THE EFFECT OF SCIENTIFIC APPROACH-BASED ENGLISH LEARNING STRATEGY (SABELS) ON THE STUDENTS' READING COMPREHENSION ABILITY AT GRADE TEN OF SMA NEGERI 4 PEMATANGSIANTAR

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ABSTRACT

This research aims to find out the effect of Scientific Approach-Based English Learning Strategy (SABELS) on the students' ability in comprehending and interpreting Recount Text at grade ten students of SMA Negeri 4 Pematangsiantar. This research was designed as a quantitative method with quasi-experimental research design. Seventy students of PMIA 5 and 4 were selected as the participants. The experimental class was treated using SABELS while the control class was not treated using SABELS. The data were obtained through pre-test, treatment and post test. The pre-test was held to know the students' basic ability or score before treatment was given. Meanwhile, the post test was held to know the students' achievement and significant effect after the students were taught using SABELS. The data shows that the difference or the improvement as the whole students got in post test from control to experimental group is 445 or 12,71 point in average. The score of t-test (6,11) is higher than t-table (1,99) at the level of significance 5% for two tailed test, so Null Hypothesis is rejected and Alternative Hypothesis is accepted.

Keywords: Reading Comprehension, Recount Text, SABELS.

I. INTRODUCTION

English as a foreign language in Indonesia has influenced many aspects of life. It has an important role on the intelect, improvement and society as well as used for business, law, trade, and education.

As the international language, English is used by most of people around the world when they communicate to other people from different countries. Because of that, most of the countries in the world conduct the English teaching and learning to their school systems. In Indonesian schools, English is determined as a compulsory subject in the national curriculum. It is taught at the beginning from elementary up to university level.

In English subject, there are four skills that are learned by students, they are listening, speaking, reading, and writing. Reading is one of the skills that should be mastered by students because it is an important aspect of language development. Allington and Strange (1980: 16) said that reading is an active cognitive process that requires the useof graphic (letters) and phonic (sounds) information.

As a matter of fact, reading activity is still a big problem for most Indonesian students as well as many other students who learn English as a foreign language around the globe. Reading comprehension is not as simple as people think to achieve it. When the teacher gives a text to the students to answer several questions based on the text, they possibly cannot answer it well if they do not comprehend the text well. It is a fact that comprehending texts is absolutely needed. There are many aspects that must be considered if the teacher wants to successfully conduct the teaching and learning of reading process. One of the important aspects is giving the students a chance to read during the lesson and also make sure that they completely comprehend what they read.

Reading comprehension was a major problem found when teaching practice at grade ten students of SMA Negeri 4 Pematangsiantar. It was a reality that they still had low motivation in reading. They still lacked of knowledge in words meaning and sequence information presented in passages and texts. They could not understand some of the grammatical clues (subject, verb, conjunctions, etc.) and hardly understood the main idea and factual informations explicitly stated within the passages and texts as well as hardly to understand the author's tone and infer the story content. They were only aware if the teacher reminded and motivated them that reading could train their comprehension beside expanding their insight. Without reading skill, they could not make a satisfactory progress in school.

In relation to the problems, it is assumed that the problems were caused by the teachers who used inappropriate teaching strategy to teach the students or they did not use any strategy at all, means they only applied the traditional teaching strategy in teaching the students. Based on the phenomena above, the researcher is interested to SABELS. Scientific Approach-Based apply English Learning Strategy (SABELS) is a strategy designed to make students actively construct their through scientific own knowledge stages. According to Napitupulu, Manalu & Siahaan Scientific Approach-Based (2019),English Learning Strategy is a scientific and inquiry strategy where students act directly either individually or in groups to explore the concept and principles during the learning activities and the teacher's task it to direct the learning process performed by students and provide any corrections to the concept and principles which the students have been obtained. This scientific strategy is also being obliged by the Indonesian Government to all teachers in the country especially English teachers by putting this scientific strategy into the recent national curriculum called Kurikulum 2013. Because the government has noticed recently that with this strategy the teaching and learning process which focused on students' activity will develop the Indonesian school sytem better. Beside that, there are some previous related researches about the implementation of scientific approach, namely Septiana Diah Untari (2017), Ulfatun Nikmah (2017) and Ali Sofyan (2016). Their findings show that there is an effect on teaching reading comprehension using scientific approach.

From the statements and explanations above, this research focuses on the reading comprehension ability of grade ten students of SMA Negeri 4 Pematangsiantar. As we know that there are four levels of comprehension in reading for senior high school level namely; literal, interpretive, critical and creative comprehension. Hence, this research focuses on the literal and interpretative reading comprehension through Recount text.

The result of this research is expected to be useful for additional information that can be applied by English teachers in teaching and practicing reading comprehension ability in their classrooms as well as can be used as the guidance and knowledge to open other analysis relating to reading comprehension.

2.1 National Curriculum of 2013

Indonesia has been implementing the newest curriculum called the 2013 Curriculum or Kurikulum 2013 as a revision of the previous curriculum (KTSP). According to Kemendikbud (2013: 1), the 2013 Curriculum is a curriculum that is able to educate future competency. communication skills, ability to think clearly and critically, ability to consider moral aspects of a problem. It is also said that 2013 Curriculum contains two essential curriculum dimensions that are the first, planning and regulation about the purpose, content, and learning materials, and the second is the methods used for teaching and learning process. 2013 Curriculum is developed from the views of teacher centre into student centre, from the passive and isolated learning process into active and networking learning process, from individual learning into group (cooperative) learning. Sundayana (2015) also said that one's belief and competence to do something determine the effectiveness of mav the implementation of a curriculum. Thus, only the teachers who have been trained to use the new curriculum can implement it well.

2.2 Approach, Method and Technique

In teaching English, there must be an appropriate choice of approach, method, and technique so that the teaching and learning process can be accomplished effectively. According to Anthony (1963) as cited in Richard and Rodgers (1986: 15), an approach is a set of correlative assumptions dealing with the nature of language teaching and learning. It describes the nature of the subject matter to be taught. Method is an overal plan for the orderly presentation of language material, no part of which contradics, and all of which is based upon, the selected approac. A method is procedural. While a technique is implementational-that which actually takes place in a classroom. It is a particular trick, strategem, or contrivance used to accomplish an immediate objective. Furthermore, Gillingham and Stillman (1960) added that approach may be defined as the basic philosophy or belief concerning the subject matter being considered. It is the set of assumptions or point of view held by individuals concerned with their field.

2.3 Scientific Approach-Based English Learning Scientific Approach

II. LITERATURE REVIEW

In accordance with the standard competence of the national curriculum of 2013, Scientific Approach is the appropriate one to achieve the elements above. According to Sudarwan (2013) as quoted in Musfiqon & Nurdyansyah (2015: 38), scientific approach is aimed to give comprehension to students to know, understand, and practice what is being learned scientifically. Furthermore, Ary, Jacob & Sorensen (2010: 8) stated that the scientific approach is generally described as a method of acquiring knowledge in which move inductively investigators from their observations to hypotheses and then deductively from the hypotheses to the logical implications of the hypotheses. Daryanto (2014: 55) added that scientific method generally places a unique phenomenon with a detail and specific study to later formulate a general conclusion.

There are four essential components in teaching using scientific approach based on Mc. Collum (2009) as quoted in Musfiqon & Nurdyansyah (2015: 38), namely:

- 1. Foster a sense of wonder
- 2. Encourage observation
- 3. Push for analysis

Collecting Data	The teaching-learning process that involves experimenting, reading various sources beside textbooks, observing an object and event, doing certain activities, and interviewing an informant.
Associating	The teaching-learning process that involves processing various informations and enriching supporting informations.
Communicating	The teaching-learning process that involves conveying the result of the observation, the conclusion based on the analysis orally, in written, or using other media.

2.4 SABELS

Definition and Concept

Scientific Approach-Based English Learning Strategy (SABELS) is a scientific and inquiry

4. Require communication

Those components above can be described into five teaching practices as follows:

Table 2.1 Teaching Practices in Scientific Approach

Instrument	Description
Observing	The teaching-learning process that involves reading, listening, noticing (with or without equipment).
Questioning	The teaching-learning process that involves asking about the questionable informations from what has been observed to gain more comprehension. The questions can be started from the factual to the
	from the factual to the hypotactic ones.

strategy where students act directly either individually or in groups to explore the concept and principles during the learning activities and the teacher's task it to direct the learning process performed by students and provide any corrections to the concept and principles which the students have been obtained. According to Napitupulu, Manalu & Siahaan (2019), SABELS encourages students to learn English by curiosity. The process of English learning is primarily motivated by their willingness to be able to speak and write in English. They also added that SABELS emerges to answer a challenge from the establishment of newest Indonesian Curriculum (Kurikulum 2013) demanding all learning process should be based on scientific approach.

In line with the basic concept of scientific approach, Napitupulu, Manalu & Siahaan (2019) explained that there are some points to be considered and prepared by English teachers in applying this strategy, such as:

4) Audio-visual media is strongly needed to establish the context of material being learnt. This media is primarily used in the first step of learning process, i.e. observing. Teacher is required to be able to select approprite and relevant videos to the learning goal and material. 5) A prohibition to use any gadgets should not be existed. The use of internet will be very helpful for students to collect any information related to the learning topic. In this case, teacher should be careful in monitoring students' works in their gadgets. Teacher may lead them to access certain sites which are relevant to their tasks. Nevertheless, it will be much wiser, if the school provides secured or trusted network so that the inappropriate contents can not be accessed by the students.

The integration of knowledge, skills, and 6) character is a must in order to encourage students to be productive, creative, innovative, and affective. Knowledge refers to linguistic competence, such as: phonology, morphology, syntax, semantics, pragmatics, and discourse. Skill involves receptive skills (listening and reading) and productive skills (speaking and writing). Character is all positive attitude in communication. Figure 2.1 The Integration of Knowledge, Skills,





7) The distribution of each learning steps (observing, questioning, collecting, associating, and communicating) is not limited to one meeting. Teacher may continue the learning steps in the next meetings. It depends on the level of difficulties of the materials.

Teaching and Learning Process

To achieve successful learning through SABELS, the roles of teachers and students in the teaching and learning process should he determined clearly. In addition to that, Napitupulu, Manalu & Siahaan (2019) explained the sequence of acts for both teacher and students. At first, teacher should be able to establish learning context. This may refer to the use of audio-visual media. After that, teacher gives explanation related to learning material and also assign students to group work. While the students are in group work, teacher is supposed to monitor and assist students in solving problems in the learning process. The last role of teacher is evaluating the discussion results. Students, as the main actors of learning process, should be encouraged to do 5 steps of learning. The first step is observing where students will watch videos of learning material. In the next step, students will have chance to pose some questions related to what they have just watched from the media. After that, they work in group to collect information related to some tasks given. The use of internet is really needed in this step. Next is associating. This step refers to the process of understanding and analyzing information, and also designing the report of discussion. The last step is students report their discussion results in form of presentation. This will encourage students to be more responsible to what they have just learned

Figure 2.2 The Teaching and Learning Process in SABELS



2.5 Reading Comprehension

Reading comprehension is an active process in the construction of meaning and the process of deriving meaning from related text. It involves word knowledge (vocabulary) as well as thinking and reasoning. Boardman, Klinger & Vaughn (2007: 8) defined that reading comprehension is a multicomponent, highly complex process that involves many interactions between readers and what they bring to the text (previous knowledge, strategy use) as well as variables related to the text itself. Nunan (1999: 257) stated that reading comprehension is an interactive process between the reader and the text, in that the reader is required to fit the clues provided in the text to his or her own background knowledge. Heilman (1981: 312) also said that reading comprehension includes the correct assosiation of meanings with word symbols, the selection of the correct meaning suggested by the context, the organization and retention of meanings, the ability to reason one's way through smaller idea segments, and the ability to grasp the meaning of a larger unitary idea.

From the statements, we can conclude that comprehension is a thinking activity to understand a content of the text that be read. Reading will give a benefit if the reader can comprehend what the content of text is.

Components of Reading Comprehension

Comprehension has several components based on the process in reading. According to Heilman (1981: 241), there are several components generally regarded as the significant attempt to delineate and separate comprehension skills in reading.

1. Recalling word meaning (vocabulary knowledge).

- 2. Drawing inferences from the content.
- 3. Following the structure of a passage.
- 4. Recognizing a writer's purpose, attitude, tone and mood.

5. Finding the answers to questions answered explicitly or in paraphrase.

Levels of Reading Comprehension

Comprehension in reading includes several stages or levels. They refer to the degree in which a reader can be categorized as either good or poor reader, full of proficiency or lack of proficiency. According to Heilman (1981: 244), there are four levels of comprehension.

1. Literal Comprehension

Literal comprehension is an understanding the ideas and information explicitly state in the passage. Reading for literal comprehension involves acquiring information that directly states in a selection. Is important in and of it self and is also a prerequisite for higher-level understanding.

2. Interpretive Comprehension

Interpretive comprehension is an understanding of ideas and information not explicitly stated in the passages and text.

3. Critical Comprehension

Critical comprehension includes analyzing, evaluating, and personally reacting to information presented in the passage. Critical readers should be active readers, questioning, searching for facts, and suspending judgment until they have considered all of the materials.

4. Creative Comprehension

Creative level of comprehension requires students to use the highest level of skills. This includes understanding of ideas and information not explicitly stated in the passages or texts. Creative readers must have understanding of a topic and think creatively sbout how to use and apply information to their lives or the real world.

2.6 Recount Text

Recount text is one of the most popular texts learned in grade eighth of junior high school and grade tenth of senior high school. It mostly deals with how someone tells his or her past experience to other people. According to Knapp and Watkins (2005: 220), recount text is basically a written text to make a report about an experience of a series of a related events. Moreover, Hyland (2004: 20) stated that a recount text is a kind of genre that has social function to reconstruct past experiences by retelling events in original sequences. Anderson (2003: 48) added that a recount text is a piece of text that retell past events, usually in the order in which they happened.

From the definitions, we can conclude that recount text is a kind of text that tells about someone's past experience to other people about an information of what, when, where, and how something happened in the series of events chronologically.

Types

Knapp and Watkins (2005) defined that there are six types of recount text based on their purposes. They are as the followings:

1. Personal Recount

Retelling an event that the writer has experienced before by his or herself. It means that the writer actively involved in the actions. The purpose is to inform, entertain the audience.

2. Factual Recount

Recording the details of an event by reconstructing some factual event or information. The purpose is to tell factual information or events.

3. Imaginative Recount

Telling imaginative story relating to the real life. It is also has an imaginary role and create imaginary details by applying factual knowledge or situation in order to interpret recount event or to educate the reader.

4. Procedural Recount

Recorded in an oral or written form, the sequential steps are needed to achieve a result. This kind of recount is written after the completion of a procedure.

5. Critical Recount

Looking at an issue and comments and evaluates the negative and positive aspects. Selected details are included to suit the argument, but this kind of recount may not be sequenced chronologically.

6. Literary Recount

Reflecting and interpreting individual and social activities whether the story is real or imaginary. It can be related to people's daily experience and the purpose is to entertain the audience.

Generic Structures

All good English texts has their own generic structures. It is a point when writers want to create a piece of text. Anderson (2003: 53) stated that there are three structures of a recount text.

1. Orientation

This part provides all the necessary background information of what happened, who was involved, when the events happened, where the events happened, and why it happened. An awareness of audience and purpose will assist the author in selecting the amount of detail needed.

2. Series of Events

This part is where the writer tells how the characters react to the complication. It includes their feelings and what they did to it. The series of events can be told chronologically or with flashback. The audience is given the writer's point of view as well.

3. Reorientation

This is the last part of a recount text. It concludes the recount by summarizing the outcomes of the events, evaluating the topic's importance, and offering personal comment or opinion.

Language Features

A recount text contains several grammatical aspects. According to Anderson (2003: 50), there are some language features of a recount text. They are as the followings:

- 1. Past Tenses
- 2. The Use of Nouns and Pronouns
- 3. The Use of Adjectives
- 4. Action Verbs
- 5. Verbs of 'Being' and 'Having'
- 6. Conjunctions and Word Connectors
- 7. The Use of Adverbs
- 8. Reported Speech

III. RESEARCH METHODOLOGY

3.1 Research Design

This research is a quantitative research design. According to Creswell (2008: 4), a quantitative research is a mean for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures. Furthermore, the data are taken by using experimental design. According to Ary, Jacob & Sorensen (2010: 26), experimental research involves a study of the effect of the systematic manipulation of one variable(s) on another variable. The manipulated variable is experimental treatment called the or the independent variable. The observed and measured variable is called the dependent variable.

Table 3.1. Research Design

GROUP	PRE- TEST	TREATMENT	POST TEST
Experimental	X1	Е	X2
Control	Y1	С	Y2

X1 & X2 : Pre and Post Test in experimental class

Y1 & Y2 : Pre and Post Test in control class E

- : Treatment using SABEL strategy
- : Treatment using conventional strategy С

3.2 Population and Sample

According to Ary, Jacob & Sorensen (2010: 148), population is all members of well defined class of events or objects. In this research, the population is the grade ten students of SMA Negeri 4 Pematangsiantar consisting of 8 classes. From the X PMIA 1 (36), X PMIA 2 (36), X PMIA 3 (34), X PMIA 4 (35), X PMIA 5 (35), X PMIA 6 (34), X PMIA 7 (36), and X PMIA 8 (36) where the population is 282 students.

While the sample of this research is 76. According to Ary, Jacob & Sorensen (2010: 148) sample is a portion of population. In addition, the sample is taken by using the purposive sampling. Cohen, Manion & Morrison (2000: 103) said that in purposive sampling, researchers handpick the cases to be included in the sample on the basis of their judgement of their typicality. In this way, they build up a sample that is satisfactory to their specific needs. So, the sample are tabulated into the experimental and control classes of the grade ten students of SMA Negeri 4 Pematangsiantar.

3.4 Instrument

The instument of this research is a test. According to Ary, Jacob and Sorensen (2010: 201), a test is a set of stimuli presented to an individual in order to elicit responses on the basis of which a numerical score can be assigned. For specifically, this research uses the objective test of multiple choices taken from the National Examination (*Ujian Akhir Nasional*) tests due to this research tries to see the effect of SABELS on the students'

Group	Pre-test	Post test	Improvemen t
Control	75,57	80,14	4,57
Experimenta 1	71,28	92,85	21,57

reading comprehension ability especially in the level of literal and interpretive comprehension.

3.5 Validity and Reliability of Test

The test used in this research is based on the National Examination (*Ujian Akhir Nasional*). All items of the test have been standardized by the Indonesian Government (Ministry of Education and Culture). This means the test is already valid and reliable.

3.6 Data Collection Techniques

This research provides three procedures in collecting the data. They are pre-test, treatment and post-test.

1. Pre-Test

Pre-test is needed as a mean to know how far the students' comprehension about the subject and conducted to find out the result and the students' scores of the test. Both experimental and control classes are provided the pre-test.

2. Treatment

Both experimental and control classes are provided the treatment but with different strategy. After the researcher finds out the problems in the results of the students' tests, the researcher applies SABELS to experimental class. While in control class, the researcher does not apply the SABELS but only the conventional or traditional one.

3. Post-Test

Post-test is given to both experimental and control class. Post-test has the similar questions as in the pre-test. This is used to determine the effect of teaching presentation using SABELS in the experimental class.

IV. FINDINGS AND DISCUSSION

4.1 Total Score of Pre and Post Tests

The total score of the experimental class in pre-test was 2495. Here, it can be calculated that the average score (mean) they got was 71,28.

Then, in post test, the total score was 3250 where the average score was 92,85.

While the total score of control class in pre-test was 2645. Here, it can be calculated that the average score (mean) they got was 75,57. Then, in post test, the total score was 2805 where the average score was 80,14.

4.2 Progress of Students' after Treatment

 Table 4.1 Students' Progress after Treatment

4.3 Progress of Students' after Treatment

Chart 4.1 The Progress of both Experimental and Control Class



4.4. The Difference of Post-Test Score in Experimental and Control Class

In experimental class, the total score which the students obtain is 3250 and the average score is 92,85. While in control class, the total score which the students obtain is 2805 and the average score is 80,14. The difference or the improvement as the whole students got in post test from experimental to control group is 445 or 12,71 point in average.

4.5 Variance and Standard Deviation in Experimental and Control Class

The total sum squares of the respondents at the time of administering the post test in experimental class was 1664,29 points. Those points are necessarily required in order to determine the standard variation for post test in experimental class which is in turn compared to the same data at post test in control group. The following is the standard deviation of post-test in experimental group:

$$S^{e} = \sqrt{\frac{\sum d^{2}}{N-1}}$$
$$S^{e} = \sqrt{\frac{1664,29}{35-1}}$$

$$S^{e} = \sqrt{\frac{1664,29}{34}}$$
$$S^{e} = \sqrt{48,9497}$$
$$S^{e} = 6,99$$

While the total sum squares of the respondents at the time of administering the posttest in control class was 3524,286 points. Those points are necessarily required in order to determine the standard variation for post-test in control class which is in turn compared to the same data at post-test in experimental group. The following is the standard deviation of post-test in control class:

$$S^{c} = \sqrt{\frac{\Sigma d^{2}}{N-1}}$$

$$S^{c} = \sqrt{\frac{3524,286}{35-1}}$$

$$S^{c} = \sqrt{\frac{3524,286}{34}}$$

$$S^{c} = \sqrt{103,6554}$$

$$S^{c} = 10,18$$

4.6 Testing Hypothesis

Standard Error of the Difference of Mean:

$$SE (\chi e - \chi c) = \sqrt{\left(\frac{se}{\sqrt{N1}}\right)^2 + \left(\frac{sc}{\sqrt{N2}}\right)^2}$$

$$SE (\chi e - \chi c) = \sqrt{\left(\frac{6,99}{\sqrt{35}}\right)^2 + \left(\frac{10,18}{\sqrt{35}}\right)^2}$$

$$SE (\chi e - \chi c) = \sqrt{\left(\frac{6,99}{\sqrt{5,91}}\right)^2 + \left(\frac{10,18}{\sqrt{5,91}}\right)^2}$$

$$SE (\chi e - \chi c) = \sqrt{(1,18)^2 + (1,72)^2}$$

$$SE (\chi e - \chi c) = \sqrt{1,3924 + 2,9584}$$

$$SE (\chi e - \chi c) = \sqrt{4,3508}$$

$$SE (\chi e - \chi c) = 2,14$$

4.7 Finding out T-Test

$$t_{test} = \frac{\bar{X}e - \bar{X}c}{SE (\chi e - \chi c)}$$
$$t_{test} = \frac{92,85 - 80.14}{2,08}$$
$$t_{test} = \frac{12,71}{2,08}$$
$$t_{test} = 6,11$$

4.8 Finding out Degree of Freedom

T-table at 5% of level of significance is **1,99**

Based on the formula of hypothesis which was designed before, Null Hypothesis is rejected if the t-test is higher than t-table. Referring to this, so the hypothesis could be constructed as follow:

t-test > t-table of 5%

As the score of t-test (6,11) was higher than ttable (1,99) at the level of significance 5% for two tailed test, so Null Hypothesis is rejected and Alternative Hypothesis is accepted.

4.9 Findings

There is a significant effect of using SABELS on grade ten students' reading comprehension ability of SMA Negeri 4 Pematangsiantar. The difference or the improvement as the whole students got in post test from control to experimental group is 445 or 12,71 point in average. The total sum squares of the respondents at the time of administering the post test in experimental group is 1664,29 points where its standard deviation is 6,99. Meanwhile, the total sum squares of the respondents at the time of administering the post test in control group is 3524,286 points where its standard deviation is 10,18. Testing hypothesis showed that t-test (6,11) is higher than t-table (1,99) at level of significance 5% for two tailed test.

4.10 Discussions

After conducting a research at SMA Negeri 4 Pematangsiantar, it is found that there is a significant difference in students' reading comprehension ability between the students who were taught using SABELS and the students who were taught using non-SABELS. The finding of the research indicates that the students taught using SABELS have better achievement on their reading comprehension ability especially on Recount Text than those who taught using non-SABELS.

Several problems and situations faced in applying SABELS like, there were only few students who asked about the text provided in the observing step, students got easily noisy in the collecting data and so was in the associating phase because when they worked in groups they also talked much. In communicating phase, they did not talk really much but still got noisy especially when their group representation presented the discussion results. In addition to that, teachers need to control, check and watch over the students more in order to avoid the noise in the class especially in the collecting data, associating and communicating phases and encourage students to asks various questions about the material being discussed in the questioning phase.

The better achievement gained by the students through learning process in reading, the better comprehension they have upon the texts. By having good reading comprehension ability, the students will have the capability to associate with texts and its components. Finally, it can be concluded that SABELS is appropriate to be applied in teaching and learning process of reading comprehension

V. CONCLUSION AND SUGGESTIONS

5.1 Conclusion

The average scores (mean) of the pre-test in experimental class shows a good result. It is 71,28. The average scores of the post-test changes to a very good result. It is 92,85. As a result, the average scores are improved 21,57 points. Then, it can be drawn a conclusion that the students' reading comprehension ability of the experimental class is increased after treatment. The average scores (mean) of the pre-test in control class shows a good result. It is 75,57. The average scores of the post test also shows a good result. It is 80,14. As a result, the average scores are improved 4,57 point. Then, it can be drawn a conclusion that the students' reading comprehension ability of the control class is increased a bit after treatment. The average score of the post test in the experimental class is higher than the post test in the control class. It is 92,85 in the experimental class and it is 80,14. Then, the difference or the improvement as the whole students got from both of the experimental and control clsses is 445 or 12,71 point in average. It proves that the hypothesis alternative (Ha), "there is a significant effect in using SABELS on the reading comprehension ability at grade ten students' of SMA Negeri 4 Pematangsiantar" is accepted.

5.2 Suggestions

1. For English Teachers

It is important for English teachers to be creative in selecting and applying an appropriate teaching strategy in the classroom in order to have a successful learning process. The use of SABELS in the teaching and learning process of reading comprehension can help students to practice and increase their ability. It is also suggested to English teachers to encourage their students to ask more questions in the questioning phase and watch over the students more when students work in groups in collecting data phase so that the students will not get noisy because it may disturb other classes.

2. For Other Researchers

It is hoped that this study may give contribution to other researchers who are interested in conducting the similar and related research. It is also realized that this research is far from being perfect so that other researchers may add other related theories upon this research from other greater populations and areas. It is suggested to other researchers to conduct the similar research at the schools within remote areas or schools with lack of facilities to support the teaching and learning process and to see the differences as well.

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APPENDIX

1. Students' Scores of Pre and Post Test in Experimental Group

Table 4.1 Pre and Post test Scores in Experimental Group

No.	Students	Pre-test	Post test	Range
1.	AS	70	90	20
2.	BAS	65	100	35
3.	CG	70	80	10
4.	DOM	70	75	5
5.	DWS	70	95	25
6.	DDN	75	100	25
7.	ETD	80	95	15
8.	EPS	70	90	20
9.	EYH	70	95	25
10.	FAN	65	95	30
11.	GEIS	75	95	20
12.	GSS	80	100	20
13.	HSI	70	100	30
14.	IMS	70	100	30
15.	JS	70	85	15
16.	JP	70	100	30
17.	JD	70	85	15

No.				
1.00	Students	Pre-test	Post test	Range
18.	KS	65	100	35
19.	KN	80	90	10
20.	MTG	65	90	25
21.	MSG	70	100	30
22.	NSS	80	90	10
23.	NMM	80	100	20
24.	NAS	75	100	25
25.	NES	70	95	25
26.	OIP	70	85	15
27.	OTMG	70	95	25
28.	RET	80	95	15
29.	RS	70	85	15
30.	SP	65	80	15
31.	SIS	75	100	25
32.	SRHS	70	90	20
33.	SBS	65	90	25
34.	UMS	65	85	20
35.	YSS	70	100	30
	Σ	2495	3250	755
	Mean	71,28	92,85	21,57

2. Students' Scores of Pre and Post Test in Control Group

Table 4.2 Pre and Post test Scores in Control
Group

No.	Students	Pre-test	Post test	Range
1.	APT	75	85	10
2.	APS	85	80	-5
3.	AWP	80	75	-5
4.	AGM	85	80	-5
5.	CES	75	80	5
6.	DPS	80	80	0
7.	DAS	65	70	5
8.	FNS	85	95	10
9.	FMTM	75	75	0
10.	GVS	90	100	10
11.	GGS	80	75	-5
12.	GSW	85	95	10
13.	JCP	65	75	10
14.	JAS	65	75	10
15.	KAM	60	60	0
16.	KGSS	65	75	10

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No.	Students	Pre-test	Post test	Range
17.	LPH	75	70	-5
18.	MWOS	80	80	0
19.	MS	60	70	10
20.	MABB	65	70	5
21.	MH	65	65	0
22.	MHN	65	95	25
23.	PAPP	80	75	-5
24.	RD	65	70	5
25.	RN	80	75	-5
26.	RF	80	85	5
27.	RCNH	75	75	0
28.	SLOS	65	80	15
29.	SYGH	90	100	10
30.	STNS	85	85	0
31.	TP	85	90	5
32.	TG	75	75	0
33.	VLTS	90	90	0
34.	YS	65	80	15
35.	ZTP	85	100	15
	Σ	2645	2805	160
	Mean	75,57	80,14	4,57

3. The Difference of Post Test Score in Experimental and Control Group

Table 4.4 Post Test Scores in Experimental and
Control Group and Its Difference

No.	Post test Experimental	Post test Control	Difference
1.	90	85	5
2.	100	80	20
3.	80	75	5
4.	75	80	-5
5.	95	80	15
6.	100	80	20
7.	95	70	25
8.	90	95	-5
9.	95	75	20
10.	95	100	-5
11.	95	75	20
12.	100	95	5
13.	100	75	25

No.	Post test Experimental	Post test Control	Difference
14.	100	75	25
15.	85	60	25
16.	100	75	25
17.	85	70	15
18.	100	80	20
19.	90	70	20
20.	90	70	20
21.	100	65	35
22.	90	95	-5
23.	100	75	25
24.	100	70	30
25.	95	75	20
26.	85	85	0
27.	95	75	20
28.	95	80	15
29.	85	100	-15
30.	80	85	-5
31.	100	90	10
32.	90	75	15
33.	90	90	0
34.	85	80	5
35.	100	100	0
Σ	3250	2805	445
Mean	92.85	80.14	12 71

4. The Variance and Standard Deviation

a. Variance and Standard Deviation in Post Test of Experimental Group.

Table 4.5 Variance and Standard Deviation in PostTest of Experimental Group

No.	Students	Score	Moon	Difforence	Difference
-		Score	Wiean	Difference	Squareu
1.	AS	90	92,85	-2,85	8,1225
2.	BAS	100	92,85	7,15	51,1225
3.	CG	80	92,85	-12,85	165,123
4.	DOM	75	92,85	-17,85	318,623
5.	DWS	95	92,85	2,15	4,6225
6.	DDN	100	92,85	7,15	51,1225
7.	ETD	95	92,85	2,15	4,6225

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No.	Students	Score	Mean	Difference	Difference Squared	
8.	EPS	90	92,85	-2,85	8,1225	
9.	EYH	95	92,85	2,15	4,6225	
10.	FAN	95	92,85	2,15	4,6225	
11.	GEIS	95	92,85	2,15	4,6225	
12.	GSS	100	92,85	7,15	51,1225	
13.	HSI	100	92,85	7,15	51,1225	
14.	IMS	100	92,85	7,15	51,1225	
15.	JS	85	92,85	-7,85	61,6225	
16.	JP	100	92,85	7,15	51,1225	
17.	JD	85	92,85	-7,85	61,6225	
18.	KS	100	92,85	7,15	51,1225	
19.	KN	90	92,85	-2,85	8,1225	
20.	MTG	90	92,85	-2,85	8,1225	
21.	MSG	100	92,85	7,15	51,1225	
22.	NSS	90	92,85	-2,85	8,1225	
23.	NMM	100	92,85	7,15	51,1225	
24.	NAS	100	92,85	7,15	51,1225	
25.	NES	95	92,85	2,15	4,6225	
26.	OIP	85	92,85	-7,85	61,6225	
27.	OTMG	95	92,85	2,15	4,6225	
28.	RET	95	92,85	2,15	4,6225	
29.	RS	85	92,85	-7,85	61,6225	
30.	SP	80	92,85	-12,85	165,123	
31.	SIS	100	92,85	7,15	51,1225	
32.	SRHS	90	92,85	-2,85	8,1225	
33.	SBS	90	92,85	-2,85	8,1225	
34.	UMS	85	92,85	-7,85	61,6225	
35.	YSS	100	92,85	7,15	51,1225	
$\sum (\mathbf{x} \cdot \overline{\mathbf{X}})^2 = \sum d^2$						
	1664,29					

- b. Variance and Standard Deviation in Post Test of Control Group.
- Table 4.6 Variance and Standard Deviation in Post Test of Control Group

No.	Students	Score	Mean	Difference	Difference Squared
1.	APT	85	80,14	4,86	23,6196
2.	APS	80	80,14	-0,14	0,0196
3.	AWP	75	80,14	-5,14	26,4196

No	Students				Difference
110.	Stutents	Score	Mean	Difference	Squared
4.	AGM	80	80,14	-0,14	0,0196
5.	CES	80	80,14	-0,14	0,0196
6.	DPS	80	80,14	-0,14	0,0196
7.	DAS	70	80,14	-10,14	102,8196
8.	FNS	95	80,14	14,86	220,8196
9.	FMTM	75	80,14	-5,14	26,4196
10.	GVS	100	80,14	19,86	394,4196
11.	GGS	75	80,14	-5,14	26,4196
12.	GSW	95	80,14	14,86	220,8196
13.	JCP	75	80,14	-5,14	26,4196
14.	JAS	75	80,14	-5,14	26,4196
15.	KAM	60	80,14	-20,14	405,6196
16.	KGSS	75	80,14	-5,14	26,4196
17.	LPH	70	80,14	-10,14	102,8196
18.	MWOS	80	80,14	-0.14	0.0196
19.	MS	70	80,14	-10.14	102.8196
20.	MABB	70	80,14	-10,14	102,8196
21.	МН	65	80,14	-15.14	229,2196
22.	MHN	95	80,14	14,86	220,8196
23.	PAPP	75	80,14	-5,14	26,4196
24.	RD	70	80,14	-10,14	102,8196
25.	RN	75	80,14	-5,14	26,4196
26.	RF	85	80,14	4,86	23,6196
27.	RCNH	75	80,14	-5,14	26,4196
28.	SLOS	80	80,14	-0,14	0,0196
29.	SYGH	100	80,14	19,86	394,4196
30.	STNS	85	80,14	4,86	23,6196
31.	ТР	90	80,14	9,86	97,2196
32.	TG	75	80,14	-5,14	26,4196
33.	VLTS	90	80,14	9,86	97,2196
34.	YS	80	80,14	-0,14	0,0196
35.	ZTP	100	80,14	19.86	394,4196
	3524,286				
1	1				