TEACHERS' PERSPECTIVE ON PROBLEM-BASED LEARNING TO IMPROVE STUDENTS' PROBLEM-SOLVING SKILL IN ELT JUNIOR HIGH SCHOOL

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ABSTRACT

The development of technology increases from time to time. It also parallels the development of knowledge. Knowledge development leads to several skills that students should master. One of those skills is the ability to solve the problem. Problem-solving skill is an ability that students need and should be implemented to solve problems at school and in everyday life. Problem-solving activities will later make students accustomed to dealing with problems, including getting used to dealing with problems. The school that has a role in preparing students' future should facilitate students to acquire the problem-solving skill. During the teaching-learning process in school, problem-solving skill can be learned through the problem-based learning method. In practice, most English teachers do not implement the problem-based learning method in their classes and prefer to teach with conventional methods. To make meaningful learning, this research has the purpose of exploring teachers' perspectives on problem-based learning to improve students' problem-solving skills. Thus, the research used a qualitative research design with a case study approach to explore teachers' perceptions towards problem-based learning to improve students' problem-solving skill. The interview was held to collect the data with a junior high school teacher as a respondent. The research found that the problem-based learning method can improve students' problem-solving skills during the process of learning. Contextual learning through real problems relating to students' daily life should be implemented in the method. The study also found that the other skill that improves is teamwork and critical thinking skill. In conclusion, the research proves that the problem-based learning method can improve students' problem-solving skill in English language teaching in junior high school. However, there are several recommendations for teachers and future researchers. Teachers should make meaningful learning through this method, and they also should be well-prepared while implementing this method. Future researchers are expected to explore students' perspectives on this method.
Keywords: *problem-based learning, problem-solving skill, teacher's perspective*

ABSTRAK

Perkembangan teknologi meningkat dari waktu ke waktu. Hal ini juga sejalan dengan perkembangan pengetahuan. Perkembangan pengetahuan mengarah pada beberapa keterampilan yang harus dikuasai siswa. Salah satu keterampilan tersebut adalah kemampuan memecahkan masalah. Kemampuan memecahkan masalah merupakan kemampuan yang harus dimiliki oleh siswa untuk memecahkan masalah di sekolah maupun dalam kehidupan sehari-hari. Kegiatan pemecahan masalah nantinya akan membuat siswa terbiasa menghadapi masalah, termasuk terbiasa dalam menyelesaikan masalah. Sekolah yang memiliki peran dalam mempersiapkan masa depan siswa sudah selayaknya memfasilitasi siswa untuk memiliki kemampuan pemecahan masalah. Dalam proses belajar-mengajar di sekolah, kemampuan pemecahan masalah dapat dipelajari melalui metode pembelajaran berbasis masalah. Pada praktiknya, sebagian besar guru bahasa Inggris tidak menerapkan metode pembelajaran berbasis masalah di kelas mereka dan lebih memilih untuk mengajar dengan metode konvensional. Untuk membuat pembelajaran yang bermakna, penelitian ini bertujuan untuk mengeksplorasi perspektif guru mengenai pembelajaran berbasis masalah untuk meningkatkan kemampuan pemecahan masalah siswa. Oleh karena itu, penelitian ini menggunakan desain penelitian kualitatif dengan pendekatan studi kasus untuk mengeksplorasi persepsi guru terhadap pembelajaran berbasis masalah untuk meningkatkan kemampuan pemecahan masalah siswa. Wawancara dilakukan untuk mengumpulkan data dengan seorang guru sekolah menengah pertama sebagai responden. Hasil penelitian menunjukkan bahwa metode pembelajaran berbasis masalah dapat meningkatkan kemampuan pemecahan masalah siswa selama proses pembelajaran. Pembelajaran kontekstual melalui masalah nyata yang berkaitan dengan kehidupan sehari-hari siswa harus diimplementasikan dalam metode ini. Penelitian ini juga menemukan bahwa keterampilan lain yang meningkat adalah kerja sama tim dan keterampilan berpikir kritis. Kesimpulannya, penelitian ini membuktikan bahwa metode pembelajaran berbasis masalah dapat meningkatkan kemampuan pemecahan masalah siswa dalam pembelajaran bahasa Inggris di sekolah menengah pertama. Namun, ada beberapa rekomendasi untuk guru dan peneliti selanjutnya. Guru harus membuat pembelajaran yang bermakna melalui metode ini, dan mereka juga harus memiliki persiapan yang baik saat menerapkan metode ini. Peneliti selanjutnya diharapkan dapat mengeksplorasi perspektif siswa tentang metode ini.
Kata kunci: *pembelajaran berbasis masalah, kemampuan pemecahan masalah, perspektif guru.*

INTRODUCTION

A problem is not only a matter in life but also a lesson. That is why there is a method called problem-based learning in teaching-learning, how the problem can give a lesson to students. Solving the problem will directly connect students to real experiences. Students will remember how the problem is solved, what are the solutions, and how possible the solution can solve the problem. To make problem-based learning run well, the teacher should clearly understand problem-based learning. Still, in practice, most English teachers who joined the pre-observation have not implemented the problem-based learning method in their classes. They preferred to teach in the conventional method. Some of them also did not know what problem-based learning is. As well as the research conducted by Ekawati (2016), she found that if the teacher does not understand problem-based learning, it will make the teacher passive, and learning objectives are not fulfilled. It became a serious problem because neither the teacher nor the students could benefit from the teaching-learning process. A lack of teachers exploring ELT will influence teachers' ignorance of various methods that may support them in effective teaching and learning processes.

Duch (1995) defined problem-based learning as a learning method with a real problem as a context to make students think critically and have the problem-solving skill to obtain knowledge. The other expert, Sofyan (2017), stated that problem-based learning is a learning concept that help teacher creates a learning environment that starts with important problems relevant to students and may gain a realistic learning experience. Started from definitions of problem-based learning, it can be concluded that problem-based learning is a method that makes students solve a problem, and they are expected to gain knowledge in the process of problem-solving that contains contextual learning.

Several studies have been discussed about problem-based learning. The first research was conducted by Hadi and Izzah (2018). The research is about the implementation of problem-based learning for students of primary school teacher education department. The study used a qualitative research design with an interpretative paradigm method. They found out that problem-based learning improved mastering English. The second research was conducted by Ghufron and Ermawati (2018). The research aims to found the problem-based learning method's strengths and weaknesses in EFL writing classes. The research used a case study design and using. Their finding proved that problem-based learning creates a learning environment that supports students to be more active and positive. The third research was conducted by Hidayati and Wagira (2020). The research aims to analyze the implementation of problem-based learning to give positive feedback to students' problem-solving skills in vocational high school. The study used a class action research model of Kemmis and Taggart. The result showed that problem-based learning could improve problem-solving skill.

Those previous studies prove the effectiveness of problem-based learning to improve students' problem-solving skills. This research will elaborate on problem-based learning from the teacher's perspective. It is intended to analyze and specifically discuss how a teacher's perspective on problem-based learning can improve students' problem-solving skills in junior high school.

LITERATURE REVIEW

Problem-Based Learning

Barrows and Tamblyn (1980) defined the working process toward comprehending problem resolution. They also stated that the key to problem-based learning is the student's experience facing the problem before material inputs. It will motivate students to get new knowledge through studying independently, knowledge construction in tutorials, and learning from other educational sources.

Adriadi, A., Tarihoran, N. (2016) also specifically explained problem-based learning (PBL) is a learning process based on real-life problems. From this problem, students are stimulated to study problems based on the knowledge and experience they already have (prior knowledge) so that from this "prior knowledge," new knowledge will be formed.

From those definitions, problem-based learning is a method that makes students solve a problem before the material exposes them. They are expected to gain knowledge in the process of problem-solving

The principle of problem-based learning

The PBL method is outlined as follows: confronting the problem first, problem-solving with professional competence and identifying learning requirements in the interaction process, self-study, applying newly acquired information to the problem, and summarizing what has been taught. (Barrows, 1985).

From the learning outline, Sofyan H. (2017), in his book, stated that there are several principles of problem-based learning

1) It is student-centred learning
2) Group discussion
3) The discussion begins with a contextual problem
4) The discussion should stimulate students to use prior knowledge
5) Students learn to be independent
6) Efficient learning
7) Feedback
8) Skills training is given in parallel

Those principles include all of the learning objectives in problem-based learning. So that if there is one principle that does not exist, the result may differ from the learning objective.

The importance of problem-solving skill

Mayer and Wittrock (2006) define problem-solving as cognitive process thinking focused on changing a situation into a goal. At the same time, there is no obvious solution available. They also elaborate on several characteristics of problem-solving. First, problem-solving has cognitive aspects. This cognitive character should be learned by getting used to solving the problem before. The second characteristic is a process. It means in problem-solving, there is a process that is called representing and managing knowledge. The third is directed. The problem solvers' goals would be the guide to lead the process of problem-solving. Forth, personal-skill such knowledge will support finding a solution.

Those characteristics show that problem-solving involves the habit of problem-solving, the process of finding the solution, the goal of problem-solving, and personal skill. The definition and characteristics of problem-solving skill lead to their importance. Salim and Alnoori (2021) stated that problem-solving skill is needed when learners face a problematic situation. Here's a hypothetical educational scenario in which students may be challenged, "What should I study, and how can I recognize what's important?" What does it imply? Before using one's reasoning skills, knowing what is being reasoned clearly is critical. Thus, questioning and reasoning are the keys to analysis. So, questioning and reasoning are the processes of analysis. It brings to the problem-solving process.

Problem-solving skill in problem-based learning

Mayer and Wittrock (2006) stated the technique to encourage active learning in their book. The technique is discovery learning. It presents a problem for students to solve. In line with the book of O'Grady (2012), in 1929, a teacher, John Dewey, implemented the concept of Plato, which was learning by discovery. He developed a problem-based curriculum in which the students in their group were supposed to solve a problem and cooperate in active learning. It developed from time to time and brought into problem-based learning, where students get used to solving problems. The teacher has a special role in making problem-based learning meaningful by contrivance it with contextual learning. Here are steps to implement problem-based learning by Sofyan, H. (2017) and O'Grady, G. (2012).

Sofyan, H. (2017) explained five steps of problem-based learning.

Table 1. Five steps of problem-based learning

Steps	*Teacher's role*
Step 1 Students are oriented to problem	• Explain learning objectives • Explain the logistic that is needed • Motivate students to cooperate in problem-solving activities actively
Step 2 Organize students to learn	• Help students define and organize the task that is related to the problem
Step 3 Guide individual and team analysis	• Emphasize students to collect appropriate information and experiment to get the explanation and solution to the problem
Step 4 Develop and display the result	• Help students plan and prepare the result and share the result with their team
Step 5 Analyze and evaluate the problem-solving process	• Evaluate students' material results and ask the group to present their work

O'Grady, G. (2012) also divided the steps of problem-based learning into five phases in his approach, one day, one problem.

Table 2. Five phases of problem-based learning

Phase	*Activity*
Phase 1 Problem analysis phase	The facilitator introduces the day's problem. Students work in groups of five to identify previous knowledge and learning problems.
Phase 2 The first self-directed learning	Students do independent research or collaborate in groups on worksheets and other resources. Within the team, time is allocated to teaching one another. The majority of individual research is conducted by reading online materials from the internet.
Phase 3 Group coordination with the facilitator	Each group of students interacts with the facilitator for around 20 minutes to report their progress and problem-solving method. The rest of the time is used for self-study and discussions.
Phase 4 Self-directed 2	The estimated time during which teams concentrate their work and propose a solution to the problem
Phase 5 Reporting	Each team presents its collected findings and answers to the problem, depending on questions from peers and the facilitator. Slides are typically used for team presentations. If required, the facilitator would additionally clarify essential points.

Even though the problem-based learning process by O'Grady and Sofyan is quite different, the main activities are the same. Students are introduced to the problem at the beginning of learning, and the teacher explains the learning objective. Students cooperate, working with their group, reporting and guiding sessions with the teacher, and presenting their work.

The implementation of problem-based learning in Indonesia

Since Indonesia has used the curriculum of 2013 for a couple of years, problem-based learning was the primary learning method in that curriculum. After explaining the steps in problem-based learning, this is how to assess problem-based learning in the classroom.

Sofyan, H. (2017), in his book, stated that assessing students in problem-based learning includes knowledge, skill, and attitude. Knowledge assessment includes assignments, quizzes, task reports, midterm exams, and final exams. Skill assessment includes mastering learning tools and planning and evaluating skills. Attitude assessment includes activeness and cooperation in the discussion, teamwork skills, and learning participation.

Teachers' role in problem-based learning is not only as facilitators and assessors but also far beyond. Sofyan, H. (2017) explains the teacher's role in problem-based learning, such as the teacher as a motivator and the teacher as a guide. The teacher needs to use learning tools to motivate students to be independent. The teacher must also build a learning environment that will make students think reflectively and evaluate critically and efficiently.

Sofyan, H. (2017) also elaborates statement from Rusman (2012) that teachers should think using several ways, such as:

1) How do we design and use realistic problems so that students can fulfil learning objectives?
2) How to students be' trainers in the problem-solving process, self-direct, and work in a team?
3) How to make students think that they can solve the problem?

From those explanations, it can be seen that teacher has a big responsibility in implementing problem-based learning.

RESEARCH METHOD

This research aims to explore teacher's perspectives on problem-based learning to improve students' problem-solving skills. Thus, it used a qualitative research design. According to Cresswell (2006), qualitative research design uses several variables to explain attitude and behaviour comprehensively. In line with the objective of the research, a case study is an approach used in this research. Creswell (2007) stated

that a case study is a qualitative research approach that leads researchers to explore cases in real life using various information sources such as observation, interviews, etc.).

Tellis (1997) elaborates the phase of the case study approach into six steps. First, determine and define the research question. This research aims to investigate teacher's perspective on problem-based learning that can improve students' problem-solving skills in junior high school. Second, select the cases, and determine data gathering and analysis techniques. According to the pre-observation that the researcher has held, most English teachers have not used problem-based learning methods. Thus, this research can hopefully help English teachers explore different teaching methods for their teaching-learning activity. Third, prepare to collect the data. The instrument is prepared to specifically ask not only the teacher's perspective but also the teacher's experience using problem-based learning. Forth, collect data in the field. The data was collected using an interview with a teacher from one of the junior high schools in Bekasi. Sinha (2017) stated that interviews will make subjects openly express their insight while answering the questions. Fifth, evaluate and analyze the data. Sixth, prepare the report.

Data will be analyzed following six steps for analyzing and interpreting qualitative data from Creswell (2012). As follow:

1) Preparing and organizing the data. Researcher transcript of the result of the interview
2) Exploring and choosing the data. All data obtained is then coded by evaluating the data to identify what is required to answer the study questions
3) Coding to build themes and descriptions. The encoded data describes the teacher's problem-solving experiences and perspectives
4) Representing and reporting qualitative findings. The findings are presented as a narrative discussion to explain the teacher's perspective on problem-based learning.
5) Interpreting findings. The next stage in doing qualitative research is to interpret the results of the study
6) Validating the accuracy of the finding. Furthermore, data analysis from interview questions is provided as evidence to determine the accuracy and validity of this study.

The research utilizes research instruments using this question in the interview

Table 3. Research instruments

No	Questions	Theories	Purposes
1.	From your perspective, how can PBL improve students' problem-solving skill?	Paulo Freire (1972) O'Connor (2012)	Teacher's perspective
2.	What is the importance of PBL?	Johnson, Johnson. (1984) Sofyan H. (2017)	Teacher's perspective
3.	Did you connect it with contextual learning?	Sofyan H. (2017)	Teacher's experience
4.	What are the strengths of pbl?	Adriadi, A., Tarihoran, N. (2016)	Teacher's perspective
5.	What are the weaknesses of pbl?	Adriadi, A., Tarihoran, N. (2016)	Teacher's perspective

RESEARCH FINDINGS AND DISCUSSION

From the interview, the research found several findings. First, according to the teacher, problem-based learning can improve students' problem-solving skill during the process of learning. Students are forced to think about how to solve some problems. O'Connor (2010) and Sadlo (2011), from the book of Barrett (2017), explain from a neuroscience perspective, knowledge starts by thinking, and humans can consider using their brains. Naturally, the brain consists of being hotwired to solve problems. So, the brain is compatible with solving the problem. O'Connor also emphasizes the problem's significance in problem-based learning as a mechanism for leveraging the brain's problem-solving ability by providing a focus for students' attention and a target for student learning.

The way problem forces the brain to find a solution is one process that can make students get used to problem-solving activities.

Second, according to the teacher, problem-based learning is not only able to improve problem-solving skill but also teamwork skill and critical thinking. In line with Johnson & Johnson, 1984: (23-33), one problem-based learning benefit is improving students' problem-solving skills. Problem-based learning emphasizes students included in the activity of solving the problems. Johnson & Johnson also stated that

problem-based learning improves collaboration skills because it supports students to work in a team. The working collaboration includes planning, organizing, negotiating, and agreeing on tasks, dividing tasks, and collecting and displaying information. Sofyan (2017) explained critical thinking as a problem-based learning advantage. He said that the psychometrics aspects of problem-based are training students in scientific problem-solving (scientific reasoning), critical thinking, direct self-learning, and life-long learning.

Not only solving the problem skill but also deciding what solution through teamwork and think critically will also help students make the right decisions.

Third, the teacher uses contextual learning through real problems relating to students' daily life while implementing the problem-based learning method. From the problem-based learning outline designed by Sofyan H. (2017), there are three principles of problem-based learning, there are:

1) It is student-centered learning
2) Group discussion
3) The discussion begins with a contextual problem

It could be said that problem-based and contextual learning are two things that cannot be separated.

Fourth, the study found the strength of problem-based learning was increasing students' motivation to learn. Together with the learning game, the teacher discovered that her students were interested in the learning activity. Adriadi and Tarihoran (2016) showed that student's motivation to learn in problem-based learning methods was higher than in conventional ways.

The combination between problem-based learning and game will make an exciting learning activity that will engage students to learn.

Fifth, the teacher found the weakness of problem-based learning is that the method is still impromptu for students. It is because this method is new for them. Adriadi and Tarihoran (2016) explained that students' role is to be active and independent in problem-based learning. With the change of this, it became an obstacle for students and also for teachers. Intensive transition and guiding processes in the early stages are needed.

Even though problem-based learning was introduced in the curriculum 2013, it is still unfamiliar to students.

CONCLUSION AND RECOMMENDATION

The result of teachers' perspective on problem-based learning can be concluded as follow:
1) Problem-based learning is an important method that can force students to think, and it will make students get used to the problem-solving activity
2) Problem-based learning can improve students' problem-solving skill, teamwork ability, and critical thinking skill
3) Problem-based learning should be connected with contextual learning, which means students should be encountered a real-life problem
4) The strength of problem-based learning is it can make students more interested in the learning
5) The weakness of problem-based learning is that the students are not familiar with the method, so the teacher should be more prepared.

After finishing the study, the researcher would like to suggest some teachers and future researchers:
1) Teachers should explore ELT methods
2) Teachers should make meaningful learning using problem-based learning
3) Teacher should be well prepared to do problem-based learning
4) Future researchers are expected to explore students' perspectives on problem-solving
5) Future researchers are expected to use more instruments to find accurate data.

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