

The Implication of PBL: English Teaching in Primary Schools of China

Yuanxue Chen and Ruitian Huang^(⊠)

School of Chong Qing, Normal University, Chongqing 401331, China 2019050906030@stu.cqnu.edu.cn

Abstract. China's traditional teacher-instructed education model needs to be reflected and improved. As the past "cramming" teaching is no longer adapted to the current rhythm of education, the Problem-based Learning (PBL) teaching model is worthy of being investigated and applied to the classroom. The PBL teaching model is based on solving practical and attractive problems, which enables students to participate in inquiry processes meaningful, understand knowledge better, and motivate students' learning interests. Also, it is important to develop students' cooperation ability and practice their critical thinking skills through PBL. Based on this teaching methodology, this paper has designed semester-based project projects that integrate methods from languages and music-related disciplines with primary school English as the main subject. It aims to contribute to improving students' self-directed learning, teamwork, and communication skills through a practical curriculum that is problem-driven, student-oriented and emphasizes teamwork.

Keywords: PBL Pedagogy · Primary school English teaching · Teamwork · Student-centred Learning

1 Introduction

PBL emphasizes the student as the main body of teaching, rather than the main body of the teacher. Compared with traditional teaching, PBL emphasizes problem-solving as the center, the integration of multiple learning paths, the role of cooperation and communication, and the support and guidance of teachers. PBL emphasizes that learning is placed in the problem situation, and problems are solved through the cooperation of learners. Through this way, students can understand learning more thoroughly and form social skills for problem solving and independent learning.

2 Cases Related to PBL Pedagogy

2.1 "Bubble Root Question" Project Case

Take the interdisciplinary PBL project-based learning case exploration of "Bubble Root Question" discussed by a Primary School in Dongguan City as an example. This case

Y. Chen and R. Huang—Contributed equally.

combines an English class, science class and an Information Technology class into one. In order to achieve the goal, science class selected the fifth-grade book. "The topic of this class is about bubbles". "The Secret of Bubbles lesson," to guide students through independent exploration to uncover the truth of bubbles, English class will be "bubble" word integrated into interesting role games and beautiful English songs. It not only consolidates the concept of knowledge, but also increases the fun of the classroom. Information class selects the lesson of the fifth-grade book "Blowing Bubbles," allowing students to use the source code editor, explore the bubble characters and clones of bubbles, present the bubbles familiar to students with different forms and help students consolidate their knowledge and improve their critical thinking.

For students at the primary school level, they have lots of imaginative thinking, during which PBL lessons can achieve a good integration between disciplines, students' interests, and understanding of subject knowledge. Zhang argues that PBL is a student-centered, constructivist teaching model [1]. Based on this concept, students can learn a wider range of knowledge. In the lesson of "Bubble Root," the teacher takes the students as the center and the problem as the basis for development. They learn not only the "bubble" of the English class but also the knowledge of the science class and the information section. The knowledge is based on the students, which can be learned naturally. This makes it easier for students to acquire a wide variety of knowledge.

Wang mentioned that teachers cannot impart all the knowledge to students as in the past but should facilitate students to solve problems from the perspective of an assistant [2]. In the PBL classroom, only by departing from the way the teacher speaks on the podium and the students listen in their seats can students participate in the class with full attention. At the same time, he raised his concerns about how the bubbles were formed, and then the teacher assisted the students to explore the truth together. In this way, students will slowly develop an ability to think actively and innovatively [2].

"The PBL teaching method has high requirements for the quality and teaching skills of the teachers themselves, and the teachers have changed from the teaching person to the guiding role, so the teachers must be proficient in relevant knowledge, and must have the considerable problem-solving ability, and must also know how to flexibly apply knowledge and good organizational management skills so that students can have fun in learning [2]." For example, in the "Bubble Root" classroom, students need not only the knowledge of English but also the knowledge of science and information technology, the teacher must constantly enrich themselves, expand their own reserves. While acquiring their own knowledge of the subject, they also need to learn more other aspects of knowledge, and strive to achieve lifelong learning.

PBL is more feasible in primary schools and can have more opportunities to try. For students at the primary school stage, teachers should guide students to think independently and lay the foundation for future learning, PBL is a good way to cultivate students' subjective initiative, which can promote students to think positively without losing interest, practice students' thinking, innovation and communication skills.

2.2 Primary School English Reading Classroom Cases

The case of "Application of PBL Teaching Mode in Primary School English Reading Classroom" provides ideas for the use of PBL from the aspect of English reading teaching. This teaching model is inspiring and problem-driven learning, which is suitable for cultivating students' independent learning and group learning skills.

In this case, it can be seen that after the author analyzes the connotation and meaning of PBL in teaching content from the teacher, the classroom design of the PBL teaching mode is completed.

Below are the following stages:

2.2.1 Process Organization

The whole process organization advocates dividing students into several groups, solving problems in the form of group learning, and students learn independently according to the problem.

2.2.2 Process Design and Problem-Solving

Teachers organize according to the teaching focus and the content in the textbook, so that students can find the derivation answer with purpose, direction and thinking. Students are able to discuss learning styles and ideas through group communication; process-guided learning enables students to complete the fusion of old and new knowledge: in-process guidance, students are the main body center of teaching, and the role of the teacher is the guide, and the teacher must not interfere too much. Shi points out that students have relatively open learning freedom in the teaching process, which means that students have internal thoughts and external behavior states that think and act independently in the learning process, as well as a series of rights related to and support this state. This includes the freedom of thought during the learning process and freedom to participate in discussions about learning things [3].

2.2.3 Summarize the Learning Process

Teachers can get feedback on the design content through the student's learning outcomes, so that they can further adjust and optimize. Students are able to develop the ability to think for themselves and a sense of teamwork in small groups. It has also played a role in promoting the adjustment of China's current education model.

3 Analysis of the Advantages of Problem-Based Learning

3.1 Student Perspective

3.1.1 Learning Ability Improvement

Through project-based learning, students can improve their self- directed learning ability and sense of teamwork. Students solve problems through the form of group cooperation. During the process of communication and cooperation, they can think about problems from multiple angles. Li mentions that students are in the dominant position, gain more initiatives, and develop learning methods according to their own interests, which is conducive to creating thinking patterns and developing their task complement ability [4].

3.1.2 The Cultivation of Learning Interest

Through the openness of the problem situation, giving students autonomy, students are no longer limited to the teaching tasks framed by the teacher. Instead, they can have a certain degree of learning freedom, which can better drive the enthusiasm for learning.

3.1.3 The Cultivation of Thinking

The student's way of thinking changes from passive to active. Teachers are no longer blindly emphasizing teaching and neglecting education, so that they can truly achieve the purpose of education; the integration of theory and practice: by establishing more authentic questions, students can apply knowledge to practical life. Through continuous practice, students can deepen the understanding and application of knowledge, form knowledge reserves of them, achieve long-term memory, and avoid students from having a learning and useless idea due to the derailment of theory and practice, resulting in negative learning.

3.2 Teacher Perspective

3.2.1 Out of Teaching Comfort Zone

Teachers are no longer limited to authority. The project design integrates multiple disciplines to promote the multi-angle and multi-directional development of teachers' teaching ideas and design. Cultivate teachers' lifelong learning ability, constantly enrich their knowledge system of them, improve the knowledge framework, achieve all-round development, and become a better knowledge imparter.

3.2.2 Improving the Comprehensive Ability of Teachers

Teachers are no longer the main body of the classroom, but the guide and promoter. Yu believes that teachers should change the consciousness of teaching from the protagonist of "teaching" to the supporting role of "guidance," and require teachers to complete the educational technology training that "directors" should have [5]. This requires teachers to have a stronger sense of observation and lead students to learn and solve problems on their own. Moreover, due to the particularity of interdisciplinary project-based teaching, teachers need to be forward-looking, do a good job of regulation, and have a response plan to unexpected situations and problems.

4 The Curriculum Design of Primary English Course

4.1 Course Input

Because of the current phenomenon of "dumb English," students do not dare to speak English that their speaking ability is weak, There is a problem of not being able to master skills such as rereading, weak reading, and continuous reading. It is impossible to apply the knowledge learned to practice and integrate theoretical knowledge with practical life. Han mentions that the method of problem introduction is widely used among teachers, which can stimulate students' interests [6]. This course combines English, music, and language disciplines to discuss project-based learning solutions that drive problems. Taking one semester as a time unit, students can apply this knowledge in daily life by learning English vocabulary related to animals. And students arrange English sitcoms as the core of interdisciplinary project-based learning courses.

4.2 Learning Objectives

4.2.1 English

Through the performance of English sitcoms, students are able to learn English vocabulary related to animals and apply them to real life through exercises of "What is this?/It is...;" "What color are they?/They are..." Enables students to master sentence patterns." Through communication with team members and final sitcom performances, students are able to develop oral expression skills, a sense of teamwork, and a sense of collective honor.

4.2.2 Music

Through music songs, combined with English, from English songs containing animals to learn Animal-related English, enhance students' interest and expressiveness, and at the same time enhance students' artistic appreciation. Students are encouraged to stop listening and watching, but to speak and sing. In a relaxed learning atmosphere, feel the charm of English and enhance students' enthusiasm for learning.

4.2.3 Chinese

To complete the design of the sitcom script, students can improve their creative ability, written ability, expression ability and thinking logic ability through the construction of the time, places, characters, causes, processes and result of the script. Students can express their views more methodically in real life and can describe things more clearly.

4.3 Course Content

The formulation of learning objectives guides the design of the course content, and also allows students to learn through the course at this stage and apply the knowledge they have learned to the practical situation. At the stage of the introduction of a course, Zhang believes that the video introduction method is intuitive and vivid, with both pictures and sounds, which can fully mobilize students' sense organs to attract students' attention and stimulate students' strong interest in learning [7]. In order to achieve the learning goals, this course used the video introduction of "The Lion King" to stimulate students' interest in learning and improve students' concentration in the classroom. Thus, this courses project around theme of "animals," design of English, music, language three major lessons, English courses sort out animal-related words, through sitcom role play

Total Tasks End Result	Total Tasks	Expected Result
What is a sitcom?	Learn about the origin, type, and processes through videos	A basic understanding of sitcoms
What does a sitcom need?	Organize preparations for sitcoms by gathering information, finding information, and brainstorming	List of questions.
How to design a script?	Understand the elements of the script and compose it through small groups	Sitcom script
How do I choose items?	Through the degree of character fit, find, design and make props according to relevant characteristics	Item list, make samples
How to perform?	The role distribution is reasonable, the logic is smooth, the elements are complete, the knowledge is used, the image is vivid, and it has expressiveness	Debriefing performances

 Table 1. Semester Schedule for the English Sitcom Project

and communication, so that students proficiency in the relevant vocabulary; music class through animal-related music songs, students in a relaxed classroom atmosphere. This kind of course not only consolidates the concept of knowledge, but also raise students' interests.

4.4 Lesson Plan

Below is a sample of the lesson plan.

Table 1 shows the schedule of the PBL project, in which the total driving question is "How to design and complete an English sitcom performance?" After that, five subquestions will be investigated. To answer the first three questions, it takes one lesson to answer each question. As the fourth and fifth questions are more difficult to be answered, it will take three lessons for answering each question.

4.5 Pre-mission Discussion

Through decentralized driven questions, teachers take "*The Lion King*" as the starting point of the course, and guide students to divergent thinking about sitcoms by asking questions, knowing what sitcoms are, understanding the elements needed for sitcoms, knowing how to design scripts, choosing props and how to perform. Students will have a preliminary understanding of the overall task. Through the exchange and discussion of students, students can think about problems in multiple directions and from multiple angles, and teachers can listen more and inspire more in the process, encourage students

to have open discussions, but interfere more with students, and take students as the main body of the classroom.

4.6 Group Cooperation

According to Chen's research, usually a group of 4–6 people achieves the best results in terms of activity effectiveness and participation. In addition, time is also a constraint [8]. Therefore, in the course with the semester as the project time, due to the relatively long time and the particularity of the activities, teachers are in small groups of 6–8 people according to the total number of classes, and students voluntarily form teams, and finally adjust reasonably according to the actual situation. The group selects a team leader to represent the group in effective communication with the teacher during the project, including subject knowledge problems and group members. The group designs the script based on the lesson plan and the number of group members. Group members actively collaborate and clarify their responsibilities through the group division of labor. In this process, the teacher only acts as a facilitator, but does not interfere too much in the projects of group cooperation.

4.7 Report on the Performance

Qi mentioned that class reporting allowed students to combine their original knowledge with what they have learned now and consolidate it. In our PBL course, the method of reporting not only gives students an opportunity to show their self-confidence, but also uses this way to deepen their impressions and firmly remember the knowledge [9]. At the middle of the semester, a debriefing performance is held in small groups at a Class Meeting on Friday, and students can invite parents to watch.

4.8 Course Summary

Deng and Li believe that from the perspective of educational evaluation, teachers are required to make summative evaluations based on formative evaluations for students [10]. Teachers comment on the performance of the positive aspects and the final performance results, which effectively guide students, praise students for their positive aspects, encourage students to improve aspects, and express expectations for students in a gentle and positive manner. Students can be motivated in the form of small prizes to enhance students' self-confidence, learning enthusiasm and expressiveness. The same group members and other group members can evaluate each other, share their new feelings and feelings, and improve their expression ability and team cohesion.

5 Conclusion

Education is not only about teaching, but also about nurturing. Xu mentioned in the research that problem teaching can effectively cultivate students' cooperative learning ability, independent thinking ability and communication skills, and cultivate students who adapt to meeting the needs of The Times [11]. It is encouraged for teachers to

step out of their comfort zone of teaching and engage in multidisciplinary interaction and integration, so that students can have more choices and perspective by designing open, interactive, and authentic problem situations. The design of the course combines theoretical knowledge with practical application to make the project more authentic and practical. Teachers no longer have a central position in the traditional Chinese teaching process, but give the classroom to students, encourage students to learn independently, think independently, learn to solve problems in a team, and actively communicate, so as to cultivate students' comprehensive ability from an early age. This is the true meaning of education, to cultivate students' ability of problem-solving and independent thinking.

References

- 1. Zhang, Y. (2017). PBL's primary school English teaching model in practice. *English Illustrated: Advanced* (31), 1.
- 2. Wang, J. W. (2019). A brief discussion on the PBL pedagogy in primary school English classrooms. *English Illustrated: Advanced* (32), 1.
- 3. Shi, Z. Y. (2007). Philosophy of Education. Beijing Normal University Press.
- Li, H., & Dang, L. (2017). On the application of PBL model in oral English teaching. *Silk Road Vision* (30), 1.
- 5. Yu, T. Z. (2014). From "starring" to "director": Teacher's role transformation and its path in the flipped classroom of basic education. *Shanghai Education and Research*, 51–54+69.
- Han Attack Double. (2013). The application of PBL teaching method in English teaching. *Examination Weekly* (93), 2.
- Zhang, L. M. (2011). Ingenious design, effective introduction—On the classroom introduction in junior high school English teaching. *Teaching Monthly (Secondary Edition)*, 35–37.
- Chen, X. M. (2003). Organizational construction of group cooperative learning. *Educational Science Research*, 2003, 2–5.
- 9. Qi, L. R., Xiao, F., & Song, H. (2022). The application of PBL teaching method in oral English teaching (3).
- 10. Deng, Y. C., & Li, X. H. (2003). On teachers' practical wisdom. Educational Research, 33-37.
- 11. Xu, Y. J., & Liu, C. Y. (2012). On the enlightenment of PBL teaching method to English teaching. *Campus English* (8), 2.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

