



# The Application of Problem-Based Learning in SLA

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**Abstract.** This paper reviews the current situation of the Chinese teaching model and compares it with Problem-Based learning (PBL) in Second Language Acquisition (SLA). The disadvantage of this teaching model is the superficial teaching in writing, which pushes students to pay too much attention to their academic performances but neglect the improvement of developing their comprehensive ability and enjoying the learning procedures. The paper first introduces the PBL teaching mode, then briefly expounds the Krashen's input hypothesis of SLA theory, and finally puts forward the idea by combining cooperative learning, independent learning, and inquiry learning in a Chinese lesson for overseas students based on the PBL teaching method. The lesson aims to check whether this pattern helps promote students' abilities. Finally, it also analyzes the difficulty in implementing this theoretical model in authentic Chinese teaching practice. It is hoped that in the future, China will follow the trend, continue to practice the PBL teaching model, and explore it in a more appropriate way for Chinese students and national conditions.

**Keywords:** PBL · SLA · Krashen · The Input Hypothesis · HSK

## 1 Introduction

### 1.1 Research Background

With the development of China, the number of overseas students coming to learn Chinese has gradually increased in recent years. However, these overseas students can only gain limited learning results through the existing learning methods. In other words, there are some disadvantages in the current teaching method to be solved. Many scholars in language teaching have paid attention to this problem and proposed the advanced concept of combining SLA with PBL. However, most of these papers focus on SLA with English as the target language, while the PBL teaching method is not found to be widely used in SLA teaching with Chinese as the target language.

First of all, it is noticeable that the term SLA by Western scholars is different from the foreign language teaching that we often speak. Linguists refer to SLA as a language widely used in government, business, society, and the native language. In contrast, foreign language in linguistics refers to the language except native language is rarely used

for communication only in school learning or daily life. What we refer to foreign language learning is the PPP (Presentation-Practice-Production) model of English teaching in college classrooms, which takes “teaching” as its primary purpose [1]. Such class focuses on only imparting knowledge in textbooks, such as grammar, vocabulary, and Chinese characters [2]. After class, students would be asked to write relevant exercises to practice what they have learned in class. This approach is not conducive to cultivating students’ communicative competence and autonomous learning ability. Therefore, this paper argues that in most Chinese teaching classes, it is still a solidification mode in which lectures dominate the classroom and students accept it passively. Students whose target language is Chinese have not achieved remarkable results in learning Chinese through such a teaching model.

## 1.2 PBL Teaching Mode

At present, the new curriculum reform requires the embodiment of students leading role in the teaching process. Consequently, PBL is learning in the working process towards understanding or solving problems. Applying PBL to language learning can make up for the deficiency of Lecture-Based Learning. In the fields related to students’ study, life, and humanistic thinking, focusing on problem-solving can promote the development of students’ critical thinking ability and verbal communication skills effectively [3]. PBL teaching focuses on the cultivation of students’ active learning ability, knowledge imparting, and practical ability. Now PBL teaching mode has been introduced into the teaching of some medical colleges and universities with remarkable effects. It has been recognized that it can improve students’ active learning ability, promote teamwork and communication, improve their ability to explore and solve practical problems, and cultivate innovative and critical thinking [4]. It is also a teaching strategy that begins with asking students to solve a complex and confusing problem that they may encounter in the real world with the form of group work. The process of problem-solving allows students to actively participate in the analysis of problems, review what they have learned, identify relevant facts, and construct new knowledge on this basis. Students collectively decide which problems need to be discussed in groups and which can be tackled individually and devise action plans to solve the problems. For example, there are two common ways: one is Problem-oriented independent learning, while the other one is group learning.

## 1.3 Utilizing PBL on SLA

The theory of SLA put forward by American linguist Krashen in the 1980s has received great attention in the world, among which The Input Hypothesis is regarded as the most important part of Krashen’s theory of second language acquisition [5]. In Krashen’s input hypothesis, he pointed out that only when learners are exposed to “comprehensible language input,” they are more likely to converted input into language acquisition. This is his famous relation called “ $i + 1$ ”. If the current level is “ $i$ ,” take in “ $i + 1$ ” level input. Among these, “ $i$ ” in the formula represents the learner’s current level, while “ $1$ ” means that the language material ingested is slightly higher than the learner’s current level [6]. On the contrary, if the input material is too simple, learners will lose interests and thus learn inefficiently [7].

PBL teaching mode is mainly characterized by interaction. First, teachers can set up real situations to guide students to conduct discussions, which conforms to the principle of authenticity in PBL teaching mode. Compared with mechanically inputting learning materials, solving practical problems is more likely to stimulate students' learning motivation. Certainly, the creation of the situation cannot be divorced from the students' current level. It is most appropriate to set the level of teaching students slightly higher than their current level. Second, learners can solve problems through negotiation with other learners who possesses slightly stronger language ability in different forms of interaction in or after class, through the input and output of a large amount of comprehensible material, and it is certainly conducive to the development of SLA. Thirdly, the PBL teaching mode based on cooperative learning can effectively reduce students' anxiety and thereby providing a safe and favorable psychological environment for foreign language learning. This involves Krashen's The Affective Filter Hypothesis. When the learners are emotionally stable and in a good psychological state, they can quickly digest and absorb the received information. Meanwhile, their receptivity and carrying capacity of information will be in a good state. On the contrary, when the emotional state of the educated is unstable, such as excessive tension, self-confidence, and anxiety, the learners will ignore a lot of language information that should be paid attention to [7]. What's more, the information input ability of them in this state will be greatly reduced, thus affecting their overall language learning [7]. Different from individual learning, students' shortcomings can be properly hidden by group learning and make students dare to speak and try instead of being afraid of making mistakes, which is more conducive to improving their language ability. In addition, the PBL teaching mode based on solving problems enables students to transfer passive learning to a positive discovery learning mode, enhancing their interest in learning and providing continuous motivation for SLA. Therefore, the PBL teaching model provides a new platform for learners to improve their linguistic ability. In the end, the environment of the target language can bring a large number of natural and authentic language input to the second language learner, which is much easier for learners to acquire the language when exposed to such full and natural linguistic input at all times.

All these characteristics are in line with Krashen's ideal standard: intelligibility, interest and relevance, non-grammatical program arrangement, and having plenty of linguistic materials input [6, 8].

## **2 The Application of PBL in SLA Teaching**

### **2.1 Problem Setting**

The below section will take one Chinese class as an example to show how to apply PBL in SLA teaching. Teachers set appropriate and complete projects implementation procedures according to the content and learning objectives of each unit of a textbook. The project setting should fully reflect the authenticity of PBL, for instance, the age of students, whether their current Chinese level can complete the project, the appropriate difficulty of the project, and the project can be closely combined with life without being separated from textbooks. Teachers should consider how to act as a qualified guide rather than a leader in the classroom and make clear the teaching focus and teaching

difficulties respectively. The classroom should be open enough but not so open that it is out of the teacher's control. In Hanyu Shuiping Kaoshi (HSK) Level 5 textbooks, there is a lesson called "The Harm of alarm clock" in the Chinese proficiency test, which tells that the human body has its specific sleep mechanism. Natural awakening and external light are both natural biological alarm clocks, which are beneficial to the human body, while alarm clock ringing is harmful to it. Therefore, students can set and solve many questions by themselves according to this theory. For example, they can ask "whether there is a difference in the time when people wake up in different weather" and "alarm clock is harmful to the body in what specific aspects." These questions will be discussed as guidance for further exploration and learning.

## **2.2 Working with Groups**

The teacher establishes study groups based on the students' current level and chooses a group leader to assign tasks and supervise the progress of tasks. The ability requirements of group members should be in line with the combination of stronger and weaker, which is in accord with Krashen's "i + 1" theory and more conducive to the rapid acquisition and improvement of Chinese proficiency.

## **2.3 Group Work**

As mentioned in the first step of question settings, the teacher does not set inherent problems. Instead, the teacher gives a general direction and theme; then she asks students to formulate and solves the problems themselves. In the process of problem formulation, students can brainstorm and have a heated discussion. When solving problems, they can exchange ideas, communicate and cooperate to reach a consensus [9]. For instance, "the strength of the sun's rays will affect the natural waking time of human beings, so people tend to prefer to sleep on rainy days." "Suddenly woken up by the alarm clock, human heart rate will increase sharply, and people's short-term memory ability and calculation ability will be affected for a long time." This is the positive outcome of group cooperation through division of labor, drawing conclusions based on actual life, and collecting information at last.

## **2.4 Achievement Display**

The ways of presentation are various, and each group can present their conclusions or learn results in a different form, such as making slides, editing videos, and making manuals. The production process should ensure the participation of each team member and their contributions to the final product. The importance of classroom presentation cannot be ignored. In this way, teachers can understand the teaching results of the class or this stage of students, then master the learning situation of students.

## **2.5 Evaluation and Reflection**

Students should have a clear understanding of what they have learned and reflect on the problems they have solved at the end. After the course, teacher evaluation, class

evaluation, and group evaluation are all indispensable. Teachers should consciously allow students to reflect on and evaluate the whole learning procedure, knowledge, and problems in time. Group members can evaluate each partner. Then, students can evaluate each other among classes. Finally, the teacher's evaluation of the class, group evaluation both reflect the whole project. Teacher evaluation will bring timely feedback to students, and students could make some improvements in their oral skills through this way. Moreover, teacher evaluation will play an active role in guiding the group members. Hence, reflection is the core issue that PBL focuses on. Learners need to move forward and develop in constant reflection and summary. Otherwise, teachers need to follow up and guide them to explore the truth, solve the problem, and make sure students that can fully understand it.

Unlike traditional cramming, PBL requires students to have a thinking process. PBL teaching model absorbed advantages from the domestic Chinese lesson of new curriculum standard advocated by independent, cooperative, and also learn from lecture-based learning, to facilitate teachers' reasonable organization teaching as well as to enrich the contents of the classroom that in the limited teaching time. It can also let students enjoy learning a second language in real situations and solve practical problems. In the future, China will follow the trend of the times and continue to practice PBL teaching concepts and models to explore and discover PBL teaching models to be more appropriate for Chinese national conditions and their students. After that, PBL can be applied to various SLA contexts and thereby contributing to Chinese future education reform.

### 3 Difficulty in Implementation

Although with the development of globalization, the international status of Chinese has increased, the importance of oral Chinese in cross-cultural communication is becoming more and more prominent. Language-communication is mainly manifested in communication and application ability. Indeed, exposure to the target language environment does produce a large amount of language input, which conforms to The Input Hypothesis proposed by Krashen. However, just as The Input Hypothesis itself has some unreasonable points, Krashen ignored the importance of language output for the mastery of a language and overemphasized the significance of input or even ignored output [9]. A one-sided emphasis on listening and reading, while ignoring the importance of speaking and writing, which is precisely the momentous cause of "mute English" [10]. It is also a drawback for Chinese students in learning English.

Although traditional second language teaching is constantly improving, there are still many problems at present. For example, in the Chinese education system, students need to come to China to study Chinese for HSK, to test the non-native Chinese people, including foreigners, overseas Chinese, and Chinese minority examinees, which also set up various difficulties according to different levels. The questions mainly focus on speaking, listening, reading, and writing. Admittedly, the PBL teaching mode cannot be separated from this education system, and teachers are bound to be restricted in the process of Chinese teaching. They are usually required by the syllabus to teach a whole HSK textbook in one semester, and each lesson is based on the text. There are few opportunities to leave students to discuss by themselves and practice their communication

skills. Especially in the case of second foreign language learning, teachers spend most of their time teaching courses but leave little time for students. Many of them are unable to speak or even unwilling to speak Chinese, which causes their learning ineffectively. The most important thing is that Chinese students always take the first place in the thought of deep-rooted, written test results pass, the oral ability is mostly perfunctory, and this situation leads to foreign students also ignoring their communication as well application ability.

To solve these problems, new teaching methods need to be considered as a supplement. Therefore, it is necessary to use PBL as a new teaching concept to make up for the shortcomings of traditional courses. Its problem-oriented teaching method can not only improve students' learning efficiency and enhance their communicative ability but also allow students to solve problems in learning in real life.

## 4 Conclusion

After analyzing the disadvantages of the existing Chinese teaching model, we propose to apply the PBL teaching method to the class of Chinese as the target language. Combining the advantages of the two methods, we aim to improve students' comprehensive ability and critical thinking in acquiring a language, rather than only focusing on language test scores. Even though the implementation of this teaching concept is difficult in the context of Chinese general education, it is expected that PBL will probably achieve remarkable teaching results in the process of SLA. In this way, students not only improve their language ability but also develop a kind of comprehensive thinking. For instance, through this learning method, students will acquire excellent independent learning ability, and focus on group cooperation and the importance of solving practical problems. If this teaching concept can be applied to the current foreign students' SLA classes, students will have lots of benefits. Therefore, Chinese teachers should pay special attention to this concept and actively improve their teaching methods for achieving better teaching effects. Although the traditional education model is deeply ingrained in China, it suits for entrance examinations for the test. However, it does not match every classroom teaching setting, especially for those which require problem-solving skills. Therefore, utilizing PBL in SLA is recommended in this paper.

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