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The Application of Problem-Based Learning (PBL) to College English Reading Instruction

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Abstract: This study investigates the application of Problem-Based Learning (PBL) in college English reading instruction. PBL, a student-centered pedagogical approach, addresses the limitations of traditional teaching methods by encouraging active problem-solving, collaboration, and knowledge construction. The study outlines a comprehensive five-stage framework for PBL implementation: (1) designing real-world problem scenarios, (2) facilitating collaborative information gathering, (3) promoting group discussions, (4) organizing classroom presentations, and (5) conducting teacher-led reflection and evaluation. This cyclical model not only transforms students into active learners but also deepens their comprehension of texts through contextualized language use and collaborative exploration. Additionally, it repositions the teacher's role from a traditional knowledge dispenser to a facilitator, guiding students through the learning process. The findings indicate that PBL can effectively enhance college English reading instruction, offering a valuable framework for educators aiming to adopt innovative, student-centered approaches to teaching.

Keywords: problem-based learning (PBL); college English reading; college students

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1. Introduction

Reading is a crucial skill in college English instruction, as it is an essential sociocultural competency necessary for learners to navigate and thrive in modern society. The foundation of academic success in college English lies in the acquisition of information and knowledge, which largely depends on strong reading abilities. Given its significance, many educators argue that reading should be at the core of language instruction. However, teaching foreign language reading is complex, as it encompasses various disciplines such as educational psychology, cognitive psychology, linguistics, and more. This multifaceted nature calls for effective pedagogical methods to enhance students' reading comprehension.

Problem-Based Learning (PBL) is a student-centered teaching approach that emphasizes meaning construction, inquiry, and authentic learning experiences. In PBL reading classes, teachers shift from being the sole knowledge providers to facilitators, enabling learners to express their ideas and build understanding through interaction with both peers and instructors. Educational research has suggested that PBL is a promising approach to improving language learning outcomes [1]. However, despite its potential, PBL has not been widely applied or studied in the context of English education, especially regarding reading proficiency. Most existing studies have primarily focused on its impact on speaking and writing skills, with limited exploration of its effects on listening and reading.

This study aims to explore the implementation and effectiveness of PBL in college English reading instruction, with the goal of enhancing both teaching efficiency and students' learning experiences. By doing so, it seeks to provide valuable insights and practical guidance for improving college English reading pedagogy [2].

2. Literature Review

2.1. Overview of PBL

Problem-Based Learning (PBL) was initially developed in medical education to address the limitations of traditional teaching methods in developing clinical diagnostic skills. Over time, it has been adopted in various academic fields, including engineering, business, and education.

PBL promotes active, reflective, and critical learning. In this approach, learners are no longer passive recipients of knowledge but active problem solvers. They begin by identifying learning objectives and working toward achieving them [3]. Teachers, in turn, serve as facilitators, guiding students to meet their goals through support and scaffolding.

PBL emphasizes the use of real-world problems to improve knowledge, understanding, and skills, rather than focusing solely on problem-solving. Key characteristics of PBL include being problem-focused, student-centered, self-directed, and collaborative.

PBL is designed to achieve several goals: (1) Constructing a flexible knowledge base that integrates information across disciplines; (2) Promoting effective collaboration, including group discussions and negotiations; (3) Developing self-directed and metacognitive skills for lifelong learning; (4) Enhancing problem-solving abilities; and (5) Motivating learners by connecting activities to meaningful, personal goals.

2.2. Relationship between PBL and College English Reading Instruction

Many scholars have proposed PBL as a practical approach to enhance language learning. Genesee emphasized that language learning is more effective when the target language is used for authentic, meaningful communication. PBL offers a way to integrate content into English as a Foreign Language (EFL) courses, enabling learners to use the language purposefully. Brown argued that language learning should be meaningful, which aligns with PBL's philosophy of meeting learners' needs and interests while helping them achieve their goals [4].

PBL is grounded in constructivism, encouraging learners to collaborate and work independently to solve complex, real-life problems. Several studies suggest that PBL is well-suited for second language (L2) reading instruction, fostering deep reading comprehension and increased motivation.

Lin incorporated PBL in a web-based English reading course to assess its impact on reading comprehension [5]. The study showed improved reading scores for PBL learners, with questionnaires and self-reports indicating increased engagement and enhanced cognitive processing. In another study, Lin compared PBL with traditional teaching methods and found that the PBL group had higher reading comprehension scores, greater use of reading strategies, and stronger motivation. These findings highlight the effectiveness of PBL in improving reading comprehension, strategy use, and motivation [6].

Overall, PBL reading instruction has been shown to enhance the quality of reading instruction, though it also presents some challenges.

3. The Application of PBL to College English Reading Instruction

Based on the PBL characteristics proposed by Barrows and the process developed by Moust, combined with the current context of college English reading instruction, the researcher designed the following PBL reading instruction procedure: (1) problem scenario setup, (2) information gathering, (3) group and classroom presentations, and (4) teacher's summary and evaluation (see Figure 1).

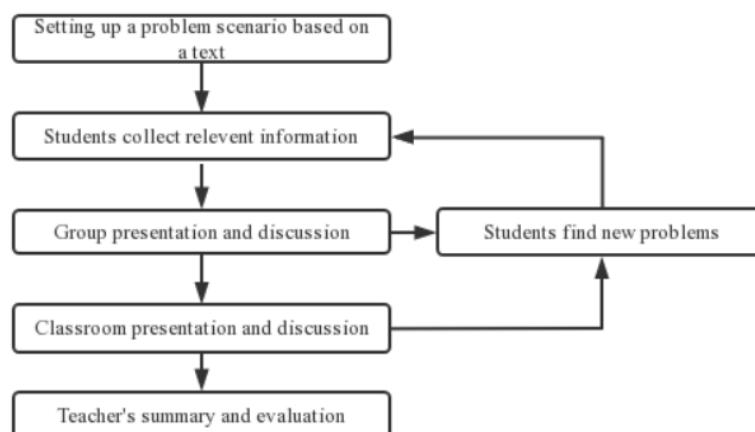


Figure 1. PBL Reading Instruction Design.

3.1. Problem Scenario Setup

In the first stage, the teacher sets up a problem scenario based on the reading text. The problem is a crucial element of PBL and serves as the starting point for the entire learning process. It should challenge students to engage in critical thinking, ask questions, and search for information. The problem needs to be sufficiently stimulating to encourage deep reflection and discussion but should not be too complex, as this might overwhelm students and hinder the learning process [7]. The problem should be designed in a way that encourages students to explore the topic from multiple perspectives, fostering a sense of curiosity and initiative. It should require students to actively seek solutions and stimulate collaborative problem-solving within groups. The teacher plays a key role here in ensuring that the problem is relevant, meaningful, and achievable within the time and resources available.

3.2. Information Gathering and Group Collaboration

In the second stage, each group of students is tasked with gathering relevant information related to the problem. They are encouraged to use a variety of sources such as reference books, academic journals, and online resources [8]. The teacher assists by providing a list of useful reference materials or guiding students toward appropriate sources. Each group member is assigned specific tasks, breaking down the problem into manageable components. This division of labor allows students to focus on particular aspects of the problem, ensuring that all angles are covered.

The group collaboration aspect of this stage is vital, as students work together to pool their resources, exchange ideas, and synthesize the information they have gathered. This collaborative approach not only helps students gain a deeper understanding of the issue at hand but also enhances their communication and teamwork skills [9]. The teacher's role is to facilitate this process by providing support, offering additional resources, and ensuring that students remain on track while encouraging independent learning.

3.3. Presentation, Discussion, and Teacher's Evaluation

The third stage involves group presentations and discussions. Each group synthesizes the information they have gathered and presents their findings to the class. This is an opportunity for students to articulate their understanding of the problem and share insights with their peers. The teacher's role during this stage is to facilitate the discussion, ensuring that students stay focused on the main topic and communicate effectively in

English. The teacher also intervenes if necessary to provide clarification, correct misunderstandings, or guide the discussion toward more productive avenues.

As the groups present, other students are encouraged to take notes, ask questions, and offer feedback. This stage promotes active listening and critical thinking, as students evaluate the information presented by their peers and consider alternative viewpoints. The teacher may use this time to highlight important aspects of the presentations, correct errors, or add missing information to ensure a comprehensive understanding of the topic.

In the final stage, each group receives feedback from the teacher. The teacher summarizes the key points from the presentations, provides constructive evaluation, and encourages students to reflect on their learning. This evaluation is not only about assessing the accuracy of the information presented but also about providing guidance for improvement. The teacher may also recommend additional resources for further study or suggest ways in which students can refine their critical thinking and problem-solving skills.

This cyclical PBL process—from problem scenario setup to teacher evaluation—creates a dynamic learning environment where students continuously engage with the material, ask questions, seek solutions, and reflect on their learning. By actively participating in problem-solving and discussions, students deepen their understanding of the text and enhance their English reading proficiency. Additionally, this process fosters collaboration, encourages self-directed learning, and helps students develop essential academic skills such as research, analysis, and communication [10].

4. The Application and Effectiveness of PBL in College English Reading Instruction

4.1. Enhancing Reading Comprehension through PBL

PBL significantly improves students' reading comprehension by encouraging active engagement with the text. In this approach, students don't simply passively receive information but actively interact with it through problem-solving tasks. The problem scenarios set by the teacher require students to analyze and interpret complex texts from various angles, fostering a deeper understanding of the material. Additionally, group collaboration further supports the development of critical thinking, as students share insights, question each other, and clarify misunderstandings. This dynamic interaction leads to a more comprehensive grasp of the content, far beyond surface-level understanding, enabling students to connect ideas, identify key concepts, and make informed interpretations of the text.

4.2. Improving Language Proficiency through Collaborative Learning

PBL also plays a key role in enhancing students' overall language proficiency. Through discussions, presentations, and collaborative research, students practice and improve their speaking, listening, and writing skills in an authentic context. In particular, the requirement to communicate ideas in English during group discussions and classroom presentations ensures that students actively use the target language, which strengthens both their language fluency and accuracy. Furthermore, the diverse linguistic challenges encountered in problem-solving tasks provide ample opportunities for students to refine their language skills, as they need to express complex ideas, negotiate meanings, and build arguments using appropriate language. This practical application of language in real-world contexts helps students gain a more functional command of English.

4.3. Motivating Students and Fostering Self-Directed Learning

One of the most significant benefits of PBL is its ability to increase student motivation and foster self-directed learning. By working on real-world problems that are meaningful and relevant, students become more engaged in the learning process. The autonomy in selecting resources, conducting research, and solving problems leads to a greater sense of ownership over their learning. PBL shifts the role of the student from a passive recipient

of knowledge to an active participant in their own learning journey. As students face challenges and solve problems on their own or in collaboration with peers, they gain confidence and develop crucial lifelong learning skills. The intrinsic motivation generated by this approach encourages continuous learning and self-improvement, ensuring that students are not only acquiring knowledge but also developing the skills to become independent and resourceful learners.

5. Discussion: Implications, Challenges, and Future Directions

5.1. Implications for Teaching and Learning

This study has shown that Problem-Based Learning (PBL) can be a highly effective approach for improving college English reading instruction. By encouraging active problem-solving, collaborative learning, and critical thinking, PBL creates an engaging and dynamic learning environment. The implications for teaching are clear: PBL not only enhances students' reading comprehension but also improves their ability to apply language skills in real-world contexts. It shifts the role of the teacher from a traditional lecturer to a facilitator, guiding students through the process of inquiry, discovery, and knowledge construction.

Incorporating PBL into English reading instruction allows students to engage with texts in a more meaningful and active way. Rather than passively receiving information, students actively engage with the material by identifying problems, researching solutions, and collaborating with peers. This approach fosters a deeper understanding of the text and encourages students to use English as a tool for communication and critical thinking. Teachers can create a learning environment where students are empowered to take ownership of their learning, which is crucial in language development.

5.2. Challenges in Implementing PBL

While PBL offers numerous benefits, its implementation in college English reading classes presents several challenges. One significant issue is that students may initially struggle with the autonomy required in a PBL environment. Many students are accustomed to traditional teacher-centered learning, where they are provided with structured guidance and direct answers. PBL, however, encourages students to take responsibility for their learning, which can be overwhelming for some. It requires students to engage in self-directed learning, which may not come naturally to those who are used to more passive forms of education.

Another challenge is ensuring effective collaboration within groups. While PBL emphasizes teamwork, it is not always easy to manage group dynamics. In some cases, certain students may dominate the discussions, while others may become passive or disengaged. To overcome this, teachers must create clear guidelines for group work and provide regular support and feedback to ensure that all students are actively participating. Moreover, the time-intensive nature of PBL can be a challenge in large classes, where teachers may struggle to provide individualized attention and support to every group.

5.3. Future Research Directions

Future research on PBL in college English reading instruction should explore several key areas to build on the findings of this study. First, it would be valuable to examine the long-term effects of PBL on students' reading comprehension and overall language proficiency. While this study provides evidence of the immediate benefits of PBL, more research is needed to determine whether these effects persist over time. Longitudinal studies could track students' progress and provide a clearer picture of how PBL influences their language development beyond the classroom.

Additionally, future studies should investigate how PBL can be adapted for diverse student populations. Different groups of students, such as those with varying levels of

English proficiency or cultural backgrounds, may respond differently to PBL. Understanding these differences could help tailor the approach to better meet the needs of all learners. Furthermore, research could explore the role of technology in enhancing PBL. Online platforms and digital tools could facilitate collaboration and communication among students, making PBL more accessible and effective in virtual or hybrid learning environments.

Finally, future research could explore the integration of PBL with other teaching strategies to create a more holistic and integrated approach to language learning. Combining PBL with other methods, such as task-based learning or flipped classrooms, could offer students a richer and more diverse learning experience.

6. Conclusion

This study explored the application of Problem-Based Learning (PBL) in college English reading instruction, aiming to investigate its effectiveness in improving students' reading comprehension, language proficiency, and overall learning experience. The findings highlight that PBL, as a student-centered and inquiry-driven approach, offers a powerful alternative to traditional methods of language instruction. By actively engaging students in solving real-world problems, PBL fosters deeper learning, critical thinking, and greater motivation, which are crucial for language acquisition in higher education.

One of the key conclusions drawn from this study is that PBL significantly enhances students' reading comprehension. Unlike conventional methods that often focus on rote memorization and passive learning, PBL encourages students to interact with texts in a more meaningful and constructive way. Students engage with the content not just for understanding, but also for problem-solving, which helps them analyze, synthesize, and apply information more effectively. The collaborative nature of PBL further contributes to this improvement, as students work together to explore different perspectives, share insights, and build a collective understanding of the text.

In addition to enhancing reading comprehension, PBL also improves students' language proficiency, especially in areas such as speaking, writing, and critical thinking. By requiring students to present their findings, discuss ideas, and debate solutions, PBL provides numerous opportunities for them to practice and refine their language skills. The use of English in authentic contexts during group discussions and presentations promotes fluency and accuracy, as students are encouraged to communicate their thoughts clearly and confidently. Furthermore, the real-world problem-solving scenarios allow students to see the practical value of language learning, which increases their intrinsic motivation to continue improving their language skills.

Another significant outcome of this study is the impact of PBL on student motivation. Traditional language teaching methods often fail to capture students' attention and enthusiasm, but PBL offers a more engaging and dynamic learning experience. By presenting students with real-world problems that are relevant and meaningful, PBL connects learning to students' personal and professional goals, thereby increasing their interest in the subject. Moreover, the active involvement in the learning process, the sense of accomplishment from solving problems, and the collaboration with peers contribute to a higher level of motivation and a positive attitude towards learning.

However, the study also identified several challenges in implementing PBL in college English reading instruction. These challenges include students' initial resistance to self-directed learning, difficulties in managing group dynamics, and the time-intensive nature of the approach. To address these issues, it is essential for teachers to provide clear guidance, structure group activities effectively, and offer continuous support throughout the learning process. Moreover, adjusting the complexity of the tasks and providing timely feedback can help students adapt to the demands of PBL and ensure that they benefit fully from the approach.

In conclusion, PBL represents a promising method for enhancing college English reading instruction. Its emphasis on problem-solving, collaboration, and critical thinking not only improves students' reading comprehension but also promotes a broader range of language skills and academic competencies. While there are challenges in implementing PBL, the benefits it offers in terms of student engagement, motivation, and language proficiency make it a valuable tool in modern language education. Future research should focus on refining PBL implementation strategies, exploring its impact on diverse student populations, and investigating the role of technology in supporting PBL activities. By addressing these areas, educators can further enhance the effectiveness of PBL in language learning and create more dynamic, student-centered learning environments.

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