

## **THE EFFECT OF HERRINGBONE TECHNIQUE ON THE STUDENTS' ABILITY IN READING COMPREHENSION ON RECOUNT TEXT**

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**Abstract:** This research is a study of improving students' ability in reading comprehension. The aim was to find out whether the use of Herringbone technique would bring a significant difference in teaching reading comprehension through Recount text, compared with the result before the students being treated. The study was conducted in the tenth grade students of SMA N 4 Pematangsiantar. The research method used was the experimental design, where the Experimental group was the PMIA 3 class, and the PMIA 2 class as the control class. Both of the classes had 34 students in each of it. The data were obtained through pre-test, treatment and post test. The pre-test was held to know the students' basic ability or score before treatment was given. Meanwhile, the post test was held to know the students' achievement and significant effect after the students were taught using Herringbone technique. Finding of the research showed that both groups had a significant improvement in their reading ability after being treated and passed the KKM. The Control group, which the pre-test score was 60, made an improvement shown in their post-test score in amount of 70,44. The experimental group, the group which the researcher treated the Herringbone technique to them, had a higher improvement than the control group. The average score of pre-test in this group was about 54,41 where then being improved up to 78,97. The score of t-test (3,981) was higher than t-table (1,668) at the level of significance 5% for two tailed test, so Null Hypothesis is rejected and Alternative Hypothesis is accepted.

**Keywords:** Effect; herringbone; recount; technique

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### **INTRODUCTION**

The learning of English itself in Indonesia is commonly known similar like in other countries, where the learning and output focus on Speaking, Listening, Writing, and Reading. Those four skills sometimes are called as the four basic skills of English or they are so called as the major skills of English. And one of those precious skill, reading, is what takes a big attention because it can develop independently of listening and speaking skills, but often develops along with them, especially in societies with highly-developed literary tradition (Aydoğan, 2014:673-674). Hence, Meng (2010:501) as cited in Herman, Sibarani and Pardede (2020:86) stated that English reading has always been regarded as one of the main aims in English teaching in colleges and universities, because it can objectively reflect the students' abilities to acquire the language.

In other definition, reading is also considered as the way to understand a written message. Sihombing (2020) stated that reading considered important as it is a foundation of literacy. It is the way how the reader gets the message or the intended meaning from the writer. Sometimes, reading is considered as a complex skill, where readers are directed to not only read a written text simply, but also use their full comprehension. To define this process, there is a term called Reading Comprehension.

According Caldwell (2002:54), reading comprehension is as the process of simultaneously extracting and constructing meaning through interaction and involvement with written language. In short, reading comprehension is the interaction between the readers with the written text to get meaning and message or information from the text. Where, to get the meaning and information, the students do not only read but also comprehend the text in order to catch some ideas from the text. That is why, this ability (reading comprehension) or skill of comprehending a message in the text is so valuable and necessary in students' goal to learn English in school.

However, comprehending a message of the text is not easy, especially in English. It can be seen from the students' reading comprehension that is still far from what is being expected. As for an example, there is a research which is written by Hidayati (2018) that studied about reading comprehension. The aim of this study is to find out what are the difficulties (problem) found in reading comprehension. The result of the test showed that the majority of the first grade students of SMAN 1 Darussalam, Aceh Besar found difficulties including answering main idea, making inference, and locating reference questions. And, the most difficult aspect that encountered by the students of SMAN 1 Darussalam, Aceh Besar was finding main idea questions, because the located main idea was difficult to find.

In line with what is founded by Hidayati in her study, the researcher also faced the same problem where students were still weak in their reading comprehension in recount text. In his observation, researcher had conducted a pre-test to measure students' ability to comprehend recount text in one school in Pematangsiantar city. This school was known for its students who are quite capable in the academic field. Therefore, researcher had high expectations of the pre-test scores coming out of these students, especially after knowing that the KKM (Minimum Criteria of Mastery Learning) set for the mark of their English subjects is 70. Then, the researcher decided to take data samples from 10th grade children of PMIA 3 in SMA Negeri 4 Pematangsiantar. But after conducting the pre-test, what had been expected by the researcher is in fact inversely proportional to the results shown by students.

From the data processed, there were only 10 out of 34 students who had pre-test scores above 70, while 24 other students were below 70. As a breakdown, most students scored 60 (9

students), 50 (6 students), 40 (7 students), and even two other students got a score of 30. While for the 10 students named first, as many as 7 students got a score of 70, and 3 other students each scored 80, 90, 100. In fact, if following the KKM standards set in the school, then actually there are only 3 students who have good grades. Then after the test, researcher asked the students what were the problem so that they had those bad score. Some of them said that it was hard to answer the question correctly because sometimes they missed the important facts and details need to be found, and others said that they just focused on the detail of the story and not going to conclude the main ideas. So based on these data, researcher assumed that 10th grade PMIA3 students still seem to have problems in comprehending recount text. To solve the problem found above (reading comprehension), there are many kinds of technique, method, or approve can be used such as PQRST, Skimming And Scanning, Two Stay Two Stray, Jigsaw Technique, SQ3R, and Herringbone Technique. And in this occasion, researcher offered a technique named Herringbone Technique.

Herringbone is a kind of technique used in reading process for establishing supporting details for main idea (Mcknight in 2010, cited in Sumardanto, 2018). To improve the reading comprehension, this technique develops comprehension of the main idea by plotting the who, what, where, how and why questions on a visual diagram of a fish skeleton. The fish diagram is used to help 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.

So, therefore, researcher has a big hope that this technique, Herringbone, could significantly improve the students' reading comprehension. That way, researcher and the result of this study can provide a useful form of information for readers, especially the teachers who is facing this problem now.

## **METHOD**

### **A. Research Preparation Method**

This research was designed as a quantitative research. This research method is used to describe variables, to examine relationships among variables and to determine cause-and-effect interactions between variables (Burns & Grove, 2005:23 as cited in Herman, Sibarani and Pardede, 2020:87). The final written report had a set structures consisting of introduction, literature and theory, method, result, and discussion.

A quantitative research could be classified into two different designs, they were namely experimental and non-experimental design (Ary, Jacob and Sorensen, 2010:26). Experimental research design involved a study of the effect of the systematic manipulation of one variable(s) on another variable, and the non-experimental research had the opposite meaning where it

identifies variables and may look the relationship among them without doing manipulation (in variable).

Based on the explanation above, researcher set his study in an experimental research design. The manipulated variable in this research design would be called as the experimental treatment or the independent variable. And, the observed and measured variable would be called as the dependent variable.

## **B. Scope or Research Objects**

### **1. Population**

Population was defined as all members of any well-defined class of people, events, or objects (Ary, Jacob and Sorensen, 2010:148). In this research, the population was the tenth grade students of PMIA of SMA Negeri 4 Pematangsiantar, as follows: X PMIA 1 (35), X PMIA 2 (36), X PMIA 3 (35), X PMIA 4 (35), X PMIA 5 (36), X PMIA 6 (36), and X PMIA 7 (32), where the population was 250 students.

### **2. Sample**

A sample was a portion of population (Ary, Jacob & Sorensen, 2010:148). In this study, the sample is taken by using purposive sampling. Based on Cohen, Manion & Morrison (2000:104), in purposive sampling, the chosen sample may satisfy the researcher's need to take this type of sample, it does not pretend to represent the wider population; it is deliberately and unashamedly selective and biased. The sample data of this research was gained from 2 classes, they are the X PMIA 3 (experimental) and the X PMIA 2 (control). The PMIA 3 class was chosen as experimental class because researcher, during his first observation, found it quite cooperative when being taught by teacher. And, the PMIA 2 class was chosen as the control class because it was said more better in academic than the experimental class. The total number of students in both classes are 72. The sample was in table as follows :

## **C. Data Collection Tools and Instruments**

### **1. Test**

The researcher used test as an instrument in this research. According to Ary, Jacob and Sorensen (2010:201), a test was a set of stimuli presented to an individual in order to elicit responses on the basis of which a numerical score can be assigned. The topic discussed was Recount text. Each of text had several questions in a form of multiple choices where the questions would test students' comprehension at Literal and Inferential level.

## 2. Validity and Reliability

### a. Validity

According to Ary, Jacob and Sorensen (2010:225), validity was the most important consideration in developing and evaluating measuring instruments. Simply, it was defined as the extent to which an instrument measured what it claimed to measure. So, it does mean that an instrument is called valid when it measure the data variable correctly. Content of validity refers to the which is seen from the content of the test as representation of language skills. In this case, the content was adapted from the generic structure of Recount text based on Barwick (1999) that indicates three parts of its structure, they are orientation, series of events, and re-orientation.

### b. Reliability

According to Cohen et al. (2005:117) reliability essentially refers to a synonym for consistency and replicability over time, over instruments and over groups of respondents. A research is defined reliable when it is carried out on a similar group of respondents in a similar context (however defined), then similar results would be found. To verify the the reliability of the test, the researcher used the Pearson Product Moment formula. The formula of Pearson product Moment is:

$$r = \frac{\sum XY - \frac{(\sum X)(\sum Y)}{N}}{\sqrt{(\sum X^2 - \frac{(\sum X)^2}{N})(\sum Y^2 - \frac{(\sum Y)^2}{N})}}$$

Notes:

r = Pearson r

$\sum X$  = sum of scores in X distribution

$\sum Y$  = sum of scores in Y distribution

$\sum X^2$  = sum of the squared scores in X distribution

$\sum Y^2$  = sum of the squared scores in Y distribution

$\sum XY$  = sum of products of paired X and Y scores

N = number of paired X and Y scores (subjects)

## 4. Media

During the progress, there were some media used by Researcher in this study as follow:

1. Handphone, this gadget was used to record the researcher when he was conducting the pre-test and post-test to avoid uncertainty of the test done transparantly, and also to save it as the documentary evidence.

2. Printed Paper, this paper had the visual diagram of Herringbone technique printed on it. Researcher gave this printed paper to each of students in order to help them in visualizing what would a Herringbone diagram look like.
3. Other documents like the instrument of the research (test) printed in a paper. They were lesson plans (both for Control and Experimental class), the pre-test and post-test paper.

#### **D. Technique of Data Collection**

The data in this research is obtained from test used to measure students' reading skill in order to find out the objectivity. Thus, to collect the data, researcher does three steps orderly. They are namely:

##### **1. Pre – Test**

Researcher does a Pre-Test as an early step. This test is conducted to both Experimental and Control class. The purpose is to figure out how good the students are in comprehending recount text. In this activity, researcher will use multiple choices test given to students from both classes. And, the result will show the score of students from those two classes and the gap of the score between them (Experimental and Control class) before the researcher applies the Herringbone technique to the Experimental class.

##### **2. Treatment**

After conducting Pre-Test, researcher will do a treatment for both classes in next occasion, but with different strategies. The researcher will use Herringbone technique to the experimental class and will use the conventional strategy of teaching to the control class, but still the material is the same one for them all.

##### **3. Post Test**

After doing a treatment to both experimental and control class, the researcher would do a Post-Test on them as a form of evaluation. This test had the similar questions as in the pre-test. Post-Test is conducted to determine the effect of teaching using Herringbone technique in the experimental class. So, it would show the significant difference on students' achievement between the Pre-test and Post-Test score.

#### **E. Technique of Data Analysis**

A data analysis was an important part in the research method. It was needed to do for finding out whether the students' reading comprehension ability that were taught using

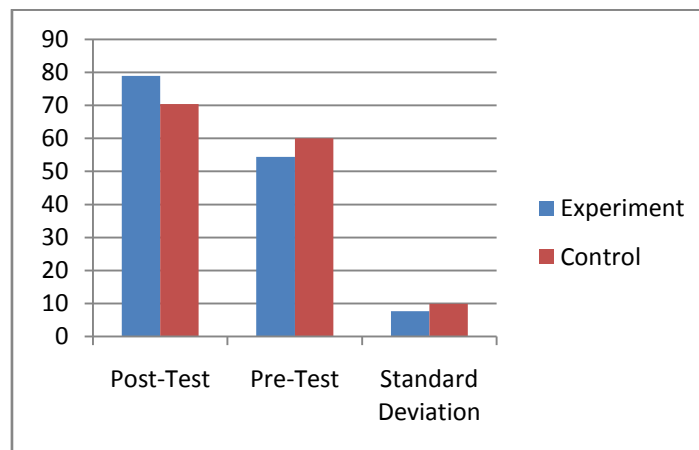
Herringbone technique was effective or not. After researcher collected the data, the data of the pre and post test were analyzed using statistical analysis as seen by following steps:

1. Finding mean score of each group
2. Calculating standard deviation of each group
3. Calculating standard error of difference of mean
4. Testing Hypothesis

## FINDING AND DISCUSSION

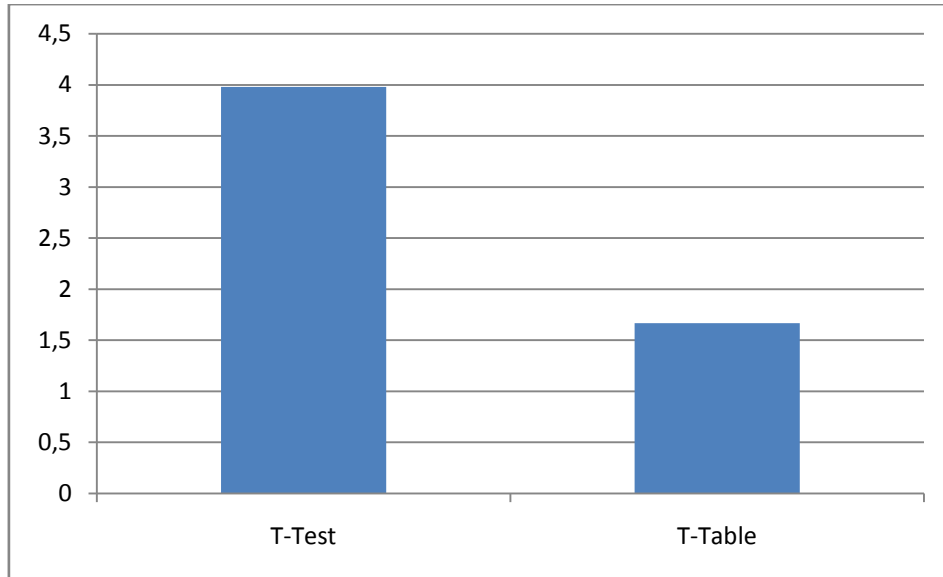
### FINDING

Based on the data that had been calculated, it was seen that the use of Herringbone technique showed a significant effect on the students' ability in reading recount text. The difference or the improvement as the whole students got in post test from control to experimental group was 410 or 12,058 point in average, the total sum squares of the respondents at the time of administering the post-test in experimental group was 1939,711 points where its standard deviation was 7,666, meanwhile the total sum squares of the respondents at the time of administering the post-test in control group was 3218,382 points where its standard deviation was 9,875, testing hypothesis showed that t-test (3,981) was higher than t-table (1,668) at level of significant 5% for two tailed test.



**Chart 1. Post Test, Pre Test, and Standard Deviation of Experimental and Control Group**





**Chart 1. Difference of T-Test and T-Table**

## DISCUSSION

Other previous related research was taken into this session as a part of discussion to see similarity and difference(s) which been compared with the one done by researcher. It was a research written by Nurlinda (2017) in her 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”*. This research reported that the use of herringbone technique did significantly effect the students’ ability in reading recount text, which was similarly found on the researcher had.

As the point of similarity, both researchs used quasi-experimental design where had 2 kinds of sample: the Control and Experimental group. Both researchs also showed that the group which had been taught by using Herringbone technique had a higher score than other group which taught by using conventional method.

The differences were seen firstly on the grade of students taught in these two researchs. Nurlinda projected this study to develop the reading ability of the Eight grade students (Junior High School), where in researcher’s study, the sample of research were the tenth grade students (Senior High School). Other could be seen from the steps carried on the researchs. The research written by Nurlinda used seven steps which starting from Try Out, Pre-Test, three-times treatment, and Post-test done for both Experimental and Control class. While in researcher’s study, the research started Pre-Test, two-times treatment, and Post-test for both classes. Might the research did a try out, it was just a preliminary background to find out students’ ability in reading recount text. Finally, it could be concluded that Herringbone technique was an



appropriate teaching technique to apply in teaching reading comprehension. It was experimentally proved to develop students ability in reading recount text.

## **CONCLUSION**

The conclusion of the research is written as an answer for the research problem in chapter I by seeing the findings in chapter IV. Where, generally it can be drawn as follow. Firstly, students in both experimental and control group did have a bad reading ability, where through a pre-test it can be seen students' score were below the average. For the experimental group, all students in this group had an average score as 54,411 where it is below the KKM: 70. For the control group, the pre-test score were a little bit better than the experimental group: 60 (even though it was still below the KKM). Both groups, after tested in Pre-test, are given a treatment in order to develop their reading ability as the researcher's hope. The control class was taught a using a conventional method, different with the experimental class where it was taught by using Herringbone technique.

After being treated by own treatment, these two groups then evaluated in Post-test. Both groups showed a significant improvement for their result of teaching. For the control group, the average score has increased from 60 up to 70,441. And for the experimental group, the average score increased from 54,411 up to 78,970. By seeing those scores, it can be concluded that students have passed the KKM standard. But, what makes it different is, even though both classes made their improvement, the experimental class which being treated by Herringbone technique showed a higher improvement than other group who had a conventional teaching method in their learning. As a final conclusion, it can be concluded that the Herringbone technique is able to meet the expectation of the researcher to increase students ability in reading recount text. It clearly proved the Alternate Hypothesis (Ha), "The Herringbone techniques does effectively improve the students reading comprehension of recount text at the 10th grade of PMIA 3 in SMA NEGERI 4 Pematangsiantar." is accepted and rejected the Null Hypothesis, "The Herringbone techniques does not effectively improve the students reading comprehension of recount text at the 10th grade of PMIA 3 in SMA Negeri 4 Pematangsiantar."

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