USING HERRINGBONE AND SQ4R TECHNIQUES TO IMPROVE STUDENTS' ENGLISH READING COMPREHENSION THROUGH TEACHING AND LEARNING OF ENGLISH AT SMK NEGERI 1 MAKASAR

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Abstract

This study's purpose was to find out how the Herringbone and SQ4R techniques could be used to help SMK students' reading comprehension. Quantitative experimental research methods and quasi-experimental research methods are used in this study. Students in class XI at SMK Negeri 1 Makassar during the odd semester of the academic year 2022/2023 made up the population in this study. For the purpose of evaluating how the Herringbone and SQ4R approaches affect students' English reading comprehension, the population was chosen at random. The pre-test, treatment, and post-test are the study's instruments. The Herringbone Technique was effective in enhancing reading comprehension of students based on data analysis outcomes and computation. This is evident from the findings that the post-treatment average student scores fell into the "good" group whereas the pre-treatment average student scores fell into the "poor" category. This demonstrates that students' average post-test scores after treatment are greater than their average scores prior to treatment (pre-test). On the other hand, SQ4R was thought to be less successful in enhancing pupils' reading comprehension. One student's score declined from the post-test to the pre-test, and one student's score remained the same, as evidenced by the findings of the average scores of the students' pre-test and post-test were the same between pre-test and post-tests.

Keywords*— using Herringbone Technique, SQ4R, level of reading comprehension, and reading comprehension.*

INTRODUCTION

Reading is not just to understanding or being able to pronounce what is written, but also observing what is written and adopting the viewpoint of the author. After that, we are able to comprehend and summarize what we read while critically analyzing the information and making comparisons to what we already know. "Reading is an endeavor to get knowledge," asserts Nasution (2002:57).

An organized framework can be created by using the herringbone technique, which can help students organize the essential data in a reading text. According to Deegan (2006), the Herringbone technique is a method for teaching students how to understand the main idea of reading material by drawing the 5W+1H questions on a fish diagram skeleton.

Based on researcher's observations, majority of SMK Negeri 1 Makassar students struggled with learning English, especially when it came to reading and comprehending texts. For example, understanding recount texts. The students were lazy about reading English materials and also did not focus on their lessons. This is influenced by a number of things, including 1). lack of enthusiasm and interest in learning;2). lack of basic English skills of students, for example, lack of vocabulary 3. shy and fearful of using English, 4). Textbooks are considered less attractive. Furthermore, the teacher encounters several challenges when teaching reading comprehension, namely: 1) lack of interest and enthusiasm for student

learning; 2) the teacher as the center of teaching; 3) little response from students; and 4) less study time allocation.

LITERATURE REVIEW

1. Definition of Reading

Four basic skills of English, the one of is reading. Reading is the process of discovering the ideas present in a text and using those ideas to interpret the meaning contained therein. According to Tarigan (1998:7), reading is the method used by the reader to ascertain the writer's intended meaning from the written word. Thorndike contends that reading involves thinking and deliberation in Nurhadi (2000:13). This means that when a reader reads a text, they are thinking about and supporting it in their minds.

Linse (2005:71) contrasts between the two types of reading objectives: informational reading and leisure reading. Reading for pleasure involves enjoying the "sound" or rhyme of a literary text as well as following a story. Additionally, Harsen contends in Miculecky and Jeffries (2004: 3) that students can expand their knowledge by reading for enjoyment on a regular basis. Reading can help students become more proficient writers and increase their vocabulary. Finding examples of various slang terms or writing styles can also help students learn more.

2. Concept of Teaching Reading

Reading instruction appears to be important in and of itself when teaching a language. There are usually at least two components to teaching reading. First, who is the first to learn how to read? Secondly, who already knows how to read in their native language? There are six main motives for learning to read: (1) Reading is not a skill that is passive. (2) The reading material should pique the students' interest. (3) Inspire your students to respond to the literature they are reading. (4) Making predictions is a big part of reading. (5) Align the assignment with the subject. (6) Effective teachers make full use of reading materials.

3. Reading Comprehension

Reading comprehension is also referred to as quiet reading. The objective is to get information, comprehend, and take something away by the text. Improving the capacity of students to comprehend English as it is used in written material is the main goal of reading comprehension. As stated by Anton (1995:24) and according to Nuttal, reading comprehension is as follows: When we talk about reading comprehension, we're talking about reading comprehension classes, which generally focus on a passage of text and then a series of questions. Good questions aid readers in actively participating in the reading comprehension process by assisting them in making sense of the text. Instead of hoping to comprehend what just occurred.

4. Levels of Reading Comprehension

According to Muis (2013:279), the four levels of understanding It is described as follows:
a. Literal Comprehension

The ability to understand a written text is known as literal understanding. The lowest level of understanding in the reading comprehension scale is the literal level of understanding.
b. The Inferential Level

Inferential Understanding is reading each word for word, sentence by sentence, to find the idea you want to be submitted by the author. According to Muis (2013:279), inferential understanding is understanding that captures ideas conveyed in an indirect manner.
c. The Critical Level

Critical comprehension is a level of understanding that involves evaluation, personal assessment, and the truth of what is read. Critical understanding demands that the reader analyzes reading by observing words and sentences. This is the key to being able to do an evaluation of reading. Critical understanding is related to paragraph coolness assessment, use of words and sentences that are inaccurate, and the determination of the causal relationship of ideas from one idea to another.

d. The Creative Level

Creative comprehension is understanding by involving logical, aesthetic, and artistic elements. Creative understanding demands a reader's ability in terms of logic to understand the reading, then guess or come up with an idea relevant to the reading understood. Not just logic in creative understanding, but also aesthetics and art in formulating further ideas.

5. Herringbone Technique

There are six comprehension questions in the Herringbone Technique while assisting students in finding ideas in a passage. The Herringbone technique, according to Deegan (2006), is a method for developing an understanding of the central concept of organizing the 5W+1H questions in the fish diagram skeleton containing the question. Write down the main ideas using the 5W+H question answers.

Deegan (2006) states that to organize the details of the text by helping the students, the Herringbone technique uses six different types of questions. The types of questions used as a test tool for understanding the text in readings on the Herringbone technique are as follows:

a. WHO was involved?
b. WHAT did this person or group do?
c. WHEN was it done?
d. WHERE was it done?
e. HOW was it accomplished?
f. WHY did it happen?

Students can determine the main idea in the text by using the questions above. Finding the main idea is one way to understand the content of the text.

6. SQ4R

SQ4R is a technique for increasing reading comprehension and learning new information The following will explain the steps of the SQ4R method as follows:

a.   S (Survey)

According to Coon and Mitterer (2013:2), at this step students will skim. If students are reading multiple chapters of a textbook, they should skim through the titles, subtitles, and summaries. They should also check for words in bold, words in italics, pictures or other visual aids. The title or headings, the main ideas, or any pictures will be skimmed by the students if they are present they only concentrate on the text.

b.   Q (Question)

Students create inquiries in this stage that they can respond to while reading the text (Coon and Mitterer, 2013: 2). Students could be used headings, subheadings, titles, and the main ideas they learned in the previous step to write questions about what, why, who, when, and where.

c.   R (Read)

Coon and Mitterer (2013: 2) argue that students must read texts to answer questions. They can also add more information to their bookmarks. but they cannot take notes while they are reading (Basar & Gurbuz, 2017: 133). Students only need to read the text carefully at this step.

d.   R (Recite)

In this stage, students attempt to assess their comprehension by attempting to respond to the questions in their own words. If necessary, students can briefly summarize the text during the recitation process (Coon and Mitterer, 2013: 3).

e.   R (Reflect)

According to Coon and Mitterer (2013: 3), this step can be referred to as a record or a reflection. The students perform self-reflection and critical thinking in this crucial step.

f.   R (Review)

According to Carter (in Basar & Gurbuz (2017: 133), the reader participates in the repetition and recital process in the final step in order to learn. Students review the text or even reread it, but to use their notes rather than the text to jog their memories is best for them. According to Coon and Mitterer (2013: 3), students can test their memory by reciting or taking quizzes.

METHOD

1.   Reasearch Design

The researcher employed quantitative experimental research methodologies along with quasi-experimental research techniques in this research. The class was divided into two divisions for this study. There are two classes: experimental and control classes. The control class used the SQ4R treatment whereas the experimental class used the herringbone technique treatment. This pre-test and post-test were done before and after the treatment, aims to determine how much the pupils' reading comprehension skills have improved. The following provides a description of the research design:

Class	Pre-Test	Treatment	Post-Test
Experimental	0_1	X	0_2
Control	0_3	Y	0_4

Explanation:
01 = pre-test (experimental class)
02 = post-test (experimental class)
03 = pre-test (control class)
04= post-test (control class)
X = treatment (Herringbone Technique)
Y = control (SQ4R)

2.   The Population and Sample of the Research

This study population was made up entirely of class XI SMK Negeri 1 Makassar students who took English classes. There are 494 students enrolled in class XI overall. divided into thirteen classes. Beginning on the thirteenth, the class consists of 3 BDP (Marketing) classes, 4 OTKP (office administration) classes, 4 AKL (accounting) classes, 1 UPW (Tourism) class, and 1 RPL (Software) class. Class XI BDP (marketing class) was the subject of this research, with the experimental class by students of class XI BDP 1 and the control class by students of class XI BDP 3.

Cluster random sampling was the sample in this study. From whole class, two classes from class XI were taken randomly by voting for the class that was used for research. From the

two classes obtained, then, a class was drawn again to find the class to be given treatment with the Herringbone technique and the class with the SQ4R treatment.

3.   Technique of Data Collection

Obtaining of the data, the researcher employed a test of reading comprehension. The test's objective was to gauge how well the students knew how to interpret recount texts using the Herringbone and SQ4R Techniques. The pre-test as well as the post-test were permitted for distribution of data. Pre-test was administered during the first meeting to gauge how well readers could already understand the recount text. Both classes received the treatment from the researcher. After three meetings, both classes took the post-test. A post-test was utilized to evaluate efficacy of herringbone and SQ4R techniques after the course of treatment.

A test served as the researcher's research instrument. There were two tests, Pre-tests and post-tests were administered to the experimental and control classes. Before the researcher started using any treatments, the pre-test was given to both classrooms to gauge the student's level of reading comprehension by using recount texts as a material. After the researcher had treated both classes—the experimental class and the control class—the post-test was given.

The purpose of the post-test is to ascertain how the herringbone and SQ4R techniques affected students' English reading comprehension of recount texts. To get the data, a reading comprehension exam was employed by the researcher. Twenty multiple-choice questions are included in the pre-test and post-test for both classes. A correct answer earns a score of 1, while a poorly answered question earns a score of 0. The 20 multiple-choice questions about recount texts were taken from a variety of English textbooks for the tenth grade as well as other question sources. The technique of data analysis used IBM SPSS version 23.

RESULT

1.   The Data Description
   a.   The Experimental and Controlled Classes Result of Pre-test and Post-test

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-Test Eksperimen	18	20	85	53.61	22.997
Post-Test Experimen	18	80	100	92.78	7.321
Pre-Test Kontrol	18	35	70	57.78	8.085
Post-Test Kontrol	18	60	80	70.83	4.618
Valid N (listwise)	18				

Table 4.3 describes the result of experiment class before giving treatment to the 18 students. The score minimum class pre-test is 20, and the maximum score pre-test class is 85. The score of the mean is 53.61. Furthermore, the score of the Standard Deviation is 22.997, while after given treatment, the minimum score in the experiment class increased to 80, and the score maximum increased to 100. Then, score of mean is 92.78, and the score of the standard deviation is 7.321.

Students in a controlled class are also composed of 18. The lower pre-test results of the control class is 35, 70 is the maximum score, 57.78 is the mean score, and 8.085 is the standard deviation. Then, the post-test score was gained after the last meeting of the class. The minimum score improved to 60, but the higher results is still 80. The average results is

70.83, and the standard deviation results is 4.618. According to the table, there was a significant improvement in the experimental class results after the students received using the herringbone technique, and the students results in the class of control slightly increased.

b. Wilcoxon Test

TABLE 4. 1 WILCOXON SIGNED RANKS TEST

Ranks

		N	Mean Rank	Sum of Ranks
Post-Test Eksperimen - Pre-Test Eksperimen	Negative Ranks	0[a]	.00	.00
	Positive Ranks	18[b]	9.50	171.00
	Ties	0[c]		
	Total	18		
Post-Test Kontrol - Pre-Test Kontrol	Negative Ranks	1[d]	2.50	2.50
	Positive Ranks	16[e]	9.41	150.50
	Ties	1[f]		
	Total	18		

The output interpretation is as follows:

1. The negative rank, or the disparity between the pre-and post-test reading learning outcomes, is 0 in the experimental class for the values of N, mean rank and sum of ranks, while there is 1 negative data point (N) in the control class, indicating that one student experienced a decrease in reading learning outcomes from pre-test results to post-test results. The average rank is 2.50 and the sum of ranks is 2.50.

2. Positive Rank, or the difference between reading learning outcomes for pretest and posttest in the experimental class, was 18 (N), which means that 18 students experienced an increase in reading learning outcomes from pretest scores to placement test scores. The average rank is 9.50 and the sum of the ranks is 171.00. While the control class N is 16, the mean rank is 9.41, and the sum of ranks is 150.50.

3. Ties are the agreement between pretest and posttest scores. The table above demonstrates that there is no agreement betwixt the experimental class's pre-and post-test results, which is represented by N = 0, but there is agreement betwixt the pre-test to the post-test results in the control class, which is represented by N = 1.

DISCUSSION

This study was carried out at SMK Negeri 1 in Makassar. In this study the population consisted of all XI students, and the sample comprised 36 individuals. These students were split into two groups: 18 students from XI BDP 1 served as the experimental class, and 18 students from XI BDP 3 served as the control class. This study's objective was to evaluate how well the herringbone and SQ4R techniques to enhance students' English reading understanding.

1. **The Herringbone Technique is Effective to Improve Students' Reading Comprehension at SMK Negeri 1 Makassar.**

Based on the results who was see from the comparison of the students' pre-and post-test scores that the experimental class's post-test scores were higher than those of the control class. This is seen from the disparity between the mean post-test scores of the experimental class's students (92.78) and those in the control class's (70.83). It shows that students taught the herringbone technique get better results than students taught the SQ4R technique. In addition, Table 4.6 also describes the ranks of the experimental class post-test (Herringbone Technique). In negative ranks, the N value is 0, positive ranks 18, and ties 0. This means that all results of the experimental class's students or class treated with the Herringbone technique have not decreased in value from post-test to pre-test, Consequently, it may be said that "using the Herringbone technique is effective to improve students' English reading comprehension at SMK Negeri 1 Makassar."

2. **The SQ4R Technique is Less Effective to Improve Students' Reading Comprehension at SMK Negeri 1 Makassar.**

Based on the findings, the results of students' pre-test and post-test, can be explained that the experimental class post-test results were higher than those of the control class of students. This is seen from the disparity between the average post-test result of the experimental class's students (92.78) and those in the control class's 70.83. It demonstrates that students who learn the SQ4R technique get less good results than students who are taught the Herringbone technique. In addition, Table 4.6 also describes the ranking of the control class (post-test). In the negative rank, the value of N is 1, the positive rank is 16, and tie 1. This means that there is a decrease in value from the post-test to the pre-test for 1 person in the negative ranks, 16 people have in value increased from the pretest to the posttest, and 1 person got the same score from the pretest to the posttest. Therefore it can be said that "The SQ4R technique is less effective to improve students' English reading comprehension class XI at SMK Negeri 1 Makassar."

CONCLUSIONS

Based on the findings and discussion of data analysis and it can be described in chapter IV, it can be concluded as follows:

1. The researcher discovers that the Herringbone technique at SMK Negeri 1 Makassar improves English reading comprehension students based on the explanation and information analysis provided in chapter IV. Class of experimental students outperformed those in the class of control on post-test, according to pre-test and post-test findings for the students. The average test score of the students after the test was 70.83 in the class of control and 92.78 in the class experimental, showing a difference between the two groups.
2. At SMK Negeri 1 Makassar, the SQ4R technique has less impact on students reading comprehension. Pre-test results and post-test results for students revealed that the experimental class students' post-test scores were better than those of the control class students. This is evidenced by the difference betwixt the average post-test results of the students in the class of experimental and in the class of control, which is 92.78 as opposed to 70.83. this shows that employing the Herringbone technique yields better results for students than the SQ4R technique. Therefore, at SMK Negeri 1 Makassar, the SQ4R method is less effective at increasing students' English reading comprehension.

ACKNOWLEDGEMENTS

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