

THE APPLICATION OF HERRING BONE METHOD IN TEACHING READING COMPREHENSION

(A Research Conducted at first Grade of SMA Negeri 1 Telaga Biru)

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Abstract

This research aims to find out whether the application of Herring Bone method can improve students' reading comprehension on Recount text at SMA Negeri 1 Telaga Biru. It was conducted to first grade particularly class X IPA 1 as the sample of this research. The researcher conducted a one group pre-test post-test design in order to find out the significant difference of students' reading comprehension before and after being taught through Herring Bone method. The quantitative method is applied for this research because this type of research is explaining a phenomenon by collecting numerical data that are analyzed statistically. As the result, the application of Herring Bone method can improve students' reading comprehension on narrative text. It showed based the result of mean score in pre-test is 15,3 and in post-test increased to 17,9. In addition, the application of this method helps the students arrange the idea in comprehending the content of text, made the students became active and more interesting in reading activity.

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INTRODUCTION

The ability of students in comprehending the text being a crucial thing to consider in teaching and learning process. As a receptive skill, reading plays a pivotal role in the process of acquiring information from the text. Nunan (2003) states that reading is a combination process between students' comprehension of information from the text and students' background knowledge in building a meaning. Moreover, he argues that the ability of students in comprehending the information provided in the text is important in constructing the meaning of the text. To sum up, the students' ability in reading a text and combining their background knowledge is important in comprehending the meaning of a text.

Further, there are several processes of comprehending a text through reading which students should give their attention. According to Kennedy (1981, p. 24), comprehending a text through reading is a thinking process by which the students decide and solve the problem from the text through finding out the facts, information, or ideas that available on the text material. The ability of students in relating their previous knowledge and their ability in determining the meaning of the text is needed in comprehending the text.

Based on the curriculum 2013 which is contained in the regulation of Ministry of Education and Culture number 24 of 2006, there are 13 long functional genre texts that are taught in senior high school. Those are recount text, narrative text, descriptive text, report text, procedure text, explanation text, analytical and hortatory exposition text, discussion text, review text, spoof, and news item text. Relating with the students' ability in reading, one of the text materials that required students to comprehend the meaning of the text and combining their prior knowledge is recount text. It is learned by the senior high school students at grade X. Recount text is a text that tells about something which is happened in the past. It is required students' ability in comprehending the content of a text through questioning who, what, why, when, where, and how.

In fact, the students' ability in comprehending a text through reading is still low. Based on the preliminary observation that the researcher has done in SMA N 1 Telaga Biru, the students at grade X get difficulties in comprehending a text material, such as finding the main ideas, determining the topic sentences, identifying general and specific information from a text, and defining vocabulary context of the text material. Those problems are caused by the students' reading comprehension skill which is need improvement. As a cosequence, the students tend to use google translate to make them easier in knowing the information and comprehending the meaning of the text. Besides, students' willingness and motivation in learning process, particularly in reading comprehension is very low because they were not active in learning process. They tend to stay quiet while the teacher ask them and they do not pay attention to the teacher's explanation. Indeed, the students do not apply any reading strategies effectively in order to gain the information from a text. As a result, their learning outcomes will be not maximal.

However, the factor that influence those problems are not only come from the students itself, but also from the teacher. Based on the observation to the English teachers in SMA N 1 Telaga Biru, the researcher found that the method that the teacher applied in classroom is not make the students be active in classroom. The teacher only applying lecturing method, where the teacher only ask several questions about the types of the text to the students, and then give the concept of the material directly to the students. Hence, it is made the students are not involved in teaching and learning process, whereas the exploration of the topic or the concept of the material by the students itself is crucially important. Moreover, the teacher tends to ask the students only reading the whole text without guiding them to comprehend the content of the text. After that, the students are asked to answer the following questions related to the text. As a result, the students will feel bored and their reading comprehension skill will not be improved.

Because of those reasons, the teacher needs to apply many different kinds of methods in teaching and learning process to enhance students' enthusiasm in learning and

improve their ability in comprehending a text through reading. The teacher should choose an appropriate method which is suitable with the students and it can improve students' reading comprehension. Relating with this, Thaler (2008, p. 88) in Kartika (2015, p. 18) suggest one of the methods that can be used to teach reading by analyzing the single idea of the text, which is herringbone method.

Previously, there are several researchers that have conducted a research to improve students' reading comprehension by using herringbone method. First, a research was conducted by Nurqomariyah (2015) who conduct a research entitle "The Effectiveness of Teaching Reading using Herringbone Technique to the Students' Reading Comprehension Of Tenth Grade at MA Ar Rosyaad Balong Academic Year 2014/2015. The methodology of her research is quantitative method. The result of her research shows that students reading comprehension is increased significantly after the researcher applied the herringbone technique in teaching reading about narrative text material to the students. The second research was conducted by Kartika (2015) entitle "Improving the Students' Reading Comprehension through Herringbone Technique". The objective of her research is to find out the implementation of herringbone in improving students' reading comprehension at SMP N 1 Bergas grade eight. The result of her research shows that students' reading comprehension is improved after herringbone method is applied. Her research result shows that herringbone method can enrich students vocabulary and help them in remembering the information and main idea of the text.

Therefore, based on the previous researchers above, it can be seen that the implementation of herringbone method can improve students' reading comprehension. Therefore, the researcher attempts to apply herring bone method in teaching students' reading comprehension. According to Thaler (2008, p. 88) cited in Kartika (2015, p. 18), herringbone method is a method that consist of short graphic organizer to make the students easier to find out the content of the text and comprehend the meaning of the text. In

applying this method, the teacher should draw a fishbone graphic organizer and the students should answer the question listed in the graphic based on the text.

Based on the explanation above, the researcher attempts to conduct a research entitled “The Application of Herring Bone Method in Teaching Reading Comprehension”

METHOD

Quantitative method is applied in order to know the result of this research. Quantitative method is a method that explaining a phenomenon by collecting and analyzing the data in statistical and numerical form (Aliaga & Gunderson, 2002 cited in Apuke, 2017).

POPULATION AND SAMPLE OF RESEARCH

This research is conducted in SMA N 1 Telaga Biru. The population of this research is the students at grade X, which is consisted of five classes, as follow X IPA 1, X IPA 2, X IPS 1, X IPS 2, and X IPS 3. Moreover, the sample of this research is taken by using purposive sampling technique. Hence, the sample is class X IPA 1, which is consisted of 29 students. The reason why this class is chosen as the sample of this research because of the students’ reading comprehension skill which need an improvement. They still face several difficulties in reading a text. Besides, their willingness and motivation in learning process is still low.

TECHNIQUE ANALYZING THE DATA

In this research, the data are analyzed by using statistical analysis by following several steps, as follow:

Normality Test

In this part, the data are analyzed by using normality test to find out the normality of the data. The step of normality test is:

1. Observation $X_1, X_2, X_3, \dots, X_n$ become derivation $Z_1, Z_2, Z_3, \dots, Z_n$ by using formula $Z_i = \frac{X_i - \bar{X}}{S}$
 Z_i : Standard of value
 X_i : Students score
 \bar{X} : Mean score
 S : Derivation Score
2. For every definition used the distribution of normal and then count the definition by using the formula = $F(Z_i) - P(Z \leq Z_i)$
3. Then, count the proportion $Z_1, Z_2, Z_3, \dots, Z_n$ which small or similar with Z_i . If the proportion is stated by $S(Z_i)$, therefore :

$$S_{Z_i} = \frac{\text{amount of } Z_1, Z_2, \dots, Z_n \leq Z_i}{n}$$
4. Counting the deviation of $F(Z_i) - S(Z_i)$ then set the absolute value.
5. After that, determine the big value deviation and take as L_0
6. The data called normal if $L_0 < L_{list}$

Testing Hypothesis.

Testing hypothesis is used in order to determine whether the application of herringbone method can improve students' reading comprehension or not. The formula is:

$$t = \frac{Md}{\sqrt{\frac{\sum x^2d}{N(N-1)}}$$

Where:

Md : The difference mean score between pre-test and post test

X_d : the derivation of each sample ($d - Md$)

$\sum x^2d$: the total of square derivation

N : number of sample

$d.b$: The degree of freedom ($N-1$)

Hypothesis Verification

The hypothesis verification is used in order to determine the result of the research, whether it is accepted or rejected. In this research, the level of significance of $\alpha = 0,05$ is used. The formula of criteria of hypothesis testing is:

H_0 will be accepted if $t_{count} < t_{table}$

H_1 will be rejected if $t_{count} > t_{table}$

- H_0 = Herringbonemethod cannot improve students' reading comprehension
 H_1 = Herringbone method can improve students' reading comprehension

RESULT

Pre-Test

The data finding of pre-test was presented as following table below:

Pre- test is the first test that applied to the students before treatment and post- test. Pre- test is used to find out the students' ability in comprehending reading text before herringbone technique is applied to the students. The test was given to class X IPA 1 with the total number of test 35 numbers.

After analyzing the students' score in pre- test data, the researcher found that the students' score of pre- test data, as follow:

Students' Score in Pre- Test Data

The lowest score	8
The highest score	26
The mean (\bar{X}) of score	15, 3
The standard derivation (S_d) of score	4, 96
The range of interval class (R)	18
The amount of interval class (K)	6
The wide of interval class (P)	3

Furthermore, the interval score of pre- test data is presented in the table form. The table has three parts, namely class interval, frequency absolute, and frequency relative. Class interval contained the students' score from the lowest to the highest score in reading comprehension. Frequency absolute is the total number of students who got score in certain range. Ffrequency relative is the percentage of frequency absolute.

The interval frequency of Pre-test data

No.	Class Interval	F Absolute	F Relative
1.	8 – 10	5	25%
2.	11 – 13	4	20%
3.	14 – 16	3	15%
4.	17 – 19	3	15%
5.	20 – 22	3	15%
6.	23 – 25	1	5%
7.	26 – 28	1	5%
Total		20	100%

Result of Treatment

First Meeting (December, 28th 2021)

The result of the first meeting showed that not all of the students already know how to use the diagram to answer the questions. Besides, there were some students who cannot answer the text because they did not really understand the text. They were tended to wait for other friends to answer the questions rather than read the text comprehently. The researcher found that they were difficult to understand the content of the text, so that they cannot fill the diagram.

Second Meeting (January, 7th 2022)

The result of the second meeting shown that the most of the students already know how to use visual diagram of herringbone in answering the question of the text. moreover, they can answer the question and find the main idea of the text with the right answer. Besides, they also can give different answer with other students which is still related to the text. It means that they can comprehend the text by giving their own opinion in answering the text.

Third & Fourth Meeting (January, 11th & 15th 2022)

The result of the third and the fourth meetings showed that the students easier in finding the answer of the given questions in the graph of herringbone. Comparing to two previous meetings, the students more concentrate in reading the text in order to find the content of the text. Besides, the students can answer the questions with the right answer. Besides, they also can determine main idea of the text without researcher's guide.

Post-Test

After pre- test and several treatments were given to the students, then the researcher gave post- test to the students. the test instrument that given was the same test with pre- test. The result of post- test then compared with the result of pre- test. The comparison result of pre- test and post- test is used to find out the students' reading comprehension ability in recount text after herringbone method was given to them. After analyzing the students' score in post- test data, the researcher found that the students' score of post- test data, as follow:

Students' Score in Post- Test Data

The lowest score	10
The highest score	30
The mean (\bar{X}) of score	17,9
The standard derivation (S_d) of score	5,37
The range of interval class (R)	20
The amount of interval class (K)	6
The wide of interval class (P)	3

Moreover, The interval score of post- test data is presented below, as follow:

The interval frequency of Post-test data

Class Interval	Frequency	Percent
10 – 12	3	15%
13 – 15	4	20%
16 – 18	5	15%
19 – 21	2	10%
22 – 24	3	15%
25 – 27	2	10%
28 – 30	1	5%
Total	20	100%

Data Analysis

Based on the result analysis of pre- test and post- test data, the researcher found that there were differences result between students' pre- test score and post- test score. In the analysis data of pre- test score, the students' lower score was 8 and the higher score was 26. Whereas, the result analysis data of post- test score showed that the students' lower score was 10 and the higher score was 30. The mean score of students in pre-test 15, 3 while in post-test was 17, 9. The standard deviation in the pre-test was 4, 96 while in the post-test was 5, 37. From the result above, it can be seen that the students' score in post- test is higher than pre- test score. Therefore, it can be concluded that the students' reading comprehension in recount text is increased after herringbone method was applied to the students.

The Normality Analysis

Normality Analysis of Pre-test

In this research, lilieforse method was used in order to analyze the normality of pre-test data. Based on the result of normality analysis of pre- test data, the researcher found that $L_0 = 0,126$. This value was obtained from the big value of $\sum F(Z_i) - S(Z_i)$. Moreover, the level of significance that used in this research was $\alpha = 0,05$, with the total sample of this study was 20. The critical of value was $L_{list20} = 0,19$. Therefore, it can be concluded that the data of pre-test was normal because because $L_0 < L_{list}$ or $0,126 < 0,19$.

Normality Analysis of Post-test

In analyzing the data, lilieforse method is used in order to analyze the normality of post- test data. Based on the result of normality testing of post- test data, it was found that $L_0 = 0,124$. The value of L_0 was obtained from the big value of $\sum F(Z_i) - S(Z_i)$. Moreover, the researcher used the level of significance with $\alpha = 0,05$, and the sample of this study was 20. The critical of value was $L_{list20} = 0,19$. Therefore, it can be concluded that the data of post- test was normal because because $L_0 < L_{list}$ or $0,124 < 0,19$.

Testing Hypothesis

The researcher used t-test formula to analyze the result of pre-test and post-test. It can be explain detail as follow:

$$t = \frac{Md}{\sqrt{\frac{\sum Xd^2}{N(N-1)}}}$$

Arikunto (2009 p.325)

- Md = the difference mean score between pre-test and post-test
- Xd = the derivation of each sample (d-Md)
- $\sum xd^2$ = the total of square derivation
- N = number of sample
- d.f = The degree of freedom (N-1)

N	Df (n-1)	Tcount	Tlist
20	18	4, 570	2, 101

Based on the analysis of the t-test, the researcher found that the value of $Md = 3,05$; $\chi^2 = 148,95$; $N = 20$; and $D.f = 18$.

Hypothesis verification :

$$\begin{aligned}
 T_{list} &= (\alpha \frac{1}{2}) (n - 2) \\
 &= (0.05 \frac{1}{2}) (18) \\
 &= (0,025) (18) \\
 &= 0,025,18 \\
 &= 2,101
 \end{aligned}$$

T_{test} is higher than T_{list} : $4,570 > 2,101$

After the value of items were found, then the value of t- count was counted by using the formula of t- count. The result of t- count is 4, 570. Therefore, based on the data result that found by the researcher, it can be concluded that the students' reading comprehension was increased because the hypothesis (H_1) is accepted, where $t_{count} \geq t_{list}$ or $4, 570 \geq 2,101$.

DISCUSSION

After the data findings were analyzed, the researcher concluded that the application of herringbone method can improve students' reading comprehension. As stated by Thaler (2008) cited in Kartika (2015) that the implementation of herringbone method is helpful for the students in organizing their ideas to find the content of the text. Besides, the effect of herringbone method towards the students' reading comprehension can be seen from the comparison result of pre- test score and post- test score, in which there is an increasement of students' score in post- test.

According to the result of pre- test data analysis, it can be seen that the students' ability in reading comprehension was still low. It can be seen from their scores in pre- test, which there were 25% of students who got score in the range 8- 20, and only 5% students can get high score in the range 26- 28. After herringbone method was applied in teaching and learning process in four meetings, the students' reading comprehension were being improved. The improvement can be seen from the result of post- test analysis data. based on the analysis of post- test data, there were 15% students who get score in the range 10- 13 and 5% students gwt score in the range 28- 30. Therefore, it can be stated that there were an increasement of the students' score in reading comprehension after herringbone method was applied to them.

Through the implementation of herringbone method, the students' ability in organizing their ideas in order to find the content of the text is being increased. Since they already make their own visual diagram, they are easier in comprehending the content of the text. It is supported by Tierney et al (1980) in Ramadhani & Harputra (2016) who stated that the visual diagram of herringbone method can help the students to organize and comprehend the content and ideas from the text. Therefore, it can be said that herringbone method can be a guide for the students in transferring the important information from the text to the diagram.

Furthermore, the application of this method also can make the students to be more active in reading activity because they have to compete with other groups in finding the answer of the questions. Besides, they are being easier in comprehending the text because they can encode the information of the text structurally without spending much times in reading the text. it is supported by Kartika (2015) who states that the use of herringbone method can make the students to feel out of boring while reading the text and their reading comprehension will be improved. It is because the students have to do some steps of herringbone method in reading activity and encourage them to focus on reading the text in order to answer the questions that available on the diagram. Besides, the students will be

more motivated in reading activity since they have to share their discussion result to the other groups.

From the explanations above, it can be concluded that the application of herringbone method in teaching and learning process give many advantages to the students. the students' reading comprehension were being improved because the diagram become a guide for them in reading the text. Moreover, they can find the content of the text by spending a few times since they can directly focus on finding the answer of the questions given on the diagram. As a result, the students can feel more enjoy and motivated in reading activity. The improvement of the students' reading comprehension also can be seen from the differences score result of pre- test data and post- test data. The students' score in post- test was higher than their score in pre- test after herringbone method is applied in teaching and learning process. Therefore, it can be concluded that the implementation of herringbone method can improve students' reading comprehension in SMA N 1 Telaga Biru class X IPA 1.

CONCLUSION

According to the results analysis of data findings and discussion, the researcher seeks a conclusion that the application of herringbone method can improve students' reading comprehension, particularly in recount text. Based on the research result, it can be seen that the application of herringbone method gives several advantages to the students in learning process. By using herringbone method in learning process, the students were helpful to arrange their ideas in comprehending the content of the text. The visual diagram that consist of the questions related to the text made the students easily to find the content of the text that was being read. As a result, the students being more interest and active in reading activity and their comprehension will be improved.

Moreover, based on the result of pre- test, it showed that the students' ability in reading comprehension was still low. It is proved from the students' pre- test score, which

was the lowest score was 8 and the highest score was 26. After herringbone method was applied to the students in treatment process, the students' score was increased. It can be seen from the students' post- test score that the lowest score was 10 and the highest score was 28. As a result, it can be concluded that the application of herringbone method has a good impact towards students' reading comprehension.

REFERENCES

- Apuke, O. D. (2017). Quantitative Research Methods a Synopsis Approach. *Arabian Journal of Business and Management Review (Kuwait Chapter)*, 6 (10).
- Kartika, C.T. (2015). *Improving the Students' Reading Comprehension through Herringbone Technique*. Salatiga: State Institute for Islamic Studies (IAIN) Salatiga.
- Kennedy, C. E.(1981). *Method in Teaching Developmental Reading: USA*: Peacock Publisher Inc.
- Nunan, D. (2003). *Practical English Language Teaching*. New York, McGraw Hill.
- Nurqomariyah, T.M. (2015). *The Effectiveness of Teaching Reading using Herringbone Technique to the Students Reading Comprehension of Tenth Grade at Ma Ar Rosyaad Balong Academic Year 2014/2015*. Kediri: University of Nusantara PGRI Kediri.
- Ramadhani, Y.R., & Harputra, Y. A Comparative Study Between Teaching Reading Comprehension Of Narrative Text By Using The Herringbone Technique (HT) And The Context Clues Strategy To The Eighth Grade Students Of SMP Negeri 3 Padang sidimpuan In 2011-2012 Academic Year. *IOSR Journal of Research & Method in Education (IOSR-JRME)*, 6 (2), 1-5. DOI: 10.9790/7388-0602020105.