Structure Dyadic Method in Improving the Students' Ability in Reading Comprehension

Fatma Sari
fatmaassidiq@gmail.com

Mawaddah Rahayamtel
mawaddarahanyamtel14@gmail.com

Bunyamin
bunyaminali83@gmail.com

Institut Agama Islam Negeri Sorong

ABSTRACT

The purpose of this study was to analyze the improvement of reading learning outcomes for students of the English Study Program of Tarbiyah Faculty of State Islamic College Sorong, using the Structure Dyadic Method (SDM). This method is a method that only consists of two members in one group (dyad) and its technical implementation is very structured. This research used quantitative methods. There was one problem that was analyzed using statistical analysis, namely the effect of the SDM on the reading ability of the English study program students of Tarbiyah Faculty of State Islamic College of Sorong. Researchers took data using pretest and posttest. The results showed that the use of the SDM in reading comprehension was very good in improving the students' ability to read descriptive texts.

Key words: Structure Dyadic Method, Reading Comprehension, Improvement, Descriptive Text.

INTRODUCTION

In learning a language, there are four skills that must be mastered by students. Speaking and Writing refers to productive skills, while Reading and Listening refers to receptive skills (Harmer, 2015). Reading is one of the most important language skills for students to learn. Through this activity, students can improve their own language skills and experiences. Reading is not only a source of information and a fun activity but also a means to consolidate and expand one's language knowledge. Reading is also a routine activity that is done all the time, to get information from a text. Reading is not only to get information but must go through an understanding of the content of the text or the intent and purpose of the author.

In teaching Reading, lecturers use several methods that are adapted to students. In addition, several methods in cooperative learning can be good alternative methods

in the teaching and learning process such as Student Team Learning (STL), Student Team Achievement Division (STAD), Team Games Tournament (TGT), and so on. This method involves small groups of four to six members. On the other hand, there are methods that only consist of two members in one group (dyad) and the technical implementation is highly structured. This peer method is called the Structure Dyadic Method (Huda, 2015).

Students of the English Education Study Program still have problems in their Reading Comprehension ability. They are still not able to understand well the text they read. They need a long time to be able to analyze every sentence in a reading. Even though lecturers who teach Reading Comprehension have used various methods that can improve their ability to understand reading, they still have difficulty getting the best results. For this reason, a method that has never been used by lecturers is needed so that students can improve their reading skills.

Interaction in the classroom has a major influence on student development on the social side, both in the cognitive and academic fields. Knowledge construction and acquisition, language and cognition development, and social skill development are functions of the situations in which students interact. In this way, teachers can be provided with ways to direct student interaction that can be used to deliver broad learning outcomes (Sharan, 2014). Structure Dyadic Method is one of the appropriate methods in teaching descriptive text. In this method, each group member will be a teacher and a student. After they both read the descriptive text, they will teach each other until they get an understanding of the text. Students who understand descriptive text through the Structure Dyadic Method understand the text better than students who do not use it. Their memory can be in line with the descriptive text.

Based on the problems above, the purpose of this study is to analyze the improvement of reading learning outcomes for students of the English Education Study Program at the Tarbiyah Faculty of State Islamic College of Sorong by using the Structure Dyadic Method. This research is expected to contribute to theory and practice. Theoretically it is expected to develop theories and concepts in English learning methods. Practically, this research can be considered as information for every English student and lecturer with any learning and every process is always evolving from era to era.

LITERATURE REVIEW

Previous Related Study

A study was conducted by Widya Astuti in 2013. He focused on using the Partner Reading Strategy for reading fluency. He conducted a study to determine the effect of using Partner Reading Strategy on reading fluency. This research is a quasi-experimental (Astuti, 2013). The result of this research is that teaching reading fluency using Partner Reading Strategy is very effective. Research was

also conducted by Rury Durriyah in 2017. He focused on using small group discussions on reading comprehension of recount texts. He conducted a study to determine the effect of using small group discussions. This type of research is a quasi-experimental (pre-test and post-test) (Durriyah, 2017). The result of this research is that cooperative learning small group discussion technique is effective for learning to read and understand recount text.

Research using SDM was carried out by Canto in 2015. He focused on using the Structure Dyadic Method on vocational learning outcomes in TKR expertise. Because students find it difficult to understand the learning material taught by the teacher using a learning model that has not activated all students, so far teachers are still using the direct learning model, namely by teaching using power points. This study is an experimental study and this research is proven to use a pretest - posttest control group design (Canto & Samsudi, 2016). The result of this study is that human resources are more effective in improving student learning outcomes than those using the direct learning model.

Reading

Reading is one of the four very important language skills. Reading is the first way for students to communicate to get their language development. They have only used their ability to hear and speak for years. When they start their education at school, for the first time they learn to read before writing. Reading is a process carried out by readers to get messages or information from the author through print media. This is a very complex process in recognizing and understanding written symbols which is influenced by perception skills, coding, experience, language background, mindset and reasoning of the reader (Tarigan, 2008).

Reading is one way that someone does to get information from print media. Students from any level will find it easier to gain new knowledge by getting used to reading to increase their motivation in learning, not only in formal education, but also in informal education. Therefore, reading is one of the language skills that is important for students to have to support their success. By reading some of the information provided by the teacher through a text, students will find general information and experiences that later they can improve their language skills such as listening, speaking and writing.

Reading a wide variety of texts also provides a variety of good methods to improve writing skills in English. If the students are familiar with the form of the text, the teacher will find it easier to teach them how to write the text. Finally, reading the text also provides an opportunity to learn the language in a complex way, such as: vocabulary, grammar, punctuation, and how to make sentences, paragraphs and even articles (Harmer, 2015).

Reading Comprehension

Reading is a process carried out by readers to get messages or information from the author through print media. It is a very complex process in which recognizing and understanding written symbols is influenced by perceptual skills, decoding, experience, language background, mindset and reasoning of the reader. Comprehension has the same meaning as understanding. It is the ability to understand the meaning in the text as well as the author's ideas. It is the ability of the reader to understand the author's message which is influenced by their background knowledge in the topic given by the text. Understanding means and has an excessive purpose in improving or testing one's understanding of a language both written and spoken (Hornby, 2005). Comprehension is not only needed in students' reading activities, but also to measure the ability of each student in the class.

Reading comprehension is generally seen as the result of a four-way interaction between the reader, the text, the task, and the structured activity. The success of these interactions depends on the availability of quality content and strategic schemes for new problem solving situations. In addition, reading comprehension is a process of simultaneously extracting and forming meaning through interaction and engagement with written language. It includes three elements: the reader doing the comprehension, the text to be understood, and the activity.

In short, reading comprehension is the act of understanding what the reader is reading. It is a deliberate, active, interactive process that takes place before, during and after a person reads a particular piece of writing. Without understanding, reading is nothing more than tracking symbols on a page with your eyes and sounding them out. People read for many reasons but comprehension is always part of their goal. Reading comprehension is important because without it, reading does not provide any information to the reader.

Structure Dyadic Method

Cooperative learning is an approach in the teaching and learning process. Several methods of cooperative learning such as Student Achievement Divisions (STAD), Team Game Tournament (TGT), and Cooperative Integrated and Composition (CIRC) involve small groups of four to six members. On the other hand, there are methods that only consist of two members in one group (dyad) and the technical implementation is highly structured. This cooperative method is called the Structure Dyadic Method (Slavin, 2015).

In sociology, the word "dyad" (from the Greek, "two") is a group of two people, the smallest social group. As an adjective, "dyadic" describes their interaction. These couples can be connected through romantic interests, family relationships, interests, work, partners and so on. In practice, dyadic refers to a dialogical relationship or face-to-face verbal communication between two people that involves ideas, thoughts, behaviors, ideals, likes, dislikes, and questions and answers related to life and life in nature.

Until now, the Structure Dyadic Method is often used in formal or informal schools. Through this learning system, teachers expect students to be cooperative in giving their thoughts to their group learning. In addition, there are two techniques in the Structure Dyadic Method. Namely Class wide Peer Tutoring (CPT) and Reciprocal Peer Tutoring (RPT) (Slavin, 2015).

Class wide Peer Tutoring is a technique that involves peer tutors. One student acts as a tutor and another student acts as a tutee. The tutor serves or asks the tutee some problems. If the tutee can answer correctly, he gets points. If not, the tutor prepares the correct answer, then the tutee writes and rereads the correct answer three times. Every ten minutes, the teacher and tute switch. On the other hand, all students are in class for them.

Reciprocal Peer Tutoring is not much different from Class wide Peer Tutoring. The two differ in the conditions when they are applied in the classroom. Reciprocal Peer Tutoring as a cooperative technique that allows students to pair up. Partners take turns reading and asking each other questions, receiving feedback immediately. Such models allow students to use important meta-cognitive techniques such as clarifying, questioning, predicting, and summarizing. It embraces ideas, so students can effectively learn from each other.

There are several benefits of the Structure Dyadic Method. This method actively engages students in the learning process and harnesses the power of peer groups to promote learning and student retention.

1. Structure Dyadic Method actively involves students in the learning process.

The Structure Dyadic Method ensures the active involvement of all students simultaneously. Teachers use this method to engage students, such as asking questions, and discussing. In addition, because every learner in the class is equally and simultaneously involved in the learning process, the structure sends a strong message to all students that they are expected to take personal responsibility for their own learning. The structure emphasizes and encourages: (a) student-centered learning regardless of the instructor, (b) positive interdependence among group members, and (c) individual accountability for each group member.

2. The Structure Dyadic Method harnesses the power of peer groups to promote student learning and retention.

The ability of peers to teach and learn from one another is good for student learning and retention. By enabling students to work regularly in small groups, the Structure Dyadic Method serves to foster networking, bonding, and social integration among peers. Opportunities for regular peer interaction in the classroom may be particularly important for the retention of commuters and

students who often have little time or opportunity for social integration with peers outside of the classroom.

METHOD

Design and Sample

This study used quantitative methods. There is one problem that is analyzed using statistical analysis, namely the influence of the Structure Dyadic Method on the ability to read descriptive texts in Semester 2 Students of the English Language Study Program, Tarbiyah Faculty, State Islamic College of Sorong. The results of data analysis are the answer to this problem.

Building a structure or blueprint for a research undertaking is known as research design (Leavy, 2017). It is very important. Research design is all processes in conducting research. In the context of the design of this component, all research structures that have been started since finding the idea until the research results are obtained. In this study the authors used a pre-experimental design.

In this study, the researcher used a one-group pretest-posttest design. This research design usually includes three steps: (1) administering a pretest that measures the dependent variable; (2) applying experimental treatment X to the subject; and (3) administering the posttest, to re-measure the dependent variable. The differences associated with the implementation of the experiment were evaluated by comparing the pretest and posttest scores (Ary et al., 2010).

This research used purposive sampling technique. The sample in this study was all 16 students of Semester 2 of the English Education Study Program. This research took place at Tarbiyah Faculty of State Islamic College of Sorong West Papua.

Instruments and Procedures

In this study, the researcher used an instrument in the form of a test. A test is a series of questions and exercises or other tools used to measure skills, knowledge, and intelligence. Therefore, this researcher used an objective test in the form of a multiple choice test to measure the reading comprehension of the second semester students of the English Education Study Program about descriptive texts.

Based on this research design, in collecting data, the researchers took data from pretest and posttest. The pretest was given to the subject before applying the Structure Dyadic Method in teaching reading descriptive text, while the posttest was given after applying the Structure Dyadic Method in teaching reading descriptive text.

Pretest and posttest contained different items. However, the reading reference still used descriptive text comprehension. The writer tried to give a different test but the number remains consistent, which is 10 multiple choice items. The tests given

by researchers were always adjusted to the syllabus, SAP, and also lecturer and student reference books. So it can be said that this test is valid and reliable. Then the study used these items as pretest and posttest which includes three steps: pretest, treatment, and posttest.

Data Analysis

1. Descriptive Analysis

Before testing the hypothesis, the researcher calculated the mean score and standard deviation for each data set. Furthermore, to find out the average score, the current researcher uses the formula.

2. Inferential Analysis

a. Normality test
Normality test is a procedure used to determine whether the data comes from a normally distributed population.

b. Wilcoxon test
The Wilcoxon test aims to compare between two groups of related data. The Wilcoxon test is part of non-parametric statistics, so in the Wilcoxon test the required research data are normally distributed. The Wilcoxon test is used as an alternative to the paired sample test, if the study data are not normally distributed.

RESULT AND DISCUSSION

Descriptive Analysis
a. Pre-test Score

Table 1. Pre-test Score

No	Students	Pre-Test
1	S 1	30
2	S 2	20
3	S 3	20
4	S 4	20
5	S 5	30
6	S 6	20
7	S 7	50
8	S 8	20
9	S 9	30
10	S 10	30
11	S 11	20

12	S 12	30
13	S 13	30
14	S 14	20
15	S 15	20
16	S 16	40
	Total	430

Table 2. The Result used SPSS 22

Statistics

Pre-test

N Valid	16
Missing	0
Mean	26,88
Median	25,00
Mode	20
Std. Deviation	8,732
Variance	76,250
Range	30
Minimum	20
Maximum	50
Sum	430

From the data above, the researcher found that the highest score was 50, while the lowest score was 20, then the range was 30, and the total pre-test score was 430, while the average score was 30, then the median was 25.00, the mode was 20. , the standard deviation is 8.732, the variance is 76.250. The results of the pre-test were categorized as low, for the average score of the pre-test was 26.88.

b. Post-test Score

Table 3. Post-test Score

No.	Students (S)	Post-test
1	S 1	70

2	S 2	60
3	S 3	80
4	S 4	60
5	S 5	70
6	S 6	80
7	S 7	80
8	S 8	60
9	S 9	70
10	S 10	80
11	S 11	80
12	S 12	90
13	S 13	80
14	S 14	70
15	S 15	60
16	S 16	60
	Total	1150

Table 4. The Result used SPSS 22

Statistics

Post-test

Valid	16
Missing	0
Mean	71,88
Median	70,00
Mode	80
Std. Deviation	9,811
Variance	96,250
Range	30
Minimum	60
Maximum	90
Sum	1150

Table 4

From the data above, the researchers found that the highest score was 90, while the lowest score was 60, so the range was 30, and the total post-test score was 1150, while the average score was 71.88, then the median was 70.00. , the mode is 80, the standard deviation is 9,811, and the variance is 96,250. Post-test results are categorized as high, for the post-test average score is 71.88.

    c.   The Result of Pre-test and Post-test

Table 5. Descriptive Analysis of Pre-test and Post-test

Score	H	L	R	Me	Mo	T	M	SD^2	SD
Pre-test	50	20	30	25,00	20	430	26,88	76,250	8,732
Post-test	90	60	30	70,00	80	1150	71,88	96,250	9,811

Note:

H   : High Score

L   : Low Score

R   : Range

Me : Median

Mo : Mode

T   : Total Score

M   : Mean

SD^2 : Variance

Table 6. Descriptive Analysis used SPSS 22

Statistics

		pre_test	post_tes
N	Valid	16	16
	Missing	0	0
Mean		26,88	71,8750
Std. Error of Mean		2,183	2,45268
Median		25,00	70,0000
Mode		20	80,00
Std. Deviation		8,732	9,81071
Variance		76,250	96,250
Range		30	30,00
Minimum		20	60,00
Maximum		50	90,00
Sum		430	1150,00

Table 7. Frequency and Percentage of Pre-Test and Post-Test

Score	Level	Frequency		Percentage	
		Pre-test	Post-test	Pre-test	Post-test
80 – 100	Very High	0	7	0%	43,75%
60 – 79	High	0	9	0%	56,25%
40 – 59	Medium	2	0	12,5%	0%
20 – 39	Low	14	0	87,5%	0%
0 – 19	Very Low	0	0	0%	0%
Total		16	16	100%	100%

Inferential Analysis

    a.   Test of Normality

Table 8. Tests of Normality

Kolmogorov-Smirnov[a]		
Statistic	Df	Sig.
,284	16	,001
,234	16	,020

Lilliefors Significance Correction

From the results of the normality test that the data above shows that Sig, the pre-test is 0.001 smaller than 0.05, the data distribution is said to be abnormal.

    b.   Test of Wilcoxon

In this study, researchers used SPSS 22 for the Wilcoxon Test

Table 9. Ranks

		N	Mean Rank	Sum of Ranks
post_test - pre_test	Negative Ranks	0[a]	,00	,00
	Positive Ranks	16[b]	8,50	136,00
	Ties	0[c]		
	Total	16		

a. post_test < pre_test
b. post_test > pre_test
c. post_test = pre_test

Table 10.Test Statistics[a]

	post_test - pre_test
Z	-3,558[b]
Asymp. Sig. (2-tailed)	,000

a. Wilcoxon Signed Ranks Test
b. Based on negative ranks.

The negative rating or difference (Negative) between learning outcomes for pre-test and post-test is 0, either the score or N, Mean and Total. This 0 value indicates no reduction of the pre-test and post-test scores.

Positive rating or (positive) learning outcomes is for pre-test and post-test. Here there are 16 positive data (N) which means that 16 students have learning outcomes from pre-test to post-test scores. The main range or average increase is 8.50, while the number of positive levels is 136. Ties is the similarity between the pre-test and post-test scores, here the ties 2 value is the similarity of the pre-test and post-test scores, in here the bond values are 0, so it is said that there is no equal value between pre-test and post-test.

Based on the results of statistical tests, it is known that Asymp. Sig (2-tailed) is 0.000 less than <0.05. It can be concluded that the hypothesis is accepted, meaning that there is a difference between the pre-test and post-test learning outcomes. So it can be concluded that "Structure Dyadic Method can improve students' reading comprehension of descriptive texts".

The purpose of this study was to improve the learning achievement of Semester 2 Students of English Education Study Program in reading comprehension of descriptive texts. Then, the final result of this study showed that the post-test results after using the Structure Dyadic Method were significantly different from the pre-test before using the Dyadic Structure Method. These results indicate that students become more active in reading and teamwork makes them closer to their peers.

From the results of the study, the researcher found that the highest score was 50, while the lowest score was 20, then the range was 30, and the total pre-test score was 430, while the average score was 30, then the median was 25.00, the mode was 20. , the standard deviation was 8.732, and the variance was 76.250. The results of the pre-test were categorized as low, for the mean score of the pre-test was 26.88. And post-test, the researcher found that the highest score was 90, while the lowest score was 60, then the range was 30, and the total pre-test score was 1150, while the average score was 71.88, then the median was 70.00, the mode is 80, the standard deviation is 9,811, and the variance is 96,250. The post-test result was categorized as high, because the post-test mean score was 71.88. It can be concluded that the mean score of pre-test and post-test has increased from 26.88 to 71.88.

From the results of the study, the Wilcoxon test data showed that the average pre-test and post-test increased from 25.00 to 70.00. And based on the results of Wilcoxon's statistical hypothesis test, it is known that Asymp. Sig (2-tailed) is worth 0.000. Because the value of 0.000 is smaller than <0.05, which means that the alternative hypothesis (Ha) is accepted and (Ho) is rejected, it can be concluded that there is a difference in student achievement in the second semester of the English Education Study Program, Tarbiyah Faculty, State Islamic College of Sorong, on reading comprehension of descriptive texts before and after getting treatment using Structure Dyadic Method.

Based on the explanation above, the use of the Structure Dyadic Method on reading comprehension is very good for improving students' ability to read students' descriptive texts. From the results of data analysis, there is a significant difference in the scores of students' reading comprehension of descriptive texts before and after being taught using the Structure Dyadic Method. So, it can be concluded that the use of the Structure Dyadic Method is effective in increasing the understanding of Semester 2 students of the English Education Study Program, Tarbiyah Faculty, State Islamic College of Sorong, in reading descriptive texts.

CONCLUSION

Based on the results of the research and discussion in the previous chapter, the researcher came to the conclusion that the Structure Dyadic Method is effective in improving reading comprehension of descriptive texts. The results showed that the average pre-test score was 26.88 and the post-test results were 71.88. This means a significant increase in the use of the Structure Dyadic Method on reading comprehension of descriptive texts. From the results of the study, the test output data showed that the average pre-test and post-test increased from 25.00 to 70.00. And based on the results of Wilcoxon's statistical hypothesis test, it is known that Asymp. Sig (2-tailed) is worth 0.000. Since the value of 0.000 is smaller than <0.05, which means that the alternative hypothesis (Ha) is accepted and (Ho) is rejected, it can be concluded that there is a difference in student achievement in Semester 2 of English Education Study Program, Tarbiyah Faculty, State Islamic College of Sorong, in reading comprehension of descriptive texts.

REFERENCES

Ary, D., Jacobs, L. C., & Sorensen, C. (2010). *Introduction to Research in Education*. USA: Wadsworth Cengage Learning.

Astuti, W. (2013). *The Effect of Using Partner Reading Strategy toward Reading Fluency at the Second Year Students of Junior High School 1 Sungai Pakning Bengkalis Regency* [UIN SUSKA RIAU]. http://repository.uin-suska.ac.id/10073/1/2013_20131010PBI.pdf

Canto, & Samsudi. (2016). Effectiveness of Structured Teaching Methods Dyadic

(SDM) Results of Student Learning SMK TKR Areas of Expertise. *Jurnal Pendidikan Teknik Mesin*, *16*(2), 53–55.

Durriyah, R. (2017). *The Effectivenes of Using Small Group Discussion on Students Reading Comprehension of Recount Text* [Department of English Education, Faculty of Educational Sciences, State Islamic University Syarif Hidayatullah Jakarta]. https://repository.uinjkt.ac.id/dspace/bitstream/123456789/63391/1/RURY DURRIYAH - FITK.pdf

Harmer, J. (2015). *The Practice of English Language Teaching* (Fifth). London: Pearson.

Hornby, A. S. (2005). *Oxford Advanced Learner's Dictionary of Current English* (7th ed.). Oxford University Press.

Huda, M. (2015). *Cooperative Learning*. Yogyakarta: Pustaka Pelajar.

Johnson, R. B., & Christensen, L. (2017). *Educational research: Quantitative, qualitative, and mixed approaches* (Sixth Edit). California: SAGE Publications.

Leavy, P. (2017). *Research Design*. New York: The Guilford Press.

Sharan, S. (2014). *The HandBook of Cooperative Learning*. Yogyakarta: Istana Media.

Slavin, R. E. (2015). *Cooperative learning : Teori, Riset dan Praktik* (N. Yusron (ed.)). Bandung: Nusa Media.

Tarigan, G. H. (2008). *Membaca Sebagai Suatu Keterampilan Berbahasa*. Bandung : Aksara.