THE EFFECT OF USING HERRINGBONE TECHNIQUE ON STUDENTS’ READING COMPREHENSION AT THE THIRD SEMESTER STUDENTS OF ENGLISH DEPARTMENT AT UNISI TEMBILAHAN

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Abstract
The present study aims to find out the effect of using Herringbone technique on students’ reading comprehension at the third semester of English Department in Unisi Tembilahan. This study is an experimental research. The data were collected by using test. The results indicate that the pre-test average is 31,06 and in post-test is 41,18. The obtained t-observed is 4,6, whereas the t-table is 2,12 in 5%. The t-observed score is higher than he t-table (4,6>2,12). It means that ha is accepted while ho is rejected. Since t-observed score is higher than the t-table, Herringbone technique is effective on students’ reading comprehension at the third semester students of English Department in Unisi Tembilahan. Based on the finding, the researchers assume that Herringbone technique can be used as one of the alternative techniques in the teaching reading comprehension.

Keywords: Effect, Reading Comprehension, Herringbone Technique

Introduction
English as an international language is used as a mean of communication both orally and written in most countries in the world. People use English to make international communication and to cooperate with people in different countries in the world. In addition to communicate with everyone in other countries students must have good English language skills. Crystal, etc. in Lauder (2008:12) states that the current status of English as an international or global language is underpinned by its wide use in a range of fields such as diplomacy, politics, international trade and industry, commerce, science and technology, education, the media, information technology, and popular culture. So, it is very important for the students to learn and practice the language as much as possible in order to use English correctly.

Nowadays, English has been a crucial as one of subject matters in a school until the highest education in Indonesia. There are four skills in English. They are listening, speaking, reading, and writing that the students should master them well. One of the important skill in English is Reading. Reading is an activity to find out the information from written text or just read as well as study or entertainment.

Based on the curriculum, students in English Department have to learn Reading 1 until Reading 4. It is clear that reading is very important to be learned. The main purpose of reading activity is to gain information from a text. As we know that many information is written in a written text. Westwood (2008:2) reading is the fundamental skill upon which all formal education depends. A child who doesn’t learn the reading basics early is unlikely to learn them at all. The child who doesn’t learn to read early and well will not easily master other skills and knowledge, and is unlikely to ever
flourish in school or in life. It demonstrates that reading is not an easy skill for the students. The students should read continuously in order to master the other skill.

Reading comprehension is not easy like we think, for the students reading is a complex process, not only read and interpret the meaning of the text, but still many activities are involved. Like Westwood (2008:32) states reading comprehension can be defined as an active thinking process which a reader intentionally constructs meaning to form a deeper understanding of concepts and information presented in a text. To comprehend, readers must use information they already possess to filter, interpret, organize and reflect upon the incoming information from the page. Efficient interpretation of text involves a combination of word recognition skills, linking of new information to prior knowledge, and application of appropriate strategies such as locating the main idea, making connections, questioning, inferring and predicting.

In fact, many students still found the difficulty to get the information. They difficult to interpret what the author try to tell. It can be seen, while in reading comprehension test, many students could not answer question based on the selection, this caused by their limited vocabulary and bad memory. They were still confused to identify language feature and generic structure and they were difficult to find main idea of reading text. So, it made their reading comprehension still in lower score. In this occasion, the students need a suitable technique in order to help them decrease their problems in reading comprehension. The technique provides the means to tackle complex problems in more efficient ways and with practice the technique leads to skills that become automatic and quick overtime.

Herringbone technique is one of the techniques which is able to improve students’ reading comprehension. Teaching with graphic organizer is a teaching technique increasing students’ motivation in learning English. One of the graphic organizers is Herringbone Technique. Herringbone technique is graphic organizer which represents visual information and concepts in teaching learning process. Katherine (2010:1) states that teaching with graphic organizers are important and effective pedagogical tools for organizing content and ideas, and facilitating learner’s comprehension of newly acquired information.

Furthermore, as stated Sherry W (2001:1) Herringbone Technique provides students with a structure for identifying and organizing important story elements and observing relationships when reading or writing, it is a useful tool for effective reading comprehension especially in the areas of character, setting, and initial plot development. So, it can be inferred that Herringbone Technique can be a good technique in teaching reading. Therefore, the researchers conduct an experimental research entitled “The Effect of Using Herringbone Technique on Students’ Reading Comprehension at the Third Semester Students of English Department at UNISI Tembilahan”.

This study apparently attempts to investigate the effect of using Herringbone Technique on students’ reading comprehension at the third semester of English Department in Unisi Tembilahan. The result of this study is expected to give a contribution to learning English especially in improving the quality of reading comprehension through Herringbone Technique.

**Literature Review**

**Reading Comprehension**

Reading is one of the English skills which must be mastered by the students. This skill needs more attention from students, because in reading the students must have
good interaction with the text in order to get the meaning of text. Wolley (2011:15) states that reading comprehension is the process of making meaning from text. The aim, therefore, is to get an overall understanding of what is described in the text rather than to obtain meaning from isolated words or sentences.

While Westwood (2008:32) states reading comprehension can be defined as an active thinking process which a reader intentionally constructs meaning to form a deeper understanding of concepts and information presented in a text. To comprehend, readers must use information they already possess to filter, interpret, organize and reflect upon the incoming information from the page. Efficient interpretation of text involves a combination of word recognition skills, linking of new information to prior knowledge, and application of appropriate strategies such as locating the main idea, making connections, questioning, inferring and predicting.

In addition, Mc Cardle et al. in Westwood (2008:32) suggest that comprehension processes draw on many cognitive and linguistic abilities most notably, vocabulary, recalling background knowledge, sentence processing, verbal reasoning, knowledge of print conventions and working memory. Weakness in any of these abilities can impair reading comprehension and can cause a student to disengage from the task of interpreting text. Richards, et al in Djuhariah et al (2012:4) say that comprehension is the act or action of grasping an idea with the intellect understanding. The idea of making meaning and building knowledge from text is commonly referred to as reading comprehension.

In conclusion to the discussion above, reading comprehension is ability to read text, process it, and understand its meaning. It means when one reads a text, they should interpret the meaning of words and find the information from the text. Reading comprehension is the activity between the reader’s knowledge and the meaning of the text which is adapted with the prior knowledge. By using reader’s background knowledge, it is hoped that the reader can get the meaning of the text. Therefore, there should be an interaction between reader, text, and writer in comprehending the text. Reading is an activity with a purpose. A person may read in order to gain information or verify existing knowledge, or in order to critique a writes ideas or writing style. A person may also read for enjoyment of the language being read. The purposes for reading guide the reader’s selection of texts.

The purpose for reading is to determine the appropriate approach to reading comprehension. A person who needs to know whether she can afford to eat at a particular restaurant needs to recognize the name of every appetizer listed. A person reading poetry for the enjoyment needs to recognize the words the poet uses the ways they are put together, but does not need to know the vocabulary that is applied, understand the evidences and cause-effect sequences that are presented, and recognize ideas that are presented as hypotheses and givens.

Chamberlain (2006:39)divides two main purposes for reading; reading for Literacy experience and reading to acquire and use information.

1. Reading for Literacy experience

The reader becomes embroiled in adumbrated events, settings, actions, consequences, characters, atmosphere, feelings, and ideas; he or she brings an appreciation of language and knowledge of literary forms to the text. This is often accomplished through reading fiction.

2. Reading to acquire and use information.
The reader engages with types of texts where she or he can understand how the world is and has been, and why things work as they do. Texts take many forms, but one major distinction is between those organized chronologically and those organized non-chronologically. This area is often associated with information articles and instructional texts.

To comprehend the words, sentences or text everyone has different style, skill, and technique. Not all people have same technique to comprehend the text. Good readers indicate the way in acquiring information integrated with their background knowledge of what they read. Besides, it can infer that different reader has different motivation depend on their purpose in reading.

King and Stanley (2004:8) explain that there are five aspects in processing reading comprehension. They are; finding factual information, finding main idea, finding the meaning of vocabulary context, identifying reference, and making reference. The theory can be described as follows:

1. Finding main idea
   Recognition of the main idea of a paragraph is very important because it is not only to understand the paragraph on the first reading, but also helps students remember the content later. The main idea of paragraph is what the paragraph expands.

2. Finding factual information
   Factual information requires readers to scan specific details. There are many types of question of factual information such as question type reason, purpose, result, comparison, means, identify, time and amount in which most of the answer can be found in the text.

3. Finding the meaning of vocabulary in context
   Vocabulary is more that list of target language words. Vocabulary includes the right and appropriate used of the word. It means that the larger vocabulary the smaller misunderstanding. So, by knowing the meaning of the vocabulary the readers can achieve reading comprehension well.

4. Identifying references
   Recognizing references words and being able to identify the word to which they refer to will help the reader understand the reader passage. Students of English might learn many rules for the sentence. Reference words are usually short and are very frequently pronouns, such as; it, she, he, they, this etc.

5. Making inference
   Inference is a skill where the readers has to able to read between lines, King and Stanley divide into two main attention, draw logical inference and make accurate prediction.
The comprehension to understand the reading text depends on familiarity with the type of material involved and the particular purpose of reading. This particular skill will develop with practice of reading. In addition, good result in reading comprehension can be achieved if the reader can choose and apply an appropriate strategy or technique. In this case, herringbone can be used as an alternative technique in reading comprehension.

**Herringbone Technique**

Herringbone technique is a technique which the students answer the WH questions; who, what, when, why, where, and how, on a graphical feature like a fish skeleton. According to Anthony as quoted by Jack and Theodore (2001:19) states that technique is implementation that which actually takes place in a classroom. It is a main trick, stratagem, or contrivance used to accomplish an immediate objective. Technique must be consistent with method, and harmony with an approach as well. While, Deegan in Rahila and Sakdiah (2016:4) states that Herringbone strategy is a strategy that develops comprehension of the main idea by plotting who, what, when, where, why, and how question on a visual diagram of a fish framework.

Moreover, Thaler in Apriasih (2014:24) states a useful technique for analyzing a single idea or text is the Herringbone technique, so-named because it resembles a fish skeleton. Herringbone Technique to comprise a short graphic organizer and it is a focus way of helping English learners to find the comprehensive idea in a paragraph or passage. The students answer the questions listed in the fishbone graphic organizer. This refers to the synthesis of all the information in one newly created sentence, which can be the main idea statement. In addition, Choe in Rahilah and Sakdiah (2016:5) adds that Herringbone technique is developed by it is named because resemble a fish skeleton that useful for analyzing a single idea. It contain six questions that help students to organize the details of the text.

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**Diagram 1. Road Map of Reading Comprehension**

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Diagram 2. Road Map of Herringbone Technique

Herringbone technique helps the students understand the connection between the ideas to the main idea. The herringbone technique is a useful graphic organizer for students to organize information. Deegan in Rahilah and Sakdiah (2016:5) mentions the procedure of the technique are the students work in pairs, the teacher selects a text, the teacher constructs a visual diagram of the Herringbone, the teacher tells the students to record the answers to the questions on the diagram. They will look for answers to: 1) who is the writer talking about? 2) What did they do? 3) When did they do it? 4) Where did they do it? 5) How did they do it? 6) Why did they do it?, the students read the text to find the answers and record the answers on the diagram, the teacher shows the students how each answer fits into a slot in a main idea sentence, the students write a main idea, using the information from the herringbone technique.

Method

The researchers applied the experimental research, is a study that used to analyze the impact of an action. It consists a hypothesis, a variable that can be manipulated by the researchers, and variables that can be measured off, calculated and compared. Above all, experimental research is completed in a controlled environment. Gay and Airasian (2000:367) argues that experimental research is the type of research that can test hypotheses to establish cause-and effect relationships. In conducting the research, a class of the third semester students of English Department involved as an experimental class. In this research used two variables, variable “X” was Herringbone technique, variable “Y was” reading comprehension.

This research is executed at the students of English Department in UNISI Tembilahan. It is located in Tembilahan city. In collecting the data, the researchers use test, which consist pre-test and post-test. Pre-test is used to analyze the student’s ability before the technique is implemented, means the treatment have not been executed. Then, post-test is used to see the student’s performance after the treatment is applied. In this research the chosen design tailored hypothesis to be tested is to identify there is significant of using herringbone technique on students’ reading comprehension.
Result and Discussion

Before the treatment is implemented, the pre test is given, it aims to find out the students reading comprehension before using Herringbone Technique, the reading test is multiple choice as many as 50 questions. In doing the treatment, the procedure of Herringbone technique is applied by select a text for students to read for the first step, then the researcher shows a diagram of the herringbone technique, discuss how the smaller bones are attached to the backbone (main idea) of the fish, which serves as the foundation. Then explain how they all work together to provide structure (comprehension) to the whole body (text), then explain to students that they will be asked to look for information that answers the following questions: Who is the text talking about?, What did they do?, When did they do it?, Where did they do it?, How did they do it?, Why did they do it?. Allow time for students to read the text, then give them copies of the diagram and ask them to record the answers to the questions on it. This can be done as a whole-class discussion activity. The strategy can be reversed and students can first formulate the main idea and then identify the supporting details. Herringbone technique helps the students understand the connection between the ideas to the main idea.

After the treatment is implemented, the post test is given, it aims to find out the students reading comprehension after taught by using Herringbone Technique, the reading test is still multiple choice as many as 50 questions. The result of pre-test and post-test reading comprehension score in this experimental study is analyzing by using paired sample t-test and it is presented in the following table 1.

| Table 1. The analysis of paired sample t-test reading comprehension score at the third student of English Department Unisi Tembilahan |
|---------------------|----------------------|-------------------|-------|-------|--------|--------|
| Subject             | Group Scores         | Mean              | Standard Deviation | N    | Df     | T      | Sig. (2 tailed) |
| Effect              | Pre-Test Score       | 31.06             | 10.395            | 17   | 16     | -4.600 | 0.000          |
|                     | Post-Test Score      | 41.18             | 12.963            | 17   | 16     | -4.600 | 0.000          |

Table 1 shows the result of pre-test mean score is 31.06. Meanwhile in the post-test, the mean score is 41.18. Moreover, after analyzing the data, the researchers find standard deviation in pre-test is 10.395 and in post-test is 12.963. Then, from the result of the statistic calculation, it is obtained that the value of t-observed is 4.6 and the value of degree of freedom (df) is 16 obtained from (17-1=16).

By comparing the values of t-observed= 4.6 and t-table= 2.12 (5%) and 2.92 (1%), the researchers made conclusion of the hypothesis that t-observed is bigger than t-table (2.12<4.6>2.92), it explains that alternative hypothesis (ha) of research is accepted and the null hypothesis (ho) is rejected. In another words, it means that there is a significant effect of using herringbone technique on students’ reading comprehension at the third students of English Department in UnisiTembilahan. Then, the researchers found the value of significant effect between pre-test and post-test of the experimental class by examining the effect size. The results of data analysis were based on the inferential statistics which identified that after conducting the treatment by using herringbone technique, the effect size on students’ reading comprehension is 0.56 which is categorized into “Moderate Effect”.

Besides, it also needs to get the result of normality of the data to see whether the data is normally distributed or not. Normality of test in this experimental study is analyzing by using paired sample t-test and it is presented in the following table 2.
Table 2. Tests of Normality

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<th>Kolmogorov-Smirnov&lt;sup&gt;a&lt;/sup&gt;</th>
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<td>Statistic</td>
<td>Df</td>
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<tr>
<td>Pre Test</td>
<td>.188</td>
<td>17</td>
</tr>
<tr>
<td>Post Test</td>
<td>.231</td>
<td>17</td>
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</tbody>
</table>

The table above impiles the normality of data of pre-test is 0.175 and post-test is 0.065, it shows that the data is normal, because the value of significance, 0.175 and 0.065 bigger than 0.05. This result prove that herringbone technique is effective in improving the students’ reading comprehension. Herringbone technique is graphic organizer which represents visual information and concepts in teaching learning process.

As Choe & Glass (2004:2) explanations that Herringbone Pattern is used to help students identify the main idea and the related supporting ideas of a lesson, text, or concept. It consists of six questions that help students organize the details of the text. The visual form of the herringbone creates a framework for students to take notes and sort information. Katherine (2010:1) also give states that teaching with graphic organizers are important and effective pedagogical tools for organizing content and ideas, and facilitating learners comprehension of newly acquired information. One of graphic organizers is Herringbone Technique. Herringbone technique is graphic organizer which represents visual information and concepts in teaching learning process. So, it can be inferred that Herringbone Technique is can be a good technique in teaching reading.

Moreover, Jack and Theodore (2001:19) said Herringbone technique can improve students reading comprehension and writing ability in teaching learning process. By using this technique, the students are able write without writing before speaking with other friends or classmate especially the way to direct. The students are able to understand the reading text and improve their English, certainly to know about vocabulary. Meanwhile concerning to the improvement, students participate actively in the learning process, students’ writing ability and reading comprehension well improved when joining the writing and reading in the class. In the other words, herringbone technique is an alternative teaching technique that benefits both for the students’ achievement and for teaching and learning process.

Conclusion

Based on the finding and discussion, it can be summed up that herringbone is effective in students’ reading comprehension at the third semester of English Department in UnisiTembilahan. It is proved by the result of $t$-test. The $t$-test shows $t$-score 4.61 is higher than $t$-table 2.12. It shows that $h_a$ is accepted and $h_0$ is rejected. It explains that herringbone technique is one of the teaching technique considered to be effective, efficient, and relevant with the teacher needs in doing learning processsof reading skill. This technique aims to assist the students to recall the information being learned, to gather ideas quickly, and to summarize the ideas or information obtained.

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