

## THE IMPLEMENTATION OF HERRINGBONE TECHNIQUE TO IMPROVE STUDENTS READING COMPREHENSION

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### *Abstract*

*The objective of the study was to determine whether or not using herringbone technique increased students' reading comprehension. The pre-experimental design technique was employed in this study. The population in this study was Grade 9 students of SMP Telkom Makassar 2022/2023 academic year. Twenty nine (29) students were selected as samples of the study using cluster random sampling technique. The results of statistical analysis at the level of significant ( $\alpha$ ) 0.05 with a degree of freedom ( $df$ ) = 28 and a  $p$  value (sig.2-tailed) of 0.000 showed a significant difference between the pre-test and post-test results of the students exams. In other words, the results of the sig.2-tailed of the students post test were greater than the level of significance ( $0.000 < 0.05$ ). It can be concluded that the use of Herringbone techniques could improve the EFL students' reading comprehension.*

**Keywords**— implementation, herringbone techniques, improving, reading comprehension

### INTRODUCTION

As one of the international languages, English plays an important role almost in all aspects of life. English has affected numerous developments in every area of human existence, including education, economics, commerce, politics, communication, etc. Therefore, the ability to speak English in students at school should not be ignored and should be a top priority to be achieved to continuously improve their learning outcomes.

In teaching English, four different language talents exist. They are , reading, writing, and listening. Reading is a crucial skill that should be learned. In accordance with experts, reading is the most important and useful talent Patel and Jain (2008). Mcknight (2010), said understanding comes from the relationship between written words and advertising. In this study, a Herringbone technique has been provided to help Students comprehend how to distinguish the core concept from the supporting elements. Handayani (2016), compiled a study with the title, "The Effect of the use of Herringbone Technique on the reading comprehension of eleventh grade students at SMAN 1 Pesanggaran." This study was to determine the the impact of employing the Herringbone Method on the understanding of the text proficiency of SMAN 1 Pesanggaran students in the eleventh grade. reading).

Reading can help you grasp an article in English and other things, according to Harmer (2007). Furthermore According to Elaine (2009, p. 6), reading is essential for the acquisition of complete second language proficiency. One goal in teaching reading is comprehension, according to Richard (2002). text for reading.

According to Badan Standar Nasional Pendidikan's (2006) Standard of Contents for Senior High School (SMA/MA), English is one of the disciplines that all students are required to take.

(Anderson M.&Kathi.A.(2003), The relationship between the written and read words leads to understanding. A helpful visual organizer for students to input information is the herringbone order. Researcher found that the core difficulties students experience in reading comprehension are:

1. They have difficulty in reading such as spelling an unknown word in the text due to the low vocabulary of students.
2. The lack of interest in reading students, while In order for students to be engaged in reading, reading activities must be strongly tied to reading interest to improve students' reading ability, many strategies can be used.

Riana (2020),This study used split into two groups as an experimental sample of students research using a quantitative approach. Furthermore, the research conducted by kartika(2015), the Herringbone method helps children read more understanding (SMPN 1 Bergas, Central Java second grade classroom action research) Throughout this study, a purposive study using 33 students as a sample.

The last, paramida (2020), The eighth-grade students at MTSN 1 Kotabumi were included in a quasi-experimental study to determine the impact of applying the Herringbone approach on their comprehension of recount texts.

Kartika (2020) In this case the difference in results occurs because there are several problems occurring. This research explains using the Herringbone approach to increase reading comprehension at SMP Telkom Makassar. This research applied a pre-experimental design,experimental classes are taught using text procedures throught the Herringbone technique,the sample of this study were selected using the cluster random sampling method. 29 students from the IX grade of SMP Telkom Makassar served as the sample for this study. The goal was to determine how well the students implemented the Herringbone approach.

## **LITERATURE REVIEW**

Some of these related ideas are intended to explain reading comprehension theory, types the last idea of Herringbone, and of reading comprehension techniques.

### **Concept of Reading comprehension**

Using the definition from Snow (2002), reading comprehension is the act of simultaneously determining the meaning of written language and creating that meaning. According to Fauziati (2010, p. 34), reading is an interpretive process that bridges the discrepancy between the published material and the reader's prior knowledge. This is done by choosing data that supports the hypotheses developed after using certain procedures and approaches to produce predictions or forecasts.

David (1995, p.1) claims that reading is a solitary activity and that, despite being geographically and chronologically isolated from the writer, reading is a cerebral or cognitive process in which the reader seeks to grasp and respond to the writer's message.

Grelett (1998, p.7), characterizes reading as a continuous process of gushing, where what the reader brings to the text is frequently more significant than what they discover. According to Nunan (2003), reading is a continual activity in which readers generate significance by fusing textual material with their own contextual knowledge and applied ideas intended by the outhor maybe understood.

Cushenberry (1985,p.14), claims that the process of determining meaning from related text is comprehension. It requires thinking and reasoning, as well as word knowledge (vocabulary).

Kennedy (1981, p.192) (1981, p.192), Constructing meaning from what is read in writing during reading comprehension.

### **Concept of Herringbone technique**

Tierned introduced the herringbone method for the first time in 1980. According to them, the Herringbone approach uses six fundamental comprehension strategies to provide an organized outline procedure for extracting significant information from a read book.

#### The Herringbone technique's process

According to Deegan (2006), the Herringbone Method maps the what, who, where, when, how, and why questions onto a pictorial representation of a fish skeleton to assist students in comprehending the central concept.

#### The Benefits and Drawbacks of the Herringbone Method

The benefit of the Herringbone strategy is that it enables students to better encode knowledge, which enhances their capacity to respond to essay questions.

The Herringbone Technique has various drawbacks, including as:

1. Several teachers thought it took too long to make an answer key for the graphic organizer.
2. Students could misunderstand their peers by presenting alternative interpretations of the core theme.

## **METHODS**

### **A. Research Design**

The researcher incorporated quantitative analyses into the investigation. There are three structures of quantitative research, In this study, Using a pre-experimental design, the researcher and the method's intended purpose to collect data. The study was quantitative, and the pre-experimental design included pre-tests, treatments, and post-tests..

### **B. Time and place**

The selection of the place of study is an important part of the study. This research has been conducted at SMP Telkom Makassar. It was done in September 2022 for two weeks.

### **C. Population and sample**

- Population

Brown (2006) said the The population refers to the entire group of persons among whom the study was conducted. The researcher chose a population of 196 9th students at SMP Telkom Makassar.

- Sample

The cluster random sampling technique was employed for this research sample because it was based on the subject for study or a very large data source. The researcher used the herringbone technique to collect data form class IX G students on their reading comprehension.

### **D. Research Variable**

#### 1. Variable

Two variables, referred to as independent and dependent variables, are present in this research. Reading comprehension is a dependent variable, whereas the herringbone technique's use is an independent variable.

#### 2. Operational devinition

- a. Reading Building meaning from what is perceived in writing is what comprehension entails.

- b. One method is the herringbone method helps students easily find the ideas contained in a reading section and provides six reading comprehension question (5W+1H).

**E. Research instrument**

Data was collected using a pre-test and post-test, with questions given in the form of safe reading of procedure text. The test includes multiple choice in the form of 10 questions for the pre-test and 20 questions for the post. Where these questions meet the aspects of reading comprehension as a support for details.

**F. Medhodo of Data collection**

The researcher applied a pre-experimental teaching exam to gather data for the study. Arikunto (2012) explains that a test is a tool or process used to gauge or evaluate students' performance utilizing a variety of techniques and standards given namely :

- 1. Pre test
- 2. Treatment

The first, second, third, and fourth meetings make up the whole series.

- 3. Post test

**G. Technique of data analysis**

The quantitative paired sample t-test was used to examine and compute the data statistics as follows:

- 1. The data item is classified referring to the following scores:

No.	Classification	Score
1.	Very high	86-100
2.	High	66-85
3.	Medium	56-65
4.	Low	36-55
5.	Very low	1-35

Table 1.1 The classification and score

- 2. . Assessing the students' answers

$$\text{Score} = \frac{\text{student correct answers}_x}{\text{Total number of items}} \times 100\%$$

(Gay,2006)

The whole process of calculating data analysis in this study conducted with the help of the SPSS program Ver 25.

**FINDINGS**

These findings are can the use of Herringbone approaches enhance students' reading comprehension, according to the findings of the pre- and post-test scores? The use of herringbone approaches has already enhanced children' reading comprehension, according to the data analysis. The categorization of students' grades before and after therapy is displayed in the table below:

**Table 1. The rate frequency and percentage**

No	Classification	Range	Pre-test	Post test
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			frequency	Percentage	frequency	percentage
1	Very high	86-100	4	14 %	17	59 %
2	High	66-85	17	59 %	12	42%
3	Medium	56-65	5	17 %	0	0%
4	Low	36-55	3	10 %	0	0%
5	Very low	1-35	0	0 %	0	0%
Total			29	100%	29	100%

Pre- and post-test results are displayed in the aforementioned table, which was created by taking test frequency and percentages into consideration". It reveals that 3 students had low scores of 10% and 5 students received middle scores of 17%. A post-test revealed that 17% of the students achieved 59%, with 4 achieving extremely high scores of 14%. None of the students scored low or medium scores, but all 17 received very high scores.

**Table 2. The mean score and standard deviation**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	72.4138	29	12.72095	2.36222
	Posttest	87.7586	29	10.31523	1.91549

Based on the graph above, it was indicated that 17 students obtained high scores between 66 and 85, making the mean pre-test score 72.41, and that 4 students received extremely high scores, making the mean post-test score 87.75. This shows that the study was successful because the average post-test results were greater than the pre-test findings. The pre-test SD value is 12.72095, whereas the post-test SD value is 10.315, suggesting a significant variation because the pre-test SD values are higher. And this table includes paired sample statistics from both the pre- and post-tests.

**Table 3. The significance of the paired samples t-test**

	Paired Differences					T	df	Significance (2 tailed)
	Mean	Std.Deviation	Std.Error Mean	95% Confidence inverentail of the Difference				P
				Lower	Upper			
Pre-test post test	-15.43383	131.35845	2.48060	-20.42611	1026354	-6.186	28	0.000

Table 2.3 was analyzed using SPSS analysis in paired sample tests. If the significance level ( $\alpha = 0.05$ ) is greater than the value (sig.2- tailed) then there is no significant difference. Meanwhile, if the level of "a" is smaller than the value of p(sig.2-tailed )then there is a significant difference from the table above, it can be seen that the p value (sig.2 tailed) is 0.000. Lower than the significant level (0.05).

- Hypothesis Testing

The results 0.05 with a degree of freedom of statistical analysis at the signikansi level (df) = 28 and a p value (sig.2- tailed ) of 0.000 showed the results of the students' examinations' post-test were significantly different from those of the pre-test, or, in other words, the level of significance was exceeded by the results of the post-sig.2 test's tailed findings ( $0.000 < 0.05$ ).

## DISCUSSION

This section contains an interpretation of the findings regarding Herringbone is utilized to enhance students' understanding of what they read. This research was done out at SMP Telkom Makassar. This study's population also included 172 grade 9 students, whereas the sample selected 29 grade 9 G students. The purpose of this investigation is to determine whether employing Herringbone strategies may increase students' reading comprehension. The flow of this study was the supply of pre-tests, treatments, and post-tests.

To determine the student's first reading comprehension skills toward reading English, the study employed a pre-test using a multiple-choice Instrument procedure text with up to 10 questions. The researcher then provides treatment 4 times, with each meeting including the implementation of a text treatment employing the herringbone techniques in examining students' reading comprehension.

### 1. Firs treatment

The researcher briefly explains what the procedure text, purpose, materials, and steps are in the treatment given immediately following the pre-test.

### 2. Second treatment

The second treatment, the researcher first explained the material to be discussed on that day, after that the researcher asked students to do a problem in the form of a 6-number procedure text, the first and second There were several students who lacked pronunciation when reading English material, necessitating the third meeting.

### 3. The third meeting

The researcher showed a video about the topic given on that day and requested the students to discuss it with their group members.

### 4. Four meeting

During the fourth meeting, the researcher provided material sheets for all students to discuss. However, some students are less proficient in reading from both literal comprehension, inferential comprehension, and critical comprehension.

According to Degaan (2006), The Herringbone method cultivates a reading understanding of the central concept planning issues such as who, what, when, where, how, as well as why. Furthermore According to McKnight K.S. (2010), the herringbone method is used to develop supporting details for the core concept. Also, the herringbone method aids students in comprehending how supporting information relate to the primary topic,

The researcher administers a post-test after the intervention to evaluate the efficacy of implementing herringbone techniques to enhance kids' reading comprehension. So, it may be said that it was successful since students initially had a low score of 72.41 in the poor category and an average high post test score of 87.75 in the good category.

## CONCLUSION AND SUGGESTION

### Conclusion

Considering the information and debate from the prior chapters, it is possible to conclude that using Herringbone methods may enhance students' comprehension of what they read. Considering the average score analysis, the practice exam result is 72.4 and the post-test result is 87.7. These data indicate that the post-test results are better than the pre-test results. As a conclusion, it is possible to conclude that using herringbone patterns increase understanding of reading in students.

## Suggestions

Based on the conclusion above, she is proposing the following suggestions:

1. The herringbone techniques can be easily used in learning to read. For teachers, the Herringbone technique can be used to make it easier to convey the subject matter.
2. The instructor should urge himself/herself to develop a strategy for teaching reading comprehension, particularly while reading procedural literature to students.
3. Reading a lot of English literature will help students learn more and become more informed.
4. It is proposed that another researcher broaden the scope of this study, Further study should be conducted to identify new techniques that may be utilized to teach reading comprehension.

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