THE IMPLEMENTATION OF HERRINGBONE PATTERN IN IMPROVING STUDENTS' READING COMPREHENSION

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Abstract

This research aimed at finding out the effectiveness of Herringbone Technique in improving students' reading comprehension at the fifth semester student of Informatics Study Program Faculty of Computer Engineering Cokroaminoto Palopo University. This research applied a pre-experimental method with one group pre-test and post-test. The population of this research was the fifth semester student of Informatics Study Program Faculty of Computer Engineering Cokroaminoto Palopo University. The sample of this research was class 5A consisted of 40 students, the sample was taken by using random sampling technique. There are two kinds of instrument used in this research, namely test and questionnaire. The result of the research shows that the reading comprehension ability of the fifth semester student of Informatics Study Program Faculty of Computer Engineering Cokroaminoto Palopo University was very effective. It was proven by the mean score in post-test was 7.55 and the T-test value 43.375 which was higher than the T-table value 2.315. And the students were interested in learning reading comprehension using Herringbone technique.

Keywords: Herringbone pattern, reading comprehension

Background

The objective of English Language Teaching is to develop reading, listening, speaking and writing skills. It is the main purpose in teaching, especially in English skill. Nowadays, the progress of knowledge, science and technology requires us to absorb information. Information is merely the most important aspects in our life. Book, magazine, newspaper, bulletin, internet i.e. are source of information we can get it only through reading. Thus, we must read thousands of books to avoid ourselves from out of date.

There are four skills in English, one of them is reading. Reading is an activity that can be done by all people without high cost. According to Mardiana (2005) [1] reading is a process where by one looks at and understands what has been written. The keywords here "understand" merely reading aloud. Without understanding, it doesn't count as reading.

There are many students feel that reading is boring. Some students postpone reading until the last of the minutes. They realize that they don't have enough time to finish all. Moreover, in the classroom they get more tasks to read. For many students, reading is hard job to do because reading is done by spelling word by word.

In reading text it is not necessary to look at everything in a giving piece of written, the reader is not simple a passive object, but is an active working on the task and is able to arrive at understanding more the content of reading and then it can also speed the ability to read (Ricards, 1986, p.68) [2].

The role of educator especially of the teacher is one way to overcome the problem above. In teaching, the teacher has to choose correct learning method because the case can influence the result of student learning. Teaching is always looking for substitute role repetition with more effective technique to make reading comprehension easier and more pleasant. It is very important to develop motivation in reading.

Reading can be easy probably to the student if they can finish all the best of reading on time, and if they understand, they will get a better result and learn much faster. If only reading is easy in order to make reading as a fun activity, the teacher should attempt to find any method. At this moment, the researchers want to offer a method that is Herringbone technique.

. According to Anderson (1969, p.334) [3], there are three major problems of reading comprehension. i.e.: vocabulary problem, structural problem, and context problem. Sources of those difficulties and problem above are exactly the same as what the researchers found during teaching in the fifth semester student of Informatics Study Program Faculty of Computer Engineering Cokroaminoto Palopo University. Most students have difficulties and problem in language competence and reading comprehension as internal factor and internal ones. The most difficulty and problem they have are in vocabulary, structure and content.

In researchers' point of view, one of the easiest strategy in improving student reading comprehension is by using herringbone pattern, because it is a very simple instruction that can ease student to comprehend a reading passage as well as find the main idea.

The issues then refer to answer the research question as follows:

"Is the Use of Herringbone Technique significant to improve the Reading Comprehension of the fifth semester student of Informatics Study Program Faculty of Computer Engineering Cokroaminoto Palopo University?"

Reading comprehension

Foerst (cited in Hendra, 2007) [4] states that there are basic definitions of Reading. According to the first definition,

learning to read means learning to pronounce word. According to second definition, learning to read means learning to identify words and get their meaning. According to third definition, learning to read means learning to bring meaning to a text in order to get meaning from it.

Furthermore, Arsyad (2004) [5] states that reading comprehension can be viewed from two terms. They are reading and comprehension. The term 'Reading' has two meanings. That is the first meaning deals with a product, reading means the way in which something is interpreted and understood. In relation about that, Arsyad (2004) says that the term 'Comprehension' refers to the skill or the ability to understand. Another definition of printed passage may be in words, phrases, sentences, or in paragraphs.

Lamb (1976, p.7) [6] suggests that, reading comprehensions are: (1) Skill development, (2) Visual act, a successive series of the eye movements, fixation, and regression, (3) perceptual act, the recognition word and assigning to is meaning, based upon past experience, (4) A reflection of cultural background, (5) Thinking process (6) Information processing, and (7) Association learning.

Reading comprehension is understanding a text that is read or the process of "constructing meaning" from a text. Comprehension is a "Construction process" because it involves all of the elements of the reading process working together as a text is read to create a representation of the text in the reader's mind (Brown, 2004, p.8) [7].

Burmeister (1983, p.23) [8] suggests that the process of reading comprehension involves three basic skills. From a series of printed symbols, the reader strives to identify the specifics ideas of another person, established the organization of these ideas. Moreover, Strevens (1977, p.4) [9] explains that deciphering means recognition

or patterns the message, these comprise distinguishing writing from other kinds of patterns, sensing direction of the writer, finding, beginning and ends of the text, adjusting the rate the eye can to the rate of comprehension, and referring back or forward to resolve ambiguity or doubt.

The process of reading comprehension can be viewed into two stages, i.e., the mechanical process and comprehension process. The mechanical process which deals with the reader activity is followed by the eye movement of the text, and comprehension process is a competent of the reader to interpret of the reading materials.

For the mechanical and comprehension process, Lamb (1976, p.145) suggests that, the mechanical process includes. 1) Developing vocabulary, 2) Developing skill in identifying unfamiliar words thought structural analysis, context clause, dictionary words, and phonics, 3) Developing speed in silent reading, adjusting to the types of the material to read, 4) Developing oral reading skill such as phrasing, expression, pitch, and pronunciation, 5) Developing efficient eye movement. And comprehension process includes that the developing of the ability, 1) to remember, evaluate and generalize from what the reader read, 2) to note and recall the details, and the last, 3) to understand the author's ideas and the point of view.

Reading techniques play an important role in understanding reading material. Otherwise, if students read without any technique, they may not find what they want from their reading. Therefore, students who have determined what they expected to from their reading should select a reading technique which best suits their particular purpose. These reading necessities are taught to help to improve the students reading ability. Furthermore, Brown (2004) says that students should know some reading techniques are they need for their college

work, they should be sure that suitable techniques are used to facilitate their techniques presented:

1. Survey reading

Brown (2004) says surveying is a specialized technique forgetting a mountain top new of as article chapter or entire book. By surveying, a reader will be familiar with the chapter content and it helps him to give a general point of view.

2. Skimming

Skimming is a kind of reading that makes our eyes move quickly. The eye runs quickly over the text to discover what is about the main idea, the gist.

3. Scanning

Scanning is a technique you often use when looking up a word in the telephone book or dictionary. We search for key word or ideas. In most cases, you know what you are looking for, so we are concentrating on finding a particular answer. Scanning involves moving your eyes quickly down the page seeking specific words and phrases. Scanning is also used when you first find a resource to determine whether it will answer your question. Once we have scanned the document you might go back and skim it.

In conclusion, the process of reading comprehension is the readers read the materials to interact and evaluate between the mind of the read and the language of the text, decoding and meaning is important to the reader, that he uses to relate the printed words, to discover the meaning, to interpret and to put into action, and to assimilate into his total experience.

Herringbone Technique

Herringbone pattern is a pattern formed by some diagonal lines and each of those diagonal lines designated by "wh" questions, started from 1) what, 2) who, 3) when, 4) where, 5) why, and 6) how. In the center of Herringbone technique is main idea which is what each "wh", questions should refer back to (Steele, 2007) [10].

"Wh" questions are questions begun by using "wh" letters, such as; where, when, what, whom, which, whose etc.

a. Advantages and disadvantages of using Herringbone pattern

Herringbone pattern is very useful in teaching reading comprehension. The advantages can benefit all components of the teaching process as follows:

1. To the teacher

One of the biggest problems that most teachers face is sometimes they do not know how to deliver the subject well, especially in making the students comprehend a Reading text easily. By using the Herringbone technique the teacher is helped a lot. Since everything is already explained in the Herringbone pattern, so the teacher only has to give a short explanation and the rest of the efforts will be done by the students.

2. To the students

To comprehend and determine main ideas in a Reading text are very difficult when students do no have enough vocabularies. Herringbone pattern provides students with a short and simple explanation on task given by the teacher and ensures them know about what to do with less help from their teacher

Teaching Reading by Using Herringbone technique is very useful in helping students to comprehend and determine Main ideas in a Reading text easily. Sometimes, problem appears when the students read a text and it my happen for some reasons, such as: they do not have enough vocabulary and ability to read well. Herringbone technique has been designed in such a way to answer of such problems, since Herringbone technique consist of explanation and guidance of what students.

Besides that, teacher can also easily deliver his or her subject by using Herringbone technique since everything is already explained by the Herringbone technique. So the teacher only has to give a short explanation and rest of the effort will be done by the students. The disadvantages of Herringbone technique is taking and spending many times to arrange it into the class.

b. The procedure of Herringbone technique

This purpose is to provide students with a framework for making decisions about main ideas and important supporting details in material that they read. The procedure in the following:

1. Students work in pairs or triads.
2. Students read a selection from a content textbook or another piece of reading material. Any appropriate prereading activity may be used.
3. After reading, groups complete the herringbone by the discussion the text, considering possible answers to the questions on the herringbone, and deciding cooperatively upon the answer that seems best to them.
4. When groups have completed their tasks, the teacher convenes the entire class so that groups can share their decisions and the reasons for them, with each other. The focus of this discussion should be on decisions and reasons rather than "right" answers.

c. Herringbone pattern

The Herringbone pattern is used for synthesizing information after pre-reading, or skimming, a chapter. Pre-reading is an important tool for understanding what each reading is going to be about, what the main ideas are going to be, and for getting a general idea of what will be discussed in each reading. When students take the time to pre-read they are better prepared to read and understand the information presented in text.
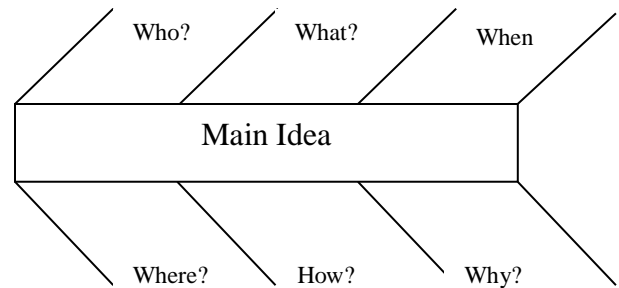
Give students a short amount of time to skim s chapter, and then have them fill the Herringbone pattern with the main ideas of the chapter, including: What is the main idea? Who is speaking? Who is the reading talking about? When did this occur? Where did it occur? How was it brought into being? Why was it done this way? Students write phrases answering these questions on the diagonal lines designated by each question. Notice that in the center of the Herringbone pattern is "Main Idea," which is what each "W" question should be refer back to.

d. The use of Herringbone

The main idea of a paragraph answers the question: "what is the main point the author is expressing about the topic?" the stated main idea is found in one or two sentences within the paragraph. He main idea answers two important questions:

Who or what have I just read about?

What was the main point or points the author made about this topic?

An explicit main idea may be anywhere in the paragraph, but is typically found in these locations:

first sentence, last sentence, middle paragraph, or combination of two sentences.

An implied main idea is a sentence that the reader composes rather than a statement found in the selection. This the reader-developed sentence answers the same basic questions: who or what did I just read about? And what was the main point or points the author made? To determine the implied main idea, readers should follow these steps:

Read the paragraph and ask, "Who or what did I just read about?"

Ask, "What are important details from the reading?"

Determine the main idea by asking, "What is the single most important point the author is making about he topic based on the details?"

Use the information from the paragraph that answers these questions to formulate a sentence that states the main idea.

Method

This research applied a pre-experimental method with one group pre-test and post-test design involved one group that tested pre-test(O_1), exposed treatment (X), and tested again in post-test(O_2). The independent variable was herringbone techniques, which was the teaching aids that help the student improve their reading comprehension. While the dependent variable was students reading ability in comprehending a text.

The population of this research was the fifth semester student of Informatics Study Program Faculty of Computer Engineering Cokroaminoto Palopo University. The sample of this research was class 5A consisted of 10 students. Therefore, the total numbers of sample were 40 students which were taken by random sampling technique.

There are two kinds of instrument use in this research, namely test and questionnaire. Then the data were analyzed by the following steps:

1. Classifying the score.
2. Calculating the mean score of the students' achievement.
3. Calculating the value of the test.
4. Finding out the mean score.
5. Questionnaire

Findings and Discussion
Findings
The Data Analysis of Students' Herringbone Technique

The finding of the result deals with the classification of the students' score on the pre-test and post-test in experimental.

Table 1
The rate percentage of the pre experimental
Group students' pre-test score

No.	Classification	Score	Frequency	Percentage (%)
1	Excellent	9.6 – 10	0	0
2	Very Good	8.6 – 9.5	0	0
3	Good	7.6 – 8.5	0	0
4	Fairly good	6.6 – 7.5	2	5
5	Fair	5.6 – 6.5	4	10
6	Poor	3.6 – 5.5	17	42.5
7	Very poor	0 – 3.5	17	42.5
Total			40	100

The table 1 shows that from 40 students, there were 2 (5%) students' score classified as fairly good, 4 (10%) students' score classified as fair, 17 (42.5%) students' score classified as poor, 17 (42.5%) students' score classified as very poor, and none of them classified as excellent, very good and good score. It means that the students were lack in reading comprehension.

Table 2
The rate percentage of the pre experimental
Group students' post-test

No.	Classification	Score	Frequency	Percentage (%)
1	Excellent	9.6 – 10	2	5
2	Very Good	8.6 – 9.5	5	12.5
3	Good	7.6 – 8.5	12	30
4	Fairly good	6.6 – 7.5	15	37.5
5	Fair	5.6 – 6.5	6	15
6	Poor	3.6 – 5.5	0	0
7	Very poor	0 – 3.5	0	0
	Total		40	100

The table 2 shows that, there were 2 (5%) students' score classified as excellent, 5 (12.5%) students' score classified as very good, 12 (30%) students' score classified as good, 15 (37.5%) students' score classified as fairly good, 6 (15%) students' score classified as fair, and none of students' score classified as poor and very poor score. Its mean that the students could improve their reading comprehension after the treatment.

The result of pre-test and post-test calculation is presented in the following mean score table.

Table 3
The mean score of pre-test and post-test analysis

Type of test	Mean score
Pre-test	**4.07**
Post-test	**7.55**

The data in table 3 indicated that the mean score of the students pre-test is 4.07 while the mean score of the students post-test is 7.55. From that result, we see that the mean score of the post-test is higher than pre-test mean score

Table 4
The t-test of the students' achievement

Variable	t-test value	t-table
$X_1 X_2$	43,375	2.315

Based on the table above, the value of t-test is 43.375 is higher than t-table 2.315. It means that the t-test value is higher than t-table value. It can be concluded that the

using Herringbone technique was successful in improving the students' reading comprehension.

The Data Analysis from the Questionnaire

The questionnaire in this research consisted of 10 items, each item provided with different response categories. Some

items are discussed below. The analysis result of the questionnaires is given to 40 students as follows:

Table 5
The rate percentage of the questionnaire
Degree of the technique Development Ability

No.	Response	Frequency	Percentage (%)
1.	Able	28	70
2.	Cannot be able	9	22.5
3.	Strongly cannot be able	0	0
4.	Doubt	2	5
	Total	30	100

The students' opinions that learning by using Herringbone technique could increase the students' achievement in learning English (improving reading comprehension). The data shows that there

were 28 (70%) students classified as able to increase achievement and there were 9 (22.5%) students classified as cannot be able to increase students' achievement.

Table 6
The rate percentage of the questionnaire
Degree of students' statement about the technique

No.	Response	Frequency	Percentage (%)
1.	Very good	23	57.5
2.	Good	17	42.5
3.	Less Good	0	0
4.	Not good	0	0
	Total	30	100

It is about the students' opinions of degree of students' statement. The data shows that there were 23 (57.5%) students'

opinions classified as very good and 17 (42.5%) students' opinions classified as good.

Table 7
The rate percentage of the questionnaire
Degree of students' interest

No.	Response	Frequency	Percentage (%)
1.	Very interest	25	62.5
2.	Interest	15	37.5
3.	Not interest	0	0
4.	Low interest	0	0
	Total	30	100

It is about the students' opinion about degree of students' interest. There were 25 (62%) students stated that Herringbone technique was a very interesting technique in learning English (improving reading comprehension) and 15 (37.5%) students stated that Herringbone technique was interesting technique.

Table 8
The rate percentage of the questionnaire
Degree of students' statement about technique and material agreement

No.	Response	Frequency	Percentage (%)
1.	Very appropriate	27	67.5
2.	Appropriate	13	32.5
3.	Not appropriate	0	0
4.	Low appropriate	0	0
	Total	30	100

It is about the students' opinion about degree of students' statement about technique and material agreement. There were 27 (67.5%) students stated that the technique was very appropriate in learning English (improving reading comprehension) and 13 (32.5%) students stated that the technique just appropriate.

Table 9
The rate percentage of the questionnaire
Degree of students' statement about teachers' method
before knowing Herringbone technique

No.	Response	Frequency	Percentage (%)
1.	Very good	26	65
2.	Good	14	35
3.	Less good	0	0
4.	Not Good	0	0
	Total	30	100

It is about the students' opinions about teachers' method in learning (reading comprehension). There were 26 students (65%) stated that their teachers' method was

very good and there were 14 (35%) students said that was good.

Table 10
The rate percentage of the questionnaire
Frequency of teachers in motivating students in reading comprehension

No.	Response	Frequency	Percentage (%)
1.	Always	25	62.5
2.	Seldom	12	30
3.	Sometime	3	7.5
4.	Never	0	0
	Total	30	100

It is about the students' opinion about teachers in motivating frequency in learning. There were 25 (62.5%) students said that their teacher always motivate them in learning (reading comprehension), 12 (30%) students were seldom and 3 (7.5%) students were sometime.

Based on the questionnaire data above, the researchers conclude that most of the students have positive attitudes towards learning from Herringbone technique. It means that the technique is suitable to apply.

Discussion

After applying the Herringbone technique, the researcher found that such as technique was very effective. This assumption was stated with evidence. During the application process of treatment, the researcher showed that the students were very interested to the material that the researcher presented.

Besides the assumption of the researchers, it was also supported by the statistical analysis which was shown from the result of the students' reading comprehension in pre-test. The students' reading comprehension technique before being taught by using Herringbone technique in the treatment was found that there are 2 (5%) students got the fairly good score, 4

(10%) students got the fair score, 17 (42.5%) students got the poor score, 17 (42.5%) students got the very poor score, and none of them got the excellent score, very good score even the good score.

The result of data analysis above showed that there was a significant students' reading comprehension after applying the treatment by using Herringbone technique. This statement was supported by the students' post-test result, showed that, there were 2 (5%) students got the Excellent score, 5 (12, 5%) students got the very good score, 12 (30%) students got the good score, 15 (37.5%) students got the fairly good score, 6 (15%) got the fair score, and none of the students got the poor and very poor score.

Through the result of pre-test and post-test, the result of t-test value of the level of the significant = 5% = 0.05, degree of the freedom (df) = 39 indicated that t-table value was = 2.315 and t-test Value = 39.60. Therefore, it can be concluded that statistically hypothesis of H_1 was accepted and the statistically hypothesis of H_0 was rejected. It means that the using Herringbone technique in learning can improve the students' reading comprehension. 2 (5%) students got the Excellent score, 5 (12, 5%) students got the very good score, 12 (30%)

students got the good score, 15 (37.5%) students got the fairly good score, 6 (15%) got the fair score, and none of the students got the poor and very poor score. It means that rate percentage of the post-test is higher than that of the pre-test.

Based on the result above the researcher can conclude that the fifth semester student of Informatics Study Program Faculty of Computer Engineering Cokroaminoto Palopo University have better achievement in basic language aspect of reading comprehension than before.

Conclusion

Based on the description in the previous explanation, the writers put forward conclusions as follows:

1. The reading comprehension ability of the fifth semester student of Informatics Study Program Faculty of Computer Engineering Cokroaminoto Palopo University was still low before using Herringbone technique. It was proved by the mean score in pre-test is 4.07.
2. The improving reading comprehension ability of the fifth semester student of Informatics Study Program Faculty of Computer Engineering Cokroaminoto Palopo University was very effective. It was proved by the mean score in post-test was 7.55 and the T-test value 43.375 which was higher than the T-table value 2.315.
3. The students were interested in learning reading comprehension using Herringbone technique.

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