



IMPROVING STUDENTS' PRONUNCIATION ABILITY BY USING THE NEUROLOGICAL IMPRESS METHOD (NIM) AT THE SECOND GRADE HIGH SCHOOL STUDENTS IN THE PROVINCIAL CITY OF WEST NUSA TENGGARA

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This study aimed to improve students' pronunciation ability using the Neurological Impress Method in the second grade high school students in the provincial city of West Nusa Tenggara. This method was developed by R.G. Heckelman, in 1952. This was a mix method study using the pre-experimental design and descriptive qualitative. Pre-test, treatment, and post-test was the stages of this research. This study involved 34 high school students in the provincial city of West Nusa Tenggara. The pre-test and post-test were both pronunciation tests consisting of 23 vowel words. Data were gathered through the pronunciation tests and students' observation sheet. The study reveals the Neurological Impression Method significantly improved students' pronunciation skills. The average score pre-treatment was 59.67, whereas the average score post-treatment was 85.50. The improved percentage was 43.28%. Additionally, this study explains pure vowel sounds and the certain way to pronounce it when attached by consonants using the Neurological Impress Method. Lastly, the implication of the study are the Neurological Impress Method improve students' phonemic awareness and increase students' ability in pronouncing the English words especially the words with vowel and consonant sound. This indicates that students' pronunciation ability have improved and enhance their communication ability in English.

Keywords : *Pronunciation ability, Neurological Impress Method, phonemic*

INTRODUCTION

Pronunciation is a crucial element in mastering foreign languages especially English. This is necessary for speaking, listening, and reading. Poor pronunciation hinders language learning, while clear pronunciation aids language acquisition (Gilakjani, 2012). It is recommended that pronunciation be taught at an early stage to students, as children are more receptive to learning than adult learners. Young learners can easily catch and retain what they learn and hear, whereas the learning process of adult learners may be more challenging due to their age, as suggested by Zhang (2016). Furthermore, many senior high school students struggle with English pronunciation. The primary issue with learning English pronunciation is that teachers often fail to motivate students to develop their pronunciation ability. Therefore, teachers must devise innovative methods to aid students in speaking and pronouncing English words more articulately (Amrullah, A., Thohir, L., Sahuddin, S., Nawawi, N., & Henny, H., 2020). Nevertheless, teaching English pronunciation ability, particularly in the second-grade students of high school students in the provincial city of West Nusa Tenggara, needs to be considered. The researcher found that the students' pronunciation ability still needed improvement. Moreover, the teaching ability of the teacher is one of the main factors that can affect the learners' pronunciation. When teaching pronunciation, teachers should be mindful of the aspects of pronunciation that can be taught. The pronunciation teaching is not expected to get students to have native-like pronunciation but the students can achieve at least the minimum requirement of good pronunciation (Gilakjani,

2016). Arafiq, A., Yusra, K., & Saputra, A. (2019) believe that students often have negative feelings while performing their English skills because of the difference between pronunciation in the word of English and their mother tongue.

Consequently, teacher should provide activities that can improve students' pronunciation. Nevertheless, not all teachers, especially in senior high school, are aware of the importance of pronunciation teaching. This causes students rare to find and hear the sound of the words and makes them difficult to pronounce some words. Teachers only taught vocabulary, reading, and simple grammar and did not focus on providing activities to help students improve their English pronunciation. A teacher needs to enhance students' pronunciation through several methods such as the audio-lingual method, tongue twister, drilling, etc. In addition, a teacher can also determine which pronunciation teaching method is suitable for the students (Astina, 2020).

From the issues above, the researchers concludes that an attempt must be made to resolve the issues that arise in the second-grade students of high school students in the provincial city of West Nusa Tenggara. Additionally, teacher should select the appropriate instructuinal media as one of the interventions that is believed to influence students' success in the teaching and learning process, especially in teaching pronunciation (Safitri, S. E., Farmasari, S., & Thohir, L., 2022). To create an interesting pronunciation learning in dealing with the problem above, a teacher can use various method to teach English pronunciation. One of which is a method called the Neurological Impress Method. This method (NIM) was developed in 1952 by a psychologist named Dr. R.G. Heckelman. This method was developed as a multi-sensory approach to solving certain types of severe reading disabilities (Hadi, 2013). According to Heckelman, the Neurological Impress Method is a method for choral or concert reading. In this method, the teacher will read aloud together with a student for 10 to 15 minutes (Kaskaya, 2016). Through the Neurological Impress Method (NIM), students can read through different modalities. First, the student is saying the word aloud. Thus, the student is not only seeing the words but also hearing the words as well as hearing the words from the adult who is sitting next to them. While not talking directly into the students' ears, the students are close enough to hear the words. The Neurological Impress Method (NIM) will provide enough focus to help that students not only become a fluent speaker but also understand what they are speaking (Hadi, 2013).

Regarding to the explanation above, the aim of this research is to find out how the Neurological Impress Method can improve students' pronunciation skill in the second grade of high school students in the provincial city of West Nusa Tenggara.

RESEARCH METHOD

This research applied mixed method designed to discover the effects of Neurological Impress Method on students' pronunciation ability. The experimental research and descriptive qualitative was adopted to find the effect of the Neurological Impress Method on students' pronunciation ability . There were 34 participants engaged as the samples. They were selected randomly from 12 classes. The class sample was given a procedure of experimentation consisted of pre-test and post-test. Meanwhile, for the descriptive qualitative it was consisted of data reduction, data display, and drawing conclusion.

Pre-test, post-test and participants' observation sheets were used to collect the quantitative data. Pre-test was intended to find out students' pronunciation ability before using the Neurological Impress Method. Meanwhile, post-tests were used to know students' pronunciation ability after using the Neurological Impress Method. The 23 vowels sounds

consisted in the pre and post test. In detail, both pre-test and post-test were designed in the form of pronunciation test. The quantitative data were analyzed by using the SPSS 26 to identify the progress of students' score and to check students' pronunciation improvement.

Furthermore, the participants' observation sheets with additional note were used to collect the quantitative data and find out what kind of effect that would emerged through the practice of the Neurological Impress Method during teaching and learning activities how well the strategy applied and how well the method assists was implemented to improve students' pronunciation ability (Nurhalizah, P., Sujana, I. M., & Wardana, L. A., 2021). The qualitative data collected from the observation sheet were analyzed descriptively.

FINDINGS AND DISCUSSION

FINDINGS

The findings of the study are presented into two parts which are the significant effect of the Neurological Impress Method and the kinds of effect of the Neurological Impress Method.

Is There Any Significant Effect of the Neurological Impress Method (NIM) on Improving Students' pronunciation ability?

After collecting the data at high school students in the provincial city of West Nusa Tenggara starting from November to December, the data that was obtained by the researcher is displayed in the Table 1. This data is the result of students' pre and post the treatment and analyzed using SPSS 26.

Table 1 Students' Pre-test and Post-test Scores

	Mean	N	t	df	Sig.(2-tailed)
Pre-Test	59.6765	34	-16.071	33	0.00
Post-Test	85.5000				

Table 1 shows that the degree of freedom (df) is 33, and the t-count is -16.071. These findings show that using the Neurological Impress Method in teaching and learning activities results in a significant improvement. Therefore, the Neurological Impress Method is effective in improving the pronunciation ability of second-grade students at high school students in the provincial city of West Nusa Tenggara. Based on the findings of the analysis, the significance value (2-tailed) is 0.00, which is below the value of 0.05. Finally, the alternative hypothesis (Ha) is accepted, whereas the null hypothesis (Ho) is rejected. It means that the Neurological Impress Method improves the pronunciation ability of second-grade students at high school students in the provincial city of West Nusa Tenggara.

What Are the Effects of the Neurological Impress Method in Improving Students' pronunciation ability?

The observation sheet was employed by the researcher to back up the findings of this research. This observation had 34 students as participants. The researcher noted difficulties in pronunciation, particularly with phonemic awareness and English word pronunciation.

a) Increasing Students' Phonemic Awareness

During the observation, the researcher discovered that the students had difficulties pronouncing the words. Their challenges in this section are with pure vowel sounds. Most of the students faced this problem. Table 2 below presents total and percentages of participants who have the error in the pronunciation pre-treatment of English vowels.

Table 2 Pronunciation Errors of Pre-treatment

Vowel	Error occurrences (times)	Percentage
/i:/	26	5.98 %
/ɪ/	49	11.27 %
/ʊ/	42	9.66 %
/u:/	8	1.84 %
/ɛ/	18	4.14 %
/ɜ:/	68	15.64 %
/ɔ/	13	2.99 %
/æ/	4	0.92 %
/ʌ/	7	1.61 %
/ɑ/	-	-
/ɔ:/	66	15.18 %
/ə/	8	1.84 %

From the result of the test, the researcher found 309 errors of pronouncing vowel in the pre-treatment test, where the highest error comes from sound /ɜ:/, the followed by /ɔ:/ and /ɪ/. in these sounds, students often mismatch the sounds and they face difficulty in differentiating the sounds. For instance, the word burn is pronounced /bɜrnt/ because the combination of 'ur' almost always produces the long sound /ɜ:/ but the students pronounced the word as /bɔrnt/ .

Table 3 Pronunciation Errors of Post-treatment

Vowel	Error occurrences (times)	Percentage
/i:/	8	1.84 %
/ɪ/	21	4.83 %
/ʊ/	1	0.23 %

/u:/	3	0.69 %
/ε/	3	0.69 %
/ɜ:/	5	1.15 %
/ɔ/	-	-
/æ/	33	7.59 %
/ʌ/	32	7.36%
/ɑ/	-	-
/ɔ:/	5	1.15 %
/ə/	-	-

Table 3 shows that the errors occur in several sounds. It can be calculated that there 111 error of pronouncing vowel sounds in the post-treatment test. It lessens from vowel sounds from the pre-treatment test. Some vowel sounds are pronounced correctly, this is because of the same sound that the students have learned with the teacher before. The most error appears in sounding /æ/, /ʌ/ and /ɪ/. Students often make errors and have difficulty in differentiating these two sounds. The sound /æ/ is sounding as /ʌ/ and conversely. For instance the word batter is pronounced /'bætər/ because the letter a is in the middle of two consonants but the students pronounced the word as /bʌtər/.

b) Pronunciation of English Words

In this case, most of the students have difficulty to pronounce the words especially when the vowel attached to the consonants. There are number of pronunciation errors which have been identified from the data found. The following section give details of the error of students pronunciation test.

Table 4 Students' Pronunciation Errors

Phonemes	Word	Errors	Correction	Error occurrences (times)
/ʃ/and /i:/	Sheep	/sɪp/	/ʃɪp/	26
/i:/	Read	/rɛd/	/rɪd/	12
/ŋ/	Sink	/sɪn/	/sɪŋk/	32
/p/ and /ɪ/	Pick	/pɪg/, /fɪk/	/pɪk/	17
/ʊ/	Put	/pʌt/, /pʊt/	/pʊt/	23
	Would	/wʊd/	/wɒd/	19

/ɜ:/	Burn	/burnt/	/bɜ:rn/	34
	Turn	/turn/	/tɜ:rn/	34
/u:/	Who	/hou/, /wɔ/	/hu:/	8
/ɜ/	Man	/mæn/, /min/	/mɜn/	14
	Ten	/tin/	/tɜn/	4
/ɔ/	Call	/kæl/	/kɔl/	3
	Hall	/hæl/	/hɔl/	10
/æ/ and /ð/	That	/tɛd/	/ðæt/	4
/ʌ/	But	/bʊt/	/bʌt/	6
	Up	/ʊp/	/ʌp/	1
/ɔ:/	Home	/hom/	/hoom/	33
	Toe	/tu/	/toʊ/	33
/ə/	About	/abot/	/ə'baʊt/	8

Based on the table, it is seen that many learners make errors in the pronunciation of /ʃ/ and /ð/ by miss-formatting the sounds. In the case of /ʃ/ most of the students pronounced the sound /ʃ/ by omitting the glottal sound /h/, the other students make phonetic errors by using sound /s/ based on the spelling, which change the sound structure. Furthermore, the same type of error is found in the sound of /ð/ is a sound that produced as the sound of /d/ is pronounced. However, the two sounds are different in case of the case of the glottis position which make the sound /ð/ voiced or pronounced with vibration and the sound of /d/ voiceless or without vibration. The errors type made by some of the students when pronouncing the sound /ð/ is that they phonetically mispronounced like sound of /d/ and others pronounced it by omitting the glottal sound /h/ which always accompanies the sound.

DISCUSSION

The Effect of Neurological Impress Method

This study aimed to examine the impact of the Neurological Impress Method on the pronunciation ability of second-grade students at high school students in the provincial city of West Nusa Tenggara. The study involved a pre-test, treatment using the method, and a post-test to assess the effectiveness of the technique. The results showed that students' scores improved after the treatment, with an average increase from 59.67 to 85.50. Statistical analysis indicated a significant difference between the pre-test and post-test scores, supporting the alternative hypothesis (H_a), which stated that using the Neurological Impress Method would enhance pronunciation ability while rejecting the

null hypothesis (H_0). The findings are consistent with a previous study and suggest that the method effectively teaches pronunciation to second-grade students at high school students in the provincial city of West Nusa Tenggara. Statistical analysis revealed a significant difference between the pre-test and post-test scores, with a p-value of 0.00. The findings were in line with a previous study conducted by Fitri Randia Ningsih (2018), confirming the effectiveness of the Neurological Impress Method in improving students' speaking skills. Thus, the results of the study supported the hypothesis that the application of the Neurological Impress Method is a practical approach to teaching pronunciation to second-grade students.

The Kinds of Effects of The Neurological Impress Method

a) Increasing Students' Phonemic Awareness

The Neurological Impress Method (NIM) is a technique that helps students improve their pronunciation by copying how the teacher pronounces words. The method is effective in developing students' phonemic awareness and can be observed through improved learning outcomes, such as identifying small components in words and correcting pronunciation errors. For example, students may mispronounce words like "turn" as "tɜ:rn," where the letter "u" is pronounced incorrectly. The NIM helps students recognize the correct pronunciation, such as the schwa + r sound (/ɜ:r/), and correct their pronunciation accordingly. Similarly, the NIM can help students with words like "hall," where the letter "a" is followed by a double consonant "ll." Students may mispronounce it as "/hɛl/," but the NIM helps them distinguish that the correct pronunciation is /hɔl/, following the phonetic patterns in English. On the other hand, when using the NIM, the teacher promptly corrects students' pronunciations, enabling them to learn and differentiate words correctly in the future. This method aligns with Soares' (2018) findings, which suggest that the NIM is an effective approach to improving students' phonemic awareness and pronunciation abilities. Overall, the Neurological Impress Method proves to be a valuable strategy for enhancing students' phonemic awareness and improving their pronunciation skills.

b) Improving students' pronunciation ability

The Neurological Impress Method is a powerful tool for improving pronunciation in students. By observing and imitating the teacher's pronunciation, students are able to accurately pronounce words they have encountered before. For example, in words like "invite," "occasion," and "event," students learn to pronounce the letters "a," "o," and "e" correctly based on their previous exposure to these words. This method helps students recognize common pronunciation patterns, such as the diphthong /aɪ/ in "invite" and the schwa sound /ə/ in "occasion." Another study conducted in Jordan found that the Neurological Impress Method improved fluency in students. Therefore, the method proves effective in developing students' pronunciation skills by encouraging imitation of the teacher's pronunciation.

CONCLUSION

The implementation of the Neurological Impress Method has a positive influence on students' pronunciation ability at high school students in the provincial city of West Nusa Tenggara. According to the research findings, the alternative hypothesis (H_a) "Is there any significant effect of the Neurological Impress Method (NIM) on improving students' pronunciation ability" is approved. The paired sample test result shows that the significant value from the data was 0.00, which was less than the t-table 0.05. The

difference between the pre-test and post-test results demonstrates this. It was proven by the pre-test mean score of 59.67 and the post-test mean score of 85.50. Likewise, in the post-test, students' pronunciation score was higher than in the pre-test. The Neurological Impress Method improves student pronunciation by enhancing students' phonemic awareness and fluency of pronunciation. The Neurological Impress Method involves students repeating how their teacher pronounces the words. As a result, the students imitate the teacher to achieve the correct pronunciation. In conclusion, the Neurological Impress Method proved successful in improving students speaking skills.

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