



# Introducing PBL and Its Impact on the Development of English Higher Education in China

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**Abstract.** There are great differences between PBL model and traditional teaching model in terms of teaching design concept, implementation method and teaching performance evaluation in Chinese higher education. The author provides an overview of PBL's evolution, design idea, implementation strategy, benefits over the conventional model, current state of use, and future prospects in Chinese and English higher education. The “project-based learning” (PBL) refers to a teaching strategy that separates the material to be instructed into diverse communities based on the physical and mental traits of the students and splits the subject matter into multiple tasks in order to keep the teaching prerequisites as well as to fulfill the real the society's needs for schoolchildren. The generated projects are used as the basis for teaching, which allows the students to participate fully in the project's learning process. The advantages of this approach are: In an integrated learning environment, students build their own expertise and comprehension in a way that is long-lasting and reliable, they learn how to communicate through problem-solving and construct their their own expertise and comprehension in a coordinated manner.

**Keywords:** PBL (problem-based learning) · English Higher Education · Traditional Learning Methods

## 1 Introduction

The PBL (Problem-based Learning) teaching model originated in medicine. At the beginning of the 20th century, with the continuous enrichment of medical and relative knowledge, the burden and stress of medical students was greatly increased [1]. The traditional LBL (Lecture-based Learning) teaching model could not satisfy the increasingly serious teaching needs, and the traditional memorization of basic theories model ignored the practical ability in reality.

The PBL approach has theoretical origins primarily in Dewey's contention that instruction should be centered on motivating students to do personality, deliberate research on issues that affect circumstances [2]. An American professor named Barrows, who was a professor at McMaster University in Canada, used it for the first time in 1969. Since the 1980s, PBL has developed quickly thanks to the in-depth research and

application of universities in the United States, Canada, and Britain [1]. In China, PBL instruction has gradually expanded to other disciplines and the medical field in recent years [1].

PBL as a teaching strategy demonstrates the enhanced educational emphasis on people-oriented. It is a problem-based teaching approach that tightly integrates practice with student-centered and teacher-guided group discussions. In addition to improving their understanding, stronger problem-solving skills, and building a more flexible and comprehensive knowledge foundation, students can also encouraged to do teamwork, practical skills, and self-directed learning at the same time.

The PBL teaching paradigm centers learning on a projects or a difficult activity that is brought on by a significant issue. Students are urged to study independently, particularly in higher education, and when ideas and notions are formed and concepts are retained, conceptual frameworks are incorporated into the curriculum and connected to the results.

In higher education, for college students, they have more perfect and mature minds with independent thinking and problem-solving abilities [3]. In the traditional college English teaching mode, teachers are the main body and mainly teach knowledge. Teachers are responsible for classroom and discipline management, while students just passively accept knowledge. This model is not benefit to promote the students' ability to solve problems independently.

In the traditional teaching mode, many students are often in the state of "high score but low ability". Although most of them can pass the College English test like CET-4 and CET-6, but they can't use English flexible as a tool to communicate with others, and PBL teaching method can just avoid these disadvantages.

It is not only beneficial to knowledge learning, but also can exercise students' abilities in many aspects, like the capacity for self-learning and lifelong learning, as well as the capacity for linguistic utilization and articulation, summarizing, and rational thinking. As a result, the PBL teaching approach may satisfy the educational needs of obtaining cultural information and enhancing language application skills in college English learning.

PBL is more widely used in education and can be more effective when learning across disciplines. For example, when learning across English and Chinese, teachers can ask the students to think actively by asking questions about culture differences and the language expressions, though this way to lead in the specific knowledge points of this lesson and arouse students' interest in both classes and improve their thinking ability, not only limited to teachers and books.

PBL is not receptive learning but discovery learning. At the beginning of the learning process, students form a hypothesis about the issue and propose a solution to the problem, and then test the hypothesis through various inquiry activities and the information they have collected to finally form their own conclusions about the problem [4].

In an experiment conducted by De Grave Boshuigen and Schmidt on the effect of PBL on students' cognitive level, the analysis of students' cognitive processes in response to different questions was evaluated. The interactions were recorded during group discussions and then analyzed. The results of the study showed that the quality of the questions had a high impact on the group's thinking process and learning outcomes.

Clear questions allow students to think more effectively and improve their receptiveness to knowledge, trigger cognitive conflicts, and lead to more positive feedback [5].

## **2 Problem-Based Learning (PBL) Methods Compared with Traditional Learning Methods**

According to the traditional teaching method, teachers need to know more knowledge than ever, students need to read more books to satisfy the needs of application, the burden of both sides of the teaching is increasing, it is difficult to ensure the teaching effect. This kind of cramming traditional teaching has been increasingly unable to meet the requirements of the information society, and PBL can better solve this problem. PBL could change the teacher-oriented education to student-oriented, and pay more attention to the process while valuing the results.

### **2.1 The Teaching Methods of Teachers**

In contrast to traditional teaching methods, the teacher or tutor's role during the helping process is to encourage students to think, help them ask questions, show them how to find answers to pertinent questions, and record each student's performance in order to determine where each student's weaknesses lie and help them improve. Instead of traditional filler teaching, where the teacher prepares the lesson while the students just passively receive it. The teacher undertakes the role of a guide, introducing the students to the English learning scenario, allowing them to identify problems in the application and take their initiatives to solve them. This is different from the traditional teacher's duty, which is not only to preach, teach and solve problems, but also to lead students to think about and be sensitive to language. Teachers apply their expertise within the wider curriculum's framework.

The ability of instructors to capitalize on and mobilize student engagement in order to support autonomous and collaborative learning is of utmost importance. To put it another way, the classroom experience created should stimulate students to try deeper to discover an answer and inspire them to take on the project's challenges. When carrying out a project, the instructor should highlight the importance of problem solving in compliance with the developed theme and make sure that the elements are pertinent to the students' life [2]. The teacher's role changes from that of a mover of knowledge to that of a guide and developer of student learning, and a researcher and developer of curriculum.

### **2.2 Student Learning Methods**

English learning should be combined with the society, and only through interacting with people and constantly applying it can have a real improvement. In the background of China's exam-oriented education society, Chinese students grow up to be good at doing tests, but not good at innovation and problem identification. They prefer to execute orders and accept passively, which are all outcomes of the influence of the traditional education model. After entering university, college students should learn to integrate into society and apply their knowledge to problem solving and reinvention, and PBL provides a

simulated social environment for college students, where each class and group is a microcosm of society. They can learn language and improve their thinking, cooperation ability and creativity skills at the same time. Each student should actively participate in their education and be aware of their own responsibilities within the PBL framework.

Cooperative learning is very crucial and important. In PBL, each team's members must complement one another's skills to accomplish various learning by exchanging and collaborating each other as they work toward a shared objective. By doing this, people not only impart knowledge and offer what they have independently gained, but also learn from one another's experiences to advance their own knowledge base and construction [2].

### 2.3 Evaluation Methods

The traditional university teaching model is usually measured by a final exam, in which students' acquisition of the subject is judged by their performance in one exam. This approach is fair, but it has deprived the enjoyment English language learning deserves. The traditional assessment method is single and unstable, and the grade of the final exam can be related to the state of the day or many objective factors, so it is not very persuasive to judge the level by only one exam. The PBL model allows for diversified testing, such as performances in class, completion of group work, and the ability to solve new problems, rather than rigid textbook knowledge. This helps students to develop their practical language skills, rather than learning "book language" in isolation from practice [6].

The effectiveness of PBL teaching outcomes is reflected in the improvement of students' learning attitude, learning spirit, self-learning ability, critical thinking ability, knowledge application ability, case reasoning ability, and interpersonal communication ability.

### 2.4 The Assessment of Teaching Results

The method of learning appraisal differs significantly between project-based learning and conventional teaching paradigms. Inside this methodology, assessment is carried out by professionals, academics, instructors, colleagues, and students themselves. In addition to reviewing results, it also necessitates analyzing the learning process, which combines qualitative and quantitative assessments review, summative and formative evaluation, individual and team evaluation, as well as evaluations of one's own performance and that of others [6].

The assessment should be diversified and open. There should have checks, observations, conversations, quizzes, exams, task assessments, group reports, individual reports, documentation of work and other types, should be from the original assessment to the multi-process assessment purpose: to provide students with stage-by-stage feedback, so that students can deepen their understanding and strengthen their memory of the knowledge during the learning process. Teachers should also listen to the suggestions students to improve their teaching methods and ultimately achieving a win-win situation in which teachers' level are improved and students' ability are strengthened. Students score high in finals and access their PBL experience favorably.

### **3 The Importance of Implementing PBL in English Higher Education**

#### **3.1 Learning is a Constructive Process**

New educational theories place a strong emphasis on the dynamic nature of learning, and PBL encourages students to proactively create or rearrange their own bodies of information. Connotations are formed throughout the construction of knowledge; these interpretations of the outside world are based on one's own interactions and experiences [6].

In higher English teaching learning, existing or prior knowledge structures are activated and studied in depth in a student-led learning environment based on prior knowledge. It helps students to connect new information with existing knowledge, enrich the knowledge structure, increase the interconnection between various concepts, and promote the activation of knowledge. In other words, students are expected to actively participate in the learning process, using questions as a guide to stimulate the activation, elaboration, and deeper learning of previously acquired English knowledge, which will lead to deeper and more thorough understanding and application [7].

#### **3.2 Education Ought to Be a Self-directed Activity**

Self-directed learning entails the student actively participating in the design, supervision, and assessment of the education process [8]. Plan means that each learner begins to consider different ways of approaching each task, sets clear goals, chooses strategies to achieve them, and identifies problems that may prevent successful achievement of the goals [7]. Monitoring means that the learner is aware of what he is doing and can anticipate what he should do next by looking back and forward. In the end, the process and results of learning are evaluated. The process of self-regulation heavily relies on introspection. Self-directed and perpetual educators lead or control their own learning processes and organize, assess, and review their own education. All elements of self-regulation are closely correlated because self-regulation includes both cognitive and rate of up. In order to promote and facilitate the self-regulated learning experience, motivation is crucial [9].

Furthermore, previous knowledge is a requirement for self-regulated training, which necessitates establishing an academic goals and keeping tabs on the learning experience. In other terms, from a motivational and cognitive standpoint, learners should be encouraged to be aware of their past knowledge and should be driven to supervise or manage their learning process. PBL helps students quickly pick up new information and skills while preparing them for ongoing lifelong learning [10].

#### **3.3 Learning Ought to Be a Joint Effort**

A social system known as collaborative is created when two or more individuals engage to build cooperation. For college students, collaboration is one of the skills they need to enter society.

Collaboration involves mutual influence and shared understanding of issues. Collaborative parties share common goals, responsibilities, help each other, and need to reach consensus through open interaction. This not only enhances the cooperative learning atmosphere, but also supports and criticizes each other to improve the learning efficiency and perfect the learning outcomes. Group work makes English learning everyday rather than a single academic knowledge [11]. It is more conducive to improve the understanding of language in communication. In other words, PBL can stimulate interaction among learners and have a positive impact on the learning process.

### **3.4 English Learning Should Take Place in Context**

English learning always occurs in a contextualized environment, and any language always being processed in a context. When learning a new language, there is a continuum from problem identification to problem solving. Rather than directly telling students how to solve a problem. PBL helps students to look at problems from multiple perspectives, which not only increases knowledge transfer, but also helps learners to become more resilient in dealing with various events [12].

Learn to think, be creative and better able to solve problems encountered. They can also deal with new problems that they have not encountered before in a faster and better way. More importantly, this generation of college students can learn new knowledge more actively, keep up with the digital society's fast development, and truly achieve lifelong learning.

### **3.5 The Role of PBL in Assisting Other English Teaching Methods' Pedagogical Applications**

PBL can help the better use of other English teaching methods, such as TBLT and CBL.

TBLT (Task-based teaching) is the most recent advancement in English education in the west since the 1980s, which was founded on the basis of second language acquisition research. This research is crucial for a language teaching method (Swales,2002:107). The model is the most recent development in concrete task for student objectives and motivation, to finish the job for the process of learning, to show the way to indicate the achievement of the teaching task results, and is in the second language acquisition research under the enlightenment of foreign language learning approach [8]. Using a task-based teaching approach, the fundamentals of language usage may be effectively taught in the classroom. Teachers create a variety of teaching activities with a specific teaching purpose and language projects in mind. In order to fulfill language learning objectives, students engage in various activities, ultimately reaching the goal of learning and using a language. The emphasis on cooperative learning and student-centeredness are both fully reflected in task-based language instruction [9].

Based on PBL, a new teaching method, CBL (case-based learning) was developed. Both of them are student-centered and teacher-led. Through group discussion, students can exercise their ability to identify and solve problems, and develop their self-learning ability and innovation ability [3]. PBL combined with CBL teaching mode can let students always adhere to the problem-centered, problem-solving as the judgment standard, in this process through the teaching of classical cases, not only can cultivate students

insist on “people-oriented”, using professional knowledge, cultivate their independent communication, thinking and problem-solving skills, and inspire them to comprehend the findings themselves [13].

## 4 Suggestions

Previous studies on PBL focuses on the importance and application. However, there is still a large gap between PBL application and social reality. The society is still generally based on grades to determine competence. They will link the evaluations with the scores, which make many students just focus on book on order to get high scores. Compared with traditional teaching, PBL is a new teaching method, and its application will encounter various problems at the beginning [14].

- a). Leaders and teachers must have the determination to make thorough reform, and it will be difficult to see the results if they try only in one discipline, for example, Yang Ming University School of Medicine in Taiwan has tried this, but the results are not satisfactory [9].
- b). PBL teaching requires teachers to devote more energy and time, needs to change the traditional teaching concept of teachers, and needs to train teachers on PBL teaching techniques, such as attending PBL teaching skills training and seminars, in which the workload will be huge.
- c). The quality control of teaching needs a perfect assessment system and strict implementation, and the assessment results should be recognized by the society, for example, there should be corresponding measures to ensure that the qualification of English teaching for graduates in the future will not be affected [15].
- d). The application of PBL should not be limited to higher education, but the new teaching mode should also be gradually introduced in primary and secondary schools to cultivate children’s thinking ability and learning ability from an early age. Starting from the point of interest, children can discover problems on their own, cultivate the desire for inquiry into problems, and use interest as the basis for learning, which in turn will help children learn more deeply in the future.

Schools that are positioned to implement PBL should be done in phases and not in a hurry. First of all, people should fully understand the situation of PBL teaching, and start from the actual situation according to local conditions, rather than following the model of other schools. We should assemble the necessary instructors to provide appropriate teaching materials and create a lesson plan that is appropriate for the circumstances of our school. Use old traditional teaching methods under the guide of new methods [16]. At the same time, teachers who implement PBL teaching should be trained in batches.

## 5 Conclusion

PBL offers a setting where students may hone their analytical and synthesis abilities, creative thinking, and capacity to collaborate with others. PBL calls for students to learn via projects, and these projects serve as the driving force behind learning. The resources

employed in PBL aid in the development of students' critical-thinking and problem-solving abilities. Through PBL, students take on the role of the major body of learning and work together to accomplish the project, dramatically enhancing their motivation and effectiveness for learning. Through PBL, students take on the role of the major body of learning and work together to accomplish the project, dramatically enhancing their motivation and effectiveness for learning.

The application of PBL in higher English teaching can improve students' ability to use the language flexibly, help them better understand cultural diversity and so on. The application of PBL has a long way to go, and the public should work together in order to achieve good results.

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