A Study on the Application of PBL on SPOC—Taking College English Courses for Hearing-Impaired Students for Example

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Project-Based-Learning (PBL) is “teacher-led, student-centered and project-supported”. By completing projects students can learn knowledge, acquire skills, and cultivate abilities. PBL is not only applicable to specialized courses for hearing-impaired students, but also to college English courses for hearing-impaired students. SPOC can “flip” the traditional classes and increase the capacity of college English courses. Taking college English courses for hearing-impaired students as an example, this paper studies the application of PBL on SPOC (Small Private Online Course). It is proved that this model can not only greatly reduce teachers’ pressure of limited class time, improve the teaching efficiency, but also can stimulate students’ interest to learn and undoubtedly achieve better learning effects.

Keywords: PBL, SPOC, college English courses, hearing-impaired students

Introduction

The application of PBL on SPOC can be seen much in literature. In Project-Based-Learning (PBL), the teaching procedures can be divided into several specific steps. Through the implementation of these steps, the task is finished and the teaching aims are reached correspondingly. SPOC (Small Private Online Course) “flips” the content that is suitable for “flipping” and can be “flipped”, which greatly improves the teaching efficiency. Through the literature review, it is found that PBL plays a significant role in stimulating students’ learning interest and motivation, cultivating students’ innovative ability, practical ability, and cooperative consciousness.

What Is PBL

Based on the theory of constructivism, PBL is a teaching method that converts the knowledge of the traditional discipline into several projects. Under the guidance of teachers, team members work together to complete projects. PBL is an inquiry-based learning model in essence, with the most prominent feature of “teacher-led, student-centered and project-mediated”, which emphasizes the active participation of students and the cultivation of students’ innovative awareness, cooperative ability, and practical ability.

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PBL originated in Europe, and the so-called “project work” was applied to architecture schools and engineering movements at that time. Since the 1990s, the teaching method reform carried out in many countries where “thematic inquiry” and “design learning” are advocated that make PBL greatly improved and widely recognized.

**What Is SPOC**

As is known to all, MOOC (Massive Open Online Course) has had a disruptive impact on traditional teaching and pushed ubiquitous learning to a new level. Under MOOC, the advantages of teaching online has been enforced unprecedentedly. There are huge amount of teaching resources, and you can study any time and anywhere. At the same time, its defects are also increasingly prominent. The “mass” and “openness” of MOOC means that students of different levels, needs, and learning styles cannot achieve personalized learning at their own speed. SPOC was born in response to the lack of personalization and targetedness of MOOC. Evolving from MOOC, SPOC refers to a Small Private Online Course. As a small online course, SPOC offers more targeted courses. It is designed specifically for a comparatively small group (less than or equal to 500 students). For SPOC, there are not only restrictions on the number of applicants, but also specific access conditions for applicants. This greatly improves the targetedness of online courses and satisfy students’ demand for personalized learning.

Its core significance is to improve the effectiveness of teaching in higher education. First of all, SPOC “flips” the traditional classroom, which greatly increases the capacity of class hours. Secondly, SPOC makes the teaching content more refined, teaching resources more diverse, teaching methods more scientific and effective. SPOC brings the combinations of network and real life, online and offline, on-campus and off-campus, within-discipline and interdisciplinary, one individual and another, previous experience and practical needs into reality. Higher education, therefore, achieves innovative breakthroughs in teaching content, resources, means, and methods.

**The Application of PBL on SPOC in Specialized Courses for Hearing-Impaired Students**

With the development of special education and the implementation of teaching reform, PBL has attracted much attention of special education experts, scholars, and teachers, and later aroused much interest among them. They advocate the application of PBL to special education due to the physical and mental characteristics of students. Hearing-impaired students are in the majority among special education students in China, so there are much more research on and application of PBL in special education for hearing-impaired students. The domestic application of PBL in the curriculum of hearing-impaired students can be divided into three categories:

First of all, PBL can compensate for the physical and mental deficiencies of hearing-impaired students. PBL can evade speech loss of hearing-impaired students and build a bridge between hearing-impaired students and normal students. Hearing-impaired students’ introverted personality is an obstacle for them to enter and integrate into the society. PBL, with the involvement of much communication and cooperation with others, can help eliminate the rigidity and dullness of curriculum and make students be from passive to active, so as to be beneficial to students’ future development.

Secondly, PBL can properly satisfy the needs of the curriculum of hearing-impaired students in colleges and universities. At present, most specialized courses for hearing-impaired students offered by colleges and
universities in our country are highly practical courses, such as massage, traditional Chinese acupuncture, art, painting, fashion design, computer technology, animation design, and so on. PBL emphasizes “learning by doing”, which is very suitable for these practical specialized courses. At the same time, the application of PBL in these courses can better cultivate students’ self-exploration and self-learning ability.

Thirdly, PBL can properly satisfy the needs of the school-enterprise cooperation model advocated by special education institutions. Special education institutions have been striving to develop new curriculum and strengthen school-enterprise cooperation jointly. PBL is used to simulate the real enterprise environment, so that students can better understand the knowledge they have learned and master the skills of production in the process of project implementation. At the same time, using “project” as the carrier, PBL stimulates students’ learning enthusiasm and improves students’ communicative ability and practical operation ability.

The Application of PBL on SPOC in College English Courses for Hearing-Impaired Students

Domestic experts generally believe that PBL not only attaches importance to the teaching of basic theories, but also to the cultivation of practical ability. For the features of “integrative”, “cooperative”, and “practical”, PBL is, at first, applied more in specialized courses such as machinery, numerical control, computer, automobile, etc. With the development of the research and practice, the application of PBL in other disciplines is becoming more and more widely, including its application in college English courses.

Significance of the Application

For hearing-impaired students, PBL is mainly applied in specialized courses with strong practicality, but rarely in foreign languages teaching. Admittedly, languages belong to humanities, and lack operability and practicality compared with science and engineering. However, language learning can also take place with the carrier of “project”. In the process of completing project tasks, students can not only intake knowledge and learn skills, but also develop their autonomous learning ability, cooperative ability, and problem-solving ability. This is also in line with the guidelines of the reform of college English teaching, which is “student-centered”, “the cultivation of students’ critical thinking ability”, and “learning by doing”.

However, the application of PBL in college English teaching for hearing-impaired students has not received enough attention. The research on English teaching methods for hearing-impaired students is not very systematic in fact. More often, the teaching methods or teaching models for normal students are directly applied to hearing-impaired students. Even there is research on English teaching methods for hearing-impaired students, it is not systematic and theoretical. The study on English teaching methods for hearing-impaired students are sporadically seen in teaching logs, class summaries, summary reports, and so on, whose research results cannot be extended to the different teaching contexts.

In this study, the application of PBL in college English courses for hearing-impaired students on SPOC is more systematic and scientific compared with the previous study. And due to its exploration in the use of SPOC, it possesses wider applicability. The combination of “MOOC + project” will break through the limitation of the time and space constraints in the current teaching model, reduce teachers’ and students’ burden, and construct harmonious atmosphere.

Prerequisites of the Application

The design of the application of PBL on SPOC in college English courses for hearing-impaired students
should be practical and scientific. It is the first prerequisite for the effective teaching practice. The so-called “effective” means that the design of this teaching model neither originates from the theoretical literature nor from designs of predecessors. It should be based on the college English teaching context in application-oriented universities, consisting of elements like the teaching objectives, the teaching plans and disciplines, students’ knowledge basis, students’ learning styles, students’ cognitive styles, students’ learning motivation, realistic demands, teachers’ teaching philosophy and teaching style. The model requires the scientific design, mature and smooth procedures, accurate positioning of service objects, and excellent resource supply.

The second prerequisite for the effective application of PBL on SPOC in college English courses for hearing-impaired students is the effectiveness of the implementation of the model. First of all, procedures of the implementation should be clear, reasonable, scientific, and standard. And the practice should be continuously checked, observed, reflected, adjusted, and improved. Secondly, the participation of teachers and students should be guaranteed. There should be a specialized department providing assistance like removing technical obstacles in the process of practice, and providing necessary technical support to ensure that teachers and students have a good command of SPOC operation. Finally, the quality of practice should be guaranteed. Teachers should abide by the procedures of practice and provide feedback to students on time. Through teachers’ introduction, students’ experience, and teachers’ assessment, the quality of practice should be guaranteed and students’ learning enthusiasm should be stimulated. To be practical and scientific, designers are also required to use SPOC proficiently to be familiar with the nature and connotation of the model and to choose the practical path for the model.

Examples of the Application

In teaching practice, PBL consists of six steps: project design, task issued, knowledge imparting, practical operation, achievement display, evaluation and feedback. Among them, project design, task issued, knowledge imparting can resort to digital resources on SPOC by video explanation, online test, simulation, etc. Practical operation, achievement display, evaluation and feedback are more difficult and require assistance and guidance. Since face-to-face interaction is most effective, these three steps are done in the classroom. In order to complete the project in limited time, students are required to master the professional knowledge of the task before class, and apply it in practical operation in class. It is a very high demand for beginners, and in this respect, teachers also have to shoulder the responsibility of explanation and guidance.

Example 1. Text A: Be a Volunteer—Experience of a Volunteer at the Sydney Olympics (Experiencing English Integrated Book 1, Unit 6)

The author tells us her first experience of being a volunteer at the Sydney Olympics. In order to reduce the burden of the task and help students better understand the article in limited class time, a “flip” is designed on SPOC about background knowledge about the history of Olympics, the basic information of Olympics, and Beijing 2008 Olympics. It includes mainly the following questions:

(a) When and where did the ancient Olympic Games start?
(b) How many countries competed in the ancient Olympic Games?
(c) When and where did the modern Olympics start?
(d) How often are the Olympics held?
(e) How many kinds of Olympic Games are there in the world?
(f) When did China first take part in the Olympic Games?
(g) What are the three words that show the spirit of the Olympic Games?
(h) Who was China’s first gold medal winner and for what event?
(i) How many gold medals did China get in the 2008 Beijing Olympics?
(j) What are the mascots of Beijing Olympics?
(k) What is the theme slogan of Beijing Olympics?
(m) What do the five rings stand for?

Then students will be divided into groups, each with 5-7 people. Each group will answer the teacher’s questions and make a PPT. Then a representative recommended by each group will explain their PPT, record a micro-lecture, and post it to SPOC. Through this, students can have a preliminary understanding of the basic knowledge of the Olympic Games and clear the obstacles for subsequent understanding of the article.

Example 2. Text A: Einstein’s Compass (Experiencing English Integrated Book 3, Unit 2)

The article tells us what makes Einstein’s success. Curiosity, triggered by a compass, started Einstein’s journey down a road of scientific exploration that he would follow the rest of his life. The article illustrates why Einstein can achieve such a success and become the giant of the history. Qualities like curiosity, patience, perseverance, determination, insight, and external influence make what he is. In class, the teacher will ask students to design a mind map to account for the reasons for Einstein’s success, and then the teacher will analyze, evaluate, and improve the mind map. It is believed that through the mind map design, students can grasp the main idea of the text, and understand the theme of the article.

Example 3. Text A: Not Now, Dr. Miracle (Experiencing English Integrated Book 3, Unit 4)

The text tells us Dr. Miracle uses cloning to deal with infertility and then arouses a heated debate. Cloning technology is an interesting topic and an important technology in the future. Students will be curious about it and eager to know the recent development of cloning technology.

A “flip” on SPOC is designed after class. That is, students are divided into a fixed number of groups. Each group will work on the topic “The Recent Development of Cloning Technology”. Each group should the review the literature and write a report on this topic. Then a representative will be chosen for each group and make a presentation. The purpose is to let students have a deep understanding of the development and future trends of cloning technology.

Results Analysis

First of all, the traditional teaching method is guided by knowledge acquisition, ignoring learning interest, the cultivation of autonomous learning ability and practical ability for hearing-impaired students. PBL respects students’ preference, so it can stimulate their interest in learning, and narrow the cognitive ability gap between hearing-impaired students and normal students.

Secondly, PBL can guide students to acquire the ability to analyze and solve problems in learning process, and foster their patience for exploration and cooperation. PBL highlights the cultivation of practical ability, which is very suitable for the career path of hearing-impaired students—taking up an occupation after graduation.

Thirdly, since hearing-impaired students rely on vision and touch to perceive the outside world, they tend to judge things by intuition, and their abstract thinking develops slowly. PBL helps them convert from concrete thinking development to abstract thinking development.
Conclusion

As a small-scale private online course, SPOC has a subversive impact on traditional teaching, pushing individualized study and U-Learning into a new level. The study explores the feasibility of the implementation of PBL and the practical path of the application of PBL on SPOC in college English courses for hearing-impaired students. It is of great significance to enrich the theory and practice of English teaching for hearing-impaired students and improve the effects of English teaching. At the same time, it also provides reference for college English teaching reform of hearing-impaired students. The construction of “student-centered” and “project-supported” English courses for hearing-impaired students is of significance to the exploration of the employment-oriented ability training system for hearing-impaired students and the realization of practical and vocational value of education for hearing-impaired students.

References


