
THE INFLUENCE OF PROBLEM BASED LEARNING METHOD TOWARD STUDENTS' SPEAKING ABILITY (a Quasi Experimental Research at the Eleventh Class of SMAN 3 Kota Serang)

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ABSTRACT

This research is to investigate of the influence of problem based learning method in speaking lesson which conducted to the objectives. The researcher collects data from 58 students consists of experimental class and control class and using of quasi experimental design with using the instruments were include on three stages are pre-test, treatment, and post-test. Population of the research was the students of 11th Class of SMAN 3 Kota Serang -Banten in Academic year 2015/2016. The sample of research is used class XI IPA 1 as experimental class and class XI IPS 2 as control class. Based on the result of the t-test and post test the students had lacked in speaking ability But, after they got the treatment, they had significant process in their achievement which is based on the calculation of t-test: 6,4 and t-table: 2,04. The researcher found that t-test was higher than t-table ($6,4 > 2,04$) therefore, in the calculation of percentage toward students' speaking progress between pre test and post test that was 35,2 %. It is can be concluded there was a significant influence in the using problem based learning method toward students' speaking ability.

Keywords: *Influence, problem based learning, students' learning speaking*

INTRODUCTION

Language is a tool for the peoples that to use in interacts and communicates. Peoples are using the language with have many purposes and needs, especially in the using of English language. As we know that English language has been known by the many people as an international *language*, it seen in the several perspectives of the uses till now. Language itself is almost used in the several countries also; to use in interacting in what peoples speaking consists on many aspects.

Learning English is needed to master a grammatical rule with have to understand the context of the speaking. The learners are will be able to understanding of the case or the subject in the speaking content that self by learning English language. The researcher was found several problems in the place of research; the population of research are not confidence

to speak English language, in the grammatical rules and sentence structure is still much poor. As had been observed by the researcher that there are some students are not memorize the vocabulary which given by the teacher where students were cannot predict the grammatical rules therefore, the researcher is would like to analyze of this study research to conducts it in English speaking learning through applying problem based learning method.

Speaking Contents

Definition of speaking is referring to productive skill which based on oral mode. Speaking is not same like in other skills; speaking skill itself is more difficult to learn than other skills, the involving of speaking itself that is referring in pronouncing the words.

Furthermore, in teaching of speaking that refers to the learners with regard in speaking ability to measure in language comprehension. Its defines of the learners the fluency as one of ability in speaking skill to converses in speaking ability, more than it comprehension speaking skill is must to understand by reading, writing, and practicing in oral language.

Learners need to recognize in three areas of the speaking ,the first is *mechanics* (it is have to seen in the pronunciation, grammar and vocabulary) it is using in the definite word with correcting pronunciation, the second is *functions* (the functions have to pay special attention in the transactional and interactional of speaking) the people will be able to improve the speaking ability by seeing transactional in speaking and interacting and the last one is *social culture norms* (including in turn taking of speaking, rate of speech, pauses between the speaker and relative roles of the participants).

The Characteristics and principles of Speaking in Communicative Competence

David Nunan has been stated that (1999:226) Speaking is a form of the communication in oral skill. Communication is one important way with has the function to converse in speaking. Speaking was referred in conversational interactive, collaborative, and reflective approach. Communicative competence has several characteristics in speaking ability based on the mastering of the vocabulary and syntax.

According to Sandra Savignon in David (2011:39) that he was conducted in the improvement of the model skills communication that the speaking communicative competence has several essential characteristics, one of it is dynamic exchange in linguistic competence therefore, the communicative competence is improving students' speaking ability and improving students' writing ability.

Douglas (2001:275) was defined that there are some the principles in design of techniques that to develop in student's speaking ability on learning speaking that as follows: 1) Use in several techniques of learner needs that covered in the spectrum, in language focus based on accuracy to give the message-based focus on interaction, meaning, and fluency. 2) Motivate the techniques in providing intrinsically, 3) Encourage in meaningful context in authentic language, 4) Provide in appropriate feedback or in correction, 5) Capitalize of speaking and learning in natural link 6) Give students opportunities to initiate in oral communication, 7) Encourage in development of speaking strategies.

Microskills and Macroskills of Speaking

The microskills refer to producing in smaller chunks of language such as phonemes, morphemes, words, collocations and phrasal units. Douglas (2004:142-143) has been stated, these are: 1) Produce among English phonemes and allophonic variants, 2) Produce the chunks in different length language, 3) English stress pattern is produced and stressed in word and position It is not stressed in rhythmic structure and intonation contours, 4) Word and phrases is produced in reduce form, 5) Accomplish of pragmatic purpose and use an adequate number of lexical units, 6) Produce fluency speech in different delivery rates.

While for macroskills have to authority in speaking, like answer the questions of speaking or in utterance. This is used in the context which according in situation needed and noticed in a situation connected in sociolinguistic scope. As a purpose that people can be interpreting the words meaning and it to be corrected of convey in culturally specific reference.

The Assessment of Speaking

It was adopted by Jack (2002:222)

Conversational of English Proficiency Weighting Table								
Proficiency D		1	2	3	4	5	6	Total
Accent		0	1	2	2	3	4	
Grammar		6	12	18	24	30	36	
Vocabulary		4	8	12	16	20	24	
Fluency		2	4	6	8	10	12	
Comprehension		4	8	14	15	19	23	

Conversational English Proficiency Conversation Table	
Total Score	Level
16-25	0+
26-32	1
33-42	1+
43-52	2
53-62	2+
63-72	3
73-82	3+
83-92	4
93-99	4+

From the table above the researcher calculate total of table conversational of English proficiency ratings. After that, table of conversational English proficiency is converted to mark of speaking calculation that to find out the classification in speaking ability.

Mark	Block letter	Classification
82-99	A	Very good
65-81	B	Good
50-64	C	Enough
33-49	D	Bad
16-32	E	Very Bad

The Nature of Problem Based Learning

Problem based learning is a teaching and learning put in problem first and conducted in the context of problem for learning further. As Barrows in Erik (2003: 657) stated that PBL is on a myriad of pushed definition in part, by necessity the establishment to refine their particular approach.

The MC master- maastric and Aalborg in Erik (2003: 657) shares that PBL model is judging in several characteristics feature, one of part that theoretical problem based on problem analysis with have the basis process of learning. For students' development PBL method is inspires in students' involvement activities.

Approaching of PBL of students is managing in risk or problem to bring out the answer more in specific area of the solving problem.

Paradigm of Problem Based Learning

Education learning in a process must be changed in *learner centered* not in *teacher centered* namely in centered of the teacher is impressing in traditional method in learning, stated by Ching and Gallow in Erik (2003). The old paradigm is have to changed within teacher impress in every student that they to become most authority in learning and it have to query with the important of PBL paradigm. Approaching of the *teacher centered* include in learning materials and explain theories. Here are the differences of the problem based paradigm learning, as follows:

The Differences of Teacher Centered and Student Centered

Teacher centered	Student centered
<ul style="list-style-type: none"> • Knowledge changed from teacher to learner 	<ul style="list-style-type: none"> • The student build up of knowledge itself.
<ul style="list-style-type: none"> • Learn and assess is set up in separate thing 	<ul style="list-style-type: none"> • Learn and assess is set up in relate thing • learning practice is being incooperative, collaborative, and supporting interdependent
<ul style="list-style-type: none"> • Emphasizing in knowledge based on beyond on context application. 	<ul style="list-style-type: none"> • Emphasize of empower and utilize knowledge with reflect the new issue and old issue and analyzed in real life of problem context.

<ul style="list-style-type: none"> • The teacher role as an extender of information and assessor. 	<ul style="list-style-type: none"> • The student as motivator and as presenter on learning.
<ul style="list-style-type: none"> • Focus on one field discipline 	<ul style="list-style-type: none"> • The teacher and student that evaluated in learning together. • The Approach of integration which is among discipline

The Assessment of Problem Based Learning Method

The assessment of PBL is attempted in a parsing several of variance aggregated outcomes by assessment level. This assessment based on the theoretical framework for generalizing the solving problem into several distinct; in PBL assessment concept is consists in defining, generating and identifying of fundamental construct samples. PBL assessment is a part of integration which facilitated by process in a group by many characters in subject was described before henceforth, the learner is have to improving ability of students' learning. Grady in Taufiq (2006: 94) was formulated in PBL assessment, these are: : 1) Explore the concept in some contexts, 2) Articulate in needs in solving problem (prior or knowledge), 3) Identificate and explore of information and catch on " what we unknown are" by the content, 4) Definite information based on knowledge before, 5) Divide up and examine in the new possibility concept.

METHODOLOGY

Population

The researcher is would like to investigate of the students that to get data of study. In this research that the researcher takes the population as a group of research observation at the eleventh class of SMAN 3 Kota Serang . The population has a total number consist of 30 students every class from 11th of classes which is consist 7 of classes in science class and 4 in social class.

No	Group	Class	Students	Total
1	Experimental	XI IPA 1	29	58
2	Control	XI IPS 2	29	

Method and Design of Research

Method of this research is using in experimental method..Sugiono (2008:107) stated that the procedure of this research is setting up in situation which strength between the variables, because the variables can be chosen and others variables can be influence. The experimental process controlled strictly and these are types of experimental research, as follows:

- 1) Pre experimental
- 2) True experimental research
- 3) Factorial design
- 4) Quasi experimental

Meanwhile, design of research is quasi experimental. Experimental research is one of the precise of methods that to examine of the influence in using problem based learning method toward students' speaking ability. The form of design is consists of pre-test and post-test , Ary (1979: 163) has been stated, those are:

Class	Pre test	Independent variable	Post test
Experiment	Y1	X	Y2
Control	Y2	-	Y2

By using formula from Darwyansyah (2006:33)

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left(\frac{\sum x_1^2 + \sum x_2^2}{N_1 + N_2 - 2}\right) \cdot \left(\frac{N_1 + N_2}{N_1 \cdot N_2}\right)}}$$

$$\text{Mean } \bar{X} = \frac{\sum X}{N}$$

Mean of *experimental*

$$\bar{X}_1 = \frac{\sum X_1}{N_1}$$

Standard Deviation

$$SD = \sqrt{\frac{\sum x^2}{fx}}$$

Mean of *control*

$$\bar{X}_2 = \frac{\sum X_2}{N_2}$$

RESULTS AND DISCUSSION

The Score Pre Test of Experimental Class (Variable x_1)

Score (x_i)	F	$f \cdot x_1$	x_1^2	$f \cdot x_1^2$
3	5	15	9	45
4	9	36	16	144
5	10	50	25	250
6	5	30	36	180
	$N_1 = 29$	$\sum f \cdot x_1 = 131$	$\sum x_1^2 = 86$	$\sum f x_1^2 = 619$

Determining Mean of Variable x_i (Pre Test)

1) Determine Mean of Variable X by Formula:

$$M_{x_i} = \frac{\sum x_1}{N_1} = \frac{131}{29} = 4,5$$

2) Determine of Standard Deviation

$$\begin{aligned} SD &= \sqrt{\frac{\sum f \cdot x_1^2}{fx}} \\ &= \frac{\sqrt{619}}{29} \\ &= \sqrt{21,3} = 4,6 \end{aligned}$$

It can be seen that score 3 have gotten by 5 peoples, score 4 have gotten by 9 peoples, score 5 have gotten by 10 peoples and score 6 have gotten by 5 peoples, and determining of frequency distribution has variation scores, mean of variable is 4,5 and determine standard deviation is 4,6.

The Score Post Test of Experimental Class (Variable x_2)

Score (x_2)	F	$f \cdot x_2$	x_2^2	$f \cdot x_2^2$
4	2	8	16	32
5	3	15	25	75
6	6	36	36	216
7	4	28	49	196
8	9	72	64	576
9	5	45	81	405
	$N_2 = 29$	$\sum f \cdot x_2 = 204$	$\sum x_2^2 = 271$	$\sum f \cdot x_2^2 = 1500$

Determining Mean of Variable x^2 (Pre Test)

- 1) Determine Mean of Variable X by Formula:

$$Mx_2 = \frac{\sum f \cdot x_2^2}{N_2} = \frac{204}{29} = 7,0$$

- 2) Determine of Standard Deviation

$$SD = \sqrt{\frac{\sum f \cdot x_2^2}{f_x}} = \frac{\sqrt{1500}}{29} = \sqrt{51,7} = 7,1$$

From the table above it can be seen the score 4 have gotten by 2 peoples, the score 5 have gotten by 3 peoples, score 5 have gotten by 6 peoples, score 7 have gotten by 4 peoples, score 8 have gotten by 9 peoples and score 9 have gotten by 5 peoples in determining of frequency distribution has variation scores, mean of variable is 7,0 in standard deviation is 7,1. Determining different score of Experimental Class between Pre Test and Post Test by formula:

M

M - M_{x1} =

$$7,1 - 4,6 = 2,5.$$

The average score of Experimental Class Students from Pre test to Post test get increase in amount of 2,5 point.

The Score Pre Test of Control Class (Variable y_1)

Score (y_1)	F	$f \cdot y_1$	y_1^2	$f \cdot y_1^2$
3	10	30	9	90
4	13	52	16	208
5	6	30	25	150
	$N_2 = 29$	$\sum f \cdot y_1 = 112$	$\sum y_1^2 = 50$	$\sum f \cdot y_1^2 = 448$

Determining Mean of Variable y_1 (Pre Test)

1. Determine Mean of Variable y by Formula:

$$My_1 = \frac{\sum f y_1}{N_2} = \frac{112}{29} = 3,8$$

2. Determine of Standard Deviation

$$SD = \sqrt{\frac{\sum f \cdot y_1^2}{f_y}} = \frac{\sqrt{448}}{29} = \sqrt{15,4} = 3,9$$

From the table above it can be seen that score 3 have gotten by 10 peoples, the score 4 have gotten by 13 peoples, then 5 score have gotten by 6 peoples, and determining of frequency distribution have variation scores, mean of variable is 3,8 and standard deviation is 3,9.

The Score Post Test of Control Class (Variable y_2)

Score (y_2)	F	$f \cdot y_2$	y_2^2	$f \cdot y_2^2$
4	5	20	16	80
5	13	65	25	325
6	11	66	36	396
	$N_2 = 29$	$\Sigma f \cdot y_2 = 151$	$\Sigma y_2^2 = 77$	$\Sigma f \cdot y_2^2 = 801$

Determining Mean of Variable y_2 (Post Test)

1. Determine Mean of Variable y by Formula:

$$M_{y_2} = \frac{\Sigma f \cdot y_2}{N_2} = \frac{151}{29} = 5,2$$

2. Determine of Standard Deviation

$$SD = \sqrt{\frac{\Sigma f \cdot y_2^2}{f \cdot y} - \frac{(\Sigma f \cdot y_2)^2}{N_2}} = \sqrt{\frac{801}{29} - \frac{151^2}{29^2}} = \sqrt{27,6} = 5,2$$

Score 4 from table above have gotten by 5 peoples, score 5 have gotten by 13 peoples and score 6 have gotten by 11 peoples; it means there is significant influence from score before, in frequency distribution has variation scores, mean of variable is 3,8 and also determine standard deviation is 3,9 Determining different score of Experimental Class between Pre Test and Post Test by formula:

M_y

$M_2 - M$

$$5,2 - 3,9 = 1,3.$$

The average score of control class students from pre test to post test get increase in amount in 1,3 point.

CONCLUSION

From the findings and discussion series, several conclusions can be drawn, among others:

- 1) The researcher did the process to improve the students' speaking ability at the eleventh class of SMAN 3 Kota Serang at two months which considered of four meeting;
- 2) The alternative hypothesis of research is accepted. Because there is a positive influence of problem based learning method toward students speaking ability at population of research. Based on result of hypothesis of post test, t test is 6,4 and t-table is 2,04. The criteria of two tailed with significance level $Q = 0,05$ is accepted H_a and reject H_0 if t-table $d > t$ test $d > t$ table. It means there is a significant influence of problem based learning method toward students' speaking ability.

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