

# IMPROVING STUDENT'S READING COMPREHENSION THROUGH SCANNING TECHNIQUE AT THE SECOND GRADE OF THE JUNIOR HIGH SCHOOL

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**Abstract** : The purpose of the research paper, "Enhancing Students' Reading Comprehension Through the Scanning Technique," was to look at the usage of scanning techniques in improving students' reading comprehension at SMP Berea Tondano. This study included twenty-eight eighth-grade pupils. The research approach used was classroom action research. The information was acquired from a variety of sources, including observations at each cycle meeting and a questionnaire. The average scores in cycle two (Y1 = 18,5) were higher than in cycle one (Y1 = 5,95), according to the findings of this study. Furthermore, according to the results of the students' survey, 77 percent of students chose "agree" and 33 percent chose "very agree" to employ scanning approach in comprehending narative texts. This research is expected to aid in the teaching of English. Furthermore, it is advised that future scholars look at the usage of scanning techniques in other books.

**Keywords** : *Experiments, reading, comprehension, scanning technique*

## 1. INTRODUCTION

A language is any specific example of a system that consists of the invention, acquisition, maintenance, and employment of complex systems of communication, particularly the human ability to do so. *arbitrary and conventional sound symbols that are meaningful and articulate (made by speaking devices) and are utilized as a communication tool by a group of humans to give birth to sentiments and thought"* (Rombepajung, 2019). Language is also a tool for expressing yourself, communicating, and exercising social control, according to (Hammp, Paula L. 2019).

As stated by maru (2009), "teaching language is not only a question of methodologies and instructors' teaching roles, as well as material, but also of an atmosphere or climate in which teaching and learning take place." Linguistics is the scientific study of language. Questions about the philosophy of language, such as whether words can describe experience, have been

disputed in ancient Greece since at least Gorgias and Plato.

Some thinkers, such as Rousseau, believe that language arose from emotions, while others, such as Kant, believe that it arose from rational and logical thought.

Reading is the act of looking at a set of written symbols and deciphering their meaning. When we read, our eyes acquire written symbols (letters, punctuation marks, and spaces), which we then turn into words, sentences, and paragraphs that communicate with us. Reading, according to Livianni Lambe (2011), is an action and process that readers engage in in order to comprehend written materials. It is possible to read silently (in our heads) or aloudly (so that other people can hear). Reading is a receptive talent, which means that it allows us to receive information. However, the intricate act of reading necessitates the ability to speak in order to enunciate the words we read.

Reading is a productive talent in this sense since we are both receiving and transmitting information when we read (even if only to ourselves).

Reading is a process carried and employed by readers who desire to get the message supplied by the author through the medium of words or written language, according to (Tarigan (1990:7) in Jaenal (2010).

Reading comprehension is defined as the ability to analyze text, comprehend its meaning, and integrate it with prior knowledge. ' *teaching reading comprehension in order to help their pupils become better readers and to increase their reading comprehension in accordance with their English reading ability*' Lambe, Liviani (2011) Knowing the meaning of words, being able to understand the meaning of a word in context, being able to follow the organization of a passage and identify antecedents and references, and being able to draw inferences about the contents of a passage are all essential skills for effective reading comprehension. ability to recognize a passage's core idea, ability to answer questions raised in a section ability to detect the tone of a piece by recognizing literary devices or propositional structures utilized in it, as well as to comprehend the situational mood (agents, objects, temporal and spatial reference points, etc.). Finally, the ability to detect the writer's goal, meaning, and point of view, as well as draw inferences about the writer, through incidental and purposeful inflections, etc.) transmitted for affirmations, questioning, commanding, abstaining, and so on (discourse-semantics). Ed. Sheldon H.Horowitz. According to his essay "Reading Comprehension: Reading for Meaning" on the National Center for Learning Disabilities website, when children first learn to read, they must comprehend phonemic awareness and phonic skills.

Another crucial stage is the scanning technique, which refers to a set of techniques and procedures for identifying hosts, ports, and other services within a network. One of the components of an attacker's intelligence gathering and information retrieval mechanism is network scanning, which is utilized to generate an overview scenario of the target company (target organization: means the group of people or organization which falls in the prey of the Hacker).

## 2. RESEARCH METODOLOGY

This is a quantitative study that used a One Group Pretest Posttest Design to see if there was a significant difference in students' reading comprehension before and after scanning technique instruction. The design used one class as the experimental class, which was subjected to scanning technology treatment. In this study, a pre-test (T1) was administered before the observer taught using the scanning approach in order to assess the students' competency prior to treatment. Then, using a scanning technique, treatments were given three times to increase pupils' reading comprehension. After adopting the scanning technique, a post-test (T2) was conducted to see how far the pupils had improved after receiving treatment.

There must be a difference between the pre-test and post-test scores in this design. The following is a diagram of the research design:

T1 X T2

Explanation:

T1 : Pre-test

T2 : Post-test

X stands for "treatment" (using scanning technique)

T2 : Follow-up test

## 3. RESEARCH SETTING

This research will take place at SMP Berea Tondano as the place to collect the data that is located on Tondano, Minahasa, North Sulawesi.

### Data Collecting Technique

The following tests, pre-test and post-test, would be utilized to collect data.

- a. Run a practice test

Before beginning treatment, students were given a pre-test to determine the basics of their reading comprehension and to determine their mean reading comprehension score before beginning treatment. The test administrator presents the results of the

reading test try-out in order to determine the test's quality as a research instrument. Students were given multiple choice questions in which they had to choose one correct answer from options a, b, c, or d.

#### b. Post-Examination

After the pupils had received their therapies, the post-test was given. The purpose of the post-test is to determine the outcome of the teaching learning process, specifically whether or not they made improvement after being taught using the scanning technique. The purpose of the test was to determine the pupils' reading comprehension after the therapies were administered. Students were given multiple choice questions in which they had to choose one correct answer from options a, b, c, or d.

**Procedure for Conducting Research**In the following processes are utilized by the observer when gathering data:

#### 1. Identifying the Research Issue

The research problem was chosen based on a problem faced by a senior high school student. The issue can be observed in the background of Chapter 1's dilemma.

#### 2. Selecting a Research Methodology

The materials for both reading examinations (pre-test and post-test) were obtained from the students' textbooks. A variety of narrative texts were employed in the study, with each text containing three to six paragraphs. It was intended to make both the pretest and the posttest have an equal proportion and difficulty level. The number of items was set in such a way that the split-half approach could be used to determine the test's reliability.

#### 3. Conducting Try-Out Tests

In grade XI, the try-out test was given. Students were given a 40-item multiple-choice reading test. The test was carried out to determine the test's degree of difficulty (LD) and discrimination power (DP), as well as its reliability and validity.

#### 4. Implementation Pre-testing

Before the treatments, a pre-test was carried out. It was designed to assess students' reading abilities in terms of determining a mental image, identifying specific information, determining references, making inferences, and comprehending language in texts. On the first week of the study, a 30-minute pre-test was conducted.

#### 5. Providing Care

The treatment was divided into three sessions, each lasting 80 minutes. The treatments consisted of a classroom activity in which students read using the scanning approach.

#### 6. Carrying out a post-test

After the treatment, a post-test was undertaken. The purpose of the posttest was to see if the interventions had a substantial impact on the students' reading comprehension. In experimental class, it was given for 30 minutes.

#### 7. Examining the Information

The scanning approach was used to determine the students' reading comprehension achievement. The statistical package for social sciences (SPSS) version 16.0 for Windows was used to calculate the data.

#### 8. Hypothesis Validation

The hypothesis test was calculated using the comparison mean of the experimental class's pretest and posttest.

#### **The research instrument**

Naturally, one type of instrument was used in this study to obtain objective results.

#### **Test of Reading Comprehension**

The reading comprehension exam was used as the research instrument. This observer took a reading exam to see how far he or she had progressed in teaching reading comprehension after being treated with the scanning technique. The test used in the pre-test was identical to the one used in the try-

out. The post-test, on the other hand, was planned. The basic idea, specific information, inference, reference, and vocabulary are among the five areas of macro abilities tested. The examination is in the form of a multiple-choice test (a, b, c, and d). The multiple choice test was adopted because it is quick, easy, and most importantly, reliable in terms of marking, as it is not subjective or impacted by marker judgments (Heaton, 1975: 151). Because they provide students with some alternative responses, multiple-choice wh-questions may be easier to answer than no-choice wh-questions. Students might be able to look through the text to see whether any of the options are mentioned, and then make a decision.

### Method of Data Collection

A data collection method is a method for collecting information from an instrument. To get the research data, a data collection procedure was required. Data collection, according to Tanzeh (2009:57), is a systematic and consistent technique for obtaining the relevant data. This study employed a test as an instrument and administered a test as a technique of data collection.

A test is a mechanism for gathering data in order to assess a student's performance. It might be a set of questions that are used to assess a student's skill, knowledge, intelligence, or ability. As a result, a test is a means of gathering data by asking the respondent or students a series of questions.

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The following are the procedures for doing the research:

1. Use the scanning approach to provide a pre-test to assess students' reading comprehension abilities before teaching them.
2. Provide the students with a treatment that involves the use of a scanning technique.

3. Assign a post-test to assess pupils' progress in reading comprehension after they have been taught the scanning technique.

**Table 3.6: Test and Treatment Schedule**

No.	Activity	Date
1	Pre-Test	October 21 <sup>th</sup> 2020
2	Treatment	October 23 <sup>th</sup> 2020
3	Post-test	October 23 <sup>th</sup> 2020

### Analyze the data

The process of examining data utilizing analytical and logical reasoning to examine the data presented is known as data analysis. The data was derived from the quantitative analysis of the research results of students' tests. Statistical analysis is another term for quantitative data analysis. It refers to the numerical representation of the data.

### Analyses of Data

The researcher compares the students' reading comprehension scores before and after being taught using the scanning technique in this section. The researcher used a scanning technique to administer a pre-test and a post-test to see if the students' scores differed before and after being instructed. The data was collected in three steps: pre-test, scanning technique treatment, and post-test.

The test was administered to the entire eighth grade class at SMP Berea Tondano as a single group. The data was presented and examined by the researcher using two types of tests: pre-test and post-test. The pre-test was given before the scanning technique was used to teach the class, and the post-test was given after the scanning technique was used to teach the class. The data was organized into a table that included both the pre-test and post-test scores in one place.

**Scanning Technique is used to describe students' achievements before they are taught.**

Students were given a pre-test. They had to respond to a question concerning a brief piece of functional language in the form of an announcement. The test is a multiple-choice test with a total of 20 questions. There were four options for each item: A, B, C, and D. There were 20 students who participated in the study as respondents or subjects. The researcher used scanning technology to conduct the exam before teaching. This test was used to compare pupils' reading abilities before and after treatment. The following table contains the following descriptions:

**Table 1 shows the results of the students. Before being taught using the scanning technique, there will be a pre-test and a post-test in reading comprehension.**

No	Name	Pre-test Score (Y1)	Pre-test score (Y2)
1	A	5	19
2	B	7	19
3	C	5	18
4	D	6	20
5	E	7	18
6	F	6	19
7	G	8	19
8	H	5	20
9	I	5	17
10	J	5	19
11	K	8	18
12	L	5	19
13	M	7	19
14	N	4	19
15	O	5	18
16	P	7	19
17	Q	7	19
18	R	5	17
19	S	5	17
20	T	7	17

	$\sum N = 20$	$\Sigma Y_1 = 119\%$	$\Sigma Y_2 = 370\%$
		$\bar{Y}_1 = 5,95\%$	$\bar{Y}_2 = 18,5\%$

Because the students' names could not be written completely, the researcher utilized the alphabet to substitute them, as shown in the table above. There are a total of 20 students who are either respondents or research subjects. The highest pre-test score is 8%, while the lowest is 2%. score is 4%. The mean score of pre-test is 5,59%

### Description of Students' Achievement after Being Taught by Using Scanning Technique.

Post-test was given to Eight Grade Student's at SMP Berea Tondano. They had to respond to a request for a short functional text in the form of an announcement The test is a multiple-choice test with a total of 20 questions. There were four options for each item: A, B, C, and D. There were 20 students who participated in the study as respondents or subjects. The test was carried out after the researcher had taught the students how to use the scanning technique.

According to the chart above, there are 20 students who are respondents or research subjects. The highest post-test score is 20%, while the lowest score is 17 percent. The mean post-test score is 18,5 percent.

Through scoring criteria, students' pre-test and post-test data can be arranged in the form of frequency and percentage. It is separated into five categories: excellent, good, average, and poor.

**Table 3 Table of Criteria Students' Score**

No.	Grade	Criteria	Range Score
1	A	Excellent	16-20

P = symbol of percentage

F = frequency

N = subject of the sample

N o.	Criteria	Range Score	Fx	%
1	Excellent	16 -20	-	-
2	Good	12 -16	-	
3	Average	8 - 12	1	5%
4	Poor	4 - 8	18	90%
5	Very poor	0 - 4	1	5%
			$\sum N = 20$	$\sum P = 100'$
2	B	Good	12-16	
3	C	Average	8-12	
4	D	Poor	4-8	
5	E	Very poor	0-4	

The criteria for pupils' reading comprehension scores were outlined in the table above. The following is the formula for calculating the percentage score:

$$P = \frac{F}{N} \times 100\%$$

Where:

**Table 4: The Percentage of Students Who Were Taught Using Scanning Techniques Before They Were Taught**

According to table 4.4, there are differences in students' achievement before and after being taught utilizing the scanning technique. 0% of students received an excellent score in the range of 12-16, 5% received an average score in the range of 8-12, 90% had a low score in the range of 4-8, and 5% received a very poor score in the range of 0-4. This suggests that the majority of them will need to enhance their reading comprehension skills.

**Table 5: Percentage of Students with Reading Comprehension After Scanning Technique Instruction**

N o.	Criteria	Range Score	Fx	%
1	Excellent	16 - 20	20	100%
2	Good	12 - 16	-	-
3	Average	8 - 12	-	-
4	Poor	4 -8	-	-
5	Very bad	0 -4	-	-
			$\sum N = 20$	$\sum P = 100'$

Based on table 4.5, it can be stated that students' achievement improves after being taught utilizing scanning approach; 100% of students received outstanding grades, with scores ranging from 16 to 20, It indicates that the children have excellent reading comprehension skills. It suggests that scanning techniques can aid pupils in comprehending and improving their reading comprehension scores.

**Table 6: The Percentage Difference in Students' Reading Comprehension Before and After Scanning Technique Instruction**

No.	Qualification	Range Score	Percentage before using scanning technique	Percentage after using scanning technique
1	Excellent	16 - 20	-	100%
2	Good	12 - 16	-	-
3	Average	8 - 12	5%	-
4	Poor	4 - 8	90%	-
5	Very poor	0 - 4	5%	-

			$\sum P = 100\%$	$\sum P = 100\%$
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According to table 4.6, there is a difference in score before and after scanning method instruction. After being taught the Scanning technique, the students' scores are higher and better than before they were not taught the Scanning approach. It means that employing the Scanning technique to teach reading can help students improve their reading skills.

### Discussion

The goal of this study is to see how effective scanning technique is in improving reading comprehension in second graders at SMP BereaTondano. According to the results of the data analysis, there is a substantial difference in students' reading comprehension achievement before and after being taught utilizing the scanning technique.

The typical reading comprehension score before being taught the scanning technique is 5,95, which is a poor score. Then, following therapy, the average score is 18,5. Because the mean score of the post-test is greater than the mean score of the pre-test, the students' achievement has grown After computing T-test, it was discovered that the mean score difference between pre-test and post-test is 24.

The teaching and learning process was separated into three parts based on the research technique. The first stage was to administer a pre-test to students in order to determine their reading comprehension before teaching them using the scanning technique. On October 21st, 2020, a pre-test was held. The test is a multiple-choice test with a total of 20 questions. The time limit was set at 40 minutes. This study had 20 students as respondents or subjects.

The students were treated in the second step. On October 23rd, 2020, the first therapy was performed by a researcher utilizing a scanning technique. The researcher, acting as a teacher, discussed the many forms of text that can be read using the scanning approach during the first therapy. The researcher also went over how to scan in detail. The

researcher used scanning as an example of how to read a material.

The students were then provided narrative text in the form of an announcement that was acceptable for scanning. The questions are in essay format. One of the pupils was requested to read the text aloud to the researcher. The researcher next challenged students to discover particular data in the form of a noun, adjective, adverb, or phrase. If they had trouble understanding difficult vocabulary, they might use a dictionary and ask the teacher or a classmate to find the purpose of words or sentences. After the step had done, the researcher gave the students oral queries about the text had been asked. They can respond by raising their hand for the first student who understands the answer. The researcher next asked them to complete the exercise.

The researcher examined the narrative text material and scanning stages in the second treatment. It took place on October 23rd, 2020. The students were prompted to open earlier material in scanning by the researcher. To evaluate earlier content, the researcher asked oral questions. The students were then given a narrative piece to identify with their companion. They must use a scanning approach to write down all of the available information on a piece of paper. The researcher then asked two students to write their responses on the white board. The researcher made a correction to the student's response. The researcher next asked the students to complete the exercise. The questions are of the multiple-choice variety.

The third stage was to administer a post-test to the students in order to determine their progress in reading comprehension after being taught utilizing the scanning technique. On October 23rd, 2020, a post-test was done. The post-test is similar to the pre-test in that it is a multiple choice test with 20 questions. The time limit is set at 40 minutes. This study had 20 students as respondents or subjects.

Based on the results of teaching reading comprehension using the scanning technique, students are able to comprehend and quickly locate text material. When this technique is used to teach reading comprehension for narrative texts, students are able to answer the questions rapidly. Scanning approach is critical for finding specific information in a

narrative text, as explained above. This technique for teaching reading comprehension is simple to implement. In addition, the pupils found the learning process to be simple.

Scanning is particularly effective for certain sorts of literature and reading conditions, according to Pavlik (2004). The researcher discovered certain advantages to utilizing this method during the teaching and learning process. Students will benefit from the ease with which they can locate words. (noun, adverb, adjective, etc.), can find the required information quickly, and did not need a lot of time. All of this, if the students do The examination did not take a long time.

According to theory, scanning techniques can help students improve their reading comprehension skills. This method can motivate pupils to look for precise information they require. The researcher accepts the above idea, particularly in terms of discovering and gathering information for reading comprehension in junior high school.

Based on the results, the scanning technique was found to be helpful in teaching reading comprehension. This method is simple to utilize when looking for information. As a result, scanning technique is appropriate for understanding reading comprehension and can improve students' reading comprehension ability in second grade at SMP Bera Tondano.

#### 4. CONCLUSION

After conducting the investigation, the researcher came to the following conclusion:

1. Prior to being taught utilizing the scanning technique, students' reading comprehension achievement was often low. From the score acquired by the students before to being taught utilizing the scanning approach, it can be shown that from 20 students. The average score for reading comprehension is 5,95.

2. After being taught utilizing the scanning technique, students' reading comprehension scores are higher than before. It can be seen in the students' scores after being taught



utilizing the scanning technique. It was proven by the result of the mean score from the post-test, which was 18.5.

### Suggestion

Some recommendations are made to students, teachers, and other researchers based on the findings of the research.

#### 1. College students

The students' reading abilities must be improved. Students' capacity to comprehend a material is influenced by their reading approach. Scanning is a technique that can be used to read particular texts in an English class. As a result, when learning about reading comprehension literature, the researcher proposed that people use the scanning strategy.

2. The teacher scanning approach was discovered to be an effective method of teaching reading comprehension. Students can use this strategy to improve their reading comprehension skills. Teachers should employ scanning techniques when teaching reading to help students understand how to find information in a text, according to the study.

#### 3. Additional researchers

This study is not yet complete.

It is recommended that future researchers perform additional study in a similar area by enhancing the methodology or use it as a reference to conduct additional scanning technique research in different areas of instruction.

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