



# The Application of Project-Based Learning in Language Education and Literature

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**Abstract.** Problem-Based Learning (PBL) has excelled in engineering and medicine since its development, and in recent years it has also excelled in linguistics, especially language education and literature. This paper reviews the principles and characteristics of PBL. PBL is student-centered and is characterized by activity-based learning and, group-based learning. This paper also reviews several PBL language education and literature projects and observes the principles and features of PBL in these projects. The application of PBL in these projects is mainly reflected in activity-based learning and group-based learning. For example, some students write a paper by deciding the title themselves, or students work in groups to complete a drama performance. Finally, this paper compares the results of traditional education and PBL. Also, this paper analyzes why there are differences between the outcomes. PBL can deepen students' understandings of knowledge and stimulate students' learning motivation, which solves the problem that students in traditional education can only learn superficial knowledge and mechanized learning mode. Overall, PBL shows its advantages in language education and literature, which has great development prospects linguistics field.

**Keywords:** Problem-based learning · Language Education · Student-oriented teaching

## 1 Introduction

PBL refers to teaching that allows students to acquire knowledge through authentic questions that do not necessarily have the only one correct answer. It is one of the new teaching methods composed of understanding and problem-solving activities. It is mainly student-oriented, in which teachers' role is to facilitate students to learn. PBL was proposed by McMaster University for medical education at its early stages. Currently, PBL has been developed into many fields of education, especially engineering and medicine. However, in the field of linguistics, PBL also shows its advantages for language education. Many educational institutions have begun to use the PBL teaching method in language education and literature courses. After reviewing several projects that are related to language education and literature, PBL's courses in language education or literature are quite beneficial for students to learn.

## 2 The Effectiveness of PBL in the Linguistics Field

### 2.1 Characteristics of Problem-Based Learning

Project-based learning has been introduced to the field of education and has been adopted by many educational institutions for many years. Over time, the design of PBL at different educational institutions has begun to change. But they also follow the same principles that PBL should be student-based learning, activity-based learning, and group-based learning.

De Graaff and Kolmos state that the learning process of PBL starts with problems, and the learning process should be participant-directed (i.e., self-directed learning) [1]. The problem can be based on real-life, which can also be a theoretical problem. But, in any case, the learning process should be based on problems since this determines the learning direction and motivates students' learning enthusiasm. The participant-learning direction allows students to make their own decisions and determine which problem to research. De Graaff and Kolmos also suggest that PBL is activity-based and group-based [1]. Activity-based learning can help students acquire deeper knowledge, such as doing research, writing, and planning. Activity-based learning makes learning more than just listening to lectures and taking notes. It helps the learning process to become more independent and allows students to be more involved in the learning process. This increases motivation to learn and allows students to benefit from what they learn. It is because this is the result of students' independent research and thinking, rather than the knowledge only obtained from teachers.

Group-based learning can help students develop their cooperation ability. When students start working after graduation, many jobs in the workplace require cooperative ability. The members of the group need to share information and cooperate to complete the work. Moreover, De Graaff and Kolmos mention that "Experience learning is also an implicit part of the participant-directed learning process, where the student builds from his/her own experiences and interests" [1]. A student's experience will give him or her a preliminary idea of the problem, and perhaps his or her experience will give him or her new thinking on the problem, thereby encouraging students to explore the problem. Although each educational institution designs PBL projects differently, most of them adhere to these principles.

After adhering to these principles, educational institutions conduct their PBL projects. As an educational theoretical model, PBL shares some of the same characteristics. De Graaff and Kolmos point out that "the curriculum is structured in thematic blocks" that students can choose what to work on from a series of cases provided by the instructor [1]. PBL models also share the same characteristics during the learning process and assessment. De Graaff and Kolmos state that the learning process for the PBL model is usually self-directed study groups and that a course should be assessed in a way that matches the learning objectives [1]. These characteristics are in line with the principles of PBL. The structure of the curriculum is such that the curriculum is based on problems, and students choose the problem based on their interests to study. Self-directed groups also conform to activity-based and group-based principles. Students work in groups to complete tasks, which develops students' communication and cooperation skills.

Assessment is also very important. To get good grades, students will only study exam-related content. Such a learning process is contrary to PBL. Studying for exams limits students' enthusiasm for learning and their horizons. They only focus on the content of the exam and give up exploring wider knowledge. All in all, PBL projects can be designed differently in various educational institutions, but they all share the same characteristic of student-centered teaching methods.

## 2.2 The Practical Application of PBL in Language Education and Literature

Problem-based learning was first introduced by McMaster University's medical program. Over the years, PBL is being adopted by more diverse fields such as engineering, medicine, and linguistics. Among the few projects this paper reviewed, they all demonstrated PBL principles, such as letting students decide what to study themselves or assessing students' performance in a course with a staged drama project.

In the field of linguistics, many PBL programs have demonstrated their success in language education and literature. Through PBL, students have gained more enthusiasm as well as deeper knowledge of the course. Park designed a model of flipped learning and PBL and then applied this model to a course called English Literature Studies at S University [2]. Before the class, Park gave students a questionnaire about their English literature background and their preferred literary genre and class format [2]. He also created a website that contains course materials and allows students to discuss and interact freely [2]. Knowing students' backgrounds about the course in advance allows teachers to design the course content according to students' backgrounds. English Literature is an esoteric and easily boring subject. If the content of the course is too advanced and complex and the students' foundation for the course is just basic, the students will lose interest in learning. Moreover, determining the class mode and the genre of the literature based on students' responses to questionnaires follows the student-centered learning principles of PBL. Creating a website that contains course materials allows students to study and discuss whenever they want also follows the principle of learner-based learning of PBL. Hence, the learning is no longer confined to the classroom and teacher. According to Park, students work in small groups to present their group presentations in class and lead the class to discuss the topics they have prepared [2]. A self-directed group is also an important characteristic of PBL. Presentations require group members to work together, which means communication and cooperation among team members. Cultivating students' communication and cooperation abilities will greatly help students enter the workplace in the future. In general, one of the most significant principles of PBL is student-based learning and working as a self-directed group, which is one way to achieve this principle.

Chen's English and American Literature course adopted a problem-based learning model. While some of the settings in this course are not perfect, there are some aspects of the course that fit the PBL characteristics. Chen points out that during group discussions, teachers should observe each group's progress and give appropriate guidance [3]. Although it is important for students to come up with their ideas, the role of the teacher also cannot be ignored. In PBL projects, the teacher should act as a facilitator rather than a leader. The leader is the student himself, and teachers should be students' supporters. While students are having their own discussions, students may have problems, such as

being unable to continue the discussion due to lack of some knowledge of the subject or using the time of group discussions to inadvertently engage in small talk. Currently, teachers need to control the discussion time, answer questions for students, and lead students to dig and think about more profound questions. Chen also states the advantage of assigning a final paper as the form of the final exam in this English and American Literature course [3]. Literature is a broad and deep course that requires thinking, creativity, and writing. In order to allow students to truly learn the knowledge of literature, Chen's course sets up a lot of group-based learning to cultivate students' ability to explore independently. Independent exploration can stimulate students' motivation and allow students to gain more profound knowledge. If the final assessment of the course is the final exam, then this will lead to students only studying the content within the scope of the exam rather than experiencing and perceiving the fascination of literature, and all the previous PBL activities will become useless. Selecting a topic and writing a paper is a better final assessment of the student's comprehensive understanding of the course. However, because writing a paper is more difficult, it is necessary for teachers to facilitate students in the process of completing the paper. Overall, the role of the teacher as a facilitator is indispensable in PBL projects.

In the PBL project, the assessment method of the final work is also diverse, not just writing a paper. In Virtue's Medieval French Literature course, the final work of course was performing a twelfth-century play called *Le jeu d'Adam* and the assessment was based on students' efforts [4]. Virtue holds the view that "The performance of the play in front of a live audience was clearly the most important final product, but it is important to add the performance itself contained with it a number of other 'final products'". [4] It means that a successful performance requires group members to cooperate and complete various activities that will eventually be contributed to the final performance, for example, some students are in charge of the play's sets and costumes, and some students are responsible for the dance choreography [4]. Although the first half of the semester of this Medieval French Literature course is taught in a traditional way students are required to do assignments and exams about Medieval French texts [4]. The other half of the semester of this course is PBL. For the success of the final performance, the second half of the semester is mainly composed of activity-based learning. Students can learn things that cannot be learned in class notes in different activities. For example, acting in a drama can give a student a deeper understanding of a medieval French literary work, since acting requires students to substitute themselves into the work and share feelings with the characters in the work. Alternatively, students need to understand the background of medieval France when preparing costumes for the play. Thus, they can gain a better understanding of the spirit of people in that era and why they could write literary works that represent that era. Activity-based learning broadens students' horizons and deepens their thinking. Activity-based learning is more engaging than just sitting in the classroom listening to lectures and taking notes, which also means it helps to foster students' learning motivation, impelling them to explore what they are interested in. Teachers support students in activity-based learning and prevent students from getting lost in the path of self-exploration. This kind of interaction also shortens the distance between teachers and students, which is more beneficial to students in learning.

In a word, activity-based learning is also a way to achieve the student-based learning principle in PBL projects that it helps students to explore more.

To sum up, the advantages of PBL in language education and literature are evident. In addition to the three cases that this paper mentioned above, there are many successful PBL projects in the field of linguistics. Sahib Tamimi and Salamin conducted an experiment to test “the effectiveness of PBL on students’ academic achievement and motivation towards English in EFL environment.” Although there was no significant difference between the experiment group (i.e., the group that adopted the PBL method) and the control group (i.e., that the group did not adopt the PBL method), the result illustrated that the experimental group still outperformed the control group on reading and writing [5]. Ab Rashid, Mazlan, Wahab, Anas, Ismail, Syed-Omar, and Anwar designed a test in a TESL classroom, and they argue that PBL can bring positive effects to students’ thinking and understanding ability, and students exhibit critical thinking ability, cooperation ability, and independence in learning under the influence of PBL [6]. Mohamad and Tamer reviewed 43 PBL studies from 1997 to 2020 and states that PBL can enhance learners’ reading, writing, listening skills, and other skills in language classes [7]. After the development in the past few years, the advantages of PBL in language education and literature have become more and more obvious. Also, there is still a lot of room for improvement in the future.

### **2.3 The Comparison of Educational Outcomes of PBL and Traditional Education**

The teaching method of PBL is completely different from the traditional teaching method. PBL education method is mainly student-centered, while traditional education methods are mainly teacher-centered. To prove PBL is more effective than traditional learning, Masek and Yamin employed an experiment with a control groups design [8]. Results showed that “the PBL group outperformed their counterparts in knowledge acquisition of principles and procedures,” but the traditional learning group performed better in the understanding of concepts [8].

The advantage of PBL is to help students deepen their understanding of knowledge, while traditional education focuses on learning superficial things. Principles and procedures describe how an item works, that is, they more practically interpret the item. The concept is only pure theory, and students can repeatedly practice the application of a concept through traditional learning methods. Trigwell, Prosser, and Waterhouse’s study show that students are more likely to acquire the surface of learning subjects if the teacher concentrates on transmitting knowledge, and students are more likely to obtain deeper knowledge if the teaching is more student-oriented [9]. Hussain conducted an experimental study, and he states that although there is no big difference between the pre-test result of the experimental group and the control group, students with PBL exhibited better results in the post-test [10].

Many experiments found that PBL is more helpful to students’ learning ability than traditional learning. The traditional education model has the shortcomings of over-emphasizing knowledge retention and the indifferent relationship between theory and practice. These disadvantages make learning difficult for students to be interested in the curriculum when they are studying, and lead to a mechanized way of learning. For example, the way of learning is just taking notes and completing the homework assigned

by the teacher. Overall, PBL is a greater challenge for teachers since adopting a PBL teaching method means that the format of lessons becomes more flexible, and teachers should be more proficient in the knowledge. Still, the benefits of PBL are worth it for students. PBL can change the mechanical learning of traditional learning methods and arouse students' interest to stimulate learning motivation. These will eventually lead to students having a deeper understanding of knowledge.

### 3 Conclusion

In general, PBL is not limited to just engineering or medical education. It demonstrates its strengths in language education and literature. The use of PBL in language education can stimulate students' motivation to learn so that students can facilitate their motivations in language learning. PBL can also deepen students' understanding of complex languages, so as to experience the charisma of a language. Compared with traditional teaching, PBL has greater advantages in language education and literature. It solves the problem of mechanization in traditional education and improves students' interests in language learning. This article may be helpful to people who want to understand how PBL is practically used in language education and literature courses. This review believes that with the development of PBL, its advantages in the field of linguistics will be seen by more people and benefit more students.

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