

**NINGKATKAN PEMAHAMAN MEMBACA SISWA KELAS DELAPAN MTS
NEGERI 1 PALU MELALUI TEKHNIK HERRINGBONE**

***IMPROVING READING COMPREHENSION OF GRADE EIGHT STUDENTS OF
MTS NEGERI 1 PALU THROUGH HERRINGBONE TECHNIQUE***

¹*Arnisa*, ²*Muh. Asri Hente*, ³*Muhammad Arid*

^{1,2,3}*Language and Art Education Department. Teacher Training and Education Faculty
Muhammadiyah University of Palu
(Email : arnisaariif.s@gmail.com)
(Email : asri_hente@gmail.com)
(email: muh63arid@gmail.com)*

Correspondence Address:

Name : Arnisa
Faculty : FKIP
Muhammadiyah University of Palu
Hp :-
Email : arnisaariif.s@gmail.com

ABSTRAK

Dalam penelitian ini, peneliti menggunakan penelitian eksperimental semu sebagai desain penelitian. Tujuan dari penelitian ini adalah untuk menginvestasi penggunaan tehnik Herringbone untuk meningkatkan pemahaman membaca siswa kelas delapan MTs. Negeri 1 Palu. Siswa memiliki tiga masalah, salah satu dari masalah tersebut; siswa memiliki masalah terbatas sehingga mereka tidak mampu untuk memahami teks. Instrumen pengumpulan data adalah tes pemahaman membaca (Pra-test dan Post-test). Pra-test dilakukan untuk mengukur pemahaman mereka setelah perlakuan. Data ini telah dianalisis secara statistik dan smapelnya adalah 54 siswa. Ini diambil dari siswa kelas delapan MTs Negeri 1 Palu. Mereka dibagi menjadi dua grup. Grup eskperimen dan grup kontrol. Penemuan penelitian ini menunjukkan bahwa t-hitung adalah 2.353. Signifikan level ini ada 0.05 dan derajat kebebasan adalah 52. Berdasarkan derajat kebebasan t-table adalah 2.013. Nilai t-hitung lebih tinggi dari t-table. Itu dimaksudkan bahwa hipeotesis penelitian diterima. Dengan kata lain, menggunakan tehnik Herringbone dapat meningkatkan pemahaman membaca siswa secara efektif.

Kata kunci: Meningkatkan, Pemahaman membaca, Tehnik Herringbone.

ABSTRACT

In this research, the researcher used quasi-experimental research as a research design. The aims of the research is to investigate the effectiveness of the use of Herringbone technique to improve the students' reading comprehension of grade eight of MTs Negeri 1 Palu. The students had three problems, one of them; the students had limited vocabulary, so they were not able to comprehend the text well. The instrument for collecting the data is a reading comprehension test (Pre-test and post-test). The pre-test was conducted to know the students' prior knowledge before treatment, while the post-test was conducted to measure their understanding after treatment. These data were analyzed statistically and the sample was 54 students. It was taken from grade eight students of MTs Negeri 1 Palu. They were divided into two groups: experimental and control group. The research findings showed that

the t-counted is 2.353. The level of significance was 0.05 and the degree of freedom was 52. Based on the degree of freedom the t-table is 2.013. The t-counted value was higher than the t-table value. It means the research hypothesis is accepted. In other words, the use of the Herringbone technique can effectively improve the students' reading comprehension.

Keywords: *Improving, Reading comprehension, Herringbone technique.*

INTRODUCTION

In learning English, there are four skills one must study. They are listening, speaking, reading and writing. One of the skills in English subject is reading that also has an own passion to make the students really more learn about English. Reading is a necessary skill that any learner needs.

Reading is one way to get a lot of knowledge such as knowing many places, tribes, customs, and culture, habits, business, economics, from every city, region, or other country. The knowledge or information that they got from reading can be used for communicating or sharing with others by giving opinion or idea. So when someone reads a book, they will find many new words in the reading.

Based on the school Curriculum (*Kurikulum 2013*) of Junior high school (*Sekolah Menengah Pertama; SMP*) level that there are four skills that should be achieved in learning process namely listening, speaking, reading, and writing. Reading is one of the four skills that must be mastered by students. It is stated that the students are intended to comprehend the meaning of the functional and short essay text in report, descriptive, narrative and recount text in the context of daily life.

In fact, reading is a problem for students. Most of the junior high school students still have difficulties in comprehending texts. Based on the researcher's preliminary observation in Mts Negeri 1 Palu, there were some problems that the researcher found there. The first, the students had limited vocabulary, so they were not able to comprehend the text well. The second, the texts given by the teacher were not interesting and too hard. So, they make the students lazy to read English texts. The third, the teacher who still used traditional method in teaching reading such as the teacher just gave the material and explained it. This traditional method is not effective because the students get bored and need much time to be able to master English for reading.

From the fact of the problems in the grade eight of Mts Negeri 1 Palu above, the researcher proposes a technique that can be used to improve students' reading comprehension. The proposed technique is the Herringbone technique. Deegan (2006), argues that the Herringbone technique develops comprehension of the main idea by plotting who, what,

when, where, how, and why questions on a visual diagram of a fish skeleton. Using the answers to the why questions, the student writes the main idea across the backbone of the fish diagram. The fish diagram is used to help the students identify the main idea and the related supporting ideas of a lesson, text or concept. It contains six questions that help students organize the details of the text. Based on the explanation above, the researcher conducted a research entitled “Improving Reading Comprehension of grade Eight Students of Mts Negeri 1 Palu through Herringbone Technique”.

RESEARCH METHODS

In this research, the researcher used a quasi-experimental research design with two classes; these were experimental group and control group. The researcher gave treatment to the experimental group. The results of both pre-test and post-test of control and experimental experimental group were compared to find out the significant difference in the class after the application of treatment. The researcher used the research design adopted from Sugiono (2010:112) as follows:

Quasi-Experimental Design

Group	:	Pre-test	Treatment	Post-test
Experimental	:	O1	X	O1
Control	:	O2		O2

Where:

O1= Pre-test

O2= Post-test

X = Treatment

The population of this research was grade eight students of Mts Negeri 1 Palu that consist of eight classes. The researcher used a random sampling technique to determine the sample. She did the following steps. The first, she wrote the names of each class in pieces of paper and folded and put them in a glass. The second, she then shakes and let the pieces of paper came out of the glass. Finally, the first piece of paper that fall became control group, while the second piece of paper that fall became the experimental group. The result was the grade VIII A as a control group, while grade VIII F as an experimental group.

FINDINGS

Table 4.1 attachment, the pre-test of class VIII F as an experimental group was conducted on November, 9th 2018 while class VIII A as a control group on November, 10th 2018.

Table 4.2 attachment, after presenting the pre-test's result of experimental group, the researcher found that the highest score of this class is 55 and the lowest score is 30. She also found that almost all of the students are in the *very poor* category. Then, she calculated the means score of pre-test of experimental groups as follows:

$$M = \frac{\sum X}{N} = \frac{1130}{27} = 41.85$$

The result of pre-test in the control group is identified. The highest score is 60 and the lowest score is 30. The researcher found that almost all of the students in the *very poor* category. It has a similarity with the pre-test's result of the experimental group. Then, she calculated the students mean score by using the following formula:

$$M = \frac{\sum X}{N} = \frac{1200}{27} = 44.4$$

The Result of the Post-Test

Table 4.3 attachment, the result of post-test in the experimental group is identified. The researcher found that the highest score of this class is 80, and the lowest score is 50. She also found that there are some differences in the categories of the post-test namely good, fair, and poor. It is different from the pre-test which all of the students are in the *very poor* category. Then, she calculated the students mean score by using the following formula:

$$M = \frac{\sum X}{N} = \frac{1950}{27} = 72.22$$

Table 4.4 attachment, the result of the control group is identified. The researcher qualified that the highest score is 80 and the lowest score is 50. She found that almost all of the students in the *poor* category while another student has a *fair* and *good* category. In other words, there is a change in the pre-test and post-test results of the control group. Then, she calculated the students mean score by using the following formula:

$$M = \frac{\sum X}{N} = \frac{1645}{27} = 60.92$$

Table 4.5 attachment, after calculating each mean score of pre-test and post-test of experimental and control group, the researcher then calculated the mean deviation score of both classes.

Table 4.6 attachment, the table score deviation above shown that the square deviation is 26050. It is indicated that the student's score has increased.

Then, the researcher calculated the mean deviation score by using the following formula:

$$M_x = \frac{\sum X}{N} = \frac{820}{27} = 30.37$$

$$M_y = \frac{\sum y}{N} = \frac{445}{27} = 16.48$$

The mean deviation score of the experimental group is 30.37 while the control group is 16.48. Then, the researcher calculated the mean square deviation score of experimental group and control group by using the following formula;

Experimental group Control group

$$\sum x^2 = \sum x^2 - \left(\frac{\sum x}{N}\right)^2 \quad \sum y^2 = \sum y^2 - \left(\frac{\sum y}{N}\right)^2$$

$$= 26050 - \left(\frac{820}{27}\right)^2 \quad = 7725 - \left(\frac{445}{27}\right)^2$$

$$= 26050 - 922.34 \quad = 7725 - 271.59$$

$$= 25127.66 \quad = 7453.41$$

$$= 25127.66 \quad = 7453.41$$

The mean square deviation score of the experimental group is 25127.66 is greater than the mean square deviation score of control group is 7453.41. The degree of freedom is $27 + 27 - 2 = 52$. The t-table with the level of significance is 0.05.

In other words, to find out the significant difference between experimental and control group, the researcher needs to analyze the data by using t-test formula as follow:

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

$$t = \frac{30.37 - 16.48}{\sqrt{\left(\frac{25127.66 + 7453.41}{27 + 27 - 2}\right) \left(\frac{1}{27} + \frac{1}{27}\right)}}$$

$$t = \frac{13.89}{\sqrt{\left(\frac{25873.07}{52}\right) \left(\frac{1}{27} + \frac{1}{27}\right)}}$$

$$t = \frac{13.89}{\sqrt{\left(\frac{25873.07}{52}\right)\left(\frac{2}{27}\right)}}$$

$$t = \frac{13.89}{\sqrt{(497.56)(0.07)}}$$

$$t = \frac{13.89}{\sqrt{(34.83)}}$$

$$t = \frac{13.89}{5.902}$$

$$t = 2.353$$

To determine t-table value of 52 degree of freedom, the researcher applied interpolation formula because 52 degree of freedom is not found in the t-table value. The calculation is as follows:

$$\text{Degree of freedom} = N_x + N_y - 2$$

$$27 + 27 - 2 = 52$$

Level of significance is 0.05

- a. $60 - 52 = 8$
- b. $60 - 40 = 20$
- c. $2.021 - 2.000 = 0.021$
- d. $\frac{a}{b} \times c = \frac{8}{20} \times 0.021 = 0.008$ □

If degree of freedom 52 is $2.021 - 0.008 = 2.013$. In the t-table value of 52 degree of freedom is 2.013

Since t-counted is greater 2.353 than t-table value is 2.013, H_a is accepted.

DISCUSSION

The object of this research is grade eight students of Mts Negeri 1 Palu. The researcher gave the treatment to the grade VIII F students by using the Herringbone technique. This technique can improve the students' reading comprehension. It can be seen from the results of the tests that have been given to the students. This technique helped the students to identify the information in the reading text.

The researcher conducted her research on November 9th – December 1st, 2018. The researcher gave the pre-test to both groups; they were grade VIII A and VIII F before conducting the treatment. Then the researcher gave treatment in six meetings to the experimental group. Then, the post-test was given to both classes after the treatment. In the

pre-test and post-test, she gave test namely 10 multiple choice items and 5 essay items. The total of the test was 15 items.

The researcher provided the material with fun activities so that students remain enthusiastic until the end of the learning. First and second meetings, she provided an example of text and asked them to read. Then, she guided the students to draw a visual diagram of the Herringbone technique. Third and fourth meetings, she guided the students to identify specific information in the text by using six questions (What, where, when, why, who, and how). Fifth meetings, she divided students into pairs and asked them to summarize the specific information into a paragraph. The last meeting, she asked the students to make a text related to their experience by using (5W+1H).

During treatment, the researcher had some problems during teaching and learning process; 1) Almost of the students were confused when they read the text because they had limited vocabulary. 2) They lacked attention when the researcher explained the material because they were less interested in learning English. 3) Some of the students did not read the text fluently because they have less practice to read English text. On the contrary, the researcher got some progress during the teaching and learning process. First, students' vocabulary has increased. Second, the students were more motivated and interested in learning English. Third, the students read the text fluently.

The result of post-test of the experimental group is 72.22 and the control group is 60.92. There is an improvement in the result of the experimental group, the improvement is 30.37. It is different up from 41.85 to 72.22. She compared the experimental group result with the control group improvement. The improvement of the control group is 16.48. It is different up from 44.44 to 60.92. She concludes that the Herringbone technique can improve the students' reading comprehension.

CONCLUSION AND SUGGESTION

Based on the data analysis at the previous chapter, the students' achievement of reading comprehension is improved by a Herringbone technique in the teaching-learning process. It can be proved by the score of pre-test and post-test. The score of post-test is greater than pre-test. The experimental group shows that the score of pre-test is 41.85 and the score of post-test is 72.22. Meanwhile, the control group shows that the score of pre-test is 44.44 and the score of post-test is 60.92. It means that there is a difference between t-counted values 2.353 than t-table value 2013. This indicates that the Herringbone technique improved reading comprehension of the grade eights students of Mts. Negeri 1 Palu. Having known the

findings of the research, the researcher gives suggestions as follows: The researcher suggested that this technique is suitably applied for students of junior high school. The institution can use this technique as a technique to teaching and learning process. Especially in teaching English, the institution should pay attention to what technique should be applied for teaching English in order that students can improve their comprehension in English subject.

REFERENCES

- Departemen Pendidikan Nasional, (2017). *Kurikulum 2013 Mata pelajaran Bahasa Inggris: Sekolah Menengah Pertama (SMP) Madrasah Tsanawiyah (MTs)*. Jakarta: Departemen Pendidikan Nasional.
- Margeretta. (2014). *Teaching reading descriptive text using herringbone technique of second grade students of SMP N 1 Pontianak*. Pontianak: Tanjungpura University. Available at: <http://Jurnal.Untan.Ac.Id/Index.Php/Jdpdp/Article/Download/9356/92>. Accessed on 3 January 2018.
- McNamara, D.S. (2007). *Reading Comprehension Strategies: Theories, Interventions, and Technologies*. Mahwah, New Jersey: Lawrence Erlbaum Associates. Inc., Publishers.
- Nisa, K. (2015). *Improving students' reading comprehension by using herringbone technique in recount text at first grade students in SMP N 3 Langsa*. Langsa: IAIN Zawiyah Cot Kala Langsa. Available at: <http://digilib.iainlangsa.ac.id/id/eprint/463>. Accessed on January 2018.
- Sugiono. (2010). *Metode Penelitian Kuantitatif dan Kualitatif R&D*. Bandung: Alfabeta.

ATTACHMENT

Table 4.1
Pre-test Score of the Experimental Group (N=27)

No	Initials	Raw Score	Score	Qualification	Category
1.	VI	8	40	Very Poor	Failed
2.	FI	7	35	Very Poor	Failed
3.	DZ	8	40	Very Poor	Failed
4.	ML	9	45	Very Poor	Failed
5.	AD	8	40	Very Poor	Failed
6.	FD	9	45	Very Poor	Failed
7.	AR	8	40	Very Poor	Failed
8.	NB	11	55	Poor	Failed
9.	NJ	8	40	Very Poor	Failed
10.	AS	8	40	Very Poor	Failed
11.	MT	7	35	Very Poor	Failed
12.	DE	9	45	Very Poor	Failed
13.	AP	7	35	Very Poor	Failed
14.	FN	8	50	Poor	Failed
15.	FL	9	45	Very Poor	Failed
16.	RQ	11	55	Poor	Failed
17.	AC	8	40	Very Poor	Failed
18.	FD	9	45	Very Poor	Failed
19.	IN	8	40	Very Poor	Failed
20.	YF	7	35	Very Poor	Failed
21.	RN	11	55	Poor	Failed
22.	JL	6	30	Very Poor	Failed
23.	AA	8	40	Very Poor	Failed
24.	AZ	10	50	Poor	Failed
25.	AF	8	40	Very Poor	Failed
26.	RI	7	35	Very Poor	Failed
27.	AK	7	35	Very Poor	Failed
Total		224	1130		
Averag			41.85	Very Poor	Failed

Table 4.2
The Pre-test Score of the Control Group (N=27)

No	Initials	Raw Scores	Score	Qualification	Category
1.	NQ	7	35	Very Poor	Failed
2.	MF	8	40	Very Poor	Failed
3.	NR	11	55	Poor	Failed
4.	LN	10	50	Poor	Failed
5.	MR	9	45	Very Poor	Failed
6.	AN	12	55	Poor	Failed
7.	NP	10	50	Poor	Failed
8.	AY	7	35	Very Poor	Failed
9.	MA	12	60	Poor	Failed
10.	YG	8	40	Very Poor	Failed
11.	MF	9	45	Very Poor	Failed
12.	AS	10	50	Poor	Failed
13.	AD	8	40	Very Poor	Failed
14.	AP	7	35	Very Poor	Failed
15.	ZN	6	30	Very Poor	Failed
16.	FD	7	35	Very Poor	Failed
17.	SY	10	50	Poor	Failed
18.	SP	9	45	Very Poor	Failed
19.	SV	8	40	Very Poor	Failed
20.	AA	12	60	Poor	Failed
21.	RA	10	50	Poor	Failed
22.	DS	9	45	Very Poor	Failed
23.	LV	6	30	Very poor	Failed
24.	MI	10	50	Poor	Failed
25.	NN	9	45	Very Poor	Failed
26.	HL	11	55	Poor	Failed
27.	ID	6	30	Very Poor	Failed
Total		241	1200		
Average			44.44	Very Poor	Failed

Table 4.3
Post-test Score of the Experimental Group (N=27)

No	Initials	Raw Score	Score	Qualification	Category
1.	VI	16	80	Good	Successful
2.	FI	14	70	Fair	Fair
3.	DZ	13	65	Fair	Fair
4.	ML	14	70	Fair	Fair
5.	AD	15	75	Good	Successful
6.	FD	15	75	Good	Successful
7.	AR	14	70	Fair	Fair

8.	NB	16	80	Good	Successful
9.	NJ	13	65	Fair	Fair
10.	AS	14	70	Fair	Fair
11.	MT	15	75	Good	Successful
12.	DE	16	80	Good	Successful
13.	AP	13	65	Fair	Fair
14.	FN	15	75	Good	Successful
15.	FL	14	70	Fair	Fair
16.	RQ	15	75	Good	Successful
17.	AC	14	70	Fair	Fair
18.	FD	15	75	Good	Successful
19.	IN	16	80	Good	Successful
20.	YF	14	70	Fair	Fair
21.	RN	15	75	Good	Successful
22.	JL	10	50	Poor	Failed
23.	AA	13	65	Fair	Fair
24.	AZ	16	80	Good	Successful
25.	AF	15	75	Good	Successful
26.	RI	14	70	Fair	Fair
27.	AK	16	80	Good	Successful
Total		392	1950		
Average			72.22	Fair	Fair

Table 4.4
Post-test Score of the Control Group (N=27)

No	Initials	Raw Score	Score	Qualification	Category
1.	NQ	10	50	Poor	Failed
2.	MF	11	55	Poor	Failed
3.	NR	14	70	Fair	Fair
4.	LN	12	60	Poor	Failed
5.	MR	11	55	Poor	Failed
6.	AN	15	75	Good	Successful
7.	NP	14	70	Fair	Fair
8.	AY	10	50	Poor	Failed
9.	MA	15	75	Good	Successful
10.	YG	12	60	Poor	Failed
11.	MF	11	55	Poor	Failed
12.	AS	12	60	Poor	Failed
13.	AD	12	60	Poor	Failed
14.	AP	11	55	Poor	Failed
15.	ZN	10	50	Poor	Failed
16.	FD	10	50	Poor	Failed
17.	SY	14	70	Fair	Fair
18.	SP	12	60	Poor	Failed
19.	SV	12	60	Poor	Poor
20.	AA	16	80	Good	Successful
21.	RA	14	70	Fair	Fair
22.	DS	12	60	Poor	Failed

23.	LV	10	50	Poor	Failed
24.	MI	12	60	Poor	Failed
25.	NN	12	60	Poor	Failed
26.	HL	14	75	Good	Successful
27.	ID	10	50	Poor	Failed
Total		328	1645		
Average			60.92	Failed	Failed

Table 4.5
Deviation Score of Pre-test and Post-test of Experimental Group

No	Initials	Pre-Test X^1	Post-Test X^2	Deviation X^2-X^1	Square Deviation X^2
1.	VI	40	80	40	1600
2.	FI	35	70	35	1225
3.	DZ	40	65	25	625
4.	ML	45	70	25	625
5.	AD	40	75	35	1225
6.	FD	45	75	30	900
7.	AR	40	70	30	900
8.	NB	55	80	25	625
9.	NJ	40	65	25	625
10.	AS	40	70	30	900
11.	MT	35	75	40	1600
12.	DE	45	80	35	1225
13.	AP	35	65	30	900
14.	FN	50	75	25	625
15.	FL	45	70	25	625
16.	RQ	55	75	20	400
17.	AC	40	70	30	900
18.	FD	45	75	30	900
19.	IN	40	80	40	1600
20.	YF	35	70	35	1225
21.	RN	55	75	20	400
22.	JL	30	50	20	400
23.	AA	40	65	25	625
24.	AZ	50	80	30	900
25.	AF	40	75	35	1225
26.	RI	35	70	35	1225
27.	AK	35	80	45	2025
Total		1130	1950	820	26050

Table 4.6
Deviation Score of Pre-test and Post-test of the Control Group

No	Initials	Pre-Test Y^1	Post-Test Y^2	Deviation Y^2-Y^1	Square Deviation Y^2
1.	NQ	35	50	15	225
2.	MF	40	55	15	225

3.	NR	55	70	15	225
4.	LN	50	60	10	100
5.	MR	45	55	10	100
6.	AN	55	75	20	400
7.	NP	50	70	20	400
8.	AY	35	50	15	225
9.	MA	60	75	15	225
10.	YG	40	60	20	400
11.	MF	45	55	10	100
12.	AS	50	60	10	100
13.	AD	40	60	20	400
14.	AP	35	55	20	400
15.	ZN	30	50	20	400
16.	FD	35	50	15	225
17.	SY	50	70	20	400
18.	SP	45	60	15	225
19.	SV	40	60	20	400
20.	AA	60	80	20	400
21.	RA	50	70	20	400
22.	DS	45	60	15	225
23.	LV	30	50	20	400
24.	MI	50	60	10	100
25.	NN	45	60	15	225
26.	HL	55	75	20	400
27.	ID	30	50	20	400
Total		1200	1645	445	7725