English Education &
Applied Linguistics
Journal

THE IMPLEMENTATION OF PROBLEM-BASED LEARNING IN THE TEACHING OF READING AT HIGHER EDUCATION LEVEL

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Article History
Submitted 16 November 2023
Revised 1 December 2023
Published 10 December 2023

Abstract.
Problem-Based Learning (PBL) is one of the teaching methods highly promoted in the status quo, especially in EFL classes. Regarding this, numerous studies indicate that PBL is effective in enhancing student learning performance, particularly in enhancing problem-solving abilities and self-efficacy learning. However, research on PBL's use in Indonesia, particularly in EFL reading classes, is still barely to be found. Hence, this study is aimed to investigate the implementation of PBL in EFL reading classes by means to investigate how the stages of PBL were implemented and to see what PBL principles have been achieved in the learning activity. This study is produced from qualitative research in the form of a case study, where observations were done during the learning process. The findings indicate that PBL is applicable to be implemented in higher education because the teacher's actions cover all stages of PBL. However, there is still one principle that must be considered namely student collaboration. One of the expectations of teachers for students is that they can have critical thinking and be able to learn independently, therefore, this can be achieved by making PBL a learning method in the classroom.

Keywords: Problem-Based Learning, Reading, Critical thinking, Self-efficacy learning

INTRODUCTION

In teaching, the problem of activeness still requires more attention. Goldstein (2016) in Setiawan et al., (2020) stated that the main reason behind the lack of students' activeness is because of the conventional teaching method that resulted in passive learning. The lack of student participation is mostly influenced by teachers who still decide to use the traditional method—whereby the teacher is fully in charge, without having a thought to keep up with what students need in the status quo. As in agreement with Arjuna & Jufri (2016), this problem happens when students do not have enough opportunities to participate actively because the teacher dominates class activities. Moreover, conventional teaching and learning contribute to some disadvantages such as loss of motivation, low comprehension of basic common sense, short-term memory, and bored (Setiawan et al., 2020; Soruç & Griffiths, 2018). Students frequently get structured issues that have already been established and have clear solutions rather than ill-structured issues, which prevents them from directly participating in problem-solving activities as part of the broader task of developing an answer (Gallagher et al., 1992). As a result, pupils have performed worse in their studies (Sari et al., 2021). The aforementioned issues raise awareness of the need for a better learning method, one of the alternatives to overcome them is to use problem-based learning (Sidik & Masek, 2021).

In teaching English, the use of PBL is widely considered a good choice for improving students' activeness. This method is able to facilitate active learning, whereby pupils gain knowledge of a subject by completing an open-ended challenge presented in trigger material (Silver-Hmelo, 2004). The use of PBL offers a great deal in creating an effective learning environment. In agreement with Ikman et al., (2016), through PBL, students learn to be responsible in learning, not just passively receiving information, but actively seeking the information needed. This happened because PBL considers learning through sequence such as (1) stimulus (2) students' orientation to the problem (3) organizing students (4) guiding and group investigations (5) developing and presenting work (6) analyzing and evaluating the problem (Barrows & Tamblyn, 1980; Barret (2005) as in Iswandari et al., 2017; Murniarti et al., 2021). Moreover, PBL is one method that is suitable to use because it has benefits that contribute to students' activeness, especially in problem-solving. This has been emphasized by Honest (2017), that PBL should be used in the classroom because it helps students become more competent at solving problems and learning independently. The tasks involved in solving problematic scenarios or circumstances tend to inspire and interest students (Bosuwon & Woodrow, 2009). Moreover, this facilitates learning through experience, fosters teamwork, and improves communication skills by relating the learning topic to the context (Arjuna & Jufri, 2016; Rosmiyati, 2021). The PBL method outcomes expected from the students is that they are able to achieve a deeper level of understanding through complex analytics per the principles of the method itself. Even while students can achieve high levels of understanding, Kolmos & Graaf (2003) claimed there is still a chance that they will fail to grasp some aspects of the knowledge or perspective. Therefore, the value of the PBL approach with the consistent guiding force with how the educational process is driven by assessment will help students overcome the knowledge gap.

LITERATURE REVIEW

The use of PBL in Indonesia, especially in the field of English language learning, has not been thoroughly implemented. This happens because of assumptions about the incompatibility of

PBL with educational culture in Asia, whereas many students in Indonesia feel that they have no room to think critically because the learning system only depends on teachers (Sulaiman & Azizah, 2020). Gwee (2008) made it clear that Asian students' thinking skills are difficult to stimulate because as much as possible they want to avoid conflicts of difference, emphasizing authority and being passive. Despite the clear evidence of the inability to implement PBL, some stakeholders recognize that the progress of active learning and synthesis must be in line with the power of critical thinking. Moreover, in Indonesia, the "problem-based" education model has great potential for use in various contexts and educational purposes because it consistently encourages students to address the most critical problems in the classroom (Trilling & Fadel, 2009 as in Faqiroh, 2020). Additionally, the current Indonesian curriculum—Merdeka Belajar on higher education standards requires students to learn collaboratively, project-based, and problem-based (Suryaman, 2020). With the help of the current problem-based methodologies, student-led classroom activities are designed to tackle previously created problems.

In recent years, research has been conducted by experts to study the use of problem-based learning as a measure to improve the quality of education in the classroom (Fahmi et al., 2021; Gallagher & Gallagher, 2013; Hirça, 2011; Inel & Balim, 2010; Khotimah, 2014; Klegeris & Hurren, 2011; Malmia et al., 2019; Pastirik, 2006; Savery, 2006; Tan, 2021). These studies aim to find out the utilization of problem-based learning as a teaching method in improving student academic achievement. According to the investigations shown above, problem-based learning is a strategy that teaches students to apply critical thinking when confronted with a challenge. The research above found that PBL is an active learning method so its use will make students more actively participate in class and their English learning outcomes improve as they are more open and confident in coming up with ideas (Indriani, 2022; Lingua, 2022). It was also found that the use of PBL helps students to get the information already in their minds and devise their own basic knowledge and complex knowledge. To conclude based on these studies the use of PBL can improve all aspects of learning outcomes.

Other studies have been done related to the effectiveness of problem-based learning as an instructional strategy. The investigations examined the efficiency of PBL in enhancing students' writing abilities. The results show that the use of PBL successfully assists students in mastering vocabulary while integrating it into their writing (Iswandari et al., 2017; Lin, 2017; Sari et al., 2021). In addition, another effectiveness of PBL is being able to improve critical thinking skills in students. This happens because students who are given PBL treatment are easy to understand the class's learning process because they are emphasized to discuss and solve problems, thus, their learning achievements tend to be conceptualized (Saepuloh et al., 2021; Suhirman et al., 2021; Tasoğlu & Bakaç, 2014). Moreover, self-efficacy is also one of the results that PBL contributes to students (Nurlaily et al., 2019). Therefore, the purpose of applying PBL itself in class is to revise ideas and identify deficiencies in their reasoning by talking and listening to other students so that student learning activities in problem-based learning make students enthusiastic about learning because they have an active role and enthusiasm in learning, so they have more independent learning abilities (Yovianda et al., 2019).

Regarding the implementation of PBL, teachers can choose learning models that allow them to manage teaching and learning assignments and allow students in finding information, planning actions, achieving goals, and assessing their understanding using positive thinking and communication (Syarafina et al., 2018; Wijayanti et al., 2017). However, the concern of

most previous studies is to find its effectiveness in improving learning activity. The investigation of PBL implementation in learning activities, specifically in reading classes; has not been done much. Hence, the current study aims to explore how the implementation of PBL in reading class is applied.

METHODOLOGY

This study used a qualitative approach in the form of a case study that aims to describe the implementation of Problem-Based Learning in Reading: synthesizing learning to college students. The reason why this approach is more suitable to investigate the phenomenon of PBL implementation is because the characteristic of this design is to answer "how" and "why" to uncover the unclear context. This is in line with (Lambert & Lambert, 2013) that the use of descriptive qualitative relies on determining the character of a specific event to understand the desired phenomena.

This research was conducted at one of the universities in Garut City. This institution was selected as the research topic because this school has a reading course for English students. Additionally, it has adopted the most recent curriculum (Merdeka Belajar), which incorporates problem-based learning.

Two classes of courses served as the basis for the preliminary observations because both classes have reading courses that use the PBL approach. Although one class does employ a PBL strategy, it is apparent that the learning activities do not adhere to the PBL's core principles, thus, researchers only take one class for follow-up observation. The research subject was a purposive English lecturer who apply the PBL method in teaching activities, specifically in reading class. It is therefore presumed that she is familiar with the problem-based learning approach and has relevant expertise.

This study used observation, specifically primarily non-participant observation that was carried out in two meetings, to gather data because its primary goal is to examine how the PBL technique is implemented in reading class activities. This observation, which was completed using a checklist provided in the observation sheet, evaluated PBL stages and components based on the PBL framework proposed by (Murniarti et al., 2021) sourced from Barret (2006) with a framework for general education that has been modified from the Barrow (1980) framework for medical schools. Additionally, this strategy is used to understand a phenomenon by fully integrating into the target group but avoiding participation in the behaviors being watched (Priya, 2021).

In the early stages, initial observations were made to check whether PBL had been used in the field. To ensure this, the researcher made a list of preliminary research and made field notes. The initial list used was adapted from Murniarti et al., (2021) which contains a Problem-Based Learning scheme. After getting the results of the preliminary research, data will be collected by conducting class observations two times where each implementation is carried out for 100 minutes. In practice, observations are made by recording teaching and learning activities that occur in class. Afterward, the results of the observations stored in the recording will be analyzed and compared with the PBL framework to ensure the fulfillment of the implementation.

The present study aimed to investigate whether the PBL approach whether the PBL implementation is in accordance with its characteristics and components in active reading class. Therefore, the data obtained from the study were analyzed descriptively using the inductive approach to derive themes, concepts, and interpretations from the raw data

FINDINGS AND DISCUSSION

This section is covering the analysis of data on how PBL was implemented in reading classes at the university level. 7 stages of PBL will be discussed, namely stimulus, student orientation to the problem, organizing students, guiding and group investigations, developing and presenting work, analyzing and evaluating the problem-solving process, and reflection.

Stimulus

Picture 3.1. Stimulus stage

In the aspect of stimulus, the teacher is seen providing stimulation to her students by providing reading material that will be used as their learning material that day as in the dialogue

"I believe I sent you 5 articles, yes?".

It means that the lecturer provides articles before the class begins so that students are better prepared to learn and know what will be learned. The lecturer also asked the students how much they had read to determine the extent to which the students were exposed to related reading as in the dialogue

"So please raise your hand if your group has read one or two articles that I sent"

The teacher asks questions like that to find out the extent of students' readiness to learn after being given reading as a stimulus.

Student orientation to the problem

Picture 3.2. Student problem orientation

In the second stage, as shown in the picture, the teacher shows the Student Orientation action toward the problem. This can be seen when the teacher engages students in the problem of reading an article entitled 'Exploring public speaking anxiety and personal dispositions in EFL presentations' sent before the lesson. Then the teacher directs students to identify contexts, gaps, and issues from the journals that have been determined as in the dialog

"I actually sent those articles to you with a specific purpose. You have to decide on the context, and then we're going to decide the gaps and issues from the problem".

The teacher also writes three things to look for on the blackboard to make it easier for students. Students are asked to identify 3 things in the article to be involved in solving a predetermined problem.

Organizing students

Picture 3.3. Lecturer organizing the students

One of the essential learning tasks is student organization, which includes controlling student preparation, group seating, and planning the topics to be covered during lessons. As shown in the picture above, first, the lecturer checked that students are seated with their assigned groups by asking,

"Have you sat with your group?",

Eeach group consists of three people, with one of them being the most prominent in terms of activity or even being a feedback provider to their friends, it can be seen that lecturer can group students heterogeneously rather than homogeneously. Second, lecturers manage the course of learning activities by writing points on the board, as shown in these narratives

“Number one we have speaking anxiety..."

"Second, personal disposition that has something to do with the personal trait"

"The next thing is the presentations",

Then, the students were told to analyze a journal based on the lecturer's command, for about 10 minutes students were given time to then explain or answer what they had learned.

Guiding and Group Investigations

Picture 3.4. Teacher investigates each group

As we can see in the picture besides, the next stage is for the lecturer to provide guidance or assistance to students by approaching individuals and groups one by one. The teacher continues to provide opportunities for pupils to raise questions regarding the course topics throughout the lesson and questions were posed to each person regarding the solutions they discovered to the problem as shown in these narratives

"Did you have anything Zulfa? What else did you check?",

"Risa what about you? Did you see anything or find another keywords?" and

"Sena, did you see anything? Have you read it?"

The lecturer skilfully asked each person and group by calling their names one by one, which means that she tried to involve each student to be engaged personally with the assistance since every group or individual has different needs, questions, and even solutions to the problem.

Developing and Presenting Work

Picture 3.5. Students explaining their work

In developing and presenting work, the lecturer more focus on asking group projects, she asked each student to prepare reports on the result of the group discussion and explain what they have done for the past week, and show what progress they have made as shown in these narratives

"Okay, Risa and Sena's group what about your work?" and

"*Sen, what about you? How far did you go? Is the outline already on track?"*

Then, the students systematically explained their work. At this stage, as shown in the picture above, the lecturer not only listened to each group's explanations but also assisted the students by emphasizing to remember the context of their work.

Analyzing and evaluating the problem-solving process

Picture 3.6. Teacher and students analysing the work

In analyzing and evaluating the problem-solving process, as shown in the picture beside, the lecturer asked students to reanalyze keywords, context, and journal titles to see the suitability of the text. At this stage, the lecturer also asks students to evaluate the answers previously mentioned, not only for the papers given but also by analyzing and evaluating each group's projects as in the following narratives

"Actually, we in paragraph one have to provide context and provide that context we can by making what?" and the student answered with *"keywords",*

"We have to establish the importance of the topic"

Moreover, lecturers and students collect all information from the results of the discussion, and make conclusions about these problems as she said,

"When we establish the context or topic it should be to the point and when we have to elaborate it we need to explain about the advantages, function or even to answer the 'why' question"

Then, those evaluations have become students' guidelines to revise their projects.

Reflection

Picture 3.7. Teacher reflects the lesson session

In this stage, the reflection process in PBL is designed to help students make these inferences; identify gaps in their thinking; and transfer their problem-solving strategies, and knowledge to new situations. The literature on transfer shows that individuals have a difficult time

transferring general principles from one task to another, even when the knowledge is perfectly relevant to someone who understands both tasks. The lecturer is quite good at giving directions to students and providing input on the topic being discussed. reflection occurs when the teacher asks at the end of the class session as shown in these narratives

"Okay, time to reflect we have a few before we close. What can you reflect?",

"tell a little about the context of what you can?",

"do you remember the title?",

"let's just try to remember our title, which one do you want to use first as the context?". This reflection is given so that there is feedback on learning outcomes so that the teacher can provide good directions and input for existing problems.

Stimulus

Based on the finding, the teacher provides a stimulus to focus on material topics. This was also carried out by previous research (Murniarti et al., 2021) where students were given motivation as the initial stage of Problem-Based Learning. According to Vitz (1966), the form of stimulus given by the teacher is in accordance with the theory of stimulus variation with concentration where the teacher gives instructions to students to read the material in the learning process. In line with Rosegard & Wilson (2013), this variation of focusing on attention is one way to provide stimulation to students through the sense of sight and mindset to encourage students to be active in learning. Giving a stimulus is done so that students are more prepared when starting to learn and solidifying the material to be delivered. As to Rani (2021), the motivation for a stimulus is to generate new enthusiasm or see students involved in their learning.

Student orientation to the problem

Based on the finding, the teacher involves students in problems as the second stage of PBL. The instructor prepares learning by offering basic concepts and instructions needed in the learning process as an orientation to the topic before instructional activities. This is in line with the previous study (Arjuna & Jufri, 2016) that student orientation to problems is meant for students to have a 'map' of directions and learning goals faster. The teacher also fulfills this stage by involving students in problems according to theory (Silver-Hmelo, 2004) where students formulate and analyze the problems, they face by identifying facts, this is in the form of identifying what tasks need to be studied further which involves their activeness in learning.

Organizing students

The outcome of this stage demonstrates the value of PBL activities for boosting self-efficacy learning since it motivates students to follow the prescribed path, which is consistent with previous studies above (Nurlaily et al., 2019). To help students acquire and recall information and to assist them, the organizing recommendations are meant to give teachers particular ways for structuring instruction and students' material study. Accordingly, the main objective of organizing students is to increase their independence. According to Daniyarovna (2021),

organizing students eventually gave students learning navigation that led to their independence, whereby students set goals, comprehend the activities in lessons, and work to achieve their objectives.

Guiding and group investigations

Based on the results, it is said that the lecturer must serve as a facilitator, which is a crucial component of the PBL concept, at the guiding and investigation stage. Ensuring a detailed explanation and greater comprehension is the main objective of guiding and investigating students. Finding information gaps regarding the problem is a crucial step in this stage. As supported by Silver-Hmelo (2004), during the phase of guiding students, the instructor serves as a facilitator to steer learners through the process of learning. Students gain a deeper comprehension of the issue and start to form assumptions about potential remedies as a result. According to the study's findings, teachers should specifically give assistance and structure to students as they guide them through the guiding and investigating stages of a problem while letting them take responsibility for their learning. In agreement with Putri et al., (2019), teachers should be able to work on educational resources that are beneficial and can assist in the attainment of objectives as well as the teaching and learning process. This encourages students to become more independent.

Developing and presenting work

Concerning the stage of developing and presenting the work, it was discovered that the lecturer used this stage to review student projects and determine which solutions to problems should be developed. According to Hidayati & Wagiran (2020), students are required to display their work in front of the class at this stage to improve their memory and comprehension. However, based on the result, the lecturer does have one disadvantage at this point: when presenting work, whether it be student projects or provided problems, the lecturer didn't let students appear in front of the class. Thus, discussion and development of the solutions didn't well-spread. This is presumed the reason behind it was time management.

Analyzing and evaluating the problem-solving process

Based on the result, the lecturer asked the student to reanalyze keywords, context, and journal titles to see the suitability of the text. In line with Hidayati & Wagiran (2020), problem-solving method evaluation and analysis helps both teachers and students to spot the strength or drawbacks in their problem-solving process. In the past, the instructor would go over the material she had just covered and assess how well the class was being taught and learned.

Reflection

Based on the finding the lecturer reflected to help students to solve the problems in learning. Previous research has additionally confirmed this, Salomon and Perkins, (1989) as cited in Silver-Hmelo (2004) that PBL requires reflection on the connection between learning and problem-solving, which is essential to the development of comprehensive and adaptable knowledge. According to Chi et al., (1989)students benefit from reflection by using it to connect new knowledge to what they already know, deliberately abstract knowledge, and recognize potential applications for their learning and problem-solving skills. Reflection is

incorporated into PBL at various points during the lesson process and when solving a problem. Students occasionally evaluate the appropriateness of the idea that has been written on the whiteboard and their understanding of the issue. Students evaluate what they've learned, how well they worked with the group, and how successfully they guided their learning after finishing the problem-solving activity. Students should develop more coherent knowledge as they draw conclusions that connect the fundamental ideas and abilities to the particular topic they are working on.

CONCLUSION

This study is an endeavor to investigate how PBL was implemented in a Higher Education context. Involving stimulus, student orientation to the problem, organizing students, developing and presenting work, and analyzing and evaluating the problem-solving process. However, there are drawbacks at some of these stages, as highlighted in the discussion section, where there is a small mismatch with the PBL principles itself, such as the absence of interaction between groups—collaborative learning, whereas one of PBL is allowing students to share each other's work. Moreover, the teacher also added one of the important stages in learning activity, namely reflection. Thus, it is advised that PBL is appropriate to be implemented in the classrooms, particularly at the university level, while research is being done to improve how well PBL develops students' critical-thinking abilities and self-efficacy.

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