

THE EFFECT OF HERRINGBONE TECHNIQUE AND STUDENTS' READING INTEREST ON STUDENTS' READING COMPREHENSION AT GRADE VIII OF MTS SUMATERA THAWALIB PARABEK BUKITTINGGI

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Abstract

This research aimed to test the effect of herringbone technique and students' reading interest on students' reading comprehension. It is a kind of experimental research with quasi and 2x2 factorial designs. The reading comprehension test and reading interest questionnaire were used to collect the data of the research. The data were analyzed by using Chi-square test for normality testing, variance test for homogeneity testing, t-test and ANOVA for hypotheses testing. The result of data analysis showed that; (1) herringbone technique produced higher reading comprehension of students than small group discussion; (2) herringbone technique produced higher reading comprehension of students with high reading interest than small group discussion; (3) herringbone technique did not produce higher reading comprehension of students with low reading interest than small group discussion; (4) there was an interaction between technique and students' reading interest to students' reading comprehension. Based on the findings, it is concluded that herringbone technique is an effective technique for students' reading comprehension compared to small group discussion.

Keywords: Herringbone Technique, Reading Interest, Reading Comprehension

Introduction

Reading is a thinking process that enables students to combine the information they read from a text with their background knowledge. The combination of the information from a text and the students' background knowledge construct the meaning that lead to students' comprehension. As stated by Snow (2003:11) that reading comprehension as the process of concurrently extracting and constructing meaning through interaction and involvement with written language is the purpose of the readers in reading text. In reading comprehension, the message of the reading text must be required in the written form and it is the important thing that must be recognized by the students since the purpose of reading is to know the thoughts expressed in the printed material.

However, in junior high school, reading is one of language skills which should be expanded in teaching-learning process since teaching English at junior high school also expects the students to be able to comprehend some kinds of text types, includes descriptive, narrative, procedure, and recount text. Based on an interview done with one of English teachers at MTs Sumatera Thawalib Parabek Bukittinggi, most of the students have difficulties in comprehending narrative text because they have insufficient vocabulary. They only translate the texts word by word without making any prediction about what the text is talking about. Besides, the students face difficulty in comprehending the text because lack of motivation. Most of the students did not give any contribution during teaching reading process.

Those problems seem to be caused by some factors. A number of studies reveal several factors that contribute to that problem. First, Ibrahim and Sabatin (2013:43) found that a considerable number of students failed to comprehend the reading passages because they are lack of sufficient background knowledge. Then, the next factor is students' low motivation in reading English text. A research conducted by Marzona (2015:72) found that most of the students did not understand the text and they did not give any positive feedback during teaching and reading process. The next factor that contributes to the successful reading comprehension is the consideration in choosing suitable teaching technique.

Based on the preliminary research done at MTs Sumatera Thawalib Parabek Bukittinggi, commonly, the teachers use small group discussion as the teaching technique in teaching reading. In small group discussion,

the students are divided into groups and expected to participate actively in reading process. In spite of this, not all of the students participate in their group. Only the students who have high reading ability are active dominantly. In contrast, low reading ability students comprehend less and are passive readers. This condition makes some students did not actively participate in their group. As the result, the students not only cannot comprehend the reading text well but also a learning objective cannot be achieved.

In light of this situation, the researcher proposed the use of herringbone technique to be implemented in teaching reading narrative text. Herringbone technique can be one of the choices to help students comprehend the text and minimize their problems in reading narrative text. As Tierney(1980:8) state that herringbone technique facilitates the students a fishbone pattern that makes students active in learning process. The herringbone technique allows them to take a note and sort information on their paper using herringbone format. Then, it is added by Walker (2005) states that herringbone technique are used to help the students in organizing information of the text. As one of graphic organizer reading strategies, herringbone technique provides the students with a framework for making them easier to arrange their thoughts either in the form of supporting information or main idea of the reading material that they are reading.

In addition, the students' interest is necessary in reading since it may influence students' reading comprehension. Nonetheless, most of students have less interest in reading. Syah (2003:151) indicates "interest as the high tendency or desire towards something". Basically, reading interest can be categorized into two levels: high reading interest and low reading interest. Both of these levels have effect whether to strengthen or weaken students' reading comprehension. The students who have high reading interest tend to have better concentration in reading.

On the other hand, the students who have low reading interest are facing the difficulties during the reading process. They have no passion to read the text since they are not motivated to achieve the goals of reading activities. Furthermore, most of the students who have low reading interest cannot concentrate well. So, they are easily disturbed and tend to do other activities in the classroom. All of these are the reasons why reading interest affect students' reading comprehension significantly. It is supported by Ono et al (2006:78) say that it is very important that the students are interested with and enjoy the books that they read since by having interest, it can force someone to reach a goal, a thing, or an activity.

So, the research was focused to see the effect of using herringbone technique and students' reading interest on students' reading comprehension of narrative reading text. Furthermore, the problem of this research was formulated as follows:

1. Does herringbone technique produce better reading comprehension of the students than small group discussion at grade VIII of MTs Sumatera Thawalib Parabek Bukittinggi?
2. Does herringbone technique produce better reading comprehension of the students with high vocabulary than small group discussion at grade VIII of MTs Sumatera Thawalib Parabek Bukittinggi?
3. Does herringbone technique produce better reading comprehension of the students with low vocabulary than small group discussion at grade VIII of MTs Sumatera Thawalib Parabek Bukittinggi?
4. Is there any interaction between teaching techniques (herringbone technique and small group discussion) and students' reading interest toward students' reading comprehension?

Method

The design of this research was a quasi experimental research with factorial design 2x2. The researcher used reading comprehension as dependent variable, herringbone technique as independent variable and students' reading interest as moderator variable. It was used to see the effect of herringbone technique toward students' reading comprehension in narrative text. The population of this study was five classes of the second grade students of MTs Sumatera Thawalib Parabek Bukittinggi enrolled on 2017/2018 academic year and the total of population was 133 students. While, to get the samples in this research, the researcher applied cluster random sampling and the class chosen as experimental class was VIII₁ and the class chosen as control class was VIII₂.

The data of this research were students' reading comprehension test scores and students' reading interest questionnaire. After that, these data were analyzed by using some formula to see the normality testing which was used Shapiro-Wilk test. Then, to see homogeneity testing, the data were analyzed by using Levene test. While, hypotheses 1, 2 and 3 were analyzed by using t-test and hypothesis 4 was analyzed by using two ways ANOVA.

Findings and Discussion

1. Herringbone Technique Produce Better Reading Comprehension of the Students than Small Group Discussion

Based on the statistical analysis of the first hypothesis testing, it was found that the mean score of students' reading comprehension in experimental class (80.07) was higher than the mean score of students' reading comprehension in control class (75.03). It indicates that teaching reading by herringbone technique produces higher reading comprehension compared to small group discussion. It can be seen in the table below.

Table 1. Summary of T-Test Analysis of Reading Test in Experimental and Control Class

Data	Herringbone Technique	Small Group Discussion
N	27	27
Mean	80.07	75.03
T _{observed}	1.706	
T _{table}	1.675	
Conclusion	T _{observed} > T _{table} H _a accepted	

As a matter of fact, there are several points why herringbone technique gives benefits to students' reading. First, the herringbone technique helps develop comprehension skills as well as informational organization, contrast and comparison skill and the ability to remember detail information. It is in line with Thaler (2008: 88) who states that herringbone is a useful technique for analyzing a single idea or text. Second, herringbone technique facilitates the students a fishbone pattern that makes students active in learning process as stated by Tierney (1980:5) by using this learning tool, students are required to find the important information while reading a text. Third, Walker (2005) states that herringbone technique are used to help the students in organizing information of the text. As one of graphic organizer reading strategies, herringbone technique provides the students with a framework for making them easier to arrange their thoughts either in the form of supporting information or main idea of the reading material that they read.

In addition, if it is seen at the students' reading scores, herringbone technique brings positive outcome to the students' reading comprehension especially in terms of increasing their activeness in giving ideas. Since herringbone technique help the students to find detail information by completing a diagram, the students are better in developing ideas. It is supported by Thaler (2008:5), herringbone technique consists of a short graphic organizer and it is a concrete way of helping English learners find the comprehensive idea in a paragraph or passage. The students answer the questions listed in the fishbone graphic organizer. This leads to the synthesis of all the information in one newly created sentence, which becomes the main idea statement.

From the discussion above, it can be concluded that herringbone technique helps the students to improve their reading comprehension especially in terms of improving their knowledge, giving their arguments, and students' reading interest. Thus, herringbone technique is an appropriate strategy in helping students to increase their reading skill.

2. Herringbone technique produce better reading comprehension of high reading interest students than small group discussion

Based on the statistical analysis, it was found that high reading interest students in experimental class produce higher reading comprehension than high reading interest students of control class. It can be proved from the finding that the mean score of high reading interest students in experimental class was (85) which was higher than students' mean score in control class (75.71). it can be seen in the table below.

Table 2. The Summary of T-Test Analysis of Students' Reading Test of Experimental and Control Class Who Have High Reading Interest

Data	Herringbone Technique	Small Group Discussion
N	7	7
Mean	85	75.71
T _{observed}	1.933	
T _{table}	1.782	
Conclusion	T _{observed} > T _{table} H _a accepted	

High reading interest students in herringbone technique get better reading ability since they get more opportunity to explore themselves in getting the information and completing all the lists in herringbone technique diagram. It is in line with Mappeira (1993:63) who states that interest will be appear if there is an opportunity given to the students to be interested in reading at the beginning, this opportunity and other factors will be possible to make the student become interest in reading. So, they be able to achieve their goal of study by doing the entire task given by the teacher since they have high reading interest and motivation.

Then, high reading interest students pay more attention to the teacher and all the activities in the classroom. As the result, the students who have high reading interest in herringbone technique get better result in reading. As Winkel (1994:30) stated that students comprehend better when they are interested in what they are reading. They are more active than low reading interest students. Moreover, they are more interested and attractive in doing all kind of activities since they have high interest in reading, enthusiastic and they find it is challenging and enjoyable.

Therefore, it can be summarized that students who have high reading interest taught by using herringbone technique produced higher ability in reading texts than the high reading interest students who were taught by small group discussion.

3. Herringbone technique does not produce better reading comprehension of low reading interest students than small group discussion

Based on the statistical analysis, it was found that low reading interest students in experimental class produced low reading comprehension than low reading interest students of control class. It can be proved from the finding that the mean score of low reading interest students in experimental class was (67.4) which was lower than those in control class (69.2). It can be seen in the table below.

Table 3. Summary of T-Test Analysis of Students' Reading Test of Experimental and Control Class Who Have Low Reading Interest

Data	Herringbone Technique	Small Group Discussion
N	7	7
Mean	67.4	69.2
T _{observed}	- 0.384	
T _{table}	1.782	
Conclusion	T _{observed} < T _{table} H _a rejected	

As the matter of fact, teaching reading through herringbone technique encourages the students to complete and respond herringbone technique diagram as the main point to achieve better reading skill. In teaching and learning process, herringbone technique needs the students who have responsibility to finish their task, completing the diagram and active in gaining and sharing the information related to the topic given.

However, the students who have low reading interest tend to have low responsibility to their own task since they have low interested in reading. Some students do not have any plan to achieve the purpose of the study. Thus, the low reading interest students need more support and guidance from the teacher in completing the form, gaining information, sharing information in discussion and understanding the lesson. Furthermore, the students who have low reading interest tend to be more receptive than productive. They like to receive the material from the teacher than searching for their own. Thus, they need more guidance from the teacher to get an improvement on their reading ability. That is why small group discussion is suitable for the low reading interest students.

In using small group discussion, the teacher is more active in giving explanation of the lesson so that the students get clear explanation and do not confused about the lesson. As supported by Dmin (1998:74), there are several advantages of small group discussion such as; it is good devise to develop social skills, it can gather the different needs of students based on their different types of learning. Besides, it helps the students to hold their attention focus on the task and also a great way to form students' attitude and helps them to develop important academic achievements. As the result, small group discussion can be an effective learning situation in which students learn both through instructions from their teachers and interaction with each other.

Thus, herringbone technique is particularly beneficial for students who have high reading interest, but it is not appropriate for the low reading interest students. In other words, the students who have low reading interest are better to use small group discussion since this strategy gives direct teaching and discussion and lead the students into group to understand the lesson.

4. There is an interaction between both techniques and students' reading interest toward students' reading comprehension.

The fourth hypothesis of this research shows that the value of F_{observed} (2.909) is higher than F_{table} (0.424). It means that H_1 is accepted or there is an interaction between both strategies and students' reading interest on students' reading comprehension of the texts. In other words, herringbone technique and small group discussion influence students' reading comprehension with high and low reading interest. It can be seen in the table below.

Table 4. The Summary of Two Ways Anova Analysis Test Tests of Between-Subjects Effects

Dependent Variable: score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1321.857 ^a	3	440.619	5.899	.004
Intercept	154811.571	1	154811.571	2.073E3	.000
Kelas	96.571	1	96.571	1.293	.267
r.interest	1008.000	1	1008.000	13.496	.001
kelas * r.interest	217.286	1	217.286	2.909	.101
Error	1792.571	24	74.690		
Total	157926.000	28			
Corrected Total	3114.429	27			

a. R Squared = .424 (Adjusted R Squared = .352)

$F_{\text{table}} (0.05)$: 0.424

The interaction of both technique and students' reading interest toward students' reading comprehension can also be seen by comparing students' mean score of reading based on high and low reading interest. Based on the statistical analysis, the mean score of students' reading comprehension that have high reading interest in experimental class was higher than the mean score of the control class. However, the mean score of low reading interest students in reading of experimental class was lower than the mean score of control class. It means that herringbone technique has positive relation for high reading interest students in improving their reading comprehension but it is not appropriate for low reading interest students.

Table 5. Students Average Scores of Reading Ability between High and Low Reading Interest of Experimental and Control Class

Teaching Technique \ Reading Interest	Herringbone Technique	Small Group Discussion
High	85	75.7
Low	67.4	69,2

In other words, small group discussion helps them better in reading than herringbone technique. Since both of the techniques bring positive effect toward students' reading comprehension, therefore, there is an interaction between the technique and reading interest toward students' reading comprehension. Then, the chart of interaction between technique, students' reading interest and students' reading comprehension of narrative text shows that the lines cut one another. As Gay and Airasian (2009:399) mention that a statistical interaction occurs when the effect of one independence variable on the dependent variable changes depending on the level of another independent variable. Hence, an interaction occurs when the effect of herringbone technique toward students' reading comprehension changes depending on the level of students' reading interest. The analysis and data interpretation indicates that H_a is rejected. If the alternative hypothesis is rejected, there is an indication of interaction between two factors if there is an existence of nonparallel lines (lines that cross or converge) in the result of a two-factor study chart. The line in the interaction chart shows a nonparallel line. In short, it is concluded that there is an interaction between teaching techniques and students' reading interest toward students' reading comprehension.

In this study, herringbone technique is effective for high reading interest students since it encourages the students to be active and independent learners. In this case, high reading interest students have a good control in managing their study and responsible to finish the task and sharing their ideas in the discussion, so they do the entire phases of reading activity well than the low reading interest students. On the contrary, the students

who have low reading interest are better taught by using small group discussion because the low reading interest students have less motivation in studying and prefer receiving the material from the teacher instead of searching for themselves and hesitate to share with their friends in discussion. The students tend to be more receptive than productive, thus, they need more guidance and clear explanation from the teacher to help them get better achievement in reading. Moreover, most of high reading interest students tend to ignore the essential explanation and small group discussion done by the teacher since they think that they already had good skill in reading and they assume that technique is a kind of boring activity.

Therefore, herringbone technique, small group discussion, and students' reading interest brings effects to the students' reading comprehension. The use of herringbone technique in teaching learning process brings positive effect for students' reading comprehension, especially for high reading interest students. Then, the small group discussion also brings positive effect in helping low reading interest students to get better reading comprehension. It can be said that there is an interaction of both technique and students' reading interest toward students' reading comprehension.

Conclusion

First, herringbone technique produced better reading comprehension for the students in experimental class than small group discussion in control class, because in experimental class, the teacher led the students to find out the details information by herringbone technique diagram, giving a chance for the students to explore themselves in pair discussion, most all the students were participated. If it is compared with small group discussion the students just got some questions orally and this activity is teacher-centered, so not all the students want to participate in the learning process.

Second, herringbone technique produced better reading comprehension to the students with high reading interest than small group discussion. It is because herringbone technique encouraged the students to be active and delivering their opinion in the classroom. In this case, high reading interest students have a good ability in saying their thought and doing the test, they do the tasks and tests given well than the low reading interest students.

Third, herringbone technique does not produce better reading comprehension of the students with low reading interest. It can be seen from the mean score of students' with low reading interest taught by using herringbone technique was lower than the mean score of the students who are taught by small group discussion. In this case, herringbone technique did not help students with low reading interest to improve their reading comprehension. In other words, teaching reading by using herringbone technique is not appropriate for the students with low reading interest.

Fourth, there is an interaction between both strategies (herringbone technique and small group discussion) and students' reading interest on students' reading comprehension. It means that herringbone technique, small group discussion and students' reading interest give contributions toward students' reading comprehension.

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