

# Application of PBL Teaching Method to Junior High School English Reading Pointing to Higher Order Thinking

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## Abstract

Reading is the best way to input language learning, and reading teaching plays an integral role in English teaching in junior high school. However, the traditional way of teaching reading has already reduced the enthusiasm and initiative necessary for students to learn reading. With the deepening exploration of classroom reform, PBL (Project-based learning) teaching method has been widely used in English teaching in recent years. It is a student-centered, real problem-and project-driven approach to learning that aims to develop students' skills in independent learning, problem solving, teamwork, and critical thinking. The application of PBL teaching method to junior middle school English reading teaching plays a great role in stimulating students' reading interest, cultivating independent learning ability and enhancing cooperative spirit.

## Keywords

PBL teaching method, junior high school English reading, application.

## 1. Introduction

### 1.1. Background of the research

Under the background of globalization, the importance of English as an international language is self-evident. It is not only a bridge for academic exchanges, but also a common language for cooperation in many fields such as economy, trade, science and technology, and culture. Therefore, mastering English, especially through English reading to acquire information, broaden horizons and improve comprehensive literacy, is of great significance to personal development and even the exchange and cooperation between countries. Xu Xiao (2015) puts forward the importance of reading. According to Junior High school English Curriculum Standards(2017), by means of reading, students can acquire a wide range of knowledge, including language, humanities and science knowledge, which can develop students' thinking and improve their aesthetic ability.

However, there are still some shortcomings in English reading teaching at this stage. Under the influence of exam-oriented education as well as traditional teaching methods, English reading teaching has not achieved good results. This traditional teaching method can not cultivate students' reading comprehension ability, the main reasons can be summarized as follows. First of all, in the long-term teacher-centered teaching process, students are accustomed to passively receiving knowledge and no longer actively learning. They are unable to analyze problems and lack insight into these problems. What's more, some teachers don't have enough reading skills and methods. The teaching mode of reading is unitary, and grammatical translation has always been the main teaching method. Therefore, it's an urgency to change the roles of teachers and do some alterations in the teaching and learning strategies and methods.

Using questions to guide students in reading training is an effective English teaching method(Wu&Xu, 2009). Teaching students to doubt and question plays an invaluable role in

cultivating students' lifelong learning ability. Adopting problem-oriented teaching in teaching can fully mobilize students' learning initiative, is conducive to developing and improving students' ability of questioning and questioning and to cultivating students' ability of questioning and the ability to question can well reflect the teaching concept in curriculum standards. Unlike traditional teaching methods, PBL teaching method regards knowledge as a tool. And in order to solve different problems, students must master and apply knowledge. PBL teaching method is a relatively effective and efficient way to teach English (Ding, 2009). All in all, the application of PBL teaching method to junior high school English reading teaching is feasible and enlightening.

## **1.2. Purpose of the research**

The deep value of reading teaching lies in cultivating students' strong interest in reading and exploring the deep cultural and thinking connotation expressed in reading texts (He, 2022). The reading teaching cannot merely be superficial. It should deepen in students' higher order thinking. In the field of education, many experts and English teachers have begun to actively explore and practice the use of new teaching methods in English reading teaching to meet the educational needs of the new era. In order to solve the existing problems in junior middle school English teaching, this paper aims to apply PBL teaching method to junior middle school English reading teaching, improving learners interest in English reading, changing the traditional teaching methods and learning methods, and making students' thinking shift from low to high order, which will also promote the all-round development of students.

## **1.3. Significance of the research**

From a theoretical point of view, by combing the literature on the application of PBL in reading teaching at home and abroad, this paper makes a comprehensive and profound discussion on the definition, characteristics, process and theoretical basis of PBL, which not only explains the related concepts of PBL, but also enables more English teachers to have a general understanding of this model. To some extent, on the one hand, it can deepen the research of PBL. On the other hand, resources can also be provided to normal students for their study.

In a practical sense, teachers should use PBL teaching method as much as possible in the teaching process. Compared with the traditional teaching method, PBL teaching method has more advantages. Because of its advantages, PBL has been applied in various teaching practices. This study provides an effective reference for junior high school English teachers, which is of great significance for both teachers' teaching and students' learning

# **2. Literature Review**

## **2.1. The definition of PBL**

The concept of Problem-Based Learning (PBL) teaching method, introduced by Howard Barrows in 1969, revolutionizes medical education and has since spread to education, business, law and many other fields. And it has been widely recognized and applied. Many foreign scholars regard Problem-Based Learning not only as a teaching method, but also as a learning method. Domestic scholars have also done a lot of related research on PBL. Starting from the problem is the main manifestation of PBL teaching method (Zhang, 2000). It emphasizes that learning takes place in complex and meaningful problem situations where learners work together to solve problems in the reading class, learn the science behind the reading material, and ultimately equip students with problem-solving skills. PBL teaching approach takes problems as the starting point of teaching. Teachers combine questions with reading materials, guide students to master the teaching content through one question after another, and develop students' ability to collect information and integrate resources.

In a word, PBL is a kind of teaching mode, in which students take the initiative to learn and become the main body of the class and through question inquiry, students' cognitive ability of English subject, language expression ability and cooperation ability have been greatly improved. During this process, students can express their opinions, gather wisdom, cultivate reading ability, and realize the comprehensive and harmonious development from ability to personality.

## **2.2. The definition of higher order thinking**

Higher order thinking is the mental activity or cognitive ability that occurs at a higher cognitive level, such as analysis, synthesis, evaluation and creation. Higher-order Thinking is the mental activity or cognitive ability that occurs at a Higher cognitive level(Zhong, 2004). In classroom teaching activities, learners' high-order cognitive ability reflects the comprehensive ability of learners' thinking development from concrete to abstract, which is characterized by complexity, non-linearity, uncertainty, diversity and self-regulation. (Jiang, 2017). As a way of reflecting the objective world, thinking is not a physical thing, but an abstract concept(Ji, 2022). So actually, it's not easy or even complicated to define what is higher-order thinking. This is also the reason why, in subsequent research, although higher-order thinking is commonly found in various journal articles and postgraduate papers, there are few unique insights from individuals. But from researches, we are able to know that higher order thinking is of great significance to learners' lifelong development, and its cultivation needs a suitable teaching environment and teaching strategy.

## **2.3. The relationship between PBL and higher order thinking**

PBL teaching mode is closed related to higher order thinking in several perspectives.

First of all, PBL can promote the development of higher order thinking. PBL teaching mode stimulates learners' interest in inquiry and thirst for knowledge by raising challenging and realistic questions, and prompts them to conduct deep thinking and analysis. This kind of problem-based learning is conducive to the development of learners' higher order thinking abilities such as analysis, synthesis, evaluation and creation. In PBL, learners need to actively collect information, analyze problems, propose hypotheses, design schemes, implement plans, and evaluate results. All these processes require the participation and support of higher-order thinking, thus promoting the development of higher-order thinking.

Secondly, higher order thinking is an important goal of PBL teaching mode. The design and implementation of PBL teaching mode aims to cultivate learners' self-learning ability, innovation ability and problem-solving ability, which are closely related to higher-order thinking. Therefore, higher order thinking is one of the important goals of PBL teaching model. Through the practice of PBL teaching mode, learners can gradually master the methods and skills of higher-order thinking, and improve their decision-making ability and innovation ability in complex situations.

Last but not least, they reinforce each other. PBL teaching model provides a good environment and condition for the development of higher order thinking, and the development of higher order thinking further promotes the implementation and effect of PBL teaching model. The two promote and support each other, and jointly promote the comprehensive development of learners and the improvement of comprehensive quality.

### **3. Features and Procedures of PBL Teaching Method**

#### **3.1. Features of PBL teaching method**

##### **3.1.1. Regrading the project (problem) as a starting point for learning**

PBL teaching takes specific projects or problems as the starting point for learning, and students need to develop learning activities around these problems or projects. In this manner, students can be more clear about learning goals and directions, and also improve their pertinence and effectiveness of learning.

##### **3.1.2. Regrading students as the main subject**

In the process of PBL, students are no longer passive recipients of knowledge, but become masters of learning. They need to take the initiative to collect data, analyze problems, develop solutions, and constantly revise and improve their solutions in practice. This student-centered teaching mode can stimulate students' learning interest and motivation, and cultivate their independent learning ability and innovation ability.

##### **3.1.3. Stressing teamwork and communication**

PBL emphasizes teamwork and communication among students. During the project or problem solving process, students need to work in groups and complete tasks together. This way of cooperation can cultivate students' teamwork, communication and interpersonal skills, so that they can better adapt to the needs of the future society.

##### **3.1.4. Emphasizing evaluation and feedback**

In PBL, students are expected to self-evaluate their learning process and outcomes and receive feedback from other groups and the teacher. This kind of evaluation can help students better understand their own advantages and disadvantages, adjust learning strategies and methods in time, and improve learning results.

##### **3.1.5. Focusing on authenticity and challenge**

PBL projects or problems are usually derived from real life or real world situations that may be faced in the future, with a high degree of authenticity and challenge. Under this kind of situation, students can more deeply understand the practical application and value of the knowledge, and improve their practical ability and comprehensive quality. Based on the problem-oriented approach, the questions raised are based on real life. At the same time, these problems have a certain complexity, exploration value. In this way can students in the future life of similar problems have a reference and even solve problems independently (Lu, 2021)

#### **3.2. Procedures of PBL teaching method**

The PBL process is divided into five steps. First, divide up groups. Then, start working on the new problem, and starting from problem solving, the group members should have a common goal. Second, students conduct independent inquiry tasks. Third, in the new problem solving phase, the team members get together again to exchange and share results, and give timely evaluations. Fourth, report learning results. Fifth, reflection and summary, students are asked to summarize what they have learned and share their harvest.

Sun Ling and Xu Wenbin (2020) divided the whole teaching process of PBL into five steps: finding problems and determining problem situations, clarifying the issue, analyzing the cause of the problem from multiple angles, developing problem-solving strategies, evaluating the problem solving process. These five steps are both independent of each other and restrictive, forming a balance. They progress step by step in a logical order, and finally form a problem-solving cycle. When it is applied to the English reading class of junior high school, we should take account of the different stages and steps of this class-PWP.

During preparation stage, it's time to prepare materials, problems and learning objectives well. Teachers need to clarify the objectives of reading teaching, such as improving students' reading comprehension ability, critical thinking ability and independent learning ability. According to the teaching objectives, choose the appropriate English reading materials and make ensure that the materials are not only in line with the students' English level, but also have certain challenging and educational significance. Also, the questions should be designed to stimulate students' interest in reading and lead them to actively explore the information in the reading material.

During pre-reading, To begin with, teachers can activate students' existing background knowledge through questions, discussions and other ways to prepare them for reading new materials. And guide students to predict reading materials and stimulate their reading interest and curiosity. Then teachers make clear the reading tasks to the students, including the questions to be answered, the time limit for reading, etc. And students are encouraged to make a reading plan and identify what they need to focus on during the reading process.

During while-reading, first of all, students read independently according to the teachers' guidance and their own reading plan. In the process of reading, students need to constantly think about the questions raised by the teacher and try to find the answers from the reading materials. Students can then collaborate in groups to share their findings and questions in the reading process. Through discussion, students can inspire and help each other to solve problems in reading together. Finally, teachers should give students appropriate guidance in the process of reading, such as answering students' questions and providing necessary reading strategies. Students are encouraged to ask questions and guided to solve problems through collaborative discussions and access to information.

In the post-reading stage, students need to first summarize their own reading results, sort out the key information in the reading materials and their own reading perception. Teachers can guide students to show their reading achievements through writing and oral reports. Then, teachers can design some extension activities related to reading materials, such as role play, writing exercises, etc., to encourage students to connect the knowledge and views in reading materials with their real lives, and deepen their understanding and application of reading materials. Finally, teachers can guide students to conduct in-depth reflection and evaluation on their reading process through questions and discussions, and think about their strengths and weaknesses in the reading process.

#### **4. The Practical Application of PBL Teaching Method to Junior High School English Reading Teaching**

The application of PBL teaching method in reading teaching mainly reflects three stages: pre-reading, while-reading and post-reading. Teachers design flexible question chain for these three links in the reading process, that is to say, they set driving questions, carry out continuous exploration in the whole reading of the article, and give comments after students' answers and activities, so as to give full play to the advantages of PBL teaching method, fully mobilize their enthusiasm for reading, and pay attention to the cultivation of their thinking ability.

This article takes Grade 8 M10 Unit2 (Foreign Language Teaching and Research Press) as an example to introduce the application of PBL to Junior high school English reading class. The reading class is "When is the best time to visit the US?". This teacher uses this reading material to lead students into the project called "How to make a video script to show the beauty of China" as a promotional film director. This article is close to students' life and has strong practical educational significance, which is suitable for PBL teaching method.



#### 4.1. At the preparation stage

The selected project is practical and challenging. The theme of this lesson is about travel, and the form of achievement is determined to take video, this form of achievement is closely connected with the actual life of students, and has practical significance. In addition, the challenge of introducing the beauty of the motherland to foreign tourists can stimulate students' interest and motivation in learning.

#### 4.2. During pre-reading

At the lead-in stage, the teacher first introduces some famous places in China and leads students to know this project. Ask students to make some video to help the foreign visitors to see how beautiful China is. After that, the teacher asks some questions about background knowledge about "what, who and how". The last question-how to make a video script-is a little difficult for students to answer. So the teacher gives students two mini project. They are "what kind of places do you want to choose?" and "what information do you want to collect?". This way of reading with questions can effectively stimulate students' desire to read, and make them read actively and happily to understand the article deeply (Wang&Xu, 2010). After brainstorming, teacher and students all go into the reading stage to get some ideas from the author.

#### 4.3. During while-reading

The teacher guides the students to actively explore the question "when is the best time to travel" through question driving, which naturally leads to the content of this lesson. This problem-driven teaching method can promote students' active thinking and inquiry, and cultivate their independent learning ability.

In this stage, the teacher first asks students to read the whole passage quickly to circle places as well as information that the writer choose to introduce. Then, teacher guides students to know how to choose by asking students why does the writer first talk about New York and why does the author choose places from different parts of the country. And students can conclude that they should choose places from different parts and start from the famous one. After that, students are asked to read the whole passage again in a more detailed manner to find out what information to collect if we want to introduce a place to others. There is a table for them to complete. After finishing the table, the teacher leads students to know how to connect information. It can help students to make sentence in subsequent stages.

After reading the materials carefully, students are asked "which place do you want to visit most? And why?". The teacher leads the students to analyze the articles from a variety of perspectives to develop the students' thinking ability. In the process of exploration, the teacher guides the students to analyze the article from multiple perspectives, such as the content of the article, the cohesion of sentences and the structure of the article. This multi-angle analysis method can cultivate the students' thinking ability and improve their ability to analyze and solve problems.

#### 4.4. During post-reading

Post-reading activities are for students to have a deep understanding of the article through various reading activities and a series of questions, and to form a new perspective and cognition at a higher level by combining the existing knowledge and experience and activities.

In this stage, teacher helps students to know how the writer organize this passage, which will inspire students during sharing. In the project division, teachers divide students' roles. This method of role division can promote the cooperation among students and improve their teamwork ability. Then the teacher asks students "Do you think he is a good writer?". It is a way to do students assessment. And the standard can also be used to evaluate students later. After this, students are asked to talk about in small groups to make a script about when is the best time to visit China. Several groups will be invited to share their performance in a limited time.

And teacher gives appropriate and comprehensive feedback on students' result. Also, other students can be an evaluator. The assessment perspectives include structure, tone, language and content.

At the end of the lesson, the teacher enhanced the theme of the lesson by guiding the students to express their love for the motherland. This kind of emotional education not only enhances students' sense of identity with the motherland, but also makes them cherish their own culture and living environment more.

## 5. Conclusions

Problem-oriented teaching mode changes the previous single and boring reading teaching mode, enlivens the classroom atmosphere, truly realizes "student-oriented", helps to cultivate students' higher-order thinking ability, and enables them to realize "lifelong learning". And in the actual teaching process, teachers should deeply understand the relevant theories of PBL teaching method, theory is the basis of teaching practice, only on the basis of a solid theoretical foundation, teachers can skillfully use PBL teaching method. In addition, PBL teaching method has a high degree of openness. Only by fully understanding the essence of its theory can teachers implement it better and more effectively in classroom teaching.

Of course, it cannot be denied that the use of PBL still exists in China's foreign language teaching environment. There are many problems: first, it is difficult to change the roles of teachers and students, and we need to work hard to overcome some traditional backward concepts. Second, PBL learning mode requires higher cost. Compared with traditional classroom teaching, PBL requires a large number of small classrooms and more copies of library materials, especially commonly used materials. Third, students' assessment is difficult. It is suggested that a combination of written test, peer assessment, self-assessment, teacher assessment, oral presentation and written report can be adopted in the application of PBL model.

Despite the problems and challenges, the unique value of PBL is still worth serious consideration. Cooperative learning is one of the most important characteristics of PBL. PBL organizes teaching in group mode and collaborative learning. A well-organized group can bring the groups' function of meaning construction, cooperative goal-setting and knowledge refinement to improve the learning effect. Natural Science Foundation.

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