The Feasibility of Problem-based Learning (PBL) in Junior High School English Teaching—A Case Study of Seventh Grade English Grammar Class

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Abstract

This study explores the application of Problem-based Learning (hereinafter referred to as PBL) in junior high school English grammar teaching. Currently, English teaching in junior high schools in China is undergoing reform, emphasizing that English education should not only serve as a communication tool but also focus on cultivating students' core literacy. Originating in medical education, the PBL model has expanded to language teaching, highlighting student-centered, cooperative inquiry, and problem-solving. Through empirical case analysis, this study examines the effectiveness of PBL in enhancing students' language skills, cultural awareness, thinking quality, and learning capabilities. The study finds that the PBL model can stimulate students' interest, promote active learning, and critical thinking, but it also sets higher requirements for teacher quality and the teaching environment. The conclusion indicates that the PBL model is in line with the cultivation of English subject core literacy, which is beneficial for the comprehensive development of students and provides an effective way for holistic education.

Keywords

PBL, junior high school English teaching, classroom practice

1. Introduction

At present, English teaching in junior high schools in China is at the peak of reform. For most Chinese people, English is a foreign language or a tool (Gong, 2014). However, junior high school English cannot be completely regarded as a subject. In fact, in addition to teaching English as a communication tool, the more important thing is to emphasize the value of educating people (Cheng & Zhao, 2016). Especially after the English curriculum standards to be promulgated have been revised, the importance of English subject core literacy has been recognized by the majority of educators, making the transformation of classroom teaching in junior high school English more urgent. The traditional English classroom, which focuses solely on subject knowledge, finds it difficult to fully adapt to the multifaceted requirements of English subject core literacy, including language ability, cultural character, thinking quality, and learning ability. Therefore, the innovation of junior high school English classroom need to be discussed and studied. This paper intends to explore the feasibility of the PBL teaching method in junior high school English grammar teaching through empirical research.

2. Concept of PBL Teaching Model

The PBL teaching model is a learning approach based on themes and research, constructed on the foundation of constructivism. Hence, PBL is also known as an education model based on problem-based learning or project-based learning, which originated from the medical school of McMaster University in

Canada (Barrows & Tamblyn, 1980). Subsequently, Duff and others proposed the application of the PBL model to language teaching, using cooperative and inquiry-based problem-solving methods for effective language learning (Duff & Cunningham, 1997). In teaching, students engage in activities known as projects, which involve planning and discussing the same goal or problem, ultimately achieving a goal or solving a problem. Driven by objectives, students will undertake a series of actions, such as integrating subject knowledge, applying life experience, and strengthening teamwork, and finally evaluating their own or others' performance, which are the essence of the PBL teaching method (Bridges, 2002). With problems or projects as the main thread, throughout the learning process, students can form groups according to personalized conditions, such as interests and hobbies, English proficiency, under the guidance of teachers, choose different research topics, and then carry out cooperative project research. It is a new form of learning that focuses on students, with teachers as assistants, emphasizing stimulating students' interest in learning. and cultivating students' innovative spirit and creativity. The English classroom based on the PBL teaching model emphasizes student-centered, open-minded, and culturally diverse classroom teaching concepts, aiming to guide teachers to pay attention to the practical significance of classroom activities for inquirybased research teaching. PBL classrooms guide language learners to connect learning with real problems, and teachers place meaningful problems or projects in effective situations, guiding learners to use team cooperation and inquiry to solve problems. The role of PBL teaching model activities in emphasizing students' thinking abilities has gradually been discovered by educators, and as a result, the PBL teaching model has begun to be widely used in various teaching fields (Cheng & Zhao, 2016).

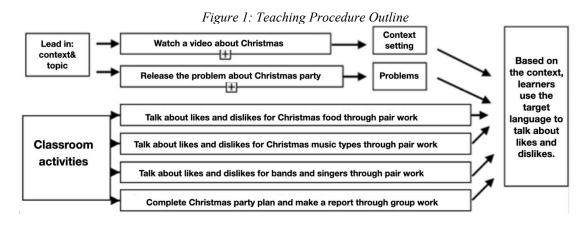
3. Application Value of PBL Teaching Model in Junior High School English Grammar Classes

Although the PBL teaching model pays particular attention to the cultivation of learners' thinking quality and echoes the proposal of English subject core literacy, there are still few cases of using the PBL teaching model in junior high school English grammar classes, and its use is generally in university medical education or other language teaching (Wang et al., 2011). However, with the proposal and emphasis on the core literacy of English subjects in the 21st century, the cultivation of language ability, learning ability, thinking quality, and cultural character has been valued by English classrooms at all levels, and students' learning needs are also continuously increasing (Ministry of Education of the People's Republic of China, 2014). Especially in the stage of junior high school English learning, language and thinking are developing synchronously, and learning a language can also promote the development of learners' thinking (Cheng & Zhao, 2016). Therefore, the activity settings in English classroom teaching should also maximize the promotion of diverse development of learners' thinking, and the PBL teaching model meets this core requirement. The traditional junior high school English teaching model can no longer meet the development requirements of modern students' core literacy and the growth needs of holistic development. The teacherled classroom results in a large proportion of students' passive learning time over active learning time, which reduces students' autonomous learning, thinking, and interactive opportunities, and such a classroom will reduce students' interest and hinder the development of students' thinking (Zhi, 2009). Different from traditional classrooms, the problem- or project-based teaching model focuses on student-centered, so the teacher's function is to provide scaffolding guidance for students' research tasks, to trigger students' thinking as much as possible, to provide students with ample thinking opportunities and communication time, to hand over the classroom to students, to focus on cultivating students' autonomous learning ability, and to stimulate students' learning motivation (Hmelo-Silver, 2004). Therefore, in the context of the reform of junior high school English classroom teaching, more and more teachers choose to use the PBL teaching model and have tried it in real teaching practice.

4. Implementation Steps and Methods of PBL in Junior High School English Grammar Classes

The content of this case is selected from the junior high school English teaching materials published by the Foreign Language Teaching and Research Press: English in Mind Starter Unit 4, 4a-7c.

4.1 **Teaching Process**



4.2 **Teaching Design Ideas**

The type of this class is a grammar class, and the target grammar points are to ask about preferences with "Do you like...?"/"Does he/she like...?" and the learning and use of the objective case of personal pronouns. The topics involved in this class's textbook content mainly include food, music, singers, bands, and celebrities. After integrating the textbook content, the design ideas and presentation of this class are as follows:



Figure 2: Classroom Introduction Design(presentation screenshot)

1. Before the official start of the class, students observe pictures to introduce the topic of Christmas, and after raising questions, a video is used to shift students' attention to the Christmas party, and then focus on the two aspects of food and music at the Christmas party. The Christmas situation is close to the students' actual life, which can more naturally stimulate students' interest and thus speed up the introduction to the class. There is a view in psychology that the progress of language is synchronized with the development of cognitive abilities, that is, learners cannot separate language learning from cognitive development (Snow et al., 1989). In the design of project teaching in English teaching, teachers should consider the real life state of students, and make language learning meaningful and group cooperation and communication effective on the basis of meeting authenticity and knowledgeability, so that project-based learning can stimulate students' learning motivation and improve learning efficiency (Zhi, 2009).

2. After the situation is set, the Christmas party in the video is linked to the upcoming Christmas party in December at the school, and the project theme is set, guiding students to start thinking about and completing their own class's Christmas party plan, which also includes two parts of food and music. This is the core part of the PBL teaching of this class, and the project that students need to complete is to make a plan for the music and food at the class Christmas party, including both teachers and students, and students need to complete the parts of one teacher and one student in class, and can continue to improve the teacher's part after class. The PBL project setting of this class follows the principles of authenticity and also considers the situation, requiring students to autonomously explore the Christmas plan in the form of cooperation in groups of four. In the process of creating a personalized Christmas plan, students need to organize and output language, that is, while discussing with group members, students are already exercising their English listening and speaking abilities and constructing, integrating, and expanding subject knowledge (Peng & Tong, 2012).

3. Integrate textbook content and embed the presentation of target language in the chain-like classroom links, with teachers responsible for the exemplary use of each type of target language, ensuring that students get enough language input to prepare for language output in the project. In the PBL teaching model, the identity of teachers has fundamentally changed. In terms of teaching and learning, PBL requires a fundamental change in the roles of teachers and students, with teachers changing from traditional classroom leaders to planners, guides, and feedback providers in PBL classrooms (Zhi, 2009). Because the listening materials provided by the textbook cannot meet the requirements of using target language in the Christmas situation, teachers choose to self-compose dialogues and invite foreign teachers from the school to record the dialogues, finally generating listening materials for students to use in class, providing protection for effective language input.

4. During the group discussion process, students can use iPads to check the English names of the bands or singers they are interested in, collecting materials for the final group report. Teachers divide the group report, with four students dividing the presentation of the group's views, operation of equipment, and time control. Teachers join different groups during the discussion process to guide the group discussion to focus on the theme, group activities to use English communication, or guide students to improve the two aspects of the Christmas party plan.



5. Students start group presentations, with four people dividing the introduction of the group information, the introduction of the food chosen for the group's Christmas party and the reasons, the introduction of the music chosen for the group's Christmas party and the reasons, and the end of the group report and the operation of AirPlay. Considering the importance of stratified teaching, teachers choose to present the division of labor first, consciously guiding stronger students to be responsible for introducing food and music parts, and weaker students to be responsible for relatively simpler parts of the report's beginning and end.



Figure 4: Target Language Drilling Design(presentation screenshot)

4.3 Teaching Reflection

This class uses the PBL teaching model, with the Christmas party plan as the core problem to be solved and the situation to be paved. Students need to integrate the knowledge they have learned, not limited to the mechanical practice of target language, but combining memorization, understanding, internalization, and output of the four aspects of ability, reorganizing information such as food, music types, singers, bands, and using their own knowledge and language reserves for reconstruction activities. Under the PBL framework, students need to learn to use a variety of information sources to prepare for their own language output, refine language after group research, and then express their views, which is an important manifestation of PBL's emphasis on training learners' independent learning ability (Zhi, 2009). After the class, 19 out of 22 students who participated in the research class said that the PBL teaching model used in this class is more challenging than the traditional class, but it can greatly stimulate the interest and motivation of thinking, and improve the efficiency of classroom learning; 3 students said there is no difference from the traditional class. Most areas of the country's junior high school English classrooms still adopt the traditional teacher-led model, and the PBL teaching model is still in the stage of exploration and attempt. Based on the research of existing materials and the thinking of this grammar class in terms of pre-class preparation, in-class implementation, and post-class follow-up, this paper makes some considerations for the feasibility of the PBL teaching model in junior high school English grammar teaching:

1. The effectiveness of the PBL teaching model is related to the existing English level of learners. Teachers need to consider the needs of learners at different levels when setting problems or implementing projects. Dochy et al. (2003) pointed out that the level difference of learners' existing English level in the English class using the PBL teaching model may affect the effect of PBL teaching. What is similar is that in this study class, the students who are very active in the class are still mainly students with strong English ability, and students with weaker English ability need a longer reaction time, and the classroom follow-up speed is relatively slow. Therefore, the effective implementation of the PBL teaching model requires students to have corresponding subject knowledge and learning ability as a cushion. In terms of language cushioning, in addition to the accumulation of their own language, the construction of the teacher's scaffold is more important. While providing further learning resources and opportunities for learners with weaker English. Teachers should try to set up classroom links with gradually increasing difficulty, allowing learners to input language from shallow to deep, and provide necessary language support and help at key links, so that most students can participate in PBL efficiently, carry out independent learning and strengthen thinking ability.

2. The use of the PBL teaching model in junior high school English classrooms is also a test of the comprehensive quality of English teachers. Course design, classroom feedback, and post-class reflection are

all different from traditional English teaching models. However, during the implementation of PBL teaching, the teacher's classroom feedback is crucial. First, teachers need to have an overall grasp of the content of the class, not only limited to the preparation of the class, but also need to list the unit goals and class hour goals separately, and integrate the unit knowledge into the single class knowledge, forming an overall learning framework. In addition, teachers need to have a deep understanding of the subject knowledge, but also need to have some knowledge of the interdisciplinary knowledge involved in the PBL teaching project. Such a knowledge coverage can provide protection for the students' collaborative research and effective data collection in the PBL classroom. Therefore, under the PBL teaching model, English teachers need a solid reserve of English subject knowledge, but also need to improve the knowledge structure of interdisciplinary. In addition, teachers also need to pay attention to the changes in learners' thinking during the project, understand the difficulties encountered by learners, and provide help.

3. The PBL teaching model poses challenges to both the software and hardware environment of the teaching environment. Classroom activities based on problems or projects take longer than traditional English teaching. If there are many students in the classroom, it is difficult to ensure that each project group is given time for guidance and evaluation. Therefore, the PBL teaching model is more inclined to use small class teaching methods, and the control of classroom numbers can ensure the average distribution of teaching time to solve the guidance and classroom evaluation problems in learners' independent learning. In addition, the PBL classroom requires students to engage in independent learning, and students need to collect a large amount of information to provide the premise for language output. Students need devices that support online information retrieval and devices that support instant projection, which provides higher requirements for the hardware of the teaching environment.

5. Conclusion

The implementation of the PBL teaching model in junior high school English classrooms requires the integration of subject goals with social humanities, science, and other knowledge to guide students in interdisciplinary comprehensive learning activities. The setting of classroom problems can greatly stimulate students' motivation and interest in independent learning, and train students' learning tenacity. Students must learn to accumulate target language and collect a large amount of information for the final language output. At the same time, the PBL teaching model also echoes the proposal of English subject core literacy, because the trend of English classroom reform is moving towards promoting the development of students' mental ability, emotional attitude, ideological character, social responsibility, and other aspects. PBL is conducive to promoting the comprehensive development of students, allowing students to improve their humanistic literacy while learning and using the target language, making English learning include knowledge, thought, and interest in various aspects, and providing an effective way for the realization of holistic education.

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Conflicts of Interest

The authors declare no conflict of interest.

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