THE EFFECTIVENESS OF NEUROLOGICAL IMPRESS METHOD TO IMPROVE STUDENTS READING SKILLS IN SATAP 1 LINGSAR

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ABSTRACT

This study is entitle "The Effectiveness of Neurological Impress Method to Improve Students Reading Skills in Satap 1 Lingsar. This study aims to determine whether the Neurological Impress Method effectively to improve students reading skills in Satap 1 Lingsar or not. The researchers used the true-experimental method, where the total sample of this study was 30 people who were divided into 2 groups: the experimental group and the control group; each group contained 15 students randomly taken from grades 7, 8, and 9. The result show that students looked enthusiastic about learning using the Neurological Impress Method in class. The NIM allows students to read without feeling the pressure of constantly being corrected. The hypothesis test results using the Paired T-test results and a significance level of 5% (0.05) show that sig < α (0.001), which means the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted. That means that teaching using the Neurological Impress Method is effective in improving students' reading skills at Satap 1 Lingsar.

Keywords: Neurological Impress Method, Reading Skill

ABSTRAK

Penelitian ini berjudul "Efektivitas *Neurological Impress Method* untuk Meningkatkan Kemampuan Membaca Siswa di Satap 1 Lingsar. Penelitian ini bertujuan untuk mengetahui apakah Metode Neurological Impress efektif untuk meningkatkan kemampuan membaca siswa di Satap 1 Lingsar atau tidak. Para peneliti menggunakan metode true-experimental, dimana total sampel dari penelitian ini adalah 30 orang yang dibagi menjadi 2 kelompok yaitu kelompok eksperimen dan kelompok kontrol, dimana masing-masing kelompok terdiri dari 15 orang siswa yang diambil secara acak dari kelas 7, 8, dan 9. Hasil penelitian menunjukkan bahwa siswa terlihat antusias dalam belajar menggunakan *Neurological Impress Method* di kelas. NIM memungkinkan siswa untuk membaca tanpa merasa tertekan karena harus selalu dikoreksi. Hasil uji hipotesis dengan menggunakan hasil Paired T-test dan taraf signifikansi 5% (0,05) menunjukkan bahwa sig < α (0,001), yang berarti hipotesis nol (H0) ditolak, dan hipotesis alternatif (H1) diterima. Artinya, pengajaran dengan menggunakan Metode Neurological Impress efektif dalam meningkatkan kemampuan membaca siswa di Satap 1 Lingsar.

Kata kunci: resepsionis, persepsi, masalah bahasa.

A. INTRODUCTION

Language is a system of sound symbols that emerges from human speech and acts as an instrument for social communication. Humans need

to interact with each other in society because they are social beings. Every individual should take part in social dealings. English is one of the most generally spoken languages in the world today because *learning English as a foreign language is crucial for students' future careers* (Thohir, 2021). Today, numerous families choose English as their children's first language, particularly those whose children attend schools with international curricula. English has developed into the community's second language in Indonesia itself.

English is one of the main subjects in the Indonesian school curriculum, from the elementary to university level, and English also being a subject assessed in the National Examination. Except for being an obligatory topic, English is even required in this globalization era. The main purpose of teaching English in Indonesia is to create students capable of using English to communicate. Students should be taught each of the language components through the selected themes and materials in order to develop their English abilities, such as reading, writing, listening, speaking, and other language parts.

Amrullah et al., 2021 *said that the first way to sharpen students' English language skills is to ask students to read an excess of literature in English*. Therefore, one of the most crucial skills to hold is reading. Thohir et al., 2020 stated that reading can be described as the reconstruction of meaning from a text in which the reader's ideas and the messages of a text are combined. Alternatively, in other words, reading is an interactive, active cognitive activity. Individuals can explore the world, conceive new concepts, and enhance experiences by reading. (Melani et al., 2021) *Stated that Reading aims to understand the content of the text, where the processes concerned contain direct attention to vocabulary, grammar, and other language elements contained in the text.*

Dewi et al., 2020 claimed that reading has become an essential element for students who desire to be capable of communicating with others. Therefore, it is a necessary thing to teach reading in junior high school. Reading instruction aims to help students become capable, successful, and comprehending readers.

Sujana,1998 *claimed that reading is a complex process; it takes*

profound effort to make students fluent. Therefore, the teacher should have a personal approach to interest students in learning to attain the goals. (Shoimin, 2014) the state objective of utilizing special methods is to increase student concentration and consolation of learning while enhancing the efficiency of the educational process.

Some methods can be employed in the teaching and learning process to improve student's mastery of a specific lesson or skill, especially for reading skills, and one of these methods is the neurological impress method.

The neurological impression method is a method that students can emulate their teachers regarding intonation, punctuation accuracy, and pronouncing words correctly in reading; this theory was developed by (Heckelman in 1966). NIM is the best method to improve students' reading skills through reading guidelines. The neurological impression method is involved in four stages. *First, the teacher stands close to the students to ensure that the student hears the teacher's voice* (Flood et al., 2005). Next, the teacher determines the textbook/reading material according to the student's level and directs them to feel relaxed reading the material. Then, the teacher should guide the students to read the text (one by one sentence, also with clear punctuation) then students will heed the teacher to read the text. The goal of this method is to improve students' phonemic awareness and reading fluency.

The researcher is interested in this method and interested to know how this method works in assisting students to improve their reading skills. After accomplishing an observation in several schools, the researcher felt that Satap 1 Lingsar was a school appropriate for the method. The researcher found that students' English skills must be improved. Most students cannot read fluently, especially in reading, because they worry about being laughed at by their classmates when they mispronounce some words.

Based on the problems above, the researcher is interested in conducting research about the effectiveness of this method in improving students' reading skills with the title "The Effectiveness of Neurological Impress Method to Improve Students' Reading Skill in Satap 1 Lingsar."

B. RESEARCH METHOD

This study used a true-experimental method that applies a Pretest-posttest control group design. The experimental group was treated with the Neurological Impress Method. In contrast, the control group only received the Direct Instruction Method without applying the Neurological Impress Method, where students were given a reading text, and the researcher gave instructions to students about an overview of what students would be doing and how to work with the assignments given. The control group is needed for comparative purposes to see whether the Neurological Impress Method is effective or not to improve students' reading skills.

This study used a random sampling technique. The sample was taken from 30 students, which divided into two groups. Each group consists of 15 students randomly taken from grades 7, 8, and 9.

Both groups were given a pretest and posttest. A pretest will measure the students' reading skills before receiving the treatment, and a posttest will measure the treatment effect. The design of true

Experimental	O1	X	O2
Control	O3	Y	O4

Experimental	:	O1	X	O2
Control	:	O3	Y	O4

Where :

O1 = Pretest

O2 = Posttest

O3 = Posttest

O4 = Posttest

X = Treatment

The data was collected through tests analyzed using quantitative analysis and statistical calculations to test the hypothesis. The steps are follows :

To scoring the students reading skill in pre-test and post-test will use the formula:

$$\text{Score} = \frac{Student\ correct\ answer}{Total\ of\ question} \times 100$$

Then, the score of the test result classified following criteria:

SCORE	CLASSIFICATION
80 – 100	Very Good
66 – 79	Good
56 – 65	Fair
40 – 55	Poor
<39	Very Poor

The hypothesis were tested using Paired T-test. Guidelines for Decision Making in the Paired Sample T-Test Test. According to (Santoso, 2014), decision-making guidelines in the paired sample t-test based on the significance value (Sig.)

of the SPSS output results are as follows.

1) If the value of Sig. (2-tailed) <0.05, then H0 is rejected, and H1 is accepted.

2) If the Sig. (2-tailed) > 0.05, then H0 is accepted, and H1 is rejected.

Data collected through tests were analyzed using quantitative methods, and the hypotheses test were calculated using SPSS 29.

C. FINDINGS AND DISCUSSION

Findings

In this chapter, the researcher presents the results of the research data. 4 research data have been obtained by the researcher that are the pretest and posttest scores from the experimental group, the pretest and posttest scores from the control group

The Result of Pre Test and Post Test Score

The pre-test was held at the first meeting to determine students' reading skills and how far they understood the text they read. The post-test was held at the last meeting to determine student's reading skills after receiving the treatment. The results of the pre-test are as follows:

The experimental group pre-test and post test results

The table below compares the experimental group scores before and after being given treatment by the researcher. The pretest was conducted on 17 July 2023 before the researcher gave treatment, and the posttest on 5 August 2023 after the researcher provided treatment for 4 meetings.

Tabel 1. Experimental group result of Pretest and Posttest

No	Nama		Nilai
		Pretest	Posttest
1	NNPCHW	66.66	46.66
2	R	33.33	46.66
3	AFS	46.66	66.66
4	JK	40	46.66
5	MK	46.66	53.33
6	W	46.66	53.33
7	IWPK	40	66.66
8	AS	33.33	66.66
9	INWP	20	53.33
10	IKGP	26.66	60
11	INBA	26.66	66.66
12	NNF	6.66	53.33
13	NNW	13.33	73.33
14	NWP	26,66	40
15	NWI	40	40

The control group pre-test and post-test result

The table below compares the pretest and posttest results of the control group. The pretest was conducted on 17 July 2023 before the researcher gave treatment, and the posttest on 5 August 2023 after the

researcher provided treatment for 4 meetings.

Tabel 2. Experimental group result of Pretest and Posttest

No	Nama	Nilai	
		Pretest	Posttest
1	NWS	53.33	46,66
2	NWK	66.66	60
3	D	33.33	53,33
4	NNSGM	13.33	53,33
5	MR	40	46,66
6	YOB	20	33,33
7	AY	53.33	26,66
8	W	40	33,33
9	NKI	60	46,66
10	IWPY	40	73,33
11	NNNL	60	60
12	SR	46.66	13,33
13	J	46.66	40
14	IWA	73.33	40
15	NNP	53.33	60

The Frequency Distribution of Pre-test and Post-test

The frequency distribution is a list of data values (individual or data values grouped into certain intervals) accompanied by the corresponding frequency values. According to (Hasibuan et al., 2009), *Frequency distribution is the arrangement of data in groups from the smallest to the largest based on interval classes and certain categories.*

Tabel 3. Pre-test Frequency Distribution of Experimental Group

		Frequency	Percent
Valid	80 – 100	-	-
	66 – 79	1	6.7
	56 – 65	-	-
	40 – 55	6	40.0
	<39	8	53.3
	Total	15	100

Tabel 4. Post-test Frequency Distribution of Experimental Group

		Frequency	Percent
Valid	80 – 100	-	-
	66 – 79	5	33.3
	56 – 65	1	6.7
	40 – 55	9	60.0
	<39	-	-
	Total	15	100

Tabel 5. Pre-test Frequency Distribution of Control Group

		Frequency	Percent
Valid	80 – 100	-	-
	66 – 79	2	13.3
	56 – 65	2	13.3
	40 – 55	8	53.3
	<39	3	20.0
	Total	15	100

Tabel 6. Post-tes Frequency Distribution of Control Group

		Frequency	Percent
Valid	80 – 100	-	-
	66 – 79	1	6.7
	56 – 65	3	20.0
	40 – 55	7	46.6
	<39	4	26.7
	Total	15	100

Descriptive Statistic of Pre-test and Post-test

The main purpose of descriptive statistical analysis is to provide an overview of the variables used, such as the minimum value, maximum value, average, and standard deviation in each study. Based on (Ghozali, 2016), *descriptive statistical analysis aims to collect, process, and analyze data to be presented better*.

The following is the result of the calculation of the frequency distribution, which has been done using SPSS 29 :

1) Pre-test Descriptive Statistics of Experimental Group

   The descriptive statistic of the pre-test, the total number of the Experimental group was 15 students (N= 15), range score = 60.00, minimum score = 6.66, and maximum score = 66.66. In addition, the total score or Sum = 513.27, and the average score of student learning outcomes mean 34.2180 with Std. The error of mean = 3.89630. The total standard deviation is 15.09030, and the total data variance is 227.717.

2) Post-test Descriptive Statistics of Experimental Group

   The total number of the Experimental group was 15 students (N= 15), range score = 33.33, minimum score = 40.00, and maximum score = 73.33. In addition, the total score or Sum = 833.27, and the average score of student learning outcomes mean 55.5513 with Std. The error of mean = 2.73433. The total standard deviation is 10.59000, and the total data variance is 112.148.

3) Pre-test Descriptive Statistics of Control Group

   The total number of the control group was 15 students (N= 15), range score = 60.00, minimum score = 13.33, and maximum score = 73.33. In addition, the total score or Sum = 699.96, and the average score of student learning outcomes mean 46.6640 with Std. The error of mean = 4.21622. The total standard deviation is 16.32935, and the total data variance is 266.648.

4) Post-test Descriptive Statistics of

Control Group

The control group was 15 students (N= 15), range score = 60.00, minimum score = 13.33, and maximum score = 73.33. In addition, the total score or Sum = 686.62 and the average score of student learning outcomes or mean 45.7747 with Std. The error of mean = 3.95050. The total standard deviation is 15.30022, and the total data variance is 234.097.

Discussion

After conducting the research, the researcher found an increase in the experimental class, where in the pretest score, 8 students scored under <39. Then, in the posttest score, there was an increase, where there were none of the students who scored under <39. In the control group, there was a decrease in the score, wherein in the pretest score, there were 3 students who scored under <39, then in the posttest score, there was a decrease, where there were 4 students who scored under <39.

Based on the results of the calculations that have been carried out, in the experimental class, 50.3% of students are classified into the very Poor Group, there are 40% of students classified in the Poor group, and 6.7% are in the Good group. However, there was an increase after the treatment was given, where in the post-test score, there were 33.3% of students in the Good group, 6.7% of students in the Fair group, and 60% in the Poor group. Although the number increased in the poor group, no students were classified as very poor. That means that students in the very poor group have improved their scores even though numerous students are still in the poor category.

Then, the contrary happened in the Control class, where there was a decrease in scores during the pretest and post-test. In the pretest score, 20% of students were in the Very Poor category, 53.3% in the Poor category, 13.3% in the Fair category, and 13.3% in the Good category. However, in the post-test score, 26.7% of students were in the Very Poor category, 46.6% in the Poor category, 20% in the Fair category, and 6.7% in the Good category.

The students were enthusiastic about learning using the Neurological Impress Method in class. The Neurological Impress Method allows students to read without feeling the pressure of being constantly corrected, and it pushes students to feel more confident because when they make mistakes, they are not laughed at by

their friends. That is how to improve reading skills in a supportive and non-threatening way, which is in line with the theory put forward by (Townsend, 1996). Thus, *the Neurological Impression Method can be applied to any text that interests the reader. Students independently read quite fluently and dared to read aloud in front of the class*, whereas before, they were afraid of being asked to read aloud due to a lack of confidence. This method also helps students overcome their anxiety when learning to read, as they are no longer afraid of being laughed at by their friends if they mispronounce words.

In contrast to the control class, where students taught using the direct method were still terrified to read audibly, they were even scared to be invited to read individually, even though they remained in their seats. That is because when students need to correct pronouncing words, the teacher will immediately provide corrections, which makes them embarrassed when they make a mistake.

The students who taught using the Neurological Impress method encountered significant improvement as most students scored higher on the post-test after receiving treatment with NIM. Students could understand the text better, although not in depth; students understood what the text conveyed, especially narrative text. Whereas in the control class, students encountered a decrease in scores. In the post-test, their scores were slightly lower than the pretest scores. That is related to the (Kaskaya, 2016*) that the ability to make readers forget conventional reading strategies often used or considered to improve students' reading process is one of its most important features.*

Based on the (Hackletman, 2015) theory *that NIM is an impression, a stroke of word memory in a natural process, this is related to the fact that the researcher found that simultaneous reading makes students more focused.* They read and listen and point to the words they read. That was already applied when this method was used in the experimental class, and students became more focused on what they saw and heard.

Students in the experimental class achieved better scores after their reading skills improved because they could understand the text better. Whereas in the control class, the scores on the post-test decreased. That occurred because their ability to understand the text was still lacking, and

their reading ability did not improve when the students were taught with the direct method. That supports (Hackletment, 1969) theory, *which states that students who are not fluent readers struggle to understand the text they read.*

In the descriptive statistics table, information is obtained regarding the results of student scores both before and after treatment. This data compared student scores starting from the range, minimum score, maximum score, sum score, average score, standard deviation score, and data variance score from the pretest and post-test. From the data, the average pretest value for the experimental class was 34.2180, while the average pretest for the control class was 46.6640. The average post-test score for the experimental class was 55.5513. The average post-test score for the control class was 45.7747. It can be seen that there is a change in the total score of the experimental group where the total score on the post-test is much higher than on the pretest, so it can be said that the treatment given to students has changed the total score of students and students' reading ability. While in the control group, there was a decrease. That shows that experimental class students' learning outcomes are higher than control class students. Thus, according to the data, the Neurological Impress Method effectively encourages students' reading skills at Satap 1 Lingsar.

The hypothesis test results using the Paired T-test results and a significance level of 5% (0.05) show that sig < α (0.001), which means the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted. Teaching using the Neurological Impress Method effectively improves students' reading skills at Satap 1 Lingsar.

D. Conclusion

Using the Neurological Impress Method in the teaching and learning process to improve students' reading skills makes learning enjoyable and comfortable. Students encountered a significant improvement after the NIM method was applied to them. That can be seen from the results of the post-test scores, which increased in the experimental group. That is because students were able to understand what they read after they could read more fluently. That is in line with the theory put forward by (Hackletman, 1969). The result of the hypothesis test obtained in this research is 0.001, which means the

sig value <0.05 indicates that the Neurological Impress method effectively improves students' reading skills.

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