



The Implementation of Herringbone Technique to Improve Students' Reading Comprehension

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ABSTRACT

The objectives of the research are: (1) To find out whether the Herringbone technique able to improve students' reading comprehension. (2) To describe what extent does the implementation of Herringbone technique to improve students' reading comprehension. The researchers applied classroom action research (CAR) as the design of this study. The subjects were 19 students of class XI MIA II MAN 1 Bitung which consisted of 8 male students and 11 female students. In this research, the researchers used several data collection instruments, including observation, interview, tests, and documentation. Having given the test, the researchers instructed the research subjects to work on multiple-choice questions. This research involved two cycles: such as cycle I and cycle II. During the cycles, there were four stages included, namely: planning, action, observation, and reflection. The findings said that the achievement of the students' completeness percentage in pre-test was low (31.58%). It can be stated also that the attention and the participation of students was not effective enough. Meanwhile, the result of cycle I showed that the percentage of students' completeness was 47.37%. From this result, there seemed to have more cycle to solve. Likewise, the researchers carried out the second cycle to revise problems in the first cycle. For the result of cycle II, it showed that herringbone technique improved students' reading comprehension skills. It was supported by seeing the students active in responding the material like asking question, having enthusiasm to do the exercise, participating in discussions, and improving themselves in every test. This was also proven by the increase in the percentage of students' completeness in the cycle II (84.21%).

Key Words: Herringbone Technique, Reading Comprehension

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INTRODUCTION

Reading comprehension is a complex skill for students to learn. Klingner, Vaughn, and Broadman (2007) stated that reading comprehension is a complicated process involving the interaction of several components. Those components are readers, their background knowledge, their reading strategy or technique, the text, their interest in the topic, and their knowledge of the text types. Furthermore, Snow (2002) divides the component that interacts and involves in reading comprehension into three parts; the reader, the text, and the activity include the aim, procedures, and outcomes of any reading attitude.

Having understood about reading comprehension in English Language Teaching, the teacher's main responsibility is to assist students in improving their reading comprehension skills. In this case, the teacher must create techniques that will overcome students' problems in the learning process when teaching and learning reading comprehension. One of the

common technique in teaching reading comprehension is herringbone. McKnight (2010) explains that the herringbone graphic organizer like the fishbone, designed to help students understanding the connections between supporting details to identify a main idea. The name herringbone designed was based on the form of diagram which looked like a fish skeleton that the head is located to the left. McKnight elaborated that this diagram can show a main idea from the text's supporting detail. The main idea is represented by a straight line that leads to the head of the fish, with supporting details represented by fish bones or line branches. Meanwhile, the fish bone is being filled with 5W+1H (who, what, when, where, why and how). Being the important one, the supporting detail should be suitable for the text. Besides, the main idea of the text can be concluded by knowing the supporting details of the text.

The herringbone technique was introduced first by Tierney, et. al in 1980. Tierney et al (2005) stated that, the herringbone technique is a structured outlining procedure designed to assist students in organizing important information in text. The herringbone technique helps students in understanding the connections between supporting details to identify the main idea. The Herringbone technique is a useful graphic organizer for students to organize the information. In the meantime, a lot of resources have been studied and researched by some previous researchers about herringbone technique. To differ within this research, the researchers show some relevant studies. Such as;

A research conducted by Rizky Vita Losi (2020) "*The Effect of Herringbone Technique on Students' Reading Comprehension through Narrative Text at MTs PAB 1 Helvetia, Medan*". This is a quantitative approach with a pre-experimental design. The similarity of this research with the research conducted by the researcher is to find out whether the herringbone technique can help students with their reading learning problems.

The second study is the research with the title "*The Effect of Herringbone Technique to Improve Reading Comprehension of Narrative Text*" which have been done by Rifdatul Habibah (2020). The difference was the use of a quasi-experimental research design with the aim of obtaining empirical evidence on the effect of the Herringbone technique on students' reading comprehension. While the similarity is in the use of tests as the same instrument by researchers to determine whether the herringbone technique can improve students' reading comprehension skills.

The third study is conducted by Erli Yanty Rihana (2019) with the title "*The Influence of Using Herringbone Technique Towards Students' reading Comprehension of Recount Text at The Eight grade of MTSN 1 Kotabumi Academic Year 2019/2020*". The difference in this study is using a quasi-experimental and conducted with a non-equivalent control group design. The similarities between these two studies are that they both seek to determine the effect of the Herringbone technique on students' reading comprehension skills.

The fourth is the research entitled "*The Influence of Using herringbone Technique Toward Students' reading Comprehension in Recount Text at The First Semester of The Eighth grade at SMP N 17 Bandar Lampung in The Academic Year of 2017/2018*" that Septi Nurlindah (2017) has done. The difference between this study and Septi Nurlindah's study is in the research design. She used a quasi-experimental design, whereas the researchers in this study used a classroom action research (CAR) design. The similarities with this current research are that they both aim to determine whether the Herringbone technique can improve students' reading comprehension skills.

The fifth study that has been done by Vivi Anisa Dewi with title "*The Influence of Using Herringbone Technique Toward the Students' Reading Comprehension at The Eight-grade of MTS Darun Najah Sambikarto Sekampung East Lampung*." The difference between this research and the research conducted by Vivi Anisa Dewi is that the research method used quantitative methods, whereas the researchers in this study used classroom action research, which still

uses mixed methods in data collection. This study is similar in the aim to investigate the influence of using the Herringbone technique on students' reading comprehension.

In relation to this research, in which the researchers relate to the preliminary observation, it was acquired information from the local English teacher. He said that in learning English, especially reading, most of the students in MAN 1 Bitung had difficulty understanding the English texts or materials they read, and some of them did not pay much attention to the learning provided by the teacher, causing the class to become less active and learning to become less effective. Therefore, teachers must implement techniques that can improve students' reading comprehension skills and make the teaching-learning process more effective than before. Within this case, the researchers tried to implement the herringbone technique to teach reading comprehension. The researchers considered that the herringbone technique may be suitable for teaching reading comprehension. The herringbone technique is used to identify the main idea and important information in a text by asking six comprehension questions: who, what, when, where, why, and how.

Based on the background above, the research questions of this study are:

1. How is Herringbone technique able to improve students' reading comprehension?
2. To what extent does the implementation of Herringbone technique improve students' reading comprehension?

METHOD

The research conducted the Classroom Action research (CAR) design. Burns (2010) said that Classroom action research can be categorized as research conducted in the classroom by the teacher, mostly to solve problems or improve the teaching-learning process.

Carr and Kemmis in Muijen (2014) synthesized that action research as a type of self-reflection inquiry undertaken by participants (for example; teachers, students, or principles) in social (including educational) situations in order to improve the rationality and justice of (1) their own social or educational practice, (2) their understanding of these practices, and (3) the situations (and institutional) in which the practice is carried out.

Action research is defined as research aimed at the application of action with the purpose of improving quality or solving problems in a group of subjects being studied and observing the level of success or consequences of their actions, to be given further actions that are perfecting actions or adjustments to conditions and situations in order to obtain better results. The purpose of this classroom action research is to teach reading comprehension through the herringbone technique. The herringbone technique was implemented to improve students' reading comprehension skills in the narrative text at class XI MIA II of MAN 1 Bitung which is located at Jl. Reserlement, Kekenturan II, Maesa sub-district, Bitung city, North Sulawesi Province.

The researcher used Kemmis and McTaggart's design procedure when conducting this study. According to Kemmis and McTaggart (in Burns: 2010), the main components in this procedure are four steps: planning, action, observation, and reflection. Meanwhile, the techniques of data collection in this study consisted of observation, tests, interviews, and documentation. The research used observation to directly observe the situation that occurs during the learning process. While for the test, the researcher used the test to determine and evaluate the improvement in the students' reading comprehension ability. After the last meeting, interview was conducted with students to determine students' responses and how far the implementation of the herringbone technique affects students' reading comprehension abilities. Last but not least, the researchers collected documentation such as school profiles, lesson plans, interview transcripts, and photos.

To analyze the data in this study, data analysis techniques of two types were used: qualitative and quantitative. According to Creswell, there are three stages to qualitative data

analysis: (1) organizing and familiarizing, (2) coding and reducing, and (3) interpreting and representing. As for the quantitative data analysis, the researchers calculated the average of pre-test and post-test scores. Like the formula used by Daryanto (2018);

$$X = \frac{\sum X}{\sum N}$$

Note :

X : Average (mean) of the student score.
 $\sum X$: The sum (total) score.
 $\sum N$: Number of the students.

After that, the researcher tried to analyze the class percentage that passed the minimum completeness criteria (KKM). The minimum completeness criteria for English in MAN 1 Bitung is 70 (seventy).

$$P = \frac{F}{N} \times 100\% \text{ (Sudijono, 2008)}$$

P : The class percentage
F : Total percentage score
N : Number of the students

In the last step, the researchers compared the pre-test scores with the post-test cycle I and cycle II to determine the level of improvement in accordance to Meltzer(2008).

$$P = \frac{y1 - y}{y} \times 100\%$$

P : Percentage of students' improvement
y : Pre-test result
y1 : Post-test result cycle I

$$P = \frac{y2 - y}{y} \times 100\%$$

P : Percentage of students' improvement
y : Pre-test result
y2 : Post-test result cycle II

FINDINGS

This research was conducted in class XI MIA II which consisted of nineteen students. The action was carried out nine times, namely pre-test, cycle one with three meetings, post-test, cycle two with three meetings, and the final post-test. The researchers have prepared a list of students' attendance when conducting research at each meeting. The first and second cycles include four steps: planning, action, observation, and reflecting. The first data is taken from the results of the pre-test. The pre-test was conducted at the first meeting before starting the action of the research cycle to analyze students' comprehension of narrative text. Before starting, the researchers asked for permission in advance from the Headmaster of MAN 1 Bitung, the homeroom teacher of XI MIA II, and the English teacher who taught in class XI MIA II. Following that, the collected data was analyzed using both qualitative and quantitative data. The qualitative data were collected from observation, interviews, and documentation, while the quantitative was obtained from the pre-test, post-test I, and post-test II.

1. Qualitative Data

a. Observation

The researchers observed the students' activity during the learning in every meeting by using an observation checklist. The purpose of this observation is to determine how far the situation, participation, and enthusiasm of the student's activities have progressed during the teaching and learning process in every cycle (cycle I and cycle II). A progress table based on observations checklist of student activities during the first cycle of learning. is presented below:

Table 4.1
The Result of Students' Activity in Cycle I

No.	Meeting (Cycle I)	Paying Attention	Asking Question	Respond during Learning	Enthusiasm doing the exercise	Work in Pairs
1.	1 st Meeting	12	4	4	9	14
2.	2 nd Meeting	14	4	4	12	16
3.	3 rd Meeting	16	8	6	14	16

Explanations:

- 1) At the first meeting, there were 12 students who paid attention to the researchers' explanations, and 4 students who actively asked questions and provided responses while learning. When the researchers gave the exercise, there were 9 students who were enthusiastic to participate and 14 students who were actively working in pairs.
- 2) For the second meeting, there were 14 who paid attention to the researchers' explanations, 12 students were enthusiastic about the given exercise, and 16 students worked in pairs.
- 3) At the third meeting, the researchers had improvement in student activities during the learning process. There were 16 students paying attention to the material, 8 students bravely asked questions, and 6 students gave responses during the learning process. Meanwhile, 14 students had enthusiastic about doing the exercise and 16 students were actively working in pairs.

In the cycle II, the observation process conducted in three meetings. The following is a table of students' observation checklists during the learning process in cycle II:

Table 4.2
The Result of Students' Activity in Cycle II

No.	Meeting (Cycle I)	Paying Attention	Asking Question	Respond during Learning	Enthusiasm doing the exercise	Work in Pairs
1.	1 st Meeting	16	11	10	14	16
2.	2 nd Meeting	16	12	12	14	19
3.	3 rd Meeting	18	12	14	16	19

Explanations:

- 1) The researchers found that 16 students were paying attention to the learning, 11 students were able to ask questions, and 10 students responded during the learning process during the first meeting of this cycle. Meanwhile, 14 students were enthusiast about participating in the exercise, and 16 of 19 students were focused on working in pairs.

- 2) In the second meeting, the researchers discovered that there was an improvement in students who actively asked questions, responded during learning, and worked in pairs.
- 3) In last meeting of cycle II, the researchers found that the number of students paying attention improved from previous one, as well as the number of students who responded during the learning process and were enthusiastic about doing the given exercise.

Based on the results of the observations, the researchers revealed that there was an improvement in student activities from cycle I to cycle II.

b. Interview

The researchers interviewed the grade of XI MIA II students. Interviews were conducted after the implementation of the herringbone technique in cycle II and held on Friday, 10 June 2022 and Monday, 13 June 2022. Students were asked ten questions about their responses to reading comprehension and the herringbone technique during the interview. Based on the results of the interviews, the researchers concluded that before the implementation of the herringbone technique, many students had difficulty understanding the text and frequently felt bored with reading comprehension learning because they used the same technique repetitively, providing the learning process ineffective. Here are what some students said about before the herringbone technique was implemented:

"I do not understand the important point in the text."

"(Kita nyanda mengerti itu poin-poin yang penting di text)"

"Usually, we were just given text to read without knowing what it meant."

"(Biasanya, torang hanya dikase itu text tanpa torang tau depe maksud.)"

"Usually, our teacher just gives the story text and keeps asking us to interpret the text, then looking for the main idea in the text and I do not understand a lot."

"(Biasanyakan sir cuma kase teks cerita begitu terus suruh pa torang mengartikan sama cari ide pokok dalam teks dan banyak yang kita tidak mengerti)"

However, after implementing the herringbone technique in reading comprehension learning, they found it easier to understand the material they read by finding for important information in the text. Because the herringbone technique included diagrams, students could easily discover the main ideas and supporting details in the text they were discussing. Here are what some students said about after the herringbone technique was implemented:

"At first, I thought it would be difficult because I had never heard of this technique, so I was hesitant. But after you teach using this technique, it becomes easy for me to understand the text which I usually think is difficult for me to understand."

"(Awalnya kita piker bakalan susah soalnya kw akita belum pernah dengar ini teknik jadi kita agak ragu. Tapi setealah kak mengajar pake ini teknik kita jadi mudah buat paham sama teks yang biasanya menurut kita itu susah)"

"In my opinion, it will be easier to find the main ideas. Because usually we are asked to find the main idea of the text is very difficult."

"(Kalau menurut kita sih, kita lebih gampang mau cari dia pe ide pokok. Soalnya kalau biasanya torang disuruh cari itu ide pokok susah sekali kak)"

From the results of the statement above, the researchers concluded that the implementing herringbone technique in reading comprehension can help students understand the text they read and make it easier for students to find the main ideas and important information in the text.

2. Quantitative Data

a. Pre-Test

The pre-test was held on Monday, 9 May 2022. It was started at 9.00 and finished at 10.00. There were fifteen multiple-choice questions on the test, and each had four alternative responses (A, B, C, D).

Table 4.3
Students' Pre-test Score

No.	Student's Initial Name	Pre-test Score	Passed/Failed
1.	ADU	80	P
2.	AP	73	P
3.	AL	73	P
4.	DEB	47	F
5.	FAM	80	P
6.	GSG	60	F
7.	IH	60	F
8.	KV	60	F
9.	MAD	73	P
10.	NL	60	F
11.	NN	60	F
12.	OZ	60	F
13.	PNA	60	F
14.	RA	53	F
15.	SM	80	P
16.	WN	60	F
17.	ZAN	60	F
18.	ZL	53	F
19.	KAL	60	F
Total Score		1212	-
The Highest Score		80	-
The Lowest Score		53	-
The Average Score		63.79	-
The Class Percentage		31.58%	-

Based on the results of the pre-test, the data showed that the total score was 1212. It was found that the highest score obtained from the results was 80, and the lowest score obtained was 53.

The average of student pre-test score is:

Total Pre-test = 1212

$$X = \frac{\sum X}{\sum N}$$

$$X = \frac{1212}{19}$$

$$X = 63.79$$

The total score of the student's pre-test ($\sum X$) is 1212 and divided by the total number of students ($\sum N$) is 19 then the result is 63.79.

After calculating the student's average score, the researchers calculated the percentage score to find out the students who passed the Minimum Completeness Criteria (KKM) which was 70. The researchers obtained the data using the following formula:

$$P = \frac{F}{N} \times 100\%$$

$$P = \frac{6}{19} \times 100\%$$

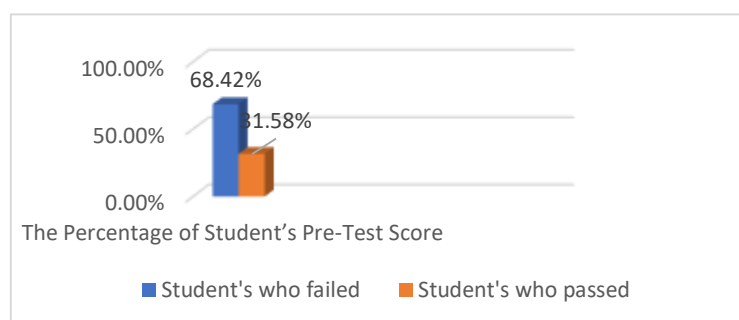
$$P = 31.58\%$$

Based on the data above, it is known that the class of percentage score has been calculated by dividing the total percentage score (F), which the students who passed the KKM score are 6 with the number of students (N) is 19 then multiplied by 100% and the result is 31.58%.

Table 4.4
The Result of Pre-Test

No.	Students' Success Criteria	Frequency	Percentage
1.	≤ 70 (Failed)	13	68.42%
2.	≥ 70 (Passed)	6	31.58%
Total		19	100%

Figure 4.1
The Percentage of Students' Pre-Test Score



According to the results, the students who passed the KKM score were 6 (31.58%), while the students who failed the KKM score were 13 (68.42%). Therefore, the number of students who achieved the KKM score is lower than the number of students who do not achieve the score.

b. Cycle I

1) Planning

The researchers managed the instruments to prepare the cycle I. First is preparing the lesson plans for three meetings, including the material, the text, teaching technique, source of learning, and exercise. Before starting the action of the cycle I, the researchers discussed with the English teacher about the lesson plan and the material that will be used which was narrative text. Second, the researcher planned the learning activities by implementing the herringbone technique. Third, the researchers prepared observation sheets to observe students' behaviors, activities, and responses during the learning process. Fourth, the researcher prepared students' attendance list.

2) Action

In the action, the researchers acted as the teacher who implemented the Herringbone techniques to teach reading comprehension in the eleventh grade of MAN 1 Bitung. The herringbone technique implemented in 3 meetings and divided into 3 stages, namely pre-activity, main activity, and post-activity.

3) Observation

During the implementation of the herringbone technique in the reading comprehension learning process, the researchers found some weaknesses shown by the students during Cycle I. The followings are the weaknesses in Cycle I:

- Many students have not actively asked and answered questions about the subject material they were studying.
 - Additionally, some students showed less enthusiasm for completing the exercises given during the first meeting
- ##### 4) Reflection

- a) According to the results of Cycle I, 9 students passed the test and the rest of the 10 students failed the test. Many of them got the wrong answer in finding the main idea from the text as a result of the post-test. Furthermore, students were still having difficulty comprehending the text due to the use of pronouns.
- b) According to personal experience during the meeting did not go well, it was due to the researches as new comer, and it made them feel uncomfortable to ask a question and respond. Based on the results of observations at the first and second meetings, only 4 students gave questions and responses related to the material.

The Result of Post-Test I

The post-test I was carried out on Friday, 27 May 2022 from 09.20 to 10.00. The table after contains the results of the post-test I scores obtained by students.

Table 4.5
The Students' Post-Test I Score

No.	Student's Initial Name	Post-Test I Score	Passed/Failed
1.	ADU	93	P
2.	AP	80	P
3.	AL	80	P
4.	DEB	60	F
5.	FAM	93	P
6.	GSG	67	F
7.	IH	67	F
8.	KV	67	F
9.	MAD	80	P
10.	NL	87	P
11.	NN	73	P
12.	OZ	67	F
13.	PNA	67	F
14.	RA	67	F
15.	SM	87	P
16.	WN	87	P
17.	ZAN	67	F
18.	ZL	60	F
19.	KAL	67	F
Total Score		1416	
The Highest Score		93	-
The Lowest Score		60	-
The Average Score		74.53	-
The Class Percentage		47.37%	-

The researchers found out the average score by formula:

$$X = \frac{\sum X}{\sum N}$$

$$X = \frac{1416}{19}$$

$$X = 74.53$$

Explanations:

The average score of students obtained by dividing the total score of post-test I students ($\sum X$) is 1416 with a total number of students ($\sum N$) is 19, achieving a result of 74.53. To analyze the percentage score of students who passed the minimum completeness criteria, the researcher used the following formula:

$$P = \frac{F}{N} \times 100\%$$

$$P = \frac{9}{19} \times 100\%$$

$$P = 47.37\%$$

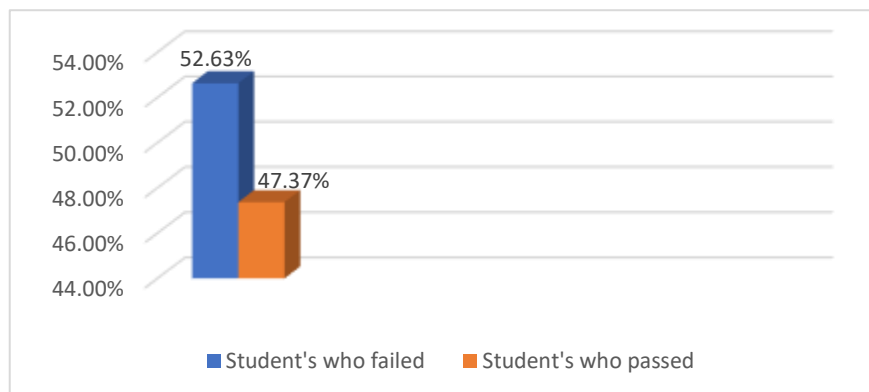
Explanations:

According to the result above, it is shown that the class of percentage score has been calculated by dividing the total percentage score (F), in which the students who passed the KKM score are 9 with the number of students (N) is 19 then multiplied by 100% and the result is 47.37%.

Table 4.6
The Result of Post-Test I

No.	Students' Success Criteria	Frequency	Percentage
1.	≤ 70 (Failed)	10	52.63%
2.	≥ 70 (Passed)	9	47.37%
Total		19	100%

Figure 4.2
The Percentage of Student's Post-Test I Score



Explanations:

The data showed that there was 10 (52.63%) of students failed and 9 (47.37%) of students who passed the minimum completeness criteria in post-test I. In the last step, the researcher used the following formula to calculate the percentage of student improvement from pre-test to post-test I:

$$P = \frac{\gamma 1 - \gamma}{Y} \times 100\%$$

$$P = \frac{74.53 - 63.79}{63.79} \times 100\%$$

$$P = \frac{10.74}{63.79} \times 100\%$$

$$P = 16.84\%$$

Explanations:

The percentage of students' improvement was calculated by subtracting the post-test I (74.53) score from the pre-test results (63.79), which resulted in 10.74, then dividing by the

pre-test results multiplied by 100% and the result was 16.84%. It means that there was 16.84% of improvement in test scores from the pre-test to the post-test I.

The researchers continued into the cycle II based on the outcomes of reflection in order to overcome problems and improve the results obtained in the cycle I.

c. Cycle II

1) Planning

There were still many students in the first cycle who had not achieved the minimum completeness criteria score (KKM). As a result, the researchers decided to conduct cycle 2 to resolve the problems defined in cycle 1. The researchers began by revising the lesson plan as well as the narrative text that will be used and continued by carrying out the same teaching and learning process as the planning in cycle 1.

2) Action

Action carried in cycle 2 was almost similar with cycle I. In this stage, the researchers conducted 3 meetings with 3 different materials using herringbone technique. The process that researchers emphasized was based on the activities of teaching and learning activities starting from pre-activity to closing activity.

3) Observation

Observations in cycle II were done directly during the reading comprehension learning process. In cycle II, the researchers implemented the herringbone technique in the learning process and focused on the students' development. Based on the researchers' observations in cycle II, the problems in the first cycle eventually decreased. Many students paid attention to the explanation, were active in asking and responding during the learning process, became enthusiastic during the given exercise, and were also involved in discussing with their friends.

4) Reflection

Based on the implementation of the herringbone technique in cycle II, it was obtained 82.53 students' average scores in the overall evaluation of the second cycle and obtained 84.21% overall class percentage of students' minimum completeness criteria in cycle II. According to these data, students' minimum completeness criteria are included in the high category. Therefore, the researchers stated that the success rate of students significantly improved in cycle II.

The improvements that occur to students are as follows:

- a) By implementing the herringbone technique into the reading comprehension learning process, students' ability to understand texts has improved, as has their ability to find the main ideas and supporting details of the texts they read.
- b) Students' participation in asking and responding to the material they have discussed are getting increased.
- c) The students' enthusiasm for understanding the text and doing the given exercise are enhanced.
- d) The results of the scores achieved by students have better improvement.

The Result of Post-Test II

The post-test II was held on Thursday, 9 June 2022 from 09.20 to 10.00. The results of students' Post-test II scores are shown in the table below.

Table 4.7
The Students' Score of Post-Test II

No.	Student's Initial Name	Post-Test II Score	Passed/Failed
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1.	ADU	100	P
2.	AP	87	P
3.	AL	93	P
4.	DEB	73	P
5.	FAM	93	P
6.	GSG	67	F
7.	IH	87	P
8.	KV	67	F
9.	MAD	87	P
10.	NL	87	P
11.	NN	87	P
12.	OZ	87	P
13.	PNA	73	P
14.	RA	87	P
15.	SM	87	P
16.	WN	93	P
17.	ZAN	73	P
18.	ZL	67	F
19.	KAL	73	P
Total Score		1568	-
The Highest Score		100	-
The Lowest Score		67	-
The Average Score		82.53	-
The Class Percentage		84.21%	-

Based on the data presented above, it was found that the lowest score was 67 and the highest score was 100. The researcher concluded that the average post-test II score of students was:

Post Test II = 1568

$$X = \frac{\sum X}{\sum N}$$

$$X = \frac{1568}{19}$$

$$X = 82.53$$

Explanations:

The average score of students obtained by dividing the total score of post-test II students ($\sum X$) is 1568 with a total number of students ($\sum N$) is 19, and the result is 82.53.

After calculating the average student score, the researcher analyzed the percentage of classes that passed the minimum completeness criteria (KKM) score. The following formula was used:

$$P = \frac{F}{N} \times 100\%$$

$$P = \frac{16}{19} \times 100\%$$

$$P = 84.21\%$$

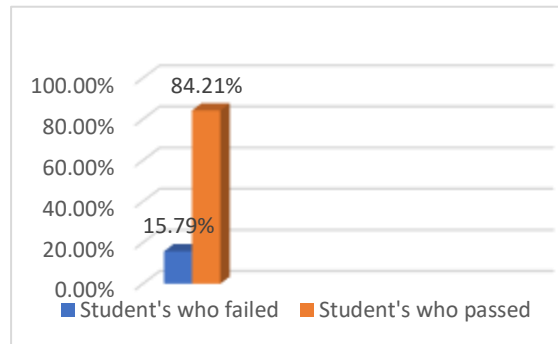
Explanations:

Based on the result above, it is known that the class of percentage score has been calculated by dividing the total percentage score (F), which the students who passed the KKM score are 16 with the number of students (N) is 19 then multiplied by 100% and the result is 84.21%.

Table 4.8
The Result of Post-Test II

No.	Students' Success Criteria	Frequency	Percentage
1.	≤70 (Failed)	3	15.79%
2.	≥70 (Passed)	16	84.21%
Total		19	100%

Figure 4.3
The Percentage of Student's Post-Test II Score



Explanations:

Based on the data, the researchers knew that 16 (84.21%) of students passed the KKM while 3 (15.79%) of students still failed the KKM score. The data also showed that the students who achieved KKM scores were higher than students who did not achieve KKM scores.

In the final step, the researcher calculates the percentage improvement in students' results by comparing their pre-test scores to their post-test II scores using the formula below:

$$P = \frac{Y^2 - Y}{Y} \times 100\%$$

$$P = \frac{82.53 - 63.79}{63.79} \times 100\%$$

$$P = \frac{18.74}{63.79} \times 100\%$$

$P = 29.38\%$

Explanations:

The percentage of students' improvement was obtained by subtracting the post-test II (82.53) score from the pre-test results (63.79), which resulted in 18.74, then dividing by the pre-test results multiplied by 100% and the result was 29.38%.

According to the result, there was a 29.38% improvement in test results from pre-test to post-test II.

DISCUSSION

1. The Implementation of Herringbone Technique

The researchers implemented herringbone technique in this study to improve the reading comprehension of students in class XI MIA II at MAN 1 Bitung in the academic year 2021/2022. In this case, herringbone is a technique that can help students to improve their reading comprehension. The researchers instructed students to work in pairs of two to three people when learning this technique. The teaching and learning process with the herringbone technique helps to improve students' reading comprehension because students felt more easily understand the text, were also able to discuss and communicate with their friends about

the material they read and used herringbone diagrams to make it easier for them to find important information.

Based on the research conducted, the findings showed that many students could understand the material given. Therefore, the herringbone technique improved students' reading comprehension skills, and had a positive impact on their learning outcomes. However, there were some weaknesses in the implementation of the herringbone technique in cycle I, they are;

- a. Not all students pay attention during the learning process.
- b. The students afraid to asking questions and giving responds about the material.
- c. Students' enthusiasm to do the exercises was low.
- d. Many students did not achieve the minimum completeness criteria score.

Following the weaknesses in cycle I, the researchers improved the learning process in cycle II. The Cycle II improvements included:

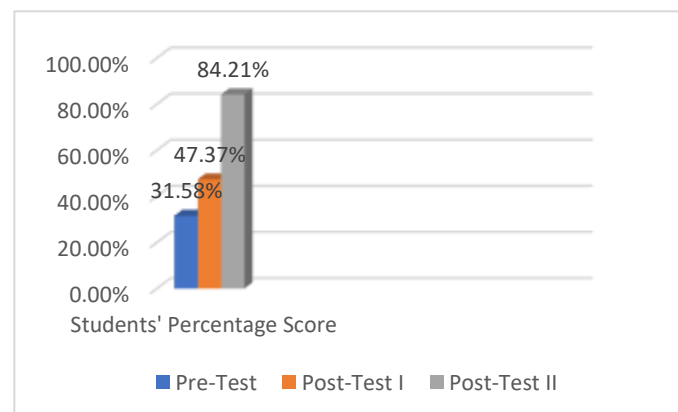
- a. As a teacher, the researchers provided a support to students in asking questions and responding to the material.
- b. Students' enthusiasm in comprehending the text and doing the given exercise increased.
- c. Many students achieve the minimum completeness criteria score.

The implementation of the herringbone technique in cycle II resulted in an improvement in the learning outcomes of all students. Compared to cycle I, students' learning outcomes in cycle II have increased.

2. Students' Learning Outcomes

Learning outcomes were abilities that students gain as a result of the teaching and learning process in accordance with learning objectives. The test given to students in this study was a multiple-choice question with 15 numbers about narrative text material. Students may find the material discussed in the first and second cycles to be interesting story texts. Based on the findings, the implementation of herringbone technique is able to improve students' learning outcomes in reading comprehension. This is evidenced by the students' increased class percentage completeness from pre-test to post-test cycle I and II.

Figure 4.4
Students' Learning Outcomes



According to the figure above, there is an improvement in students' learning outcomes from pre-test, post-test I, and post-test II. The results obtained in the pre-test were 31.58% or 6 students from the total 19 students who passed the minimum completeness criteria (KKM) of 70. Meanwhile, students' learning outcomes showed a little improvement in scores during the post-test cycle I. The completeness percentage was 47.37% since 9 students out of 19 passed the test and 10 students failed the test. Furthermore, student learning outcomes in

cycle II improved for all students. There were 16 students who achieved the KKM score, and 3 students who did not achieve KKM score. As a result, the percentage of completeness was 84.21%.

Based on these results, the researchers concluded that the implementation of herringbone technique improved students' learning outcomes during the teaching and learning process of reading comprehension. In teaching and learning activities, reading comprehension requires techniques that can improve and also help students improve their abilities and learning outcomes. By applying this herringbone technique, students find it easier to find important information in the text and understand the connections between supporting details to identify the main idea. This is supported by the statement from Tierney et al (2005) that the herringbone technique helps students in understanding the connections between supporting details to identify the main idea.

CONCLUSION

Based on the findings and discussion, this research can be concluded as follow;

1. The implementation of herringbone technique in MAN 1 Bitung class XI MIA II is able to improve students' abilities in the reading comprehension learning process. This can be seen in the results, which show an improvement in students' reading comprehension during the learning process, including students paying more attention to the material, being active in asking and responding, having enthusiasm when doing the given exercise, participating in discussions with their friends, and improving their achievement in every test.
2. The Implementation of herringbone technique to improve students' reading comprehension at the eleventh grade of MIA II in MAN 1 Bitung in the Academic year 2021/2022 has been carried out in two cycles. Furthermore, the herringbone technique is used in the learning process to enhance students' reading comprehension skills. The pre-test data revealed that the percentage of students who failed the test was higher than the students who passed the test. The number of students who failed the pre-test was 68.42%, or 13 students, while the number of students who passed was 31.58% or 6 students. Furthermore, the percentage of students who passed the minimum completeness criteria score (KKM) for cycle I increased from 31.58% to 47.37% or 9 students. However, these results have not reached the completeness percentage criteria. The percentage of students who passed the test in cycle II reached 84.21% or 16 students. In other words, the result showed that students' reading comprehension had an improvement.

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