

## **Improving Students' Reading Comprehension Through The Scanning Technique At SMA Negeri 1 Tondano**

**KARENINA BATUBUAJA, NIHTA LIANDO, YAPPY WONGKAR**

***Universitas Negeri Manado***

*Correspondence author: [kareninabatubauja@unima.ac.id](mailto:kareninabatubauja@unima.ac.id)*

*Received: 26 Maret 2025*

*Accepted: 8 April 2025*

*Published: 13 April 2025*

**Abstract:** Reading is the process of getting information by understanding the meaning of the text being read, reading is called receptive skills and these skills basically are the ways in which people extract meaning. 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'. Improve is make something better in this case especially to make someone better in reading through scanning technique. It is commonly acknowledged that one of the techniques in reading is scanning technique. The technique is needed not only to overcome students' difficulties, but also to improve students' reading comprehension. Scanning is the technique for quickly finding specific information in a text while ignoring its broader meaning, it searches for keywords or idea in a written text. In addition use scanning technique is effective in improve students' reading comprehension.

**Keywords:** *Reading comprehension, improving, scanning technique*

## **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 (HARIMU et al., 2022).

English is an international language spoken by many people around the world. They expect or try to master English in order to communicate with other people living in other countries (Kumayas, et al. 2023). As an international means of communication, English should be learned by people living in a country that uses English as a foreign language. English is an international language and is often used in every country (Maru, 2018). As a result, it has emerged as an important subject in Indonesian education.

Reading is a process that is carried out and used by the reader to get the message to be conveyed by the author through the medium of words / written language (Tarigan, 2008).

Reading comprehension is the ability to process text, understand the meaning of the text and not what the reader knows (Lengkoan, et.al. 2022). The ability of individuals to understand texts is influenced by their skills and their ability to process information (Liando, et. al, 2023). Seeing the importance of reading comprehension in the process of learning English from students, , the researcher wanted to see how to use suggestopedia to improve students' reading comprehension (Liando, et al. 2022). As is well known, suggestopedia is a learning method that aims to make students feel relaxed and relieve tension in learning.

## **RESEARCH METHOD**

In this study, the writer used quantitative research through Pre Experimental Design form. Writer used this design because in this study did not use a control group. Pre-Experimental Design used is a form of one group pre-test and post-test

design. In this design, a pre-test will be given before being given treatment, so that the results of the treatment can be known more accurately because it can compare with the situation before being treated.

### **Data Analysis**

In analysed the data, the writer used Mean Score formula and standart deviation as follows:

$$\bar{x} = \frac{\sum x_i}{n}$$

Where:

$\bar{x}$  = The mean score

$\sum x_i$  = The total of students score

$n$  = The total number of students

(Hatch & Farhady, 1982)

Next, writer compared the result of the pre-test and post-test in order to addres the writer questions. The analysis of the mean scores was conducted using *SPSS v.26 for Windows* software.

Before calculating the hypothesis the writer first measured normality test and homogeneity Test. Futhermore, the data analysis was carried out using *SPSS v.26 for Windows* to perform both the normality test, homogeneity test and the Paired Sample T-test.

#### **1. Normality Test**

The normality test aims to identify whether the data within the variabels are appropriate for use in the study. Data considered suitable for research should follow a normal distribution. To assess data normality, the Shapiro-Wilk test is applied. This test is conducted with the assistance of *SPSS v.26 fo Windows*. The criteria for interpreting the Shapiro-wilk test result are as follow:

If the significance value (Sig) is a greater than 0,05, the data is normally distributed.

If the significance value (Sig) is less than 0,05, the data is not normally distributed.

## 2. Homogeneity test

The Homogeneity test is a test conducted to determine whether two or more groups of sample data come from populations that have same (homogeneous) variance. The criteria for interpreting the test result is:

If the significance value (Sig) is a greater than 0,05, the data distribution is homogeneous.

If the significance value (Sig) is a less than 0,05, the data distribution is homogeneous.

## 3. Hypothesis Test

For the hypothesis test, the researcher uses a Paired Sample T-test to find out whether there were the differences between two variables in this study. The writer uses SPSS v.26 for Windows program to find the result. After gaining the t-value, the writer compares the t-value and t-table or the significance value (Sig) is less than  $\alpha = 0,05$ .

The conclusion is gained as follows:

If  $t\text{-value} < t\text{-table}$ , or  $\text{Sig. (2-tailed)} > \alpha = 0,05$  the  $H_0$  is accepted

If  $t\text{-value} > t\text{-table}$  or  $\text{Sig. (2-tailed)} < \alpha = 0,05$  the  $H_0$  is rejected or  $H_a$  is accepted

$H_a$ : There is a significant difference in the increase of students' reading comprehension through the scanning technique.

$H_0$ : There is no a significant difference in the increase of students' reading comprehension through the scanning technique.

## **FINDINGS AND DISCUSSION**

The study was conducted at at SMA Neigeiri 1 Tondano, eispeicially in class XI IPA 2, which consisteid of 25 stuideints. The writer used pre-experimental design with one group pre- test and post-test. It used to compare the score of pre-test and

post-test. The data was obtained based on the test gives which is 20 questions of multiple choice. The writer presented the data in the following table:

**Table 4.1 The calculations of the pre-test mean score**

| Number of Students | Pre-test |
|--------------------|----------|
| 1                  | 34       |
| 2                  | 60       |
| 3                  | 46       |
| 4                  | 40       |
| 5                  | 64       |
| 6                  | 50       |
| 7                  | 52       |
| 8                  | 68       |
| 9                  | 40       |
| 10                 | 54       |
| 11                 | 20       |
| 12                 | 40       |
| 13                 | 64       |
| 14                 | 28       |
| 15                 | 48       |
| 16                 | 52       |
| 17                 | 60       |
| 18                 | 64       |
| 19                 | 48       |
| 20                 | 68       |
| 21                 | 58       |
| 22                 | 30       |
| 23                 | 68       |
| 24                 | 60       |

|              |              |
|--------------|--------------|
| 25           | 46           |
| <b>Total</b> | <b>1.262</b> |

$$\bar{x} = \frac{\sum x}{n}$$

$$\bar{x} = \frac{1.262}{25}$$

$$\bar{x} = 50,48$$

Based on the data table above, the mean score from the pre-test was 50,48 it showed that highest score from the pre-test was 68, and the lowest score was 20. This data showed that student achievement in the pre-test was low.

***Table 4.2 The calculations of post-test mean score***

| <b>Number of Students</b> | <b>T2</b> |
|---------------------------|-----------|
| 1                         | 56        |
| 2                         | 72        |
| 3                         | 60        |
| 4                         | 52        |
| 5                         | 80        |
| 6                         | 76        |
| 7                         | 64        |
| 8                         | 80        |
| 9                         | 60        |
| 10                        | 92        |
| 11                        | 44        |
| 12                        | 56        |
| 13                        | 76        |
| 14                        | 40        |
| 15                        | 60        |

|              |             |
|--------------|-------------|
| 16           | 68          |
| 17           | 72          |
| 18           | 84          |
| 19           | 60          |
| 20           | 92          |
| 21           | 72          |
| 22           | 44          |
| 23           | 84          |
| 24           | 72          |
| 25           | 60          |
| <b>Total</b> | <b>1676</b> |

$$\bar{x} = \frac{\sum x}{n}$$

$$\bar{x} = \frac{1.676}{25}$$

$$\bar{x} = 67,04$$

The table above showed the mean score on the post-test was 67,04. The highest score obtained was 92, and the lowest score obtained was 40. Based on the data there was an increase in students' achievement scores in the post-test after the treatment was given by the writer.

**Table 4.3 Mean Scores of Pre-Test and Post-Test**

| Descriptive Statistics |    |         |         |       |                |
|------------------------|----|---------|---------|-------|----------------|
|                        | N  | Minimum | Maximum | Mean  | Std. Deviation |
| Hasil Pre Test         | 25 | 20      | 68      | 50.48 | 13.420         |
| Hasil Post Test        | 25 | 40      | 92      | 67.04 | 14.342         |

|                   |    |  |  |  |  |
|-------------------|----|--|--|--|--|
| ValidN (listwise) | 25 |  |  |  |  |
|-------------------|----|--|--|--|--|

## 1.2 Result of Requirement Testing Analysis

### 1.2.1 Normality Test

The data normality test in this study was carried out using the Shapiro Wilk formula in SPSS v.26 software. The normality test was carried out to find out whether the data in this study was normally distributed or not. The data is normally distributed if the significance value obtained from the calculation results is greater than the alpha level of 0,05. The results of the data normality test in this study can be seen in the following table.

**Table 4.4 Test of Normality**

|             |                 | Tests of Normality              |    |       |              |    |      |
|-------------|-----------------|---------------------------------|----|-------|--------------|----|------|
|             |                 | Kolmogorov-Smirnov <sup>a</sup> |    |       | Shapiro-Wilk |    |      |
|             | Kode Nilai      | Statistic                       | df | Sig.  | Statistic    | df | Sig. |
| Hasil Nilai | Hasil Pre Test  | .121                            | 25 | .200* | .946         | 25 | .199 |
|             | Hasil Post Test | .128                            | 25 | .200* | .968         | 25 | .601 |

From the data in the table above, the results of the pre-test and post-test were 0,199 and 0,601 which are both greater than 0,05. From all the results calculated using SPSS, it can be seen that all variables, both pre-test and post-test, are normally distributed and can continue the analysis test.

### 1.2.2 Homogeneity test

The homogeneity test was carried out to find out whether the sample data came from a population that had the same variance (homogeneous). The homogeneity test is carried out from the results of the pre-test and the post-test

results with the provision that if the significance value is greater than the significance level of 0.05, the data is homogeneous. The homogeneity test in this study uses SPSS v.26 software with test results can be seen in the following table.

**Table 4.5 Test of Homogeneity**

|             |                                         | <b>Test of Homogeneity of Variance</b> |     |        |      |
|-------------|-----------------------------------------|----------------------------------------|-----|--------|------|
|             |                                         | Levene<br>Statistic                    | df1 | df2    | Sig. |
| Hasil Nilai | Based on Mean                           | .223                                   | 1   | 48     | .639 |
|             | Based on Median                         | .222                                   | 1   | 48     | .639 |
|             | Based on Median and<br>with adjusted df | .222                                   | 1   | 48.000 | .639 |
|             | Based on trimmed<br>mean                | .231                                   | 1   | 48     | .633 |

Based on the table above, it can be seen that the significance value (sig) Based on Mean of students' reading comprehension through the Scanning Technique is 0,639 which is greater than alpha 0,05. This shows that the data in this study is homogeneous.

### 1.3 Hypothesis Testing

This study in hypothesis testing using the t-test. The t-test is used to see if there is an improvement in students' reading comprehension through the Scanning Technique. If there is an increase in students' reading comprehension through the Scanning Technique, it can be concluded that the research can be said to be significant if t calculates the  $> t$  table and the value of sig. (2-tailed)  $< 0,05$ .

**Table 4.6 Paired Sample T test**

#### Paired Samples Test

|        |                                     | Paired Differences |                |                 |                                           |         |             |    |                 |
|--------|-------------------------------------|--------------------|----------------|-----------------|-------------------------------------------|---------|-------------|----|-----------------|
|        |                                     | Mean               | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference |         | t           | df | Sig. (2-tailed) |
|        |                                     |                    |                |                 | Lower                                     | Upper   |             |    |                 |
| Pair 1 | Nilai Pre Test -<br>Nilai Post Test | -<br>16.560        | 6.285          | 1.257           | -19.154                                   | -13.966 | -<br>13.173 | 24 | .000            |

Based on the results of the table above, the results of the paired t-test show that the value of sig. (2-tailed) for pre-test and post-test of 0,000 where the value of sig. (2-tailed) < 0,05 so that there is a significant difference between the pre-test and post-test results in students' reading comprehension through the Scanning Technique. In addition, it is also known that the value of sig. (2-tailed) of 0,000 is smaller than 0,05 so that it can be concluded that the null hypothesis (H0) is rejected and the alternative hypothesis (Ha) is accepted. This shows that there is an increase in students' understanding in reading through the Scanning Technique.

## CONCLUSION

Based on the results of data analysis from research conducted in class, it indicated that the used of scanning technique was effective to improve students' reading comprehension. It can be seen from the results of this research, which show that the scores from the post-test that carried out by students were higher than the scores from the pre-test. The achievement is evidenced by results of the mean score pre-test (50.48) and post-test (67,04), in which their scores increased significantly after the treatment was given by used scanning techniques in the classroom. In addition, the results of the paired t-test showed that the value of sig. (2-tailed) of 0,000 is smaller than 0,05 so that it can be concluded that the null hypothesis (H0) is rejected and the alternative hypothesis (Ha) is accepted. Scanning technique also enhances students' ability to read the text quickly to answer the specific question.

## REFERENCES

- HARIMU, A., LIANDO, N., & PAULA ROMBEPAJUNG. (2022). Improving Students' Reading Comprehension Using Suggestopedia in Teaching Narrative Text. *JoTELL Journal of Teaching English, Linguistics, and Literature*, 1(11), 1238–1249.
- Hatch, E., & Farhady, H. (1982). *Research design and statistics for applied linguistics*.
- Kumayas, T., & Lengkoan, F. (2023). The challenges of teaching grammar at the university level: Learning from the experience of English lecturer. *Journal of English Culture, Language, Literature and Education*, 11(1), 98-105.
- Lengkoan, F., Andries, F. A., & Tatipang, D. P. (2022). A study on listening problems faced by students of higher education. *Globish: An English-Indonesian Journal for English, Education, and Culture*, 11(1), 41-50.
- Liando, N. V. F., Tatipang, D. P., & Wuntu, C. N. (2023). TPACK framework towards 21st century's pre-service English teachers: Opportunities and challenges in application. *Edumaspul: Jurnal Pendidikan*, 7(1), 1799-1815.
- Liando, N. V. (2010). Students'vs. Teachers'perspectives On Best Teacher Characteristics In Efl Classrooms. *TEFLIN journal*, 21(2), 118.
- Liando, N. V. F., & Tatipang, D. P. (2022). English or Indonesian language? Parents' perception toward children's second language learning context. *Jurnal Lingua Idea*, 13(1), 61-75.
- Liando, N. V. F., Tatipang, D. P., & Wuntu, C. N. (2023). First Language Interfere in EFL Classes: Revealing Students' Perspectives and Teachers' Reasons in ELL. *REiLA: Journal of Research and Innovation in Language*, 5(1), 77-88.
- Maru, M. G. (2018). The Jeremiad Approach: From Language Learning to Text Interpretation. *Lembah Manah. Yogyakarta*.
- Rombepajung, P. A. (2019). Use of jigsaw model in improving reading understanding in fbs unima english students. *Journal of English Language and Literature Teaching*, 4(1).

Tarigan, H. G. (2008). Menulis sebagai keterampilan berbahasa. *Bandung: Angkasa*.