academic presentations, such as how to deal with audience questions appropriately and effectively.
- vi) Students were then required to provide various possible solutions to these problems, and put them into practice. Through this method, students can improve their ability to express their ideas.

(II) Scientific paper writing

Note: Abstract-writing is taken as an example to expound on the teaching design of scientific paper writing. Teaching design of writing in other units is similar.

- i) Students were required to study abstract-writing by watching MOOC after class, in order to grasp stylistic features, different writing types, basic structural framework and discourse construction of abstracts.
- ii) Students were required to understand what they had learned online and presented this information in the form of an English report in class. Teachers randomly invited

students to give a presentation, encouraging and supervising them to learn online lectures after class.

- iii) Students were required to write an abstract in English before class and to share it with their group members in the class discussion session. Group members then identified the problems in their writing by peer evaluation and received suggestions for amendment. After that, students revised their manuscripts. All groups took part in this activity simultaneously, during which teachers and teaching assistants evenly distributed their time between the different discussions in order to provide necessary guidance.
- iv) Teachers shared an abstract from a leading academic journal with the students, thereby helping improve their abilities in the cognitive construction of English academic discourse. By real corpus analysis, students were able to explore how to write the basic content of English abstracts in words, sentences and ultimately full discourse. Students were thereby able to compose English abstracts concisely, accurately and informatively, deploying their language skills for research purposes and to articulate methodology, results and conclusions.
- v) Finally, students revised their abstracts after class and submitted their completed versions. During face to face instruction, students raised the questions they met when they studied online after class and discussions ensured as to how to solve their problems. This allowed students to explore the learning content in greater depth.

4. Assessment

The assessment of student performance was conducted as follows:

Final score (100%)

MOOC (50%)

Performance in class (30%, see below)

Final examination in terms of academic report (20%, see below)

Performance in class (30%)

Presentation (15%)

(Each student gave three presentations per semester, each scoring a maximum of five points, so the total achievable score is 15.)

Class seminars (15%)

Final exam in terms of academic report (20%)

Peer assessment (10%)

Teacher assessment (10 points)

Reflections on this Blended Teaching Mode

Learning is a social activity, and blended learning is conducted with reference to teachers, peers, and even casual acquaintances. Social constructivism recognizes the social aspect of learning and deploys interaction with others and the application of knowledge as integral aspects of learning. In order to improve students' active engagement in class, interactions between teachers and students and between students

themselves should be reinforced, thereby allowing students to examine their understandings through other individuals. Students are more likely to casually converse, debate or even quarrel with each other than they are with their teacher. We employed a bullet-screen at certain times and invited students to express their opinions by cellphones. Then, opinions from many students flew across the screen anonymously, in different color texts. These opinions consisted of insights, misunderstandings and funny words, which sometimes made the whole room burst into laughter. Our students greatly enjoyed this seemingly chaotic learning atmosphere, which helped improve active thinking in class and ultimately raised the standard of overall teaching quality.

Teachers select tasks which reflect their beliefs about teaching and learning, while learners interpret tasks in ways that are meaningful and personal to them as individuals. The task is therefore an interface between teacher and learners. At the same time, the context in which learning takes place will play an important part in shaping what happens within it. Therefore, it is important for teachers to consider carefully how to control the class effectively by designing some appropriate tasks. We should always keep in mind questions as to which period of class to deliver particular types of discussion questions, and how and when to guide and encourage students to express their opinions and insights.

There is an essential difference between after-class study of the blended learning mode and after-class study of the conventional teaching mode. In the latter, students preview before class, listen to lectures during class, and review after class. However, they preview and review the same content that teachers teach in class, all the three being the same. Repetition is the main method to improve students' competence. In the blended learning mode, by contrast, all three are different. Through the teachers' meticulous lesson design, the students' pre-class preparation involving online learning, the classroom discussion, and the after-school learning components function as complementary parts which when taken together constitute the whole teaching content. Here, complementarity is the main method to improve students' competence.

As knowledge is constructed through social negotiation, discussions with other individuals are a primary instructional methodology. The blended teaching mode encourages discussions between teachers and students, and between students themselves in the flipped classroom. However, as regards actual teaching efficiency, such discussion is relatively inefficient for it cannot guarantee that students' feedback and statements are correct, meaning teachers may need more time to guide students to complete the discussion of certain knowledge points. This in turn requires teachers to forego some in-class activities so that class-time can be saved to strengthen the interactions among students, thereby achieving the greater goal of cultivating their independent thinking and critical thinking. Students however will still be able to study the deleted part of the class afterwards, via MOOC. It is therefore crucial to make good use of excellent resources such as MOOC to enable students to learn the content not involved in class flexibly in their free time. In this way, teachers and students will enjoy greater opportunities for in-depth discussion of the most important knowledge points during class, and to address those problems which students cannot solve themselves.

Conclusion

The establishment of this blended teaching mode of college English based on the MOOC + SPOC platform at HIT has achieved the goal of "teacher-led and student-centred education" which helps stimulate student motivation to learn English and facilitates the effective development of language skills. This mode has the potential to create an interactive, open, personalized and cooperative learning environment, changing the passive or "spoon-fed" learning of students. The blended mode seeks to transform the educational system from the exam-oriented education of the past into a quality system of improving students' communicative ability. It also integrates a variety of teaching resources effectively, challenging more traditional teaching modes which typically are constrained by time and place. The results show that blended teaching not only makes full use of the advantages of MOOCs but also gives full play to the strengths of face-to-face instruction, thus optimizing the teaching effect

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