Research on PBL Application in College English Reading Class

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Abstract: PBL goes with the trend of the times which is conducive to cultivate students' comprehensive qualities and autonomous learning ability, moreover, to stimulate their creativity, exploration and critical thinking so as to provide the society with interdisciplinary talents. This paper aims to probe into the validity of PBL method in College English reading teaching through the review of PBL theory, the contrast between traditional class and PBL class, and the PBL class design of College English reading so as to lay the foundation for further in-depth teaching and research in the future.

Keywords: PBL; College English reading; class design.

INTRODUCTION

In examination-oriented education, the present College English teaching in China mainly focuses on direct transfer of language knowledge to students. Students are often passive in knowledge learning, lack of interest, motivation and ability to analyze and explore problems. With the increasing of international exchanges, the traditional teaching mode mainly based on instilling knowledge has become very difficult to meet the requirements of the new era.

PBL (problem-based learning), which has been widely used in education and teaching practice since the 1980s, is becoming quite popular in the world.

Barrows, a professor of neurology in the United States, first applied PBL to medical teaching in McMaster University in Canada in 1969, presenting students with patient problems in small groups and requiring them to seek relevant knowledge in an effort to solve those problems. Out of his work, PBL was born. In the 1990s, PBL mode was introduced to China, so the domestic scholars started the research on PBL relatively late. In 2000, PBL theory entered the field of medical education and proved to be an effective teaching method to cultivate innovative talents, and became the main trend of China's educational reform.

PBL THEORY

Although so far scholars have different definitions of PBL, they all agree that PBL is an inquiry-based, "student-centered" teaching approach based on questions, taking students as the subject, in the form of group discussions and under the guidance of teachers in teaching. The problem is what stimulates the motivation and learning [2].

At present, the recognized theoretical foundations of the PBL teaching model include: Cognitive Constructivism Theory, Situational Learning Theory, Cooperative Learning Theory, Information Processing Theory, Bruner's Discovery Learning Theory and Dewey's Pragmatic Theory. Here introduces three main of them: Constructivist Learning Theory, Situational Learning Theory and Cooperative Learning Theory.

Constructivism holds that learning is the process in which learners construct knowledge actively [4]. It emphasizes that learners are the main body of information processing and active constructors of knowledge, whose dominant position needs to be established in learning activities [7].

Situational learning theory believes that the most effective learning is generated in the real situation being close to the learner's experiential world. It can stimulate the learners' interest in learning and motivation, and make them truly understand the value of knowledge [6]. So firstly, the problem should be real. Secondly, the problem needs to be ill-structured. According to Jonathan, ill-structured problems, also known as ill-defined problems, refers to relatively complex problems with a few deterministic conditions and multiple solutions. Learners' use of hypotheses,

investigations, reasoning, information collection and processing, and critical thinking in the process will cultivate their advanced cognitive abilities. Thirdly, "learning based on problem" is not equal to "learning based on problem put forward by the teacher." The question raised by the teacher in the traditional classroom is only to elicit the content to be taught or reinforce the knowledge that learners have learned thus lacks the space for further exploration. The problem in PBL class is best discovered by learners themselves.

The Basic Connotations of Cooperative Learning Theory are: (1) to form and change learners' learning attitude and improve their cooperative learning skills; (2) to create a learning approach that combines tight integration with integrated learning; (3) to develop critical thinking, reasoning and the ability to solve problems [9]. It can motivate students to play at their highest level and help each other in study. By this means, their cooperative ability is enhanced, emotional communication increases and the overall quality of teaching is then improved.

Based on these theories, PBL teaching has several outstanding features: questionable, contextual, autonomous, inquired, cooperative, reflective, and multivalued [10]. Hence students are the masters of knowledge in PBL teaching process. Teachers should raise questions based on the students' original knowledge structure and help them establish multi-directional links between new knowledge and the original knowledge structure. Problems should be real and ill-structured. Students' comprehensive abilities are improved in cooperation, exploration, evaluation and reflection. Teachers' critical teaching task is to provide students with methodological guidance and language instruction.

According to Brush [1], PBL represents a widely recommended practice to facilitate students' engagement with challenging content and improve their flexibility to solve problems. So what are the concrete advantages of PBL mode compared with traditional teaching mode? The chart below offers the answer.

Table-1: The contrast between traditional class and PBL class

Teaching Elements	Traditional class	PBL class
Teaching process	"spoon-fed", lay-down-the law	initiative, cooperative, interactive
Teaching guiding ideology	teacher-centered, exam-oriented	student-centered, problem-oriented
Teaching content	Uniform, fixed	Practical, real problems
The role of teacher and student	1) Teacher: "classroom lecturer", "classroom master" 2) Student: knowledge receiver	1) Teacher: planner, organizer, guider and evaluator 2) Student: explorer, practitioner
Evaluation system	1) Single form (examination) 2) The teacher is the solely evaluator and grades students by their marks 3) value the result and ignore the process	1) Diversified (phased outcomes) 2) Student self-evaluation, peer evaluation and teacher evaluation are combined 3) focus on the process rather than the result
Learning strategy	democratic cooperation, mutual support and consultation.	individual-centered and highly competitive
Engagement	low	high
Learning effect	High scores and low energy are prominent	Ability to study independently and solve problems is significantly enhanced

PBL DESIGN OF COLLEGE ENGLISH READING CLASS

The detailed process of PBL includes: putting forward problems, grouping, collecting information, analyzing problems, integrating data, solving problems, presenting results, exchanging and evaluating and reflecting on the findings. We take English reading class which takes up a large proportion in College English classes as an example. Considering the characteristics of College English reading, we integrate the procedure into the following six steps.

Here we use a flow chart to show the process more intuitively.
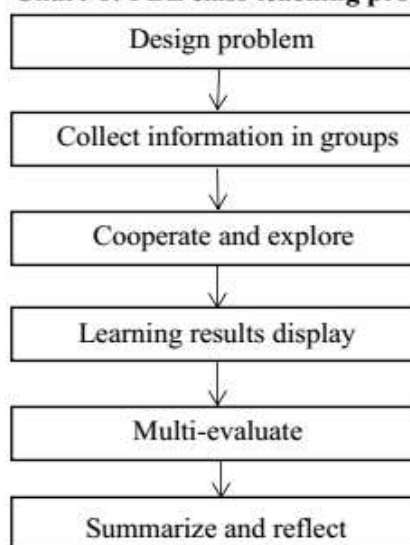
Chart-1: PBL class teaching process

Design problem

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Collect information in groups

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Cooperate and explore

↓

Learning results display

↓

Multi-evaluate

↓

Summarize and reflect

Chart-1: PBL class teaching process

Firstly, the teacher designs problem. The problem is the key to the success of PBL teaching. The problem designed by the teacher must be in line with the teaching objectives as well as be related to the students' existing knowledge and experience and be slightly higher than their ability to solve problems. For example, when it comes to *the New Horizons College* English Reading and Writing Course "*Unit 1 Time-Conscious Americans*", the teacher can start from the Americans' living environment and students' existing knowledge from films, TV dramas, newspapers, and novels to design the teaching content of this lesson by asking a general question:

- *What impression do you have on Americans' daily life?*

In answering this question, students will find that many characteristics of Americans' living style such as gathering in weekend, walking quickly, omnidirectional working routine, eating fast and so on. Then the teacher let them sort out and voice their opinions in the process of which teacher should supplement and help them to expand knowledge. At the same time, the teacher conducts targeted guidance and selects one point to dig deeper ---- "American's concept of time" in this lesson. Students' knowledge intake changes from macro-level to micro level, from general, horizontal to specific and lengthways by concrete questions posed by the teacher or themselves, such as:

- *What are the three kinds of behaviors that Americans consider to be a waste of time?*
- *Why do Americans regard them to be time-wasting?*
- *In what different ways do Americans approach time in business relations?*
- *……*

Secondly, students collect information. In this session, students are grouped according to the questions they are interested in with 4-5 members in each group. The group assignment should follow the principle of "homogeneity between groups and heterogeneity within groups". The access can be Internet, books, documents and so on. During this process, teachers can give students certain timely instructions, and team members need help each other. Most of the work may be carried out after class. For example, when Group One searches the information about behaviors that Americans think is a waste of time, one student can inquire Americans' perception of time, one student queries Americans' time composition and definition of time waste, and one student can seek those time-consuming deeds to Americans and the last one finds the reasons behind. The content may overlap but the focus of each student's search is not the same. Through the important division of labor and cooperation, the team members can fully understand the American concept of time. In addition, through a large amount of information collection and sorting, not only will the student's own reading ability be improved, but also their enthusiasm and initiative are fully mobilized and the sense of cooperation is enhanced.

Thirdly, students cooperate and explore. The group will sort and process the various types of information collected and form group opinions in English. It is in this stage that students are most limited by language skills and unable to accurately express their thoughts in English. Therefore, teachers' guidance is quite important ---- to offer them related English vocabulary, grammar, and sentence patterns. In discussion, students themselves may find new problems or issues of greater interest, making them more motivated to consult relevant materials and explore the

answers. For instance, when Group One learns the American concept of time, they may find the contrast between Chinese and Americans and naturally ask new questions:

- *What is Chinese concept of time?*
- *Why are their concepts different?*
- *Is Chinese conception of time in accordance with that of Asian people and is Americans' concept the same with that of westerns?*

Instead of passing these valuable questions, the teacher should encourage them to continue to consult and study after class to explore the answers so as to further expand reading and enhance knowledge.

Fourthly, students report and assess together with the teacher. Each group selects one representative to report their searching results in English to the whole class. The representative changes in turn. The ways of reporting can be verbal reports, speeches, small plays, PowerPoint, learning report and other forms. Other groups take notes and ask questions. The teacher is required to emphasize important knowledge points and supplement those missing or incomplete ones. For example, when it comes to Americans' concept of time, students should be reminded that not all Americans have the same concept of time, which is dynamic and subject to professions, genders, regions, etc.

Fifthly, multiple evaluation follows. Group self-assessment, peer review and teacher evaluation are adopted to evaluate the group outcomes. Assessment includes language ability, cooperative performance (judged from the work assignment and communication) and ability to solve problems (from final opinions), which should be based on careful and unbiased classroom observation of students. Multi-evaluation is more objective and comprehensive.

Finally, the teacher and students summarize and reflect. After finishing classroom learning, the teacher guide students to sort out and consolidate the knowledge of this unit, review the learning activities together and optimize the PBL teaching program so as to carry out a new round of learning activities combined with the feedback of students and after-class reflection of teachers, while allowing students to reflect on each other's strengths and weaknesses, thus deepen their understanding of PBL and developing their critical thinking.

CONCLUSION

The above research shows that PBL teaching mode of College English reading teaching is of great value. In PBL class, it can effectively improve students' English proficiency and students' ability to use language as well as arouse their learning enthusiasm and improve comprehensive ability of autonomy, cooperation, innovation and speculation through scenario simulation and group cooperation. It is also conductive to promote

the role change of teachers and students. The superiority of the PBL pedagogy becomes more and more apparent. PBL has higher requirements for teachers and students. Teachers' thoughts should be fresh, open and tolerant. Teachers should be good at taking the student's thoughts as the material, taking the intersection and confrontation of their thoughts as the means and guiding them to establish their own theoretical structure of knowledge through the design of the class problems [11]. Students have to take the initiative to participate in classroom activities and actively think and explore if they want to improve their abilities effectively. It requires more time, energy and autonomy than traditional methods of knowledge acquisition. In addition, the effectiveness of PBL pedagogy is more pronounced through long-term observation and accumulation. How to use PBL more effectively in College English needs to be further explored and studied in practice.

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