

**The Effectiveness of Problem Based Learning Model to Improve Students'
English Learning Outcomes at Ban Klongrua School, Thailand**

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ABSTRACT

This research aims to determine the effectiveness of the Problem Based Learning model on English learning outcomes for Class IV Ban Klongrua School Krabi, Southern Thailand. This type of research is pre-experimental research in the form of one group pretest posttest, namely an experiment. The experimental research unit was fourth grade students at Ban Klongrua School Krabi, Southern Thailand. The results of descriptive statistical analysis of English learning outcomes using the Problem Based Learning Model show better results than before using the Problem Based Learning Model. The results of inferential statistical analysis using the t-test formula show that the calculated t value obtained is 2.79 with a frequency of $dk = 10 - 1 = 9$. At the 5% significance level, the t table value = 0.45. So, $t_{count} > t_{table}$ or $2.79 > 0.45$. This proves that the application of the Problem Based Learning model in English learning has an influence so that it can be said to be more effective than before the use of the Problem Based Learning Learning Model.

Key words: Problem Based Learning; English Learning Outcomes

INTRODUCTION

Education cannot be separated from the most important core activity, namely learning. The effectiveness of learning really depends on the accuracy of the strategy, learning model or method used. In the learning process, educators have a very important role and are the key to success in the teaching and learning process itself. Where educators are the ones who prepare learning designs, carry out learning and assess learning outcomes. Therefore, the teaching and learning process

is delivered using various learning models, making it easier for students to understand the learning being delivered so that students are motivated to learn. It is necessary to use learning models that are able to increase students' learning activities in the learning process (Meilasari et al. , 2020)

The teaching and learning process or learning is expected to improve student learning outcomes. So in this case a learning model is needed that can make students more active in participating in the teaching and learning process, one of which is the learning model. Problem Based Learning (PBL) According to Rusmono (2012:74), in the Problem Based Learning Model , students are expected to be involved in the research process which requires them to identify problems, collect data, and use the data for problem solving. Indirectly, Problem Based Learning (PBL) is intended to develop students' learning independence and social skills. Independent learning and social skills can take the form when students collaborate to identify relevant information, strategies and learning resources to solve problems.

This Problem Based Learning learning model places greater emphasis on long-term learning processes, students are directly involved by sharing issues and problems of daily life, learning how to understand and solve real, interdisciplinary problems, and involving students. Based on initial observations, it was found that student learning outcomes were low in the Class IV English subject at Ban Khlongruea School, Thailand. In unstructured interviews conducted by researchers on Tuesday 13 December 2022. In this case it was found that students were less active in the learning process. There are some students who more often ask permission to leave the classroom when the learning process is in progress. There are even students who are often sleepy, indicating boredom in the learning process. When students were asked to explain the material being taught, more than half of the students in the class preferred to remain silent because they did not understand the material being taught. Meanwhile, data was obtained through unstructured interviews with resource persons from class IV teachers who achieved the Minimum Completeness Criteria (Minimum Score 70) in the English subject. The students used as research samples were 10 students. If entered in percentage form, the percentage obtained is 20.8% reaching the Minimum Completeness Criteria and 79.1% which is below the Minimum Completeness Criteria. So researchers are interested in research using the Problem Based Learning learning model where the model aims to encourage students to learn through various real problems in everyday life which are linked to the knowledge they have or will learn.

LITERATURE REVIEW

Previous Related Study

Prior to this research, there had been several studies or writings that had been carried out by several researchers discussing the effectiveness of the problem based learning model on students' English learning outcomes. Relevant research is used

as a reference and point of reference in conducting research related to performance comparisons based on teacher professionalism. Existing research includes:

1. Experimental research by Rustinah (2019) with the title "Effectiveness of the Problem Based Learning Model on Social Studies Learning Outcomes for Class V Students of SDN SUNGGUMINASA III Gowa Regency". Shows that the Problem Based Learning learning model influences intellectual development and improving student learning outcomes.
2. Experimental research by Putri Dewi (2018) with the title "The influence of the Problem Based Learning learning model on the PKN learning outcomes of class IV students at SD Inpres Minasa Upa, Makassar City". Shows that PKN learning using the problem-based learning model is better than using the conventional model.
3. Experimental research by Sri Wahyuni (2017) with the title "The effect of using the Problem Based Learning model on intellectual skills in PKN subjects for class IV students at SD Negeri 54 Batu Leppa, South Sinjai District, Sinjai Regency". Shows that the problem-based learning model influences the intellectual skills of class IV students at SD Negeri 54 Batu Leppa, South Sinjai District

Shows that there is an increase in learning outcomes through the Problem Based Learning learning model. Based on several relevant researchers' opinions above, it can be concluded that the Problem Based Learning learning model has a great influence on student learning outcomes so that the Problem Based Learning model is very good to use to improve student learning outcomes.

Problem Based Learning (PBL) Learning

The Problem Based Learning (PBL) learning model comes from English which means problem-based learning, namely a learning approach that begins by solving a problem, but to solve the problem students need new knowledge to be able to solve it. The PBL model is a learning model where authentic assessment (real or concrete reasoning) can be applied in a comprehensive manner, because there are elements of finding problems and simultaneously solving them (the elements contained in it are problem posing or finding problems and problem solving or solving problems) Indrianawati (in Rahmat, 2018) Furthermore (Fathurrohman, 2020: 112) " Problem Based Learning (PBL) is learning that uses real (authentic) problems that are unstructured (ill-structured) and open as a context for students to develop problem solving and thinking skills critically and at the same time build new knowledge. Problem Based Learning (PBL) uses real problems as a trigger for students' learning process before they know formal concepts. Students critically identify relevant information and strategies and carry out investigations to solve the problem. By solving these problems, students gain or build certain knowledge and at the same time develop critical thinking abilities and problem-solving skills." The characteristics of the Problem Based Learning model According to Fathurrohman, (2020: 115) Problem Based Learning has the following characteristics: (1) Learning begins with a problem, (2) Ensures that the problem given is related to the real world of students or integration concepts and problems in the real world, (3)

Organizing lessons around problems, not around scientific disciplines, (4) Giving students great responsibility in forming and carrying out their own learning processes directly, (5) Using small groups, (6) Require students to demonstrate what they have learned in the form of a product or performance. This is what will shape students' skills. So, students are taught skills.

PBL is an approach that focuses on the problem-solving process, in this case the teacher gives problems to students so that students can solve the problems given by the teacher, the PBL approach is able to make students more active in critical thinking during the learning process. (Ati & Setiawan, 2020). The conclusion is that Problem Based Learning (PBL) is a learning model that focuses on solving real problems. In PBL, students are invited to actively think critically, carry out investigations, and work together in small groups to solve open problems. This model not only focuses on formal knowledge transfer, but also incorporates the development of critical skills and problem solving. By designing learning around problems, giving students great responsibility, and demanding demonstration of skills through products or performance, PBL contributes to the development of skills that are relevant to the real world. This conclusion is strengthened by the view that PBL stimulates students to become more active and critical during the learning process.

Learning Outcomes

Learning outcomes are a benchmark for measuring the success of a learning process. According to Suprijono (2015: 7) that learning outcomes are changes in overall behavior, not just one aspect of human potential. Learning outcomes are obtained from learning activities in which there is conscious interaction between students and between students and teachers so that a learning experience is formed. This learning experience can be called a learning outcome, learning experience can be in the form of actions, attitudes, skills, knowledge, values.

Learning outcomes according to Mulyasa (2015: 208) In general, learning outcomes will have an influence in two forms: (1) students will have a perspective on their strengths and weaknesses regarding the desired behavior, (2) they will find that the desired behavior has increased either one stage or two stages so that a gap again arises between the current behavioral performance and the desired behavior. This continuity is the dynamics of a lifelong learning process and continuous education. Meanwhile, according to Lindgren (in Thobroni, 2016: 22) learning outcomes include skills, information, understanding and attitudes. The learning outcomes obtained between students and others are not the same, this is because there are factors that influence it. Learning outcomes include skills, information, understanding and attitudes.

According to Kingsley (in Kurniawan, 2014: 15-16), learning outcomes differentiate student learning outcomes into 3 types, namely: 1) skills and habits, 2) knowledge and understanding, 3) attitudes and ideals. Bloom et al classify learning

outcomes into 3 parts, namely cognitive, affective and psychomotor. Meanwhile, Gagne classifies 5 categories of learning outcomes that want to be formed from the learning process, namely: 1) intellectual skills, 2) cognitive strategies, 3) verbal information, 4) movement skills, and 5) attitudes. In addition Patty, Wardani, & Nurteteng (2023) states that learning outcomes is the result of students effort in gain the knowledge about something that has been learned.

However, this research is limited to cognitive learning outcomes only. The cognitive domain is related to results in the form of knowledge, abilities and intellectual skills. Knowledge here is defined as the activity of remembering or recognizing information that has been studied previously. Comprehension is the ability to obtain the meaning contained in the material. Cognitive learning outcomes are learning outcomes that are related to memory, thinking or intellectual abilities. In this category, according to Kurniawan (2014: 10), learning outcomes consist of six hierarchical levels, these six learning outcomes in the cognitive domain include: 1) knowledge, 2) understanding, 3) application, 4) analysis, 5) synthesis, 6) evaluation and 7) creativity.

Based on the existing explanation, it can be concluded that learning outcomes are a permanent or permanent change in behavior due to a learning process, where the behavior can be in the form of knowledge, attitudes, or skills. Learning outcomes in this research are only limited to the cognitive domain which are obtained based on the results of the description test.

METHOD

Design and Samples

The type of research used in this research is experimental research carried out using a quantitative approach. Here the variables are still the same but for more than one sample or at different times. According to Sugiyono (2020: 16) Quantitative research methods can be interpreted as research methods that are based on the philosophy of positivism, where the philosophy of positivism is the only valid knowledge, and historical facts that might become objects of knowledge, are used to research populations or certain samples, data collection using research instruments, descriptive quantitative data analysis.

The design used in this research is One Group Pretest and Posttest design. This design can be described as follows:

Table 1. Research Design

Before	Treatment	After
O ₁	X	O ₂

(Source: Sugiyono, 2020)

Information:

O₁ : Initial test before treatment is given (Pretest)

X: Treatment (Providing Problem Based Learning Model)

O₂: Final test after being given treatment (Posttest)

This research will use the Purposive Sampling technique, where Purposive Sampling is deliberate sampling where the sample units contacted are adjusted to certain criteria applied based on the research objectives. The sample in this research was class IV students at Ban Khlongrua School Krabi, Southern Thailand with a sample size of 10 students.

Instruments and Procedures

The data collection technique in this research was carried out in several stages, namely:

1. Observation is a systematic way of collecting data to get to know the personalities of students and teachers in carrying out the teaching and learning process, especially learning English.
2. A test is a technique for collecting data that contains questions to measure the results of an action. The test form used is multiple choice. This multiple-choice test is used to measure the completeness and improvement of students' learning outcomes, which in this research are the results of learning English.
 - a. Initial Test (Pre Test t) The initial test is carried out before giving treatment. The initial test was carried out to determine the abilities possessed by students before implementing the Problem Based Learning Model in class IV English learning.
 - b. Final Test (Post Test) The final test is carried out after giving the treatment. The final test was carried out to determine the results of English learning for class IV students by applying the Problem Based Learning Model.

According to Sugiyono (2017) a research instrument is a measuring tool used to measure observed natural and social phenomena. The research instrument that will be used in the research "Effectiveness of the Problem Based Learning Model on the English learning outcomes of Class IV Ban Khlongrua School Thailand students" is a multiple-choice test. The test is used to determine the description of student learning outcomes before and after implementing the Problem Based Learning Model.

Data Analysis

To analyze the data obtained from the research results, descriptive statistical analysis and inferential analysis will be used in the form of hypothesis testing using the T test. Thus, the steps for data analysis using an experimental model with One Group Pretest-Posttest Design are as follows:

1. Descriptive Statistical Analysis

This descriptive statistical analysis is displayed in the form of average, maximum score, minimum score, percentage and frequency distribution which is intended to describe the characteristics of the respondent's score distribution for each variable.

2. Inferential Statistical Analysis

In using inferential statistics, researchers use statistical techniques t (t-test),

Table 2. English Mastery Standards

Interval Score	Category
90 – 100	Strongly Interested (Very
81 – 89	Interested (High)
72 – 80	Moderate
36 – 71	Uninterested (Low)
0 – 62	Strongly Uninterested (Very

RESULT AND DISCUSSION

Problem Based Learning model treatment, the researcher gave pretest questions to class IV students to determine the results of learning English. Based on the results of research conducted by researchers at Ban Khlongrua School Krabi, Southern Thailand starting on December 9, 2022, data was collected through test instruments so that students' English learning outcomes can be known in the form of grades from class IV Ban Khlongrua School Krabi, Thailand.

The results of observations for meeting I and Meeting II showed that:

- a. Student attendance percentage is 100%.
- b. The percentage of students who pay attention when the teacher explains the material is 9%.
- c. The percentage of students who carry out negative activities during the learning process (playing around, being noisy) is 1%.
- d. The percentage of students who work on the practice questions given is 100%.
- e. The percentage of students who asked about material they did not understand was 7.5%.
- f. The percentage of students who work together and participate in groups is 6.5%.
- g. The percentage of active students responding to teacher questions was 8%.
- h. The percentage of students who were able to conclude the learning material at the end of the lesson was 8%.

Thus, it can be concluded that the activities of Class IV Ban Khlongrua School Thailand students in implementing the Problem Based Learning Model in English language learning can be categorized as effective. The effect of implementing the Problem Based Learning Model on the English learning outcomes of Class IV students at Ban Khlongrua School Krabi Thailand

In accordance with the research hypothesis, namely "The Problem Based Learning Model is effective in improving English learning outcomes for Class IV Ban Khlongrua School Thailand", the technique used to test this hypothesis is descriptive statistical techniques using the t-test.

Table 3. Analysis of Pretest and Posttest Scores

No.	Student's name	X1 (Pretest)	X2 (Posttest)	d = X2-X1	d ²
1	Huda	75	75	0	0
2	Jirapat	50	80	30	900
3	Jirawat Khlongrua	50	75	25	625
4	Maria	65	100	35	1225
5	Natwaya Bona	70	85	15	225
6	Nihi Munarok	45	90	45	2025
7	Nong Rod	45	85	40	1600
8	Pumada Masosod	70	80	10	100
9	Supach Lamsu	60	80	20	400
10	Wanida Ruwang Cha	45	90	45	2025
Amount		575	840	265	9.125

To find the t table, the researcher used a t distribution table with a significance level of $\alpha = 0.05$ and $db = N-1 = 10-1 = 9$, so we obtained $t_{0.05} = 0.45$. After obtaining $t_{count} = 2.79 > 0.45$, we obtain $t_{count} > t_{table}$ or $2.79 > 0.45$. So it can be concluded that the application of the Problem Based Learning Model is effective on the English learning outcomes of Class IV Students at Ban Khlongrua School Krabi Thailand.

The success of a learning process itself can be said to be effective if there is a change or renewal in behavior. The success of learning depends on several factors, namely: 1) individual factors, namely factors that originate within the student, 2) social factors that influence learning outcomes.

According to Fathurrohman (2020: 112), Problem Based Learning (PBL) is learning that uses real (authentic) problems that are unstructured and open as a context for students to develop problem solving and critical thinking skills and at the same time build knowledge. new.

Learning using the Problem Based Learning Model students are trained to think critically in solving real problems so that intellectual skills can develop. The Problem Based Learning Model is suitable for application in English learning because students' intellectual skills can be developed through problem solving. The Problem Based Learning Model is a model that teachers apply by using problems that exist around students' lives to be used as learning materials or tools. Students can identify problems that occur directly around them so that the knowledge students gain will be more meaningful. Learning that starts from problems that are close to students' lives and is carried out in groups will make students more communicative. In this discussion we will also discuss the results of students' English learning who were taught using the Problem Based Learning Model with Pre-Experimental research type. One-Group Pretest Posttest type design.

Based on the Pretest results, the average score of student learning outcomes was 57, with 10 students not completing and the average Posttest score was 85. So, the results of learning English after implementing the Problem Based Learning Model had better learning outcomes compared to before the Problem Based Learning Model was applied. Based on the results of observations, there were changes in the students. At the beginning of the learning activity there were several students who paid attention when the teacher explained the material. This can be seen at the first meeting of students who pay attention when the teacher explains the material to 8 people. Meanwhile, at the next meeting there was an increase in students paying attention when the teacher explained. At the first meeting there were 2 students who carried out negative activities during the learning process, while at the next meeting there were no more students who carried out negative activities during the learning process.

Observation results showed that many students worked on the questions given and students asked about material they did not understand. Students also begin to actively collaborate and participate in groups and are active in providing responses to teacher questions. So it can be concluded that the application of the Problem Based Learning Model is effective on the English learning outcomes of Class IV Students at Ban Khlongrua School Thailand.

CONCLUSION

Based on the results of research on the implementation of learning using the Problem Based Learning Model in English for Class IV Students at Ban Khlongrua School Thailand as follows:

1. In general, the learning outcomes of Class IV students at Ban Khlongrua School Krabi Thailand before implementing the Problem Based Learning Model were categorized as very low. This is shown by the percentage of student learning outcomes, namely 79.17% and there were 9 students who did not complete.
2. The data obtained in general are the learning outcomes of Class IV students at Ban Khlongrua School Krabi , Southern Thailand after implementing the Problem Based Learning Model. The effect on the learning outcomes of Class IV students at Ban Khlongrua School Krabi , Southern Thailand can be seen from the percentage obtained, namely Very high with a percentage of 10, 00%, 4 students are in the High category with a percentage of 40.00%, 5 students are in the Medium category with a percentage of 50.00%.
3. Hypothesis testing has been carried out that the application of the Problem Based Learning Model is effective in improving the English learning outcomes of Class IV Students at Ban Khlongrua School Krabi , Southern Thailand after obtaining $t_{count} = 2.79$ and $t_{table} = 0.45$, then we get $t_{count} > t_{table}$ or $2.79 > 0.45$.

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