

The Effect of SABELS and GRPQ on The Students' Reading Comprehension at SMA Swasta RK Bintang Timur Pematangsiantar

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Abstract

The aim of this research is to find out the effect of Scientific Approach-Based on English Learning Strategy (SABELS) and Guided Reading Peer Questioning Strategy (GRPQ) on students' reading comprehension at grade X of SMA Swasta RK Bintang Timur Pematang Siantar. The researchers used quantitative method. The mean of GRPQ strategy is 77.50, Standard Deviation is 7.75, and significance value is .002 and number of students is 36. The mean in SABELS strategy is 80.00 and standard deviation is 9.25, and significance value is 0.38 and number of students is 36. The class who got conventional strategy, it has mean 75.00, standard deviation is 7.50, and significance value is .000 and number of students is 37. Using t-test in analyzing data, is found that t-value (2,36) is higher that t-table (1,667) at level of significant 5 %. This means using SABELS is effective to develop students' ability in reading comprehension. According to the research findings, it is concluded that SABELS is more significant than GRPQ Strategy in teaching reading comprehension at tenth grade students at SMA Swasta RK Bintang Timur Pematangsiantar.

Keywords : error Analysis and Simple Past Tense

1. Introduction

In English subject, there are four skills that are learnt 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 skill of language development. 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. The students have to think not only translating the words, phrases, sentences or even paragraphs, but also comprehending the meaning, tenses, text structure, and etc.

Reading comprehension is a major problem found when teaching practice at tenth grade students of SMA Swasta RK Bintang Timur Pematangsiantar. It is a reality that they still have low motivation in reading. They still lack of knowledge in words meaning and sequence information. They cannot understand some of the grammatical clues (subject, verb, conjunction, etc.) and hardly understand the main idea and factual information explicitly stated within passages as well as hardly to understand the author's tone and infer story content. They are only aware if the teacher reminds and motivates them that reading can train their comprehension besides expanding their insight. Without reading skill, they cannot make a satisfactory progress in school. Moreover, the students often fail in studying any lessons because they do not like reading and do not use any strategy at all.

Zaim (2017), in his article, argued that scientific approach can be applied as a strategy of teaching English as foreign language in Senior High School in Indonesia. Scientific Approach is effective to make the students actively involved in classroom activity so that their speaking and listening skills can be improved. Ratnaningsih (2017) confirmed that while implementing scientific approach, teachers can demonstrate the studentscentered learning strengthened by collaborative, cooperative, active and meaningful learning.

The researcher is interested in conducting a research entitled The Effect of Scientific Approach-Based English Learning Strategy (SABELS) and Guided Reading Peer Questioning Strategy (GRPQ) on the Students' Reading Comprehension Ability at Tenth Grade of SMA Swasta RK Bintang Timur Pematangsiantar. The research problem was formulated as follow: What is the effect of Scientific Approach-Based English Learning Strategy (SABELS) and Guided Reading Peer Questioning Strategy (GRPQ) on the students' reading comprehension ability at tenth grade students of SMA Swasta RK Bintang Timur Pematangsiantar? Based on the scope of the research above, the objective of this research is to find out the effect of SABELS and Guided Reading Peer Questioning Strategy

(GRPQ) on the students' reading comprehension ability at tenth grade of SMA Swasta RK Bintang Timur Pematangsiantar. This research was focused on the reading comprehension ability of tenth grade students of SMA Swasta RK Bintang Timur Pematangsiantar. This research was focused on the literal and interpretative reading comprehension through recount text. The findings of this research are expected to be beneficial both practically and theoretically: **(1) Theoretical Significance.** The researcher hopes the findings of this research can be used to increase more knowledge and understanding relating to the research about reading comprehension ability. **(2) Practical Significances** are that the researcher hopes the result of this research can be useful for additional information that can be applied by the English teachers in teaching and practicing the reading comprehension ability in their classrooms. The researcher hopes the result of this research can be used as a guidance and knowledge to open other analysis relating to reading skill especially reading comprehension.

As is mentioned earlier in the background section, SABELS is a strategy developed by Napitupulu, Siahaan and Manalu (2018) to answer a challenge from the establishment of newest Indonesian Curriculum (called as 2013 Curriculum). In line with the basic concept of scientific approach, SABELS 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 is to direct the learning process performed by students and provide any corrections to the concept and principles which the students have been obtained.

In line with the basic concept of scientific approach, Napitupulu, Siahaan&Manalu (2018) stated that there are some points to be considered and prepared by English teachers in applying this strategy, such as: (1) 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 appropriate and relevant videos to the learning goal and material. (2) 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 cannot be accessed by the students. (3) The integration of knowledge, skills, and character is a must in order to encourage students to be productive, creative, innovative, and effective. 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.

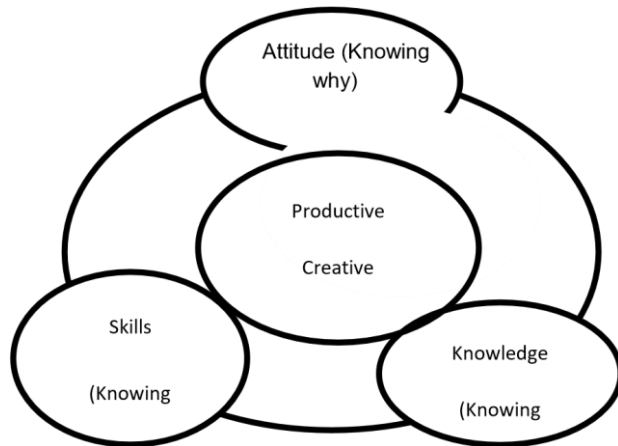
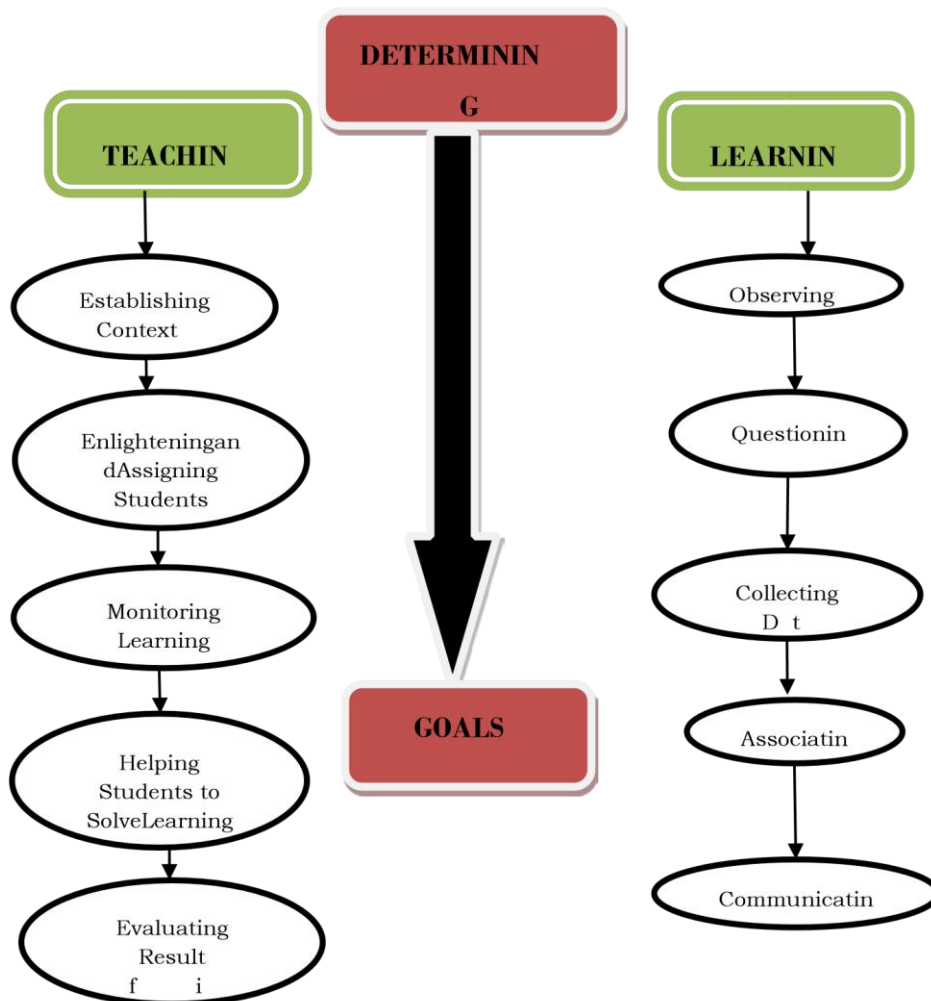


Figure 1: The Integration of Knowledge, Skills, and Attitude in SABELS

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 by using SABELS, the roles of teacher and students in teaching and learning process should be determined clearly. In addition to that, Napitupulu, Siahaan & Manalu (2018) 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 five 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 learnt. In order to make it understood able easily, the activities using SABELS is displayed in table as follow (adapted from Napitupulu, Siahaan&Manalu, 2018).



Picture 1: The SABELS Application Process

2. Research Methodology

This research used quantitative research of control group, pretest-posttest design. According to Ary, Jacob & Sorensen (2010:420), a quantitative research strives for testable and confirmable theories that explain phenomena by showing how they are derived from theoretical assumptions. It seeks scientific explanation that includes the discovery of laws governing not only the behavior of the physical world but also human behavior.

Furthermore, the data will be taken by using the 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 population of this research was defined as all members of any well-defined class of people. The population of this research is 111 students of tenth grade of SMA Swasta RK Bintang Timur Pematangsiantar school Year 2019/2020. Each group consists of 37 students. Test was conducted in order to get the data. The test was to design a quantitative research proposal which is conducted two times. The first was used as pretest and after treatment the second test are given as post-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. In the pre-test activity, the researcher tests the students using the multiple choices test given to them and collects it after the time is over.

The 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 SABEL and GRPQ strategy in the experimental classes. The test that will be used in this research is based on the National Examination (*Ujian Akhir Nasional*). All items of the questions have been standardized by the Indonesian Government. This means the test is already valid and reliable.

3. Data Analysis

The data of this research was taken from the result of adjudication sheets which were used by the writer to get the students' score in reading comprehension of Recount Text. In pre-test, the students were asked to answer several questions related to the material. From the students' answer, the writer collected the answer sheets and then got the score of the students. The data were obtained from pre-test and post-test scores of the experimental and the control group. Here is the result of the reading comprehension was conducted in pre-test and post-test.

Table 4.1. Distribution of data os students' reading comprehension by applying conventional strategy

	N	Min	Max	Mean	Std. Deviation
Conventional Strategy	37	60	90	75	7.50
Valid N (listwise)	37				

According to the table 4.1, the scores of students' achivement in reading comprehension on 37 students at SMA Swasta RK Bintang Timur Pematangsiantar by applying conventional method can be explained that the high score is 90, the lowest score is 60 and standard deviation is 7.50. The calculation of scores indicated that mean is 75.67. The scores are shown in the table 4.2.

Table 4.2 Frequency Distribution of The Score of Students by Applying Conventional Strategy

1	60-62.5	5	13.51
2	65-67.5	8	21.62
3	70-72.5	8	21.62
4	75-77.5	6	16.22
5	80-82.5	5	13.52
6	85-87.5	4	10.81
7	90-92.5	1	2.70
	TOTAL	37	100

According to table 4.2, it indicates that the average scores of students' achivement in reading comprehension with conventional method are interval 70-72.5 with students or

21.62% from 37 students, 13 students or 35.13% got score below the average and 16 students or 43.25% got scores above the average scores.

Students' Reading Comprehension Achievement by Applying GRPQ Strategy

The data of students' reading comprehension by applying GRPQ Strategy can be shown in the descriptive statistic below.

Table 4.3 Data Distribution of Students' Reading Comprehension by Applying GRPQ Strategy

	<u>N</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	Std. Deviation
Conventional Strategy	37	60	90	77.5	7.75
Valid N (listwise)	37				

According to the table 4.3, the scores of students' achievement in reading comprehension on 37 students at SMA Swasta RK Bintang Timur Pematangsiantar by applying GRPQ Strategy can be explained that the high score is 90, the lowest score is 60 and standard deviation is 7.75. The calculation of scores indicated that mean is 77.50. The scores are shown in the table 4.4.

Table 4.4

<u>Frequency Distribution of The Score of Students by Applying GRPQ Strategy</u>				
	No	Interval	Absolute	Relative Frequency
				Frequency (%)
1	60-62.5	3	8.33	
2	65-67.5	6	16.67	
3	70-72.5	9	25.00	
4	75-77.5	8	22.22	
5	80-82.5	5	13.89	
6	85-87.5	4	11.11	
7	90-92.5	1	2.78	
TOTAL	36	100		

According to table 4.4, it indicates that the average scores of students' achievement in reading comprehension with conventional strategy are interval 70-72.5 with students or 25.00% from 36 students, 9 students or 25.00% got score below the average and 18 students or 50 % got scores above the average scores.

Students' Reading Comprehension Achievement by Applying SABELS

The data of students' reading comprehension by applying SABELS can be shown in the descriptive statistic below.

Table 4.5 Data Distribution of Students' Reading Comprehension by Applying SABELS

	N	Min	Max	Mean Std. Deviation	
Conventional Strategy	37	62.5	92.50	80.00	9.25
Valid N (listwise)	37				

According to the table 4.5, the scores of students' achievement in reading comprehension on 37 students at SMA Swasta RK Bintang Timur Pematangsiantar by applying SABELS can be explained that the high score is 92.50, the lowest score is 62.50 and standard deviation is 9.25. The calculation of scores indicated that mean is 80.00. The scores are shown in the table 4.6.

Table 4.6 Frequency Distribution of The Score of Students by Applying SABELS

1	60-62.5	4	11.11
2	65-67.5	4	11.11
3	70-72.5	7	19.44
4	75-77.5	2	5.56
5	80-82.5	5	13.89
6	85-87.5	10	27.78
7	90-92.5	4	11.11
TOTAL		36	100

According to table 4.6, it indicates that the average scores of students' achievement in reading comprehension with SABELS method are interval 70-72.5 with 4 students or 19.44% from 36 students, 8 students or 22.22% got score below the average and 21 students or 58.34% got scores above the average scores.

Analysis Requirement Testing

Before the research data were analyzed by using Two-Way Analysis of Variance (Annova), normality and homogeneity of data were tested.

Normality of the Test

Normality testing aims to examine that the sample data of the research are normally distributed. The normality testing in this research was computed by using Koimogorov-Smimov through application SPSS 10.0 program. SPSS is the abbreviation of Statistical Package for the Social Science. The summary of the result of normality testing can be seen in the Table 4.7.

Table 4.7 Summary of the Result of Normality Testing

N	37	37	37
Mean	77.50	80.00	75.00
Paramenter a.b Std. Deviation	7.75	9.25	7.50
Most extreme Absolute Difference Positive	163	125	162
Negative	-163	-098	-111
Kolmogorov-Smirnov Z	1,034	791	1,028
Asymp. Sig (Z-tailed)	.236	.560	.241

According to the table 4.7, the data are called to have normal distribution if the value of Asymp. Sig (2 tailed) of each group is > 0.05 . In the table 4.7, it indicates that the score of the students' achievement in reading comprehension for each group is normally distributed. After the normality of the data had been calculated, the further stage in the requirements of analysis of variances is homogeneity testing.

Homogeneity Testing

The homogeneity testing aims to investigate whether the variance of the data is homogeneous. The homogeneity testing of variance was calculated by using Levene's Test of Equality of Error which as the requirement test of homogeneity available in SPSS. The test criterion is Sig > 0.05 then the variance is homogeneous.

Hypothesis Testing

After the requirements of the data analysis of Two-Way Annova had been fulfilled, it can be continued to the Hypothesis Testing by using Two-Way Annova. From the result summary of research data, then calculating the total score and mean score for each strategy which can be used as helping table for Two-Way Annova. The result summary of research data is shown in Table 4.8.

Table 4.8 Result Summary of Research Data

Dependent Variable : Score					
Strategy	Mean	Std. Deviation	N	Sig	
GRPQ	77.50	7.75	37	.002	
SABELS	80.00	9.25	37	.038	
Conventional Strategy	75.00	7.50	37	.000	

Based on the table 4.8 above, the statistical Hypothesis can be stated as the following:

1. Students' achievement on reading comprehension by applying GRPQ Strategy is more significant than those taught by applying conventional strategy.

Hypothesis 1 : $H_0 : \mu A1 = \mu A2$

$H_a : \mu A1 = \mu A2$

According to the table 4.8, Annova testing result above, the Sig. Value is 0.038. Since the Sig. Value $0.038 < 0.05$ and it means that the null hypothesis (H_0) had been successfully rejected at level of significance $\alpha = 5\%$. Therefore, first hypothesis which stated that the students' achievement on reading comprehension taught by applying GRPQ Strategy is significant is really true in this research.

2. Students' achievement on reading comprehension taught by applying GRPQ Strategy is less significant than those taught by applying GRPQ Strategy.

Hypothesis 2 : $H_0 : \mu B1 = \mu B2$

$H_a : \mu B1 > \mu B2$

Based on the Table 4.8, Annova testing result above, the Sig. Value is 0.000. Thus, Sig. Value $0.000 < 0.05$. It means that the null hypothesis (H_0) had been successfully rejected at level of significance $\alpha = 5\%$. Therefore, second hypothesis which stated that students' achievement on reading comprehension taught by applying GRPQ is less significant.

3. Students' achievement on reading comprehension taught by applying SABELS is the most significant.

Hypothesis 3 : $H_0 : A >< B = 0$

$H_a : A >< B \neq 0$

Based on the table 4.8, Annova testing result above, the sig. Value is 0.002. Thus, Sig. Value $0.002 < 0.05$, and it means that the null hypothesis (H_0) had been successfully rejected at level of significance $\alpha = 5\%$. Therefore, third hypothesis which stated that the student's achievement on reading comprehension taught by applying GRPQ is really true in this research. Based on the hypothesis testing above that obtained from the research, it can be stated that Students' achievement on reading comprehension taught by applying SABELS is more significant than those taught by applying conventional strategy.

The total mean shows that the students taught by applying SABELS have higher of more significant achievement in reading comprehension than the students taught by applying GRPQ. It is caused by the steps of teaching learning process in SABELS is more attractive than in GRPQ Strategy. The students are able to improve the students' capability in reading in a term. So they can get more information and knowledge from another students.

A team members succeed in creating multimedia presentation on saving the environment, for example: depend on both individual efforts and the efforts of other group members who contribute needed knowledge, skills, or resources necessary for the highest possible for qualified presentation.

By using SABELS, it helps students to activate the background of knowledge that the students have. It is also used to make the students more active and participative in comprehending reading texts and can be used to improve students' achievement on reading comprehension.

Students' achievement on reading comprehension taught by applying GRPQ strategy is less significant than those by using the SABELS.

Applying GRPQ strategy, the teacher provokes the students thinking with a question, prompt, or observation. The students should take a few moments (probably not minutes) just to think about the questions using designated partners, nearby neighbors, or a desk mate, students pair up to talk about the answer each has developed. The students can compare the students' mental or written notes and identify the answers they think are best, most convincing or most unique.

After the students discuss the students' reasoning in pairs for a few moments (again, usually no minutes), the teacher calls for pair to share the students' thinking with the rest of the class. This can be done in round-robin fashion, calling on each pair randomly, or taking the answers as they are called out (or as hands are raised). It is often that the teachers or a designated helper will record these responses on the board or on an overhead projector.

Students' achievement on reading comprehension taught by applying SABELS is the most significant.

According to table 4.8, the result summary of research data where the score of SABELS Mean is 80.00, Std. Deviation is 9.25, N is 36 students, Sig. is 0.038 while as the score of GRPQ Mean is 77.50, Std. Deviation is 7.75, N is 36 students, Sig. is 0.002 and the score of conventional strategy mean is 75.00, Std. Deviation is 7.50, N is 37 students, Sig. is 0.000. It can be stated that the students' achievement on reading comprehension taught by applying SABELS strategy is the most significant.

In this research, SABELS is very significant in improving the students' score on reading comprehension than GRPQ. GRPQ strategy is more significant in improving the students' score on reading comprehension than conventional strategy.

4. Conclusions Based on the data analysis and hypothesis, it can be concluded that Students' achievement on reading comprehension taught by applying SABELS is SMA Swasta RK Bintang Timur Pematangsiantar. The process of learning leads the students to be productive, creative, innovative, and effective since knowledge, skills, and character are integrated.

Related to the finding of this research, some suggestions are addressed to: (1) English Teachers. The English teachers can apply SABELS on teaching reading comprehension as this strategy is effective in teaching reading comprehension. (2) Other relevant researchers. It is suggested to apply this strategy as a solution to teaching problems in the learning process. (3) Principal. The success of SABELS application depends on learning facilities. The demand of using new and online technologies in this 4.0 revolution drives innovation in education. It is essential to provide these technologies in classrooms.

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