



The Use of Problem Based Learning to Improve Students' Critical Thinking in Indonesian Junior High School

Helda Oktaviani^{a*}, Siti Suharsih^b

^{a,b} Universitas Sultan Ageng Tirtayasa, Serang, Banten

Article Info

Article history

Submission Date: 08 May 2024

Acceptance Date: 21 November 2024

Keywords:

Keywords; Problem Based Learning,
Critical Thinking, Linguistics

*Corresponding author:

heldaoktaviani09@gmail.com

Abstract

Problem-based learning (PBL) is an instructional method in which students learn through facilitated problem solving. In PBL, students work in collaborative groups to identify what they need to learn to solve a problem. They engage in self-directed learning and then apply their new knowledge to the problem and reflect on what they learned and the effectiveness of the strategies used. The teacher acts to facilitate the learning process rather than impart knowledge. The goal of PBL is to help students develop 1) flexible knowledge, 2) effective problem-solving skills, 3) effective collaboration skills. This article aims to find out whether PBL can help students to think critically and how teachers implement Problem Based Learning in English class. In addition, this research was conducted in class VIII D with a total of 30 students, 15 females and 15 males of SMPN 21 Kota Serang using qualitative case study method. The data was collected used observation and interview. The result of this study shows that Problem Based Learning helps students to think critically.

© 2024 JLLP and the Authors - Published by JLLP.

INTRODUCTION

Education has been going on since time immemorial. Over time, education has changed and adapted to the needs and civilization of the times. According to Natsir (2022) Education aims to educate the nation's life and improve the quality of human resources. At this time, information and communication has developed rapidly, this can make it easier for students to learn. Thus, the quality of educators who are qualified and professional is needed. An educator not only acts as a motivator and facilitator, but the educator must evaluate and provide conclusions at the end of learning activities Uliyandari (2021). Many educators have used various learning models to be implemented to students, one of the learning models implement is Problem Based Learning, which is a learning model that uses projects or activities as media. By implement this method, students are required to be active, understand learning concepts and think critically in every subject. English is a subject that requires students to think critically, because students are required to develop deep understanding, analytical abilities, and evaluative skills Afni (2020).

Based on the results of observations and interviews with English teacher at SMPN 21 Kota Serang, problems were found in the English learning process, especially students in class VIII D. During the learning process, there were several students who were not used to learning in groups and solving problems in their groups, students are still not accustomed to using and pronouncing English this is because English is not their main language so that when they should use English to communicate, they choose to use their local language, namely Jaseng Language (Jawa Serang) and Partly Sundanese. In addition to the condition of students, problems also arise in the teacher, the teacher still dominate the class, tend to lecture, lack of motivation, and the low volume of the educator's voice in delivering material. Learners only record what the educator says without any response back to what the educator notes or conveys. If the class conditions are like this, then the material delivered by the educator cannot be received properly by students. The impact of these learning conditions, a new problem arises for students, namely the low critical thinking skills of students, this can be seen when students are given the task of working on exercise questions, most of the students are not precise in working on the problem so that many students' answers are wrong. This shows that the students' critical thinking skills are still low in working on English practice questions on the topic Narrative text, the less optimal critical thinking skills of students cause students' learning outcomes to be low. Given that the ability to think critically for students in class VIII D must be applied early.

Based on these problems above, there are several previous studies on Problem Based Learning (PBL) which have been conducted by Arifin (2020) entitled "Problem Based Learning to Improve Critical Thinking" the results in this study prove that Problem Based Learning can improve students' critical thinking through five phases, namely, orienting the problem, organizing students to research, assisting independent and group investigations, developing and presenting work, analyzing and evaluating problem solving. The second research conducted by Yulianti (2019) entitled "The Effectiveness of Problem Based Learning on Concept Understanding and Critical Thinking". The results in this study showed the effect of applying the PBL model on concept understanding and critical thinking in high school students. Previous research focused on seeing students' critical thinking while this research focuses on how teachers implement Problem Based Learning in English subjects in class VIII D at SMPN 21 Kota Serang and does the PBL build students critical thinking skills. Based on the explanation above, it is essential to conduct research about Problem Based Learning: how teachers implement and understanding concept of critical thinking students.

METHOD

This research was conducted using a case study with a qualitative approach. According to Sandelwoski (2022), case studies try to develop a comprehensive understanding by describing phenomena and characteristics to be more specific and detailed. This research was conducted at SMPN 21 Kota Serang. This school was chosen because of the phenomenon of the implementation of

Problem-Based Learning Model by teachers to teach Narrative Text. Data was collected through observation and interview. The observation was conducted twice in a classroom while the teacher implemented the project-based learning design. This observation was intended to find out the teaching and learning process in the English class using the PBL model. The observation was conducted on November 27, 2023 until November 28, 2023. The researcher recorded and transcribed the learning activities to get various information needed in the research. Transcripts have been done in Bahasa Indonesia; the purpose was to check the notes easily to show the original version of the process. The researcher prepared an observation sheet, which is to observe the teacher when conducting learning activities in the classroom. The purpose is to measure the level of success or achievement of learning objectives in the classroom.

On the other hand, researchers used interviews as a data collection method. Researcher chose interviews as a data collection method because interviews can help researcher get in-depth data. This study used interview guidelines as an instrument to collect data. The type of question in the interview is a standardized open-ended interview type. The researcher used open-ended questions. This research uses an indirect approach as the question format. The indirect approach is a general question format. According to Tuckman in Morrison (2011), the indirect approach is a question format that is indirect or general in nature, for example, researchers can ask respondents about what advantages and weaknesses students get when using problem-based learning models.

First, the researcher made an interview guideline to collect data. The researcher conducted an interview with Ms. Early Amalia Arniz, English teacher of class VIII D at SMPN 21 Kota Serang on Thursday, November 27, 2023. The researcher made 10 questions and divided into 2 sessions. The first session had 5 questions about the benefits of problem-based learning for students and the second session had 5 questions about the advantages and weaknesses of problem-based learning. The researcher interviewed Ms. Early by using Indonesian language because the researcher and participants have the same first language, by using Indonesian language the researcher and participants understand better and feel more comfortable to ask and answer questions. Researcher used cell phone recorders, notes and pens to write and record answers from participants. After collecting data from the interviewees, the researcher transcribed or wrote the interview conversations into written form. After transcribing the data into written form, the researcher checked via WhatsApp's chat with Ms. Early as a participant. If there were unclear answers, the researcher contacted the participant to make another appointment or contact via chat. In this study, the researcher asked participants to further explain the statements that were unclear. After the data was obtained, the researcher coded the two types of questions. The researcher used S1 as the first statement, S2 as the second statement. After the data was obtained, the researcher coded the two types of questions. The researcher used S1 as the first statement, S2 as the second statement. After the data was clear, the researcher compressed the facts. Saldana (2009) states that descriptive codes or compact facts are techniques for paraphrasing participants' answers in organized sentences.

After that, the researcher conducted an interpretation. Interpretation is making a simple word or phrase from the compact facts. Then the researcher collects the same facts. In this section, the researcher analyzed the answers to the interview questions. After that, the researcher categorized the same codes. In this section, the researcher agglomerates the same codes in one category. The last part is the researcher reports his findings.

RESULTS AND DISCUSSION

In the first observation that was carried out on November 27th, 2023, the researcher found that the SMPN 21 Kota Serang school had used the Merdeka Curriculum, the English subject consisted of two meetings of 2 x 45 minutes, the lesson material taught at the first meeting of phase D narrative text material 'Fable' chapter 2 "Kindness Begins with Me". The implementation of learning carried out by the teacher includes three stages, the introduction stage, the core activity stage and the closing stage. Based on the observations that have been conducted, the researcher found that the teacher carried out each learning step based on the lesson plan. According to the data obtained at the first meeting the teacher did not motivate students, did not give students the opportunity to ask questions, lack of interaction between students and teachers, and the teacher was still not good at guiding students to discuss. In addition, the teacher as a facilitator is quite placing himself as a facilitator, inviting students to read and summarize the material quite well, the teacher is also quite good at explaining and mastering the learning material. For observations of students, it can be said that students are not used to learning by using Problem Based Learning, it can be seen that some students are not used to learning in groups and solving problems in their groups. According to the observations obtained, students are still not accustomed to using and pronouncing English, this is because English is not their main language so that when they should use English to communicate, they choose to use their local language, namely Jaseng (Jawa Serang) and some Sundanese. Some students have difficulty in pronouncing words in English, this can be seen in the table below:

Table 1. Jaseng speakers' difficulty pronouncing English words

Jaseng Mother Tongue	
Difficulty in English Pronunciation	Bag, Brother, Borrow, etc.
Reason	Because the Jaseng accent the pronunciation of the letters B and D is very thick

Some students whose mother tongue is Sundanese have difficulty pronouncing the letter F, as can be seen in the table below:

Tabel 2. Difficulties of Sundanese speakers pronouncing English words

Sundanese Mother Tongue	
Difficulty in English Pronunciation	Fast, forward, flower, etc.
Reason	This is because in Sundanese there is no consonant "F".

In addition, students find it difficult because they have to translate foreign languages into Indonesian and secondly, they have to translate Indonesian into their local language this is done so that they better understand what the contents of the reading or something they hear. The second cause is because the teacher as a facilitator uses Indonesian in teaching in the interview data the teacher said that: “much easier and practical to use Indonesian; besides the students can understand the materials easier”. Based on the discussion above, it can be concluded that teachers must motivate students to have opinions before learning activities begin, teachers must help and direct students to be able to discuss and work together in learning activities. Then, teachers must teach by giving examples of correct pronunciation, and also familiarize communicating with English so that students get used to using English.

The second observation conducted on November 28th, 2023 researchers found that the teacher was good at motivating students, providing opportunities to ask questions and the teacher was also quite good at guiding students to discuss the teacher had also used English in learning. In the second observation, it was found that students' learning activities using Problem Based Learning had shown better results. Students already seem used to learning in groups and solving problems in their groups. According to the observations found, students are very enthusiastic in participating in the learning process, finding good problems, arguing and answering questions quite well and students have started learning to use English in the classroom. This can be seen when the teacher divides students into groups. All students follow the learning with attention and seriousness, when the teacher gives the opportunity to read English stories in class, all groups are very enthusiastic and compete to read in class and no one refuses to read in class. This is because, each group looks compact in discussion, because some students are good enough to respect the opinions of their group friends and are not shy to express statements or questions to the teacher or other group friends. Students have appeared independent in working on tasks with their groups.

It can be concluded that with the improvement of students and teachers, the learning process of applying the PBL (Problem Based Learning) model has succeeded in making significant changes while students are learning English and cooperation in solving problems in groups is increasingly visible with the attitude of students shown during the learning process, they are involved in learning such as actively asking questions, respecting opinions, and participating in group work.

Based on the results of interviews that have been conducted with Ms. Early Amalia Arniz as an English teacher, researcher found that the Problem Based Learning teaching model really helps students to be independent in learning and helps students to think critically. This is evidenced in the interview results, the teacher said that S1: “*Problem Based Learning helps students to learn independently and think critically because this learning model is centered on students rather than teachers*”.

This statement is in line with Arifin's (2020) that students are required to find solutions to the problems they face, this makes students continue to think to find answers. Problem Based Learning

can increase motivation, increase cooperation in group work, develop learning strategies and improve communication skills Cahya (2023). This is in line with S2: “By using PBL, students can better remember the information and knowledge learned, develop problem-solving skills and students can enjoy the learning process more so that there is no compulsion to learn”.

However, with the various advantages that students get by using the PBL method, there are also disadvantages to this method, Astria (2022) says that PBL cannot be used in every learning material, there is a part of the teacher's active role in presenting the material. PBL is more suitable for learning that demands certain abilities related to problem solving. In line with S3 the teacher stated that:”

PBL requires me as a teacher to encourage the motivation of students with extra but sometimes the resources needed are not fully available, for example there is no projector in the classroom which makes it difficult for students to imagine characters or storylines of the narrative text”.

Based on the research that has been done, the use of Problem Based Learning can improve students' critical thinking, increase students' motivation in learning English so that students do not feel afraid or embarrassed when they speak English.

CONCLUSION

Based on the results and and discussion as previously described, the study shows that the use of Problem Based Learning models in learning English, especially in reading narrative text material can improve students' reading skills. In the first to second observation results, there were significant changes in students' teaching and learning activities, this can be categorized as very good and teacher activities reached the very good category.

The implementation of Problem Based Learning has the advantage of challenging students' abilities and providing satisfaction to discover new knowledge for students, increasing students' motivation and learning activities, helping students in transferring students' knowledge to understand real-world problems, helping students to develop their new knowledge and be responsible for the learning they do, developing students' ability to think critically and developing their ability to adapt to new knowledge. The weakness is that PBL cannot be applied in all learning materials.

REFERENCES

- Afni. (2020). The implementation of problem-based learning in elementary school. SHEs: Conference Series, 3(4), 1-5.
- Arifin. (2020). Problem Based Learning to Improve Critical Thinking. Social Humanities and Educational Studies, 3(4), 5-4.
- Fatchiyah, F. (2016). The effectiveness PBL in critical thinking ability grade V SD Se-Gugus 01 Kretek. Basic Education, 5(18), 1-746.

- Fitriyani, D., Jalmo, T., & Yolida, B. (2019). The use of Problem Based Learning for improving collaboration students to higher critical thinking. *Jurnal Bioterdidik: Wahana Ekspresi Ilmiah*, 7(3), 77-87.
- Kemendikbud (2013). *Materi Pelatihan Guru Implementasi Kurikulum 2013*. Jakarta: Kemendikbud
- Maqbullah, S., Sumiati, T., & Muqodas, I. (2018). Penerapan Model Problem Based Learning (PBL) untuk Meningkatkan Kemampuan Berpikir Kritis Siswa pada Pembelajaran IPA di Sekolah Dasar. *Metodik Didaktik: Jurnal Pendidikan Ke-SDan*, 13(2).
- Meinisa, A. (2019). Peningkatan Hasil Belajar Matematika melalui Model Problem Based Learning Berbantu Media Puzzle di Sekolah Dasar. *Jartika*, 2(1), 27-37.
- Mustaji, (2009). Development of critical thinking and creative in Beyer: Critical Thinking. *Social Education*, 45 (4)
- Nasrul, S. (2018). Pengembangan bahan ajar tematik terpadu berbasis model Problem Based Learning di kelas iv sekolah dasar. *Jurnal inovasi pendidikan dan pembelajaran sekolah dasar*, 2(1).
- Natsir. (2022). The effectiveness of model Project based Learning in tenth grade of SMA 1 Maros. *Biolearning Journal*, 9(1), 1-8.
- Rosnah, R. (2018). The implementation of Problem Based Learning for improving final results PKn Siswa Sekolah Dasar. *Suara Guru*, 3(4), 705-714.
- Rusman. (2011). *Model-model Pembelajaran Mengembangkan Profesionalisme Guru*. Jakarta: Rajawali Pers.
- Uliyandari. (2021). Problem Based Learning to improve concept understanding and critical thinking ability of science education undergraduate students. *International Journal of Recent Educational Research*, 2(1), 10-11.
- Yulianti. (2019). Problem Based Learning Models and Understanding Concept of Critical Thinking. *Indonesian Journal of Science and Mathematics Education*, 2(3), 10-20.