

# IMPROVING SPEAKING SKILL THROUGH PROBLEM-BASED LEARNING

(A quasi experimental research on the fourth semester students of English Department at IAIN Ponorogo)

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**Abstract:** This study is aimed to find the effect of using Problem-Based Learning on Speaking Ability of the fourth semester students of English department at state institute of Islamic Studies (IAIN), Ponorogo. The study was an experimental research. It can be interpreted as the way to find the relation of cause-effect (causal relation) between two factors or to find the effects of a treatment. There were two classes: experiment class and control class. This research was conducted based on quasi-experimental design because the sample of the study (control and experimental class) is not randomly chosen but from the existing class. Based on the research conducted, the calculation of t-test in post-test scores shows the result of the research that experimental group got higher score than the control group score. In other word, the t obtain (2.674) is higher than t critical (1.879) meaning that the null hypothesis is rejected. It means that there is significant difference of means between experimental group that was given Problem-Based Learning treatment and control groups that was not. In other words, having been treated by Problem-Based Learning, students have a significant improvement of their speaking skill. Problem-Based Learning has some advantages. Problem-Based Learning can facilitate the students to improve their speaking ability through problem solving activity. Problem-Based Learning also gives the students the opportunity to explore their own knowledge. It also gives the students the chance to improve their critical thinking, creativity, and imagination during the problem solving activity.

**Keywords:** *Problem-Based Learning, Speaking Skill, Experimental Study.*

## INTRODUCTION

Teaching English in the university is different from teaching English in elementary and junior high school. The students in the university are categorized as adult learners, whereas the students in junior and elementary school are categorized as young learner. The students in university are more responsible and dynamic, so they need challenging activities which are suitable for their age. Therefore, it is recommended to use appropriate methods and activities to teach them; the methods and activities which are more appropriate and more challenging for them.

In English teaching, there are four skills learned; listening, speaking, reading, and writing. Among four skills, speaking seems intuitively difficult to master, as the writer have found in the pre-research that the students in State Institute of Islamic Studies (IAIN), Ponorogo who have good score in English lesson including grammatical, listening, and writing skill, they are lack of speaking ability even though they have good capability in almost all aspects of English language skills. Their lack of speaking ability can be seen through their performance in speaking class. They do not want to talk a lot even though they have sufficient skills and ability of language; they are not enthusiastic and passionate in speaking activity; they are also reluctant to give speech and to speak. It is because they are less motivated in teaching and learning process; the activity which is set up like simple conversation, discussion, and role play is less challenging for them. They need more challenging activity which is suitable with their level and knowledge.

From the case above the writer conducted the experimental research about the influence of PBL (Problem Based Learning) on students' speaking ability at State Institute of Islamic Studies

(IAIN), Ponorogo. We chose Problem Based Learning because it is considered as an instructional method which is suitable to stimulate the students' motivation in speaking learning process. It might stimulate the students' motivation because PBL gives the opportunities to the students to develop their critical thinking, creativity, and imagination. It will also give the students the opportunities to explore their knowledge. The use of problem solving activities (moral dilemmas) will be more successful with the higher-level students, according to Urr:

*"Solving problem is particularly suitable for people who are themselves adolescents, or involved with adolescent education, and is intended for fairly advance learners. It usually works well, producing a high level of participation and motivation".<sup>1</sup>*

PBL is a student-centered learning; students themselves will figure out knowledge by relating the concepts and the facts of the information, not by receiving information passively. PBL is an instructional method that encourages the development of creative thinking and creative problem solving which is challenging for the students in high level like State Institute of Islamic Studies (IAIN) students. The term creative problem solving was coined by Osborn (1963) and defined as comprising just three stages: (1) fact finding, including identifying a problem and gathering facts, (2) idea finding, and (3) solution finding, including evaluating and implementing ideas.<sup>2</sup> The use of problem solving activity (real life problem) might be more challenging for the senior high school especially at SMAN 1, Sidoarjo.

### *Speaking*

Among four skills of language teaching, speaking should be the primary objective in language teaching. It is due to the fact that most of the students are hoped to be able to communicate with foreigner, get a good job, and continue their study.

Good speaking activities can and should be highly motivating. If all the students are participating fully and if the teacher has set up the activity properly, the students will get tremendous satisfaction from it. Many speaking tasks (role-play, discussion, problem solving etc) are intrinsically enjoyable in themselves.

According to Nunan, *"Speaking ability is the competence of the students to convey information, express ideas, thoughts, feeling and reaction in appropriate structure, speech sounds, appropriate vocabulary according to situation and subject matter, and uses the language fluently."*

There are also some characteristics of a successful speaking activity:

- 1) *Learners talk a lot.* As much as possible of the period of time allotted to the activity is in fact occupied by learner talk.
- 2) *Participation is even.* Classroom discussion is not dominated by a minority of talkative participants.
- 3) *Motivation is high.* Learners are eager to speak because they interested in the topic and have something new to say about it.
- 4) *Language is an acceptable level.* Learners express themselves in utterances that are relevant, easily comprehensible to each other and of an acceptable level of language accuracy.

In teaching and learning process especially for the adolescents or adult learners we have to choose challenging material, topic, and activities. Penny Urr said:

*"A good topic is one to which learners can relate using ideas from their own experience and knowledge.; the ability-grouping topic is therefore appropriate for most schoolchildren,*

*schoolteachers or young people whose school memories are fresh. It should also represent a genuine controversy, in which participants are likely to be fairly evenly divided”*

In speaking learning process, motivation of the students is very important to attract their willingness and abilities in speaking activities, so we have to manage the topic and activities well in order to attract the students’ motivation. Teaching adult learner is different from the child or young learner. They need more challenging activities, and solving problem is particularly suitable for people who are themselves adolescents, or involved with adolescent education, and is intended for fairly advance learners. It usually works well, producing a high level of participation and motivation. In addition, Critical thinking and problem solving skills are best learned, not through books and lectures on traditional subjects, but through experimentation and successful adaptation in real-life situations.

In the learning process, especially in speaking activities, increasing students’ motivation and reducing their affective filter are very important. We can use problem solving activities through group discussion (co-operative learning) to make the students feel secure and comfortable. Co-operative learning activities are those in which students must work together in order to complete a task or solve a problem. These techniques have been found to increase the self-confidence of students, including weaker ones, because every participant in co-operative task has an important role to play. Knowing that their friends are counting on them can increase students’ motivation.

### *Problem-Based Learning*

The new paradigm of education nowadays shows us the importance of critical thinking and creativity. As Van Tassel-baska said that “Education today in many ways need a new science of dealing with knowledge and information, together with a new art of observation and learning. A future-ready education must change and use problems for learning and infuse creative ways of observation to construct, derive, and create knowledge in students. The thrust of education is to help student construct their own knowledge about the world rather than passively receiving information. Educational programs with creative problem-solving orientations appear to stimulate other creative processes in students”. From the statement above, as a teacher we need good methods and strategies in teaching students. Problem-based Learning is considered as a good instructional method in improving students’ critical thinking, creativity, and communication skill.

PBL is an effective method to improve students’ problem-solving skills. Students themselves will figure out knowledge by relating the concepts and the facts of the information, not by receiving information passively. PBL is an instructional method that encourages the development of creative thinking and creative problem solving. The term creative problem solving was coined by Osborn (1963) and defined as comprising just three stages: (1) fact finding, including identifying a problem and gathering facts, (2) idea finding, and (3) solution finding, including evaluating and implementing ideas.

The problem-based learning (PBL) process essentially consists of the following stages: (1) meeting the problem, (2) problem analysis and generation of learning issues, (3) discovery and reporting, (4) solution presentation and reflection, and (5) overview, integration, and evaluation.

PBL scenarios are characterized by following features:

- 1) *Ill-structured problem*. Most problems, in reality, are confounded with other variables and need to be teased out of the social, emotional, cultural, and environmental contexts.
- 2) *Partial information*. When we encounter problems that are real life, we often have only partial information available to us at first when we try to find a solution.
- 3) *Questions that belong the students*. PBL scenarios are designed to give students the opportunity to become self-directed in their search for solutions.
- 4) *A real problem with a number of plausible solutions*. The ill structured nature of real problems means that often there is more than one solution.

- 5) *Requirement of cooperative group work.* The reality of most problem-solving situations in life is that they are group effort.

What makes problem-based learning unique is its core focus on learning through solving real, open-ended problems to which there are no fixed solutions. Students work alone or in groups first to understand a particular problem and then to find possible solutions to it.

## METHOD

The study was an experimental research. It can be interpreted as the way to find the relation of cause-effect (causal relation) between two factors or to find the effects of a treatment. There were two classes: experiment class and control class. Here, the writer used statistic calculation (quantitative study) to process the data and to take the conclusion of this research. This study was conducted based on quasi-experimental design because the sample of the study (control and experimental class) is not randomly chosen but from the existing class.

This study was intended to show the effect of using problem-based learning implementation on students' speaking ability of the fourth semester students at State Institute of Islamic Studies (IAIN), Ponorogo. This study used experimental and quantitative study because the researcher used numbers to represent the data that were analyzed by statistic method to make a general conclusion. The design of this research used the score from the post test of both classes (experiment class and control class) after the treatment conducted.

The setting of the study is State Institute of Islamic Studies (IAIN), Ponorogo; it is located on Jl. Pramuka 114, Ponorogo. The subject of the study was the fourth semester students of English education department at IAIN Ponorogo. The data of this study was primer data which was collected from the observation and the score of pre-test and post-test. The first data of this study was the result of observation checklist while teaching learning interaction. The second was the students' score of pre-test and post-test.

In this research, data was collected in a form of words and numeric data like the students score of pre-test and post-test. In order to collect the data, the writer used two techniques: the first was observing how the implementation of PBL in teaching speaking using Observation checklist. The second was testing the students' speaking ability before and after the treatment using PBL. The students' scores are analyzed by statistic calculation to make a conclusion whether it improves their speaking ability or not.

The data analysis technique was done to describe the data by classifying one by one based on the topic. The first data are those concerning with the result of observation about the students and teacher's activities during the teaching learning process. The second data was from quantitative data named test score. This analysis used some statistic tests such as the normality test, the homogeneity test, and the differences between means and T-test.

In this study there are two kinds of statistics: descriptive statistic and inferential statistic. Descriptive statistic is statistic used to describe the statistic data but it is not used to make a general conclusion of the research, for example are to measure mean, median, mode, and standard deviation. Inferential statistic is defined as the branch of statistics that is used to make inferences about the characteristics of a populations based on sample data. Unlike descriptive statistics, inferential statistics provide ways of testing the reliability of the findings of a study and inferring characteristics from a small group of participants or people (sample) onto much larger groups of people (the

population). Descriptive statistics just describe the data, but inferential let you say what the data mean.<sup>3</sup>

The data obtained from the post-test and pre-test is analyzed with the t-test calculation which covers the following steps; Testing the normality of distribution test, Computing the homogeneity of the variances test, Computing the t-test by comparing the tobsandtcrit, and the last is Testing the null hypothesis (Ho).

## CONCLUSION

This study was conducted at State Institute of Islamic Studies (IAIN), Ponorogo which is located on Jl. Pramuka 114, Ponorogo. In this study the writer applied Problem-Based Learning in teaching speaking especially in expressing argumentation and opinion. The writer took the students from two classes as the sample, experiment and control class. The writer gave three treatments to each class. The experiment class was treated by Problem-Based Learning whether the control class was not. The real life case or real life problem was chosen as the material of learning process.

Briefly, the writer did the research in a month, there were three times for teaching and learning activities for each group and one meeting for the post test. To measure the students' speaking ability we need rubric assessment. Here are the criteria of speaking assessment:

No	Aspect	Score	Criteria
1	Fluency	10	The student has the ability to talk with normal levels of continuity
		8-9	The student talks with normal levels of continuity but there are some hesitant responses
		7	Utterances may still be hesitant and there are some pauses but are gaining in normal levels of continuity
		5-6	Hesitant responses and there are many pauses in the utterance
		<5	There are many long pauses and often incomplete responses
2	Grammar	10	The student uses appropriate and accurate words and conveys the information clearly.
		8-9	Almost there are no grammatical errors and convey the information given
		7	There are some grammatical errors but the information has clearly meaning
		5-6	There are frequent grammatical error and unclear meaning
		<5	Almost all utterances are in accurate grammar and unclear meaning
3	Context	10	The student gives relevant and contextual responses
		8-9	The student conveys the contextual responses but only in general
		6-7	There are some redundancy responses and irrelevant responses
		<6	No context of the responses and irrelevant responses
4	Vocabulary	10	The student uses an appropriate, varied, and relevant words to the context
		8-9	Almost there are no irrelevant and inappropriate words to the context
		7	There are some inappropriate and irrelevant words to the context but the information still has clear meaning
		5-6	There are less variation of words and there are lots of inappropriate words, but the information still has clear meaning
		<5	There are excessive repetition, inappropriate and unclear information

In conducting the research, the writer applied PBL to the experiment class, while the control class gets the usual treatment. After doing the research, we analyzed and described the data

collected by using statistic test. The statistic tests that we used are the normality test, the homogeneity test, and t test. The summary of the result is as follows:

Table 1: The students' score of speaking test in the experimental and control class

Class	n	$\bar{x}$	SD
Experimental Class	28	16.95	3.455
Control Class	30	14.60	3.457

The table 1 shows that the mean score of the experimental class after the treatment is higher than the mean score of the control group. The t-test formula is applied to know whether there are significant difference results of the two groups. The result of the t-test calculation is described in the following table.

Table 2: The Resume of the t-test result of students' speaking skill

Variables	df	t-observed	t-table	Interpretation
Experimental Class and Control Class	62	2.674	1.879	t-observed > t-table

Table 2 shows that t-observed is 2.674 and t-table is 1.879. It means t-observed is higher than t-table. Consequently, the null hypothesis ( $H_0$ ) stating that "There is no significant effect of using Problem-Based Learning on Speaking Ability of the fourth semester students of English department at State Institute of Islamic Studies (IAIN) Ponorogo in the academic year of 2017/2018" was rejected. On the contrary, the alternative hypothesis ( $H_1$ ) stating that "There is significant effect of using Problem-Based Learning on Speaking Ability of the fourth semester students of English department at state institute of Islamic Studies (IAIN) Ponorogo in the academic year of 2017/2018" was accepted. Thus, it can be stated that Problem-Based Learning significantly affected the speaking ability of of the fourth semester students of English department at state institute of Islamic Studies (IAIN) Ponorogo in the academic year of 2017/2018.

In this study, Problem-Based Learning has some advantages and disadvantages for the fourth semester students of English Department. The advantages are that Problem-Based Learning can facilitate the students to improve their speaking ability through problem solving activity. Problem-Based Learning also gives the students the opportunity to explore their own knowledge. It also gives the students the chance to improve their critical thinking, creativity, and imagination during the problem solving activity. The real life problem which was treated to the students in the learning process using Problem-Based Learning gave them the stimulation to search, to learn, and to convey opinion and argumentation passionately without any fear in making mistakes because there is no fix answer for the real life problem. The disadvantages are that Problem-Based Learning needs more deep thinking of the students to solve the problem, so in some cases it can make the students difficult to speak or to express their idea because they have no sufficient data to support their idea.

There are several points that can be described in the study. The first point is that the use of Problem-Based Learning is effective to improve students' speaking ability. It can be seen from the data obtained in this study. Data from the speaking test shows that there is an improvement on the students' speaking score. The calculation of t-test in post-test scores shows experimental group got higher score than the control group score. In other words, the t obtain (2.674) is higher than t critical (1.879) meaning that the null hypothesis is rejected. It means that there is significant difference of means between experimental group that was given Problem-Based Learning treatment and control

group that was not. In other words, having been treated by Problem-Based Learning, students have a significant improvement of their speaking skill.

The second point is that Problem-Based Learning has some advantages and disadvantages. The advantages are that Problem-Based Learning can facilitate the students to improve their speaking ability through problem solving activity. Problem-Based Learning also gives the students the opportunity to explore their own knowledge. It also gives the students the chance to improve their critical thinking, creativity, and imagination during the problem solving activity. The real life problem which was treated to the students in the learning process using Problem-Based Learning gave them the stimulation to search, to learn, and to convey opinion and argumentation passionately without any fear in making mistakes because there is no fix answer for the real life problem. The disadvantages are that Problem-Based Learning needs more deep thinking of the students to solve the problem, so in some cases it can make the students difficult to speak or to express their idea because they have no sufficient data to support their idea.

Having accomplished the study, there are some suggestions to propose. The suggestions are aimed to the practical development, professional development, and theoretical development. Dealing with the practical development it is much better to conduct the study of using Problem-Based Learning not only in speaking skill but also in other skills like writing, reading, and listening skills.

In addition, regarding with professional development, the teachers are demanded to have certain competencies. Those are, first, they should be able to select various kinds of topics which suit the learning objectives and students, needs and interests. Second, the teachers also should have capability in designing and presenting the materials to the students. As the result, the student will be more interested and easier in comprehending the materials.

The last but not least in line with theoretical development, this study was conducted by using quasi experimental design which employs limited sample; therefore, the result of the research cannot be generalized. For that reason, it is suggested for the next researcher on this technique to involve larger samples. If it is possible, the researcher may occupy true experimental design, thus the result of the research can be generalized and implemented widely. Besides pre-test and post-test, teacher observation and interview as instrument using record teaching-learning process during the treatments can be involved to enrich findings of the next researcher.

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