The Operation Model of Small Private Online Course-Based Flipped Classroom Teaching in College English

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Abstract: In the informationized environment, the increasing popularity of mobile learning, distance learning and online learning has gradually transformed teaching from static to dynamic. The use of modern education technology for teaching has become an inevitable adaptation to teaching reform in the new era. The teaching of English at university is mainly composed of language knowledge teaching and language skills training, which is called a combination of lecture and practice, where the lecture part can be done through Small Private Online Course and the practice part can be done through face-to-face teaching. The SPOC model creates a quality learning environment outside of the classroom and lays a solid foundation for flipped classroom teaching in college English. Based on the practice of flipped classroom teaching of college English for many years, this paper introduces the characteristics and advantages of SPOC digital teaching resource platform and elaborates the basic operation mode of flipped classroom of college English based on SPOC, aiming to give some inspirational effect on the mobile teaching of modern English.

Keywords: mobile learning, Small Private Online Course, flipped classroom

1. Introduction

With external factors such as the rapid growth of the population in today's society and the continuous development of mobile technologies, the needs of individuals and the teaching model of universities have changed significantly, and the traditional teaching methods are no longer able to meet the different learning needs of students, because in the traditional teaching system, the teacher occupies the center of the learning process, students feel constrained and the learning environment is not suitable for them [1]. With the rapid spread of portable mobile devices such as smartphones and tablets and the rise of various mobile applications, it is increasingly feasible for university students to use mobile teaching platforms for learning. Traditional universities are gradually moving towards openness and flexibility, which is an important trend for universities around the world to cope with the transformation of today's society into a learning society [2]. Especially in the field of language learning, English courses in higher education tend to emphasize independent student-centered training, as foreign language learning focuses more on students' output of the language rather than just the teacher's input in the classroom, so this requires more effective and innovative educational approaches to compensate for these needs, namely the use of innovative learning methods aided by technological opportunities [3].

With the emergence of MOOC in recent years, the deep integration of the Internet and open education resources has become a reality, and a single open education resource has gradually become a large-scale open online course with a complete teaching process and a good evaluation system [4]. However, although MOOC has the characteristics of large scale, openness, interactivity and rich resources, which can meet the needs of learners at different levels, the data analysis of related studies shows that there are still many problems in open education in China, such as low classroom efficiency, difficulty in personalized learning, single teaching mode, vague assessment methods, and lack of emotional value and humanistic spirit cultivation [5]. In order to solve these problems, Armando Fox, a professor at the University of California, Berkeley, proposed SPOC (Small Private Online Course) in 2013.Armando Fox believes that MOOC is only a supplement to classroom teaching and cannot completely replace classroom teaching. When the MOOC can improve the utilization of teachers, increase the output of students, and improve students' learning ability and learning engagement, the model can be called SPOC .

2. An Overview of Small Private Online Course

SPOC (Small Private Online Course) is a small-scale private online course formed by setting access conditions, consisting of micro-videos, instant exercises, interactive discussions and learning quizzes, etc. It is a localized learning mode of MOOC, which overcomes the problem that MOOC cannot match the teaching objects, course objectives, difficulty and students' existing knowledge accumulation of existing courses [6]. Professor Robert Lew at Harvard University argued that the importance of SPOC is that online learning has moved beyond the stage of replicating classroom courses and is trying to create some more flexible and effective ways; Yechin Kang argues that compared to MOOC, SPOC intertwines and integrates lectures, videos and other elements in the teaching and learning process, giving learners a complete and in-depth learning experience and increasing the completion rate of the course, thus enhancing independent learnin.

Many studies have proved that constructivism, humanism, teaching system design and learning achievement and learning effect are inevitably related, which is also an important basis for us to build the SPOC digital chemistry teaching resource platform model. It is more flexible and diversified in the way of resource construction, and can be introduced, self-built and modified in various ways. The digital teaching resource platform adopts corpus-driven technology to achieve the purpose of intelligent feedback and open teaching resources [7]. Micro-lessons in SPOC courses can be recorded and designed by English teachers themselves, which stimulates their enthusiasm for teaching innovation; the independent, collaborative, inquiry and communication learning style is conducive to establishing an equal and harmonious learning atmosphere, stimulating learning potential and realizing personalized English teachin. There are three principles in building the new model: situational, autonomous and holistic. Combining virtual communities with real classrooms, teachers create online and offline English learning contexts, encourage collaborative learning, and work together to complete the construction of generative resources, thus helping learners to actively complete the construction of English knowledge. At present, the research on SPOC is mostly focused on two aspects: teaching model design and teaching practice.

3. Rationale for Flipped Classroom Teaching in College English

In recent years we often hear about the flipped classroom model as a new approach to teaching and learning that turns traditional teaching on its head. This model focuses on group learning rather than individual learning. According to Jdaitawi [8], the flipped classroom is a student-centered approach to learning that consists of two parts: interactive learning activities in class and individual computer-based instruction outside of class. Bergmann and Sams explain the traditional flipped classroom model as "what is done at school is done at home, and what is done at home is assignments are done in class". Basic information is provided by resources and materials shared by the teacher prior to class. Some activities, such as problem solving, discussions, and brainstorming take place in the classroom, with the teacher playing a guiding role in the process. In traditional teaching methods, subject matter instruction takes up most of the lesson time, whereas in the flipped classroom, teachers effectively guide concepts by creating a dynamic and interactive learning environment, where teachers often prepare videos about the subject they are going to teach, and then students are expected to watch these videos and the lesson starts with short questions and answers, students have the opportunity to learn through discussion and if something is not understood during the lecture, it is explained.

According to Bergmann and Sams, the main purpose of the flipped classroom model is to make more effective use of face-to-face time in the learning process. The course instructor provides learning resources such as instructional videos, and students complete independent study of the learning resources outside of class time, while students and teachers work together in class to answer questions, engage in collaborative inquiry and interactive communication, and other activities in a new model of teaching and learning. The most significant feature of the flipped classroom is that it completely overturns the traditional teaching style of classroom knowledge teaching [9]. The way of acquiring students' knowledge is changed from classroom to learning resources before class, and the organization of classroom teaching is changed from the original knowledge transfer to the teacher's question and answer, and students' discussion and demonstration. Compared with the traditional teaching mode, the flipped classroom teaching mode presents some new features.

3.1. Matured theoretical construction a good practical foundation

Flipped teaching research is maturing and the effectiveness of teaching and learning is widely recognized. Studies have found that students show high satisfaction with flipped classrooms, with increased student attendance and learning engagement, positive attitudes toward the overall learning process, and students perceiving more benefit than traditional instruction [10]. The introduction and practice of flipped classroom can compensate for the shortcomings of college English teaching to a certain extent, accurately grasp the objective regularity of its development, and steadily break through its development bottleneck. Hamdan et al proposed the F-L-I-P flipped classroom model and confirmed that flipped classroom can effectively improve teaching quality. Hung improved the FLIP flipped teaching model, integrated the student. The flipped classroom was integrated into the Student Response System, which effectively improved the teaching quality. Liu [11] integrated catechism, flipped classroom and English for Special Purposes and practiced it for one semester, which achieved better teaching results.

3.2. Good policy foundation

The Guide to College English Teaching (hereinafter referred to as "the Guide"), which has been developed for many years, emphasizes that "teachers are encouraged to build and use micro-courses and catechisms, use online high-quality educational resources to transform and expand teaching content, and implement hybrid teaching models such as flipped classes based on classroom and online courses, so that students can develop towards active, independent and personalized learning. "[12] The "flipped classroom" is written into the Guide, which lays the policy foundation for promoting large-scale flipped teaching of college English.

3.3. Easy to operate and promote

In the flipped classroom model, students learn outside the classroom what the teacher originally taught in the classroom (usually through the medium of video) and complete the "out-of-class work" component of the traditional teaching model in the classroom, where learning is characterized by cooperative learning. The teacher is transformed from an authoritative knowledge transferor to a facilitator of learning [13]. In this model, there are more opportunities for student-teacher and student-student interaction and cooperative group learning, so that students' language skills, cross-cultural communication skills, critical thinking skills, cooperation skills, communication skills, and creative thinking skills can be more fully developed.

The American Council on Education in Foreign Languages (ACTFL) and the Partnership for 21st Century Competence (P21) have proposed the "5Cs" language proficiency goals (Communication, Cultures, Connection, Comparison, and Community). The aim is to improve students' communication skills around three modes of communication (communication, comprehension, and output). The flipped classroom transforms the teacher's role as a lecturer into a deep learning guide and organizer, which is a change in the field of teaching and learning. For college English learners, there are more opportunities for communication between students and teachers and between students, and learners are no longer passive listeners but active constructors of knowledge [14]. Under the flipped classroom teaching model, teachers pay more attention to students, and students and teachers communicate more fluently, which is more conducive to improving the quality of college English teaching.

The teacher's role is changed to that of a guide and a tailor-made teacher, which can better facilitate students' knowledge construction. After completing the pre-class video, students receive face-to-face instruction from the teacher in the classroom. The face-to-face instruction includes the teacher's testing of the students' pre-class learning, re-enforcement of key issues, re-explanation of difficult issues, and personalized interaction. At present, the average class size of general undergraduate institutions in China is about 50 students, and teachers mainly complete teaching tasks in the classroom, with very little interaction with students, resulting in a weak sense of students' presence. The large-scale flipped teaching based on SPOC can realize the lecture mode of "lecture + discussion". Students complete the lecture part at home through SPOC, and then come to school for discussion. In this way, the teacher's main classroom teaching content is changed to discussion content, which is more conducive to solving students' English learning problems in a targeted manner and improving their English proficiency. The flipped teaching model results in higher student engagement and satisfaction and faster achievement gains [15].

3.4. More conducive to the guarantee of teaching quality

Information technology is a double-edged sword, and the mobile Internet is the centralized manifestation of information technology in the new era. Various entertainment videos and news through mobile Internet attract and distract students' limited attention, and students' knowledge construction is greatly affected [16]. Language needs to be learned systematically, but under the influence of entertainment resources, college students invest less and less time in English learning, and the phenomenon of not pre-studying before class, not paying attention in class and not reviewing after class is common. Flipped teaching requires students to study before class, participate in group and individual activities in class, and be assessed by teachers and peers, which pushes students to engage in independent learning.

3.5. Helpful to improve teachers' professional self-efficacy

Most university English teachers try to teach language and culture in various ways in the classroom, but the effectiveness of their teaching is still not recognized by students. Students usually reflect less on their own learning and more on the effectiveness of their teachers' teaching. In a flipped model, teachers are better able to design instruction and provide individualized tutoring to students. Research shows that in the flipped model, students' motivation to learn is significantly increased; students have more opportunities to demonstrate what they have learned outside of class, and through classroom demonstrations, they can achieve self-assessment of their learning effects and eventually achieve use to promote learning. Zhang et al. found that the SPOC-based flipped classroom teaching model for college English can improve the quality of teaching and learning. As teachers have increased opportunities to provide personalized answers to students' questions, the investment of students' college English learning energy poses new challenges to college English teachers' teaching and research abilities, which will help improve teachers' professional self-efficacy and college English teachers have more room for growth.

4. College English Flipped Classroom Model Based on Small Private Online Course

University English is the single course that accounts for the highest percentage of credits in China's higher education institutions, and has been a testing ground for teaching reform. The completion of University English Catechism/SPOC has laid a solid foundation for a new round of flipped teaching reform of University English. MU courses are often blamed for high dropout rates, but the high dropout rates are actually mainly caused by students rather than by teachers or course quality [17]. It takes a lot of time and effort for students to complete a catechism, and it is difficult for students with low learning ability and self-control to complete the catechism. School-based SPOCs are supported by school academic management and have a relatively high completion rate; SPOCs are usually credit-bearing courses in schools, and students can directly convert them into credits after completing the learning and being assessed. By carrying out SPOC-based flipped teaching, we can make the best use of the SPOC course and give full play to its proper function.

The SPOC-based college English flipped classroom has created an effective English learning model, which is composed of three core elements, namely, SPOC-based learning, small-class learning and offline comprehensive application. Compared with traditional English classroom teaching, the flipped classroom model of college English based on SPOC teaching resource platform changes the one-size-fits-all group teaching mode, suits different students' English learning styles and habits, and presents humanized and personalized characteristics. It combines the seriousness and rigor of teaching knowledge with the liveliness and vividness of teaching form, maximizing the advantages of the flipped classroom teaching model, and more effectively completing the internalization and solidification of knowledge, which is conducive to significantly improving the overall performance and learning effect of college students and helping to reduce learning. It helps to reduce learning pressure, enhance learning confidence, improve learning interest, promote communication and understanding between teachers and students, and inject new vitality into teaching.

The new model completely reverses the roles of teachers and students in the traditional model, avoiding a lot of repetitive work for teachers, and making teachers truly become the innovators of teaching. This change in role requires teachers to not only understand the key points and difficulties of the content they teach from the teaching objectives, but also to bring their creative abilities into play, improve their teaching skills and information literacy for teaching, and help students maximize the use

of information resources and improve their learning outcomes [18]. SPOC-based flipped classroom of college English will cause the deconstruction of traditional class. The purpose of deconstruction is not to negate traditional classroom teaching, but to reconstruct college English classroom teaching to better fulfill its function of supporting and promoting effective learning based on a detailed analysis, understanding, and reflection of its pedagogical structures, elements, and methods.

4.1. SPOC-based learning

SPOC-based learning includes knowledge acquisition and online learning communities. First, the knowledge instruction that originally occupied most of the classroom time is conducted online, and students can engage in independent learning and set their own learning pace according to their individual needs. SPOC platform technology is applied to record, monitor and evaluate students' learning behaviors and processes. Second, SPOC-based learning can form an online learning community. In students' personalized learning process, English learning is no longer an isolated act, but rather students can ask and answer questions, share their learning strategies and learn from their peers, and participate in a rich English learning environment in an online community. In addition to their peers, teachers can also provide students with English learning online [19].

4.2. Small class

With the support of the SPOC-based flipped college English classroom, classroom time is freed up and the classroom structure is reconfigured. The reconfigured small class has several features: first, it gives every student the opportunity to participate. With about 30 students in a small class, the main learning procedures include creating learning situations, completing micro tasks, answering questions, adjusting emotions, learning presentations, and class evaluation. Second, it focuses more on instructional design, which will promote effective learning. Tasks of different levels of difficulty are designed for students to complete individually during or after class, or through teamwork. It should be noted that the sense of achievement students get from small group teaching will clearly enhance their confidence and interest in learning English, which will promote their effective English learning. Third, a mobile learning management app is applied to record, monitor and assess the classroom learning process to promote fair and competitive learning. All classroom activities and learning resources are released through the APP, and each student's learning behavior is recorded, making classroom teaching and learning management smarter.

4.3. Off-line comprehensive application

In the SPOC-based flipped classroom model of college English, all learning procedures, including learning materials, knowledge comprehension, learning strategies and integrated applications, are task-driven. In order to facilitate students' conversion from language input to language output and thus achieve comprehensive English proficiency development, we attach great importance to the process of language application. Therefore, the offline integrated application, as the third integral part of the SPOC-based flipped college English classroom and one of the most important parts of the effective learning model, aims to expand the effectiveness of classroom teaching and integrate classroom instruction with after-class learning. In order to complete various contextually relevant tasks, students need to build an offline community so that they can interact and collaborate using what they have learned.

The challenges in traditional classroom instruction have long prevented effective English language learning from occurring, and it is never easy. However, the emergence of online courses, mobile learning, and flipped classrooms has provided new technological platforms, tools, and resources for teaching and learning in college English classrooms that facilitate effective learning to occur [20]. The SPOC-based flipped college English classroom has shown great vitality in deconstructing traditional classroom teaching and reconstructing English classroom teaching, which is the result of the deep integration of English classroom teaching and information technology in modern education. In the era of big data, the flipped college English classroom based on SPOC helps to build an effective English learning model and further promote college English teaching in China. Thus, SPOC+ digital chemistry teaching resource platform not only makes full use of various forms of multimedia resources in MOOC, but also optimizes the effect of resource utilization to the maximum extent. The new flipped teaching model is constructed by the elements of teaching objectives, teaching methods, teaching media, teaching equipment, teacher team, class size, lab technicians and teaching environment in the real-time

classroom and virtual classroom, and the elements cooperate and work together and achieve the overall optimization of the teaching process through continuous feedback and revision.

5. Reflection and Discussion

The flipped classroom English teaching based on SPOC is bound to cause the "deconstruction" of the traditional college English teaching. The word "deconstruction" is taken from Derrida's "deconstruction" philosophy. "Deconstruction" or "deconstruction" is not a kind of negative destruction or destruction, but opposed to "center" and "authority", broke all binary opposition, and reconstructed after analyzing and understanding its structure. This philosophy gives us a new perspective to re-examine the traditional college English classroom teaching [21]. The purpose of deconstruction is not to deny traditional classroom teaching, but to reconstruct college English classroom teaching based on careful analysis, understanding and reflection of its teaching structure, elements and methods, so as to better realize its important function of supporting and promoting effective learning. Under the traditional classroom teaching mode, teachers are the center of classroom teaching. The teaching of language knowledge around the textbooks occupies almost all the classroom time and space. A small number of auxiliary exercises, such as sentence building, translation, interpretation, brief answer, etc., cannot change the passive and receptive nature of language learning of students; However, comprehensive application and output activities, such as debate, speech, writing, etc., can hardly be fully carried out in the limited classroom space because of time and effort. In this mode, teaching is explicit and learning is implicit, that is, what we see is a large number of teaching behaviors, a small number of even missing learning behaviors, which do not conform to the characteristics of effective foreign language learning.

The SPOC flipped classroom model of college English dispels the binary opposition formed by traditional classroom teaching teachers' extensive explanation and students' passive acceptance, making effective learning the key point of classroom teaching, and connecting teaching, learning and its main body. It can deconstruct the elements and connotation of traditional classroom teaching, analyze the elements that support effective learning, reorganize the elements in order to change the traditional classroom teaching structure, flip the composition and relationship of traditional classroom teaching and learning, change "learning" into dominant, change "teaching" into recessive, build "teaching and learning" as a whole, and integrate teaching into learning [22]. All teaching elements of the college English SPOC flipped classroom shown in Figure 1 will interact around supporting students to shift from passive and receptive learning to active, participatory and exploratory effective learning activities. More importantly, the support of "teaching" is needed behind each type of element, that is, "teaching" is hidden in every element that promotes learning.

6. Conclusion

The massive, personalized learning and teaching resources and the convenient and timely intelligent feedback system built into the digital teaching resource platform provide convenient and intuitive measurement and analysis tools for teaching design and research, motivate students to engage in self-monitoring, self-testing, self-checking, and self-reflection activities, and create a comfortable, resource-based, contextual, and collaborative learning environment for students, fully reflecting the modern teaching concept of "teacher-led - student-led", and empirical studies have shown that the application of digital teaching resource platform helps to encourage, guide and inspire learners, and is conducive to developing students' independent learning ability, enhancing their enthusiasm and interest in learning, and increasing their motivation. Thus, the combination of SPOC courses and digital teaching resource platforms undoubtedly provides a strong guarantee for the learning effect of the flipped classroom model of college English, but the research on the new hybrid model is still in the exploratory stage, and its effectiveness needs to be further studied. From the perspective of learning ecology, information technology can help teachers and students create and maintain a new learning ecosystem. Therefore, the SPOC+ digital teaching resource platform environment provides information support and assistance to the teaching designers, learning communities, virtual communities, and physical classrooms in the learning ecosystem, thus forming a dynamic learning ecosystem with a virtuous cycle of online teaching, offline teaching, online learning, and offline learning [23].

However, the polarization of learning outcomes is more pronounced in the new teaching model. As experimental teaching drastically cuts offline class time, there are fewer opportunities for face-to-face communication between teachers and students compared to the traditional teaching model, and more

emphasis is placed on students' ability to learn independently and cooperate and investigate. Students with strong independent learning ability can adapt to the new teaching mode faster, while students with poor learning initiative and low information literacy rely heavily on external regulation and do not form a psychological mechanism for internalizing external motivation, resulting in inefficient learning in SPOC courses, untimely use of digital teaching resource platforms, and delayed assignments, which indirectly lead to lower academic performance, therefore, for this part of students, the traditional classroom still has advantages [24]. At the same time, we should also see that improving students' independent learning ability is the key path to improve the effect of the new teaching mode and alleviate the phenomenon of bifurcation. Therefore, teachers' guidance is still indispensable. Teachers need to help students plan their learning time and progress reasonably, and manage and supervise students from multiple perspectives and in all aspects, online and offline, to improve their learning effect. The university flipped classroom model based on SPOC digital teaching resource platform promotes teaching gradually from static to dynamic, realizing the concept of student-oriented and teacher-led classroom teaching, which is inevitable to adapt to the teaching reform in the new era. However, it must be pointed out that the research on the new flipped classroom model is still in its initial stage, and it is necessary to expand the number and scope of student samples, extend the research period, and study its extensiveness and effectiveness in depth in order to further provide new perspectives and empirical examples for college English teaching and university education.

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