

## **STUDENT UNDERSTANDING OF ENGLISH SUBJECT IN USING PROBLEM BASED LEARNING METHOD**

Misna Aura, Sri Wahyuni, Mulyadi Syahputra  
Program Studi Pendidikan Bahasa Inggris  
Universitas Bina Bangsa Getsempena Banda Aceh  
Email: misnaaura4@gmail.com

### **ABSTRAK**

Penelitian ini bertujuan untuk menganalisis pemahaman siswa EFL dalam menggunakan metode pembelajaran Problem Based Learning (PBL). Penelitian ini menggunakan kuantitatif dengan metode eksperimen kuasi. Data hasil belajar siswa diperoleh dengan melakukan pre-tes dan pos-tes. Partisipan penelitian adalah siswa-siswi kelas XII IIS di SMA Negeri 1 Darul Imarah yang terdiri dari 17 siswa. Data dianalisis secara manual dengan menggunakan rumus statistik, T-test dan T-tabel, yaitu  $T\text{-test} > T\text{-table} = 11,70 > 1,75$ . Hasil pre-tes adalah 56,25 dan pos-tes 85. Hasil tersebut menunjukkan bahwa 75% siswa memahami pembelajaran dengan menggunakan metode *Problem Based Learning*. Berarti  $H_0$  ditolak dan  $H_a$  diterima. Kesimpulan penelitian ini adalah metode pembelajaran *problem based learning* dapat meningkatkan pemahaman bagi siswa.

**Kata Kunci:** Pemahaman siswa, *Problem Based learning*

### **ABSTRACT**

*This study aimed to analyzed the EFL students' understanding in using Problem Based Learning (PBL) method. This research employed quantitative with the experimental design. Students learning outcomes data obtained by doing pre-test and post-test. Data were analyzed manually using statistical formulas, T-tests and T-tables. Namely  $T\text{-test} > T\text{-table} = 11,70 > 1,75$ . The result of pre-test is 56,25 and post-test is 85. It shows that 75% students understand the learning by using Problem Based Learning method. It means that  $H_0$  is rejected and  $H_a$  is accepted. The conclusion of this research is problem based learning (PBL) method increases the students' understanding.*

**Keywords:** *Students' understanding, Problem Based Learning method*

### **INTRODUCTION**

Problem Based Learning (PBL) is one model Learning that can help students to improve skills which is needed in the current era of globalization (Amir:2009). Problem Based Learning (PBL) is one of the models learning that can help students to improve skills needed in the current era of globalization. Problem-based learning is a learning model that presents students with real-world issues to begin learning and is one of the

effective learning models that could give students with active learning circumstances. The process of curriculum design and learning is known as problem-based learning (Nuraeni:2016).

According to Komalasari (2013) problem-based learning is a learning model that uses real-world problems as a context for students to learn about critical thinking and problem solving skills, as well as to gain knowledge and concepts that are essential to the subject. In this case students are engaged in an investigation for problem solving that integrates the skills and concepts of the various contents of the subject matter.

Wardani (2007) said, "Problem-based learning models can present authentic and meaningful problems so that students can conduct investigations and find themselves". And problem-based learning model according to Suradijono (in Pitriani, 2014) is a learning method that uses problems as a first step in collecting data and integrating new knowledge". Based on the explanation, it can conclude that problem based learning is an independent method for student to increase their thinking, active, creative, and innovative.

However, thinking skills are very necessary as a result of the educational process, which in the process of education is an effort to conditioning students. If the conditioning efforts are less supportive of enlightenment or development of reasoning, as well as good thinking ability, it will give birth to graduates of education that is not optimal. Based on Permendikbud No.21 year 2016 on Content Standards, students are expected to have spiritual abilities, knowledge and skills in accordance with the competencies of graduates formulated in the Graduate Competency Standard (SKL). The three competencies have different acquisition processes. Attitudes are formed through activities: receiving, running, appreciating, living, and practice. Knowledge is possessed through activities: knowing, understanding, applying, analyzing, evaluating, and creating. Skills acquired through activities: observing, questioning, trying, reasoning, studying, and creating. Thinking skills show that education in school is not only directed at mastery and understanding of concepts or materials only but is directed at improving students' high-level thinking skills (Higher Order Thinking) to be able to deal with various problems that are happening. The challenges of the future require more developed learning on critical thinking skills, because the end of a learning that students get in school is to become competent human beings in answering increasingly complex problems and challenges (Yuhelni, 2015 ). Another opinion is expressed by Hassoubah (2004) that it is

expected that by thinking creatively and critically they can develop themselves in making judgment decisions, as well as solving problems.

In the curriculum, students are required to gain critical information, become skilled in problem solving, and develop their own learning techniques as well as the ability to work in a group. In order to solve issues or obstacles that exist in everyday life, the learning process employs a systematic approach. The Problem Based Learning model is defined by the utilization of real-life issues as a learning tool for students. Students are supposed to get more expertise rather than remembered knowledge using models Problem Based Learning. Starting with problem-solving skills, critical thinking skills, group work skills, interpersonal and communication skills, and information search and processing abilities (Amir:2007).

As a result, it is stated that in Problem Based Learning, the learning process is prioritized, and the teacher's responsibility is to assist students in developing abilities to guide themselves. In this paradigm, the teacher serves as a problem presenter, a questioner, a facilitator of discussion, a problem solver, and a provider of learning opportunities.

Nowdays, study English start from earlier level of school. It means that students are required to learn and understand English as soon as possible starting from elementary school even from kindergarten. But, studying English not always easy and fun for them, some of students are feel that English are boring lesson and they are also lazy to study that. The student laziness in study English is caused by the following factors: students misconception about English, no curiosity of students, and the incorrect method of teachers (Nisa:2013).

The first problem is caused by the children misconception about the English. As we know in Indonesia, as an implication of positioning English as a foreign language, English is just learned in classrooms, not widely used as a means of communication by people across the regions. This lack of exposure makes children difficult to see English learning as being functional and useful for them. For example, children who learn English in their school but never use it in their everyday life will think that English is not useful and only a lesson in class. So, they have no motivation to study English in class and think that English is useless (Nisa:2013).

The second is caused by no curiosity of students, It's no secret that curiosity makes learning more effective and enjoyable. Curious students not only ask questions, but also actively seek out the answers. Students are not feeling excited to learn when they do not have any curiosity because they think learning is not important. Therefore, teacher should make the right method when teaching to increase their curiosity and feeling excited in learning (Nisa:2013).

The third is caused the incorrect method by teacher. Some of teachers believe that discourse method is the right method to make an effective learning. It is the method which make teacher explain and students listen only. Meanwhile students need to be active and thinking hard by themselves to sharpening their brain and show their ability. Therefore, it needs the right method for students. Problem Based Learning method force student to be active because they need to find their problem. At the end, they will understand the learning by their own way.

Based on the explanation above, research is conducted that aims to find out the use of problem-based learning methods and problem solving methods in improving students' critical thinking ability. Furthermore, this research was titled "Student understanding of English subject in using problem based learning method."

In this study, the researcher takes two previous researcher comparison. The first research was done by Yunin Nurul Nafiah (2014), "The Application of the Problem Based learning Model to Improve the Students Critical Thinking Skills and Learning Outcomes". In her thesis, she analyzed the students' critical thinking using Problem based Learning method. She also showed the learning process. It shows that this technique effectively help students to improve their critical thinking and the result in learning.

The second research by Vinni Dini Pratiwi and Wuri Wuryandani (2020) is that "Effect of Problem Based Learning (PBL) Models on Motivation and Learning Outcomes in Learning Civic Education". In their thesis, they analyzed the students' motivation and learning outcomes in using PBL method. The result is Problem Based Learning (PBL) could develop learning motivation and learning outcomes in the medium category.

### **Research Problem**

1. What is problem based learning and problem solving?
2. How problem based learning and problem solving could influence to students' understanding?

### **The objective of study**

1. To know the meaning of problem based learning and problem solving
2. To know the influence problem based learning and problem solving to students' understanding

### **Scope of study**

The research only took place on the method or strategy about the influence problem based learning (PBL) and problem solving to increase students' understanding.

### **The significant of the study**

This research could be beneficial for some stakeholders as follows:

1. Teacher

For more convenient teaching experience with students, such as English literature classes and in other courses, teachers can use such research as teaching materials and additional references.

2. Students

As additional sources in their literature studies, this study can be very useful for students and will improve the potential of students.

3. School

This research will help schools to apply the research to gain better results by improving the teaching techniques

4. Researcher

This study will benefit for the researchers who need the additional ideas or information, and also new references about the educational values or the literature in their study.

### ***METHODOLOGY***

This research belongs to descriptive quantitative study, with an experimental design. This research was conducted in class XII IPS<sup>1</sup> SMAN 1 Darul Imarah.

The researcher started to do research at Oktober to prepare and draft proposal. In the next week, she processed the permission from the head of SMA N 1 Darul Imarah. Then preparing the instrument needed. After having pre-test and post-test as much as 2 meetings, the researcher started to analyze the result at the last week in November. Finally,

researcher wrote the result of the implementation of Problem Based Learning method in December 2020.

The research subjects in this study were 17 students of class XII IPS-1 SMAN 1 Darul Imarah. The reason the researcher chose the subject was because they are the right subject to study. When researching in this class and finding problems where the students' ability to understand English is low. So as to move researchers to apply the method of Problem Base Learning Round Table method to improve students understanding in English subject in class XII IPS-1 SMA 1 Darul Imarah. The English subject will be limited to "Passive Voice".

The procedures in this study are: the preparation phase, at this stage the researcher collects the learning, the preliminary test, and the final test. The implementation stage, the activities at this stage are: implementing the learning process using repetition Problem Based Learning method, while learning takes place observing student activities by the subject teacher, and giving the final test. Data analysis stage, at this stage management of the data that has been obtained at the implementation stage.

**Table 1.** Syntax or steps in Problem-Based Learning can be found in table

Stage	Teacher behavior
Stage-1 Orientation of learners on the problem	Teachers explain learning objectives, explain the logistics needed, submit phenomena or demonstrations or stories to bring up problems, motivate learners to engage in problem solving.
Stage-2 Organizing learners to learn	Teachers help students to define and organize learning tasks related to the problem
Stage-3 Guiding individual and group investigations	Teachers encourage students to gather appropriate information, implement it to get explanations and solve problems.
Stage-4 Develop and present the work	The teacher helps her get educated in planning and prepares appropriate work such as news, videos, and models and helps them to share tasks

	with her friends.
Stage-5 Analyze and evaluate the troubleshooting process	Teachers help them to reflect or validate their investigations and the processes they use.

Source: Sugiono (2015)

Each school has different minimum completeness (KKM), based on the experience of the researcher in SMA N 1 Darul Imarah, it need 75 score minimum completeness for English subject. Data was collected by a test and interview. The test was carried out three times in writing. The first test was conducted before students were given action, namely before the Problem base Learning method was applied. This test is intended to determine the student's understanding in english especially application letter. The second and third tests were carried out after the application of the Problem Based Learning method. This test is intended to determine the improvement of students' understanding after implementing the Problem Base Learning method. In this test students are assigned to make Application Letter with attention to language in expressing ideas, spelling and punctuation, and choosing the right words. The students' writing test was scored based on five aspects namely: content, organization, vocabulary, grammar and mechanics. It is obvious that the issue of being subjective appears in scoring the students' writing.

The scores of all the tests in this study are set in the frequency distribution analyzed using mean. This statistical formula is recommended by Hadi (2003: 272).

The mean (M):

$$M = \frac{\sum x}{N}$$

Explanation:

M = Mean

$\sum x$  = Sum of score

N = Number of sample

Then to find out the weather the differences between pre-test and post-test is significant, the writer used the following T-score formula as suggested by Bungin (2005).

$$t = \frac{Md}{\sqrt{\frac{\sum d^2}{N(N-1)}}}$$

Explanations:

Md = D divided by N

D = Score treatment II-score of treatment

N = Number of Sample

Finally, to test the hypothesis, the writer compares the result of the statistical analysis above to limit the score based on Bungin, (2005) statement:

1. If the researchers' results are higher than or as high as the score limit in the score measurement table, it means that the difference is significant and the hypothesis is accepted.
2. If the researchers' results are lower than the score limit in the t-score measurement table that means the difference is not significant and hypothesis is rejected.

This research will use indept interview where it deploy a small number interviewee to explore their perspective on particular idea and situation (Devania:2015). The interview done with one of the expert english teacher at SMA N 1 Darul Imarah, namely Arziah. An interview is an interaction among observer to share knowledge and experiences through questions and answers in order to emphasize the meaning of a particular subject. This study, again clarified by Sugiono (2015), will identify the problems to be discussed as well as problems related to the research. According to StatisticsSolutions, There are three types of interviews: unstructured, semi-structured, and structured.

Firstly, unstructured interviews are those in which only a few, if any, interview questions are asked. It always proceed in the same manner as a regular discussion, but it is about the study subject under consideration. Researchers use it to create familiarity and comfort with participants in a relatively informal interview format, (StatisticsSolution:2017).

Secondly, semi-structured interviews: These are interviews that use an interview protocol to help guide the researcher through the interview process. Although there are some conversational elements to this, it is mainly a driven discussion between the researcher and the participant. It retains some structure (hence the term semi-structured),



but it also enables the researcher to examine the respondent for additional information, (StatisticsSolution:2017).

Lastly, Structured interviews: These are interviews in which the interviewer is specifically driven by an interview procedure. Only the questions on the interview protocol are answered, making it a more rigid interview type. As a result, there are few opportunities to explore and further discuss issues raised by participants in response to interview questions, (StatisticsSolution:2017).

## **RESEARCH FINDINGS AND DISCUSSION**

The data obtained by researcher from pre-test and post-test using problem based leaning method in the process of students understanding, researcher used the test as an instrument in collecting data given to students of class XII IIS<sup>1</sup> in SMAN 1 Darul Imarah, which consisted 16 students.

In this section, the researcher revealed the students' understanding which could saw from their ability in pre-test by using repetition problem based learning method. The researcher presented and analyzed the collected through pre-test which were administrated to 16 students.

Furthermore, the researcher also showed the results of post-test after using problem based learning method in learning. Based on the mean of post-test, the researcher concluded that the students' speaking ability at XII IPS<sup>1</sup> in SMAN 1 Darul Imarah after using problem based learning method was totally increasing by referring to the table achievement. The result of analyzing the data by using the method shown that the coefficient from 56,25 to 85. It means that there was as improvement on their speaking ability. The researcher provided the table about the list of pre-test and post-test total score to make easier in identifying mean of pre-test, mean of post-test and T-test. The table was as follow:

**Table 2.** Grade XII-IPS<sup>1</sup> students' score at SMAN 1 Darul Imarah by applying Problem Based Learning method.

No.	Name	Pre-test	Post-test	Ket
1.	AF	50	90	Succeed
2.	AT	60	100	Succeed
3.	DWM	45	70	Fail
4.	DZ	50	70	Fail
5.	FM	45	60	Fail

6.	JA	70	100	Succeed
7.	M	60	80	Succeed
8.	MHM	55	90	Succeed
9.	MC	60	100	Succeed
10.	MSM	35	50	Fail
11.	MS	50	90	Succeed
12.	NW	45	80	Succeed
13.	RO	80	100	Succeed
14.	SA	75	100	Succeed
15.	SA	50	80	Succeed
16.	TA	70	100	Succeed

According to the table, there were 16 students done pre-test and post-test. Three students were failed and 13 were succeed. Even if some students got score 70, but they still failed because cannot achieve standard minimum completeness 75 at English subject. Based on the result of the statistical computation using T-test, the result shown that there is significant differences between pre-test and post-test score. The result of t-test was 9,95. If the t-test was compared to t-table with degree of freedom 16 as stated in hypothesis testing, the t-test was higher than the t-table 1,75. Therefore, based on the hypothesis testing, the Ha was accepted and the Ho was rejected, the theory was verified. It means that the use of problem based learning method to improve students' understanding is effective for teaching.

From the results of interviews conducted by researchers with the class teacher concerned, namely Arziah, S.Pd. on learning tools, learning processes, learning strategies or learning media as well as student learning outcomes during English learning. During this time M.s Arziah's made learning tools before teaching. She uses direct learning with teacher center as a method. This makes students less active in the learning process, because the learning process is more focused on the teacher. Often the students feel bored during the learning process, some are sleepy, crowded with their classmates, some are paying attention but not focusing, so only a few students can receive the explanation given by the teacher. This is very influential on students' learning outcomes. Ms. Arziah also explained the learning outcomes of grade III students in English language lessons there are still many students who are considered less than maximum in achieving a

predetermined KKM score of 70. Of the 34 students, only 7 students can be said to be complete, with a percentage of 33.34%

From the information presented above can be concluded that teacher center is not effective in students, which is not make students active in the class and only focusing on the teacher. As for the results of student interviews after the implementation of cycle I and cycle II shows an increased interest in students to conduct learning using problem-based learning strategies. Therefore, it need problem based learning method which is focusing on student in learning to increase their motivation at the end of the day.

### ***CONCLUSION AND SUGGESTION***

Based on the result of analysis, some conclusions are drawn as follow: First, the students' ability in pre-test is generally low. It can be seen from the score obtained by the students before using problem based learning method by the teacher that from 16 students they only got score 56,25. Second, the students' ability in post-test by using problem based learning method in learning better than pre-test. It shown from the score obtained by the students after using problem based learning method by the teacher from 16 students, they got score 85. The last, Problem based learning method is effective to increase students' understanding in learning at class XII-IIS<sup>1</sup> in SMA N 1 Darul Imarah. The total score after applying problem based learning method in teaching learning process was higher than before. It means that there was an improvement of students' speaking ability by using problem based learning method.

Problem-based learning is a learning model in which students work on authentic problems with a view to crafting their own knowledge, developing higher levels of research and thinking skills, developing self-reliance, and confidence. Problem-based learning models have the characteristics of asking questions or problems, focusing on inter-disciple interrelationships, authentic investigations, product research and exhibiting them and collaboration. Problem-based learning consists of 5 main steps that begin with the teacher introducing the student to a problem situation and ending with the presentation and analysis of the student's work.

Based on the conclusions of some suggestions that can be given about the implementation of PBL as follows:

1. Teacher

When implementing the PBL model in the classroom, the teacher must plan and prepare the implementation of PBL ahead of time, as well as choose appropriate materials. Because not all materials are compatible with PBL. After that, teachers must write a guide outlining the procedures of PBL, the activities that will be carried out, the implementation schedule, and the equipment that will be required. As a result of this advice, the instructor will find it easier to socialize with students, and students will have more time to study before PBL begins.

## 2. School

Provide instructors with knowledge and insight into the application of the PBL paradigm in the school practical learning. As a result, the instructor may select the appropriate learning model based on the features of the content to be taught. As a result, the occupational practice learning process improves.

## 3. Student

Problem Based Learning is important to use for students' improvement. When the teacher gives material with PBL method, they need to think hard and find the answer by themselves. Therefore, the students need to study before started to learn at school.

## 4. Researcher

It is intended that other researchers who read this research and wish to produce future discoveries would be able to conduct research using PBL on learning competence standards that are similar to others, and with a larger research sample, so that the results will be more wide and generalizable.

## DAFTAR PUSTAKA

- Amir, Taufiq. 2009. Inovasi Pendidikan Melalui Problem Based Learning. *Jakarta: Kencana Prenada Media Group.*
- Hassoubah, Z. I. (2004). Developing Creative & Critical Thinking : Cara Berpikir Kreatif & Kritis. *Bandung : Nuansa.*
- Komalasari, Kokom. 2013. Pembelajaran Kontekstul : Konsep dan Aplikasi. *Bandung : PT Refika Adiatama*
- Nafiah, Y. N., (2014). Penerapan model problem-based learning untuk meningkatkan keterampilan berpikir kritis dan hasil belajar siswa. *Jurnal pendidikan vokasi, 4(1).*
- Nuraeni, Siti. (2016). Penerapan model problem based learning dengan tipe webbed untuk meningkatkan motivasi dan hasil belajar siswa. *Skripsi(S1) thesis, FKIP UNPAS*
- Pratiwi. V. D, Wurdayani, W. (2020). The application of the problem based learning model to improve their critical thinking and the result in learning. *Jurnal pendidikan Indonesia, 9(3).*
- Sugiyono. 2015. Metode Penelitian Pendidikan. *Bandung : Alfabeta*
- Wardani. 2007. Penelitian Tindakan Kelas. *Jakarta: Universitas Terbuka KTSP SD/MI 2011*
- Yuhelni, (2015). Penerapan Metode Pembelajaran Problem Solving dan Think Pair Share (TPS) terhadap Kemampuan Berpikir Kritis ditinjau dari Kemampuan Awal Siswa. *Jurnal pendidikan Indonesi, 7(2).*