The Effectiveness of Using Team-Pair-Solo to Students' Reading Comprehension

Sri Sugiharti[1]; Eka Wilany[2]; Yenny Vintaria[3]

English Education Department
University of Riau Kepulauan
srisugihartiwismono@yahoo.com[1]; ekaluney@yahoo.co.id;[2]yennysamosir@gmail.com[3]

Abstract

The objective of the research was to find out whether team-pair-solo is effective to students' reading comprehension. The research design was quantitative research with experimental design. The research conducted in August 2016. The population in this research was the eleventh grade students of SMA K Yos Sudarso Batam in the academic years of 2016/2017. Two classes were selected two from the population as sample in this study they were XI A2 and XI A3. The number of the students used as the sample in this research was 60 students. The sample was selected cluster sampling technique. To identify student competence, the writer gave the test before treatment (pre-test) and after treatment (post-test). The result of data analyzing was shown that in after test the mean of experiment class was higher (77.16) than control class (63.83). In the end of hypothesis testing, the writer found that there was significant effect of team-pair-solo to students' reading comprehension. It means that team-pair-solo able to encourage the students to comprehend the text well.

Keywords: team-pair-solo and reading comprehension

INTRODUCTION

The objective of the study was to find out whether team-pair-solo is effective to students' reading comprehension of the XI grade student of SMA K Yos Sudarso in academic year 2016/2017. The reason to teach reading for students due to reading is one of language skill in English as significant as speaking, listening and writing. On the other hand, students have to understand what they read and make conclusion but sometimes students find difficulties to find the synonyms or antonyms from the story and still confuse to deliver their mind on the text. The factor of this failure is about the option of the method that is not

appropriate in learning process. This mistakes found in the beginning it can make students make mistakes in reading.

A strategy need to reach because reading is considered as an important skill to be developed. A good way to improve the students understanding upon a text is cooperative learning. Cooperative learning that is applied in this research is team-pair-solo technique. Students will work in small group in this technique so, the students may share their knowledge related to their understanding toward the text. Students also can add more information about the text. By working in pairs, the students can internalize their understandings and are given more chance to share what they have already known. Then, the students work individually to express their knowledge that the students have and get from the discussion the students have done previously. Team-pair-solo able to helps students, who are incapable of solving problems, solve the problems as an individual. Students do problem first as a team, then with a partner, and finally on their own. Team-pair-solo is designed to motivate students to tackle and succeed at problems which initially are beyond their ability.

In reading, the students are difficult to comprehend the text, especially for narrative text. Then, the students are also not reading for pleasure. It means the students read under pressure. Last, students do not know the whole vocabularies meaning. The students are lack of vocabularies. The writer limited the study on "The Effectiveness of Using Team-Pair-Solo to Students' Reading Comprehension in Narrative Text".

According to Othman in Harahap (2011:3) reading process is interaction between text and reader's imagination. Reading is making prediction and thinking of the text. Interaction is process of the reader comprehension to the text. Reader imagination is process of making sense of the word, sentences, and connecting the text. Therefore, by reading the reader make inferences and understand the author purpose of the text. According to Bernhard, et.al. in Harahap (2011:3), reading consists of two processes: word recognition and comprehension. Reading is an activity to understand written texts which includes both perception and thought. Word recognition is process to perceive how written symbol correspond to one's spoken language. Comprehension is process of making sense of word, sentences and connected text. Readers typically make use of background knowledge, vocabulary, grammatical knowledge, experience with text and other strategies to help them understand written text. Anderson in Astiyandha (2012: 109) states that, reading is a process readers combining information from a text and their own background knowledge to build

meaning. Reading to get the right information is difficult for the readers. Comprehension is process of making sense of word, sentences and connected text. Readers typically make use of background knowledge, vocabulary, grammatical knowledge, experience with text and other strategies to help them understand written text. Comprehension is process of making sense of word, sentences and connected text. Readers typically make use of background knowledge, vocabulary, grammatical knowledge, experience with text and other strategies to help them understand written text.

Kagan (2009:126) states that team-pair-solo has some advantages. Using this technique pools the students' knowledge or skill. If anyone on the team knows how to do the problem, that skill gets transferred to the other teammates during the first step of this technique. The last but not the least advantage is that team-pair-solo creates individual accountability. According to Kagan (2009:614) by acquiring social skill, the students become more polite, cooperative, respectful, responsible, and able to resolve conflicts and to control their impulses. In other words, the students help, teach, and tutor each other.

In this research, the researcher used multiple choice test format. Multiple choice tests are fast, easy and economical to score. In fact, they can even be scored by machines objectively and more reliable than subjectively score tests.

METHODOLOGY

This research was an experimental research. As Gaur & Gaur (2009:29) states "the main purpose of experimental research is to establish a cause and effect relationship." Widi (2010:76) also states that an experimental research can be defined as a method which is done by doing some treatments. It means that the researcher will know the effect of this research after doing treatments.

In this research, the writer chose SMA K Yos Sudarso Batam as a place to conduct the research. The research conducted in August 2016. The population used in collecting the data in this research was the XI grade students of SMA K Yos Sudarso Batam in the academic year of 2016/2017. The total number of population is 298 students which are divide into 7 classes. Two classes were selected two from the population as sample in this study they are XI A2 and XI A3. The number of the students used as the sample in this research is 60 students. The sampling technique used in this research was cluster sampling.

The writer used a test method as the instrument for this research. The writer used one type of test which is a multiple-choice completion. A test can be said as a good test if it is valid and reliable. Therefore, the test that would be tested to the students should be valid and reliable too. The suitable way to make a good test is done through try-out. Try-out was done before the test was administered to know the validity and reliability of the test items. From the results of validity testing, it could be seen which items should be used in the test. In this research, try out was done twice. The first was done for the pre-test, while the second one was for the post-test. The data will collect through reading comprehension test. The students will be given reading comprehension test in the form of multiple choices (a, b, c, d and e) that consist of 40 questions.

RESULTS

Test Instrument

Validity of the Test

Based on the definition stated by Gronlund in Amalia (2011:39), validity is the extent to which inferences made from assessment results are appropriate, meaningful, and useful in terms of the purpose of the assessment. The formula used to calculate the validity of each item about the use product moment correlation formula as follow:

$$r_{xy} = \frac{N\Sigma xy_{-(\Sigma x)}(\Sigma y)}{\sqrt{(N\Sigma x^2 - (\Sigma x)^2(N\Sigma y^2 - (\Sigma y)^{2)}}}$$

If the test is gotten the r xy value, and then be adapted with r product moment critic with significant extent α = 5%, if xy > r table, so the data is valid, if r xy < r table, so the data is not valid. Based on the table above the test number, there were 20 questions were valid they were 1, 4, 5, 8, 10, 11, 12, 14, 17, 19, 20, 21, 22, 24, 25, 30, 35, 36, 37, 39 and 20 questions is not invalid they were 2, 3, 6, 7 , 9, 13, 15, 16, 18, 23, 26, 27, 28, 29, 31, 32, 33, 34, 38, 40.

Reliability of the Test

A reliable test is consistent and dependable (Brown in Amalia, 2011:39). Measurement results remain consistent or repeatable measurement principle when done. The

researcher uses KR.20 (Kuder-Richardson) according to Arikunto (2009:100) as formula to measure the reliability of instrument.

$$r_{11} = \frac{n}{(n-1)}\left(\frac{s^2 - \sum pq}{s^2}\right)$$

Based on the calculation above with 30 students and 40 questions the significant index 5% or 0.05, so r table is 0.86 because r value > t table. Therefore, it can be summarized that the test instrument as the measuring instruments of the pre-test and post-test showed the data is reliable.

Normality of the test

Normality testing was analyzed toward two of the data group: reading comprehension data of experimental class and reading comprehension data of control class. The testing was analyzed by using Chi Square. The reading comprehension score was calculated by using the formula:

$$x^2 = \left(\frac{fo - fh}{fh}\right)^2$$

It was compare with x^2 table (dk=5, significant level 0.050) x^2 observed $<$ x^2 table. From that calculation, the writer found that the data was normal, because x^2 observed $<$ x^2 table.

The summary of normality testing result could be seen from table below:

Table 1. The Summary of normality testing

Test	Class	x^2 observed	x^2 table	Conclusion
Pre-test	Experiment	3.8	11.070	Normal
	Control	1.6	11.070	Normal
Post-test	Experiment	8	11.070	Normal
	Control	7.7	11.070	Normal

Homogeneity of the Test

In this research, the homogeneity was tested to know whether each groups had the same variance or not. It was tested by using variance test (F-test). If f observe was smaller than f table, $f_{observe} < f_{table}$, it showed that the classes had homogeneity. If $f_{observe} > f_{table}$, it showed that the classes were not homogeneous.

The summary of homogeneity testing result could be seen from the below:

Table 2. The Summary of homogeneity testing

No	Variable	F observe	F table	Conclusion
1	Pre-test	0.522487	1.861	Homogeneous
2	Post-test	0.515115	1.861	Homogeneous

On a 5% with df numenator (nb-1) = 30-1 = 29 and df denominator (nk-1) = 30-1 = 29. It was found F_{table} = 1.861. Based on that calculation, the writer concluded that variance of pre-test and post-test in experimental class and control classes were homogeneity, because $f_{observe} < f_{table}$..

T-test

The calculation of t-test between mean score of post-test of experimental and control class is as follow:

$$t = \frac{M_x - M_y}{\sqrt{\left(\frac{\sum x^2 + \sum y^2}{N_x + N_y - 2}\right)\left(\frac{1}{N_x} + \frac{1}{N_y}\right)}}$$

It showed that the value of t-obtain (13.40) was bigger than the value of t-table (2.002). It means that the alternative was hypothesis accepted with state that there is significant difference of mean score between experiment and control group. In conclusion, the experimental class was given the treatment by using team-pair-solo gave significant effect for teaching reading comprehension.

DISCUSSION

Based on statistical analysis of the hypothesis testing, it was known that team-pair-solo gave significant effect on students' reading comprehension. Mean score reading

comprehension of experimental class respectively were 77.16. In control, the mean score reading comprehension of control class respectively 63.83.

The first findings showed that the students' mean score of reading comprehension at experimental class was better than students' mean score reading comprehension at control class. Team-pair-solo can be applied on teaching skill. The writer had conducted the research focused on reading skill for eleventh grade of students at SMA K Yos Sudarso Batam. From the discussion above, it can be concluded that team-pair-solo give better result on reading comprehension.

Related to the research finding, the students could focus and activate by the team work to analyze and determining main idea and supporting detail then finally they could answer the question from the text. Besides, team-pair-solo could encourage the students' motivation, ways of thinking, and creativity to read a text in English.

REFERENCES

Amalia, Rosita. (2011). The use of team-pair-solo in reading comprehension. Semarang: Semarang State University.

Arikunto, Suharsimi. (2009). Dasar-dasar evaluasi pendidikan edisi revisi. Jakarta: Bumi Aksara.

Astiyandha, Tauricha. (2012). The effectiveness of think pair share method to teach reading comprehension view from students' motivation. *Vol I/2012. E-Journal.*

Gaur, Ajay S & Sanjaya S Gaur. (2009). Statistical method for practice and research. India: Response.

Harahap, Alhaz Fitra. (2011). Improving students' reading comprehension through two – two stray learning model. *E-Journal of Unimed.*

Kagan, S. (2009). Kagan cooperative learning. San Clemente, CA: Kagan Publishing.

Widi, R.K. (2010). Asas metodologi penelitian: Sebuah pengenalan dan penuntun langkah demi langkah pelaksanaan penelitian. Yogyakarta: Graha Ilmu.