Using Problem Based Learning to Achieve Lifelong Learning

Cristiana Victoria Marta
cristiana.victoria@widyatama.ac.id

Abstract

This paper deals with Problem Based Learning method used in foreign language classes, skills developed through this method like: critical thinking, communication skills, teamwork skills, time management skills, research and information handling skills. All these skills are the components of lifelong learning skills. Designing good problems is the main difficulty for language learning. One of the best ways is to collaborate with other disciplines in order to create a problem in real situation.

Keywords: PBL, lifelong skills, collaboration, management information

Longlife Learning

According to European Commission and Member States (2000), lifelong learning is defined as “all learning activities undertaken throughout life with the aim of improving knowledge, skills and competences within a personal, civil, social and/or employment related perspective either formally, nonformally and informally. The other definition says that lifelong learning is the education resulting from integration of formal, non formal, and informal education so as to create ability for continuous lifelong development of quality of life. (National Education Act, 1999)

This paper is focused on formal education, especially on teaching learning method which supports lifelong learning skills.

The 21st century shows the momentum called globalization with its characteristics like information era which has wiped out the boundaries of space and time, and the changes of environment conditions as a consequence of the civilization progress. This century is the century of information, communication and technology. The impact of this momentum with all its challenges appears in all sectors of social life, appears a new society, society knowledge-based and the need of readiness from its members to have both knowledge and professional skills which would allow them to act in the changing world. Skill is very important in globalizing world, so the existing skills must be developed and the new skills must be acquired.

All changes in the social life influences also the system of education. Nowadays the education experiences changes according to the demands of the society, the progress of science and technology, and the development of methods and technology of learning. The science and technology develop continually and rapidly.
A lot of researches and experiences have identified the problems and challenges in higher education, and one of them is the separation between teaching theory and practice, or the separation between basic sciences and applied sciences. This fact is one of the obstacles in increasing the relevance of education. In this situation, often, the students do not understand the benefit of their knowledge. The other problem is the method of teaching.

According to the traditional view, teaching has been seen as transferring information to a student, it means the focus is on the role of teacher who makes the students passive. “The teacher is solely responsible for what the student is expected to learn. The teacher decides what information and skills the student should learn, how it is to be learned, in what sequence, and at what pace.” (Barrows & Tamblyn, 1980:7) This method is no more suitable.

The learning process is defined as learning which progresses in time and by degrees, is planned, and goal-directed. As a result of the learning process, the learner gains new, insightful knowledge. Insightful knowledge includes both actual knowledge and skills in using that knowledge.

Constructivism, one of the philosophy school, states that “our knowledge is the result of our own construction” (Graserfeld in Bettencourt, 1989). Constructivism states also that “the learner actively construct knowledge” (Duffy & Cunningham, 1996). Based on these statements we can say, that science is always the result of cognitive construction and reality occurring through a series of someone’s ability. The philosophy of constructivism has become the bases for many learning strategies especially recognized as student-centred learning, i.e. learning oriented to the student’s need.

Savery & Duffy, (1996) have characterized PBL as one of the best translation of constructivist thinking into practice. The fundamental idea of PBL is to introduce new concepts by using complex real world problems, to stimulate the curiosity to know new things and the development of life long skills.

### Researches on Problem Based Learning

Problem-based learning has been developed by Barrows and his learning model is popular in medical world. Since 1970 this model basically almost the same as case-based learning employed in laws, just-in-time training model in management and business learning, project-based learning in mathematics and natural sciences (Wilson & Cole, 1996). They provide the evidence for the need for a shift from traditional instructional approaches to problem based ones.

Historically, it has been used in medicine and business, but gained popularity in several academic disciplines. Nowadays, is more and more applied to subjects as physics, biology, history, and geography. A lot of researches were done on PBL and the results of these researches were used on application of this method in different disciplines.

Student centered learning differs from traditional learning. In traditional learning, the teacher is the source of information, he delivers information and the teacher determines which information must be delivered. In traditional learning, the students are passive, they receive everything from their teachers, In PBL classes the students are considered active participants in the learning process, and the teacher has a facilitating role (Rogers, 1983). This necessitates a fundamental change in both traditional pedagogical beliefs (Haith–Cooper, 2001) and the power relationship for both students and staffs. (Wilkerson & Humdert, 1997).
PBL has a variety of meanings depending on the individual perspective (Barrows, 1986). PBL differs from the traditional structure by utilizing ‘real life’ problems which are used both as the initial trigger for learning and to create a point at which new learning or critical thinking can be applied and reapplied until understanding is achieved (Barrows & Tamblyn, 1980:71).

A lot of researches were done to compare the impact of PBL on learners performance (Hamlo, 1998; Black, Rilley: 2000) and identified that PBL is a more effective method of instruction for knowledge acquisition than traditional methods, lecture-based. The other researches have shown that students in PBL achieve a higher level of motivation. The researches done on students attitudes (Vernon & Black, 1993) found that PBL positively impacts learner attitudes.

Although PBL is a good method which improves a lot of skills, PBL is not a model designed for language acquisition. Researches in this field are limited, that makes hard to know what are the positive effects of PBL in languages classroom.

**Characteristics of PBL**

MacDonald and Isaacs (2001:317) argue that: “The characteristic that distinguishes PBL from other learning methods centering on what students do, rather than what teaching staff do (student-centered methods) is that the problem comes before the knowledge (in the broadest sense) needed to solve or resolve it.”

Problem Based Learning is a comprehensive approach where students meet a challenging situation. In medicine, they are put to some ill-structured problems (Barrows, 2000) and they are required to find the solution of that problem by working in groups. It means that the students will make a lot of assumption, will find the material supporting their thinking. The students work together to solve the problem, they communicate with each other. A lot of skills are developed using this method, Engel (1991 & 1992) as:

- Problem-solving skills
- Skills in posing useful questions
- Thinking skills
- Teamwork skills
- Communication skills
- Time management skills
- Research and information handling skills
- Supports relationship between knowledge and problems
- Improving abilities to apply basic science knowledge and transfer problem solving skills in real world professional or personal situation.

PBL can be applied in language classes and can enhance language skills of students more effectively. PBL is widely recognized as an effective methodology.
Why is PBL a good method? Because,

- Promotes critical thinking
- Analysis
- Reasoning
- Decision making
- Independent judgment

**Problem Based Learning in Foreign Languages Classes**

The traditional way to teach foreign languages, like memorizing the words and their meanings, phrases, and sometimes sentences, or using translation is not the best method nowadays. The student’s curiosity is not stimulated, and the new information is limited. For example, teaching a foreign language like Russian is a big challenge in Indonesia. The Russian is a difficult language, and there are big differences between Indonesian and Russian. The categories like cases, conjugation, declension, are not easily understood by the students. Therefore, their interest decreases during the period of study. Considering Bloom’s model of six cognitive levels (Bloom, 1956), I think, that the problem based-learning strategy is more suitable than the traditional method, first, because will stimulate the students to work at the higher levels of analysis, synthesis and evaluation, second, because both the skills of students and the ability of social interaction are improved. These are the two central factors in language learning.

Language it means communication and enables people to understand each other. Foreign languages are demanded when the progress in science and technology is very fast. When learning a foreign language one learns the culture, history and everything about the country which language they learn. One must work hard to learn any foreign language.

There is not an universal method of learning languages. Superficial learning is often a problem in language education and Problem Based Learning is the way to encourage students to have a deeper sense of understanding, because the vocabulary is introduced by real world situation.

In the foreign languages classroom with PBL, the problems will lead students to the content, but in a way that fosters lifelong language learning. A problem that language teachers often face is that of students communicating each other in their native language. It means, if the students command of the language is not good enough, creativity will drop. PBL is not recommended at the basic levels. The teacher role is as facilitator and the skill of the teacher to be a facilitator is one of the important and deciding factor which make successful the learning process.

This paper refers to applying Problem Based Learning in foreign languages classes, but not English classes, the foreign languages which are not learned from elementary school like: Germany, French, Russian, and Japanese.

We know that the primary assumption of PBL is that we solve problems. The problem is, that in foreign language classes is difficult to construct a problem if we want that problem be pure linguistic. What makes difficult to construct problems for a language course? In other disciplines like medicine is easy to take a real problem from a real situation, but not for foreign language. The difficulty lies in finding a good
context for the problem. The easier way is to combine language teaching with other subjects like history, law, medicine, geography.

We think, that a foreign language teacher could begin with simple things, for example with a letter from someone who announces his/her arrival and students must prepare everything in order to receive the guest. The students try to find how to entertain the guest, which tourist objectives will visit, which hotel is the best and which food will they prepare for the guest. The problem can be developed. It is suggested that the guest gets a common cold and their friends have to accompany him/her to see the doctor.

In order to find all information, the students work together, discuss among them, solve the problem together. They will get information how to pick up the guest from the airport or from the train station, they will get information about the tourist objectives in Bandung or in Jakarta, they must know the history of the places and also the legends (for example Tangkuban Perahu), also the way to reach these objectives. They have to find a lot of information and make the program for the guest. To choose the good food and restaurant for someone who arrive from abroad for example is not a easy task. For students who learn English language may be is easy because they learn this language from play group, but for them who learn for example Russian is a very difficult task.

A problem like this takes two or three weeks to get and arrange information, to correct the text and also to be able to understand and use all these information. The students work with dictionary more than in traditional classes where the teacher gives them the new words with their meaning. They have to communicate with each other in Russian in order to improve their ability and their knowledge about grammar.

The second part of this problem is to accompany the guest to see the doctor. The students make a lot of assumption about the guests illness. In this case they get information only about common cold and appendicitis. They have to find all the symptoms of these illnesses. After this, they have to know how to buy medicines at the drug store and how to look after the patient.

The other choice, is to make a detective story and after every episode ask the students to guess what will happen in the next episode and their reasons. They will make a lot of assumption and this will develop the students’ critical thinking. In this case, they have to get information about some rules, about law, about history, etc.

The PBL increase the students’ ability in developing the initiative, they actively participate in finding information. The more real the problem is, the higher is the potency to transfer the skill and knowledge of the students in daily life. The skill of social interaction is very important in the learning process and in social life. The traditional methods of teaching does not develop the skill of social interaction, but PBL can develop it.
The Weaknesses of Problem Based Learning

Problem Based Learning is not uncontroversial method. This method has a lot of strengths, but also a lot of weaknesses. The weaknesses of Problem Based Learning are:

1. PBL is focused on one specific problem and that’s why the field of science is not so wide.
2. For implementation of PBL is needed more time than in traditional learning
3. Difficult to formulate a good problem
4. Transition from traditional class and PBL class is difficult for students

Conclusions

Problem Based Learning as a learning method used in foreign language classes has a lot of advantages. The essential component of PBL is that content is in the context of complex real-world problems.

The students have an active role, work together, share information and solve problems. Their analytical skills, time management, team management and communication are developed.

Problem Based Learning is not designed for learning language, but can be used successfully in foreign language classes. The teachers as the facilitators must master the language very well and learn always the culture and the new vocabulary of the foreign language. They are also the lifelong learners.

References


White, HB. Creating Problems for PBL. About Teaching