
THE EFFECT OF NEUROLOGICAL IMPRESS METHOD (N.I.M) ON READING ABILITY OF ENGLISH TEXT ON DYSPLEXIC STUDENTS

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ARTICLE INFO

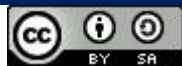
Received:
June, 28th 2021
Revised:
July, 9th 2021
Approved:
July, 14th 2021

ABSTRACT

This study aims to find out the effect of the neurological impress method on the reading ability of English text on dyslexic students, including phonemic awareness, reading fluency, and reading comprehension. This study intends to determine the use of the neurological impress method to boost the reading ability of dyslexic students in Galuh Handayani Inclusive School Surabaya. The participants of this study are three dyslexic students and two teachers. The data were collected through observation and interview and analyzed by using the descriptive qualitative method. In short, this study supports the use of the neurological impress method to develop the reading ability of English text as a foreign language on students with learning disabilities. According to the observation and interview that have done by the researcher in Galuh Handayani Inclusive School Surabaya, it can conclude that the neurological impress method is the method that appropriates for increasing the reading ability of dyslexic students.

KEYWORDS

Reading Ability, Dyslexic Students, Neurological Impress Method, Phonemic Awareness, Reading Fluency



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INTRODUCTION

Reading is an activity that tries to construct the complex meaning of the words or sentences (RAND Reading Study Group, 2002; Afflerbach et al. 2008). Furthermore, teaching reading as a foreign language is big defiance for the teacher (Barnett, 1988).

How to cite:

E-ISSN:

Published by:

Salila Prasideya Hidayati and Fahri. (2021). The Effect Of Neurological Impress Method (N.I.M) On Reading Ability Of English Text On Dyslexic Students.

Journal Eduvest. 1(7): 550-558

2775-3727

<https://greenvest.co.id/>

Teaching reading might need many procedures and techniques because it requires cognitive and metacognitive skills by the teacher. Despite this fact, teaching reading also needs a lot of preparation before and after the process. Reading is a process to recognize words and sentences, drawing a new assumption about the text. That is why some teachers may face difficulties in teaching reading in dyslexic students' classrooms especially teaching English text. Then the teacher should teach the ways the students can comprehend easily about the text, so students could get the meaning without dealing with misinterpretation in the classroom

Reading is interpreting and comprehending text for specific readers' purposes (Cline, Johnstone, & King, 2006). For the readers, reading is figuring out the meaning of the text by analyzing the written text. On the other hand, some students might think that there is a big challenge in learning reading as a foreign language (Johns & Davies, 1983). According to Tighe & Schatschneider (2016), three main components that must be mastered when the students want to learn reading is phonemic awareness, reading fluency, and reading comprehension. In reading, decoding the words is the key to increase the reading ability for students to understand what they read (Rasinski, 2004). To comprehend the English text as a foreign language, readers have to implement a constructive process to establish a meaningful text. It can be difficult for the students that have difficulty in differentiating the phoneme and the letter.

Reading difficulties are commonly said as the problem in reading something, whether it comes before, while, or after reading. Based on Harris (1971), difficulty in comprehending the alphabet and recognized the unfamiliar words are the problems faced by the learners when they are reading. These two problems generally make the reading error, affecting the learners' phonemic awareness, reading fluency, and reading comprehension.

The difficulty in interpreting the written text into speech sound such as word recognition, spelling, and phonological transcription called dyslexia (Tunmer & Greaney, 2010). Fortunately, these problems can influence the students' vocabulary, comprehend complex sentences, and interfere in understanding difficult material in the future. According to the World Federation of Neurology, G. Hynd & C. Hynd, 1984, dyslexia is the condition that the sufferers sustain central nervous system dysfunction; it might affect their brain to identify the words.

According to Stothard & Hulme (1992) explain that dyslexic students are the students that have trouble in reading in which they cannot decide the speech sound with the letter of the words. Dyslexic students also generally remove the words when they are spelling in reading, so they have phonological awareness (Bruck, 1992). In short, dyslexic students is the students that have weaknesses in reading ability, and it can affect their phonemic awareness, reading fluency, and reading comprehension. On the other hand, dyslexic students also have to build a big effort to overcome their weaknesses in reading ability because it can influence their performance in school. So, for overcoming the problems, the researcher applied the neurological impress method.

The neurological impress method is the method that the students can imitate their teacher in the way of intonation, punctuation accuracy, and pronunciation of the words correctly in reading; this theory was extended by Heckelman in 1966 (Grätzel, 1977). It becomes the best procedure to increase dyslexic students' reading ability through a reading guideline, then the neurological impress method applied in four stages. First, the teacher sits beside the students to make sure the students hear the teacher's voice (Arnold, 1972; Flood, Lapp, & Fisher, 2005). Next, the teacher decides the book to read that suitable for the level of the students and guides them to become comfortable reading that book.

Then, the teacher has to point out the sentence that she reads (one to one sentence, also with clear punctuation) because the students will follow her to read it. Last, the goals of this method are to enhance phonemic awareness and reading fluency, so the student needs to be able to read spontaneously.

In addition, the neurological impress method is difficult to occur in the classroom because of the size of the students. However, there is a solution to solve this problem that uses a tape recording of the teacher's voice to guide the students to read, and this method is quite successful in increasing the students' reading fluency (Hollingsworth, 1970; Flood et al., 2005). The manner of taking this method to the classroom is for the students to listen to their teacher's recording, and they read together by equalizing the text with their teacher's voice, so they can learn how to has a good reading. In addition, the neurological impress method has several advantages to develop reading comprehension, such as assisting the dyslexic students in getting a good reading accuracy, so that can support the students' understanding in reading comprehension

The neurological impress method is a method that combines copy-paste of articulation, tone, and pronunciation of the teachers to the students (Heckelman, 1969; Young et al., 2018). Furthermore, the neurological impress method is also similar to the reading aloud method that uses drilling. Besides that, these two methods have differences in application to the students. The neurological impress method applied more privately between one student and one teacher than reading aloud, which implemented between several students and one teacher. According to Henk (1981), the purpose of implementing the neurological impress method is to help the students to analyze the words. In addition, drilling in reading is the way to raise reading ability, and the neurological impress method is a suitable method that applied it.

There are still few researchers in Indonesia that concern developing the reading ability of dyslexic students who used the neurological impress method especially reading English text as a foreign language. Moreover, there is one journal by Elia (2018) that explained the use of the neurological impress method on dyslexic students in High School. Still, she just concerned with one of the aspects that are reading comprehension of Indonesian text. Based on the reasons above, the researcher wants to find out the following problems: How does the neurological impress method affect dyslexic students' phonemic awareness, how does the neurological impress method affect dyslexic students' reading fluency, how does the neurological impress method affect dyslexic students' reading comprehension. So, this study aims to find out the effect of the neurological impress method on the reading ability of English text on dyslexic students, including phonemic awareness, reading fluency, and reading comprehension.

According to Stothard & Hulme (1992) explain that dyslexic students are the students that have trouble in reading in which they cannot decide the speech sound with the letter of the words. Dyslexic students also generally remove the words when they are spelling in reading, so they have phonological awareness (Bruck, 1992). In short, dyslexic students is the students that have weaknesses in reading ability, and it can affect their phonemic awareness, reading fluency, and reading comprehension.

RESEARCH METHODS

Based on the aims and the research questions, this study required analyzing the effect of the neurological impress method on the reading ability of dyslexic students descriptively. According to Ary et al. (2010), descriptive research was the study that targeted to understand a phenomenon using data collected in a variety of ways, such as interviews and observations provided by the interpretative study. By using the

interpretative study, the researcher described the phenomenon in data collection.

This study set two criteria to choose the participants. First, the participants were dyslexic students. Second, it utilized the participants who had difficulties in reading ability. Regarding this condition, the researcher decided to choose three students and one teacher as the participants. In reporting this study, the researcher changed the participants' name into a pseudonym. On the other hand, this study took place at Galuh Handayani Inclusive School in Surabaya, which focused on students with special needs such as dyslexic students.

The instruments used for this research were observation and interview. These data helped the researcher to discover the result of dyslexic students' reading ability used the neurological impress method. According to Mack, N., et al. (2005), observation was checking and describing the behaviour, ability, interaction, and setting of the subjects in research. The outcome of this observation was the sentence, so the researcher described the effect of the neurological impress method on the reading ability of dyslexic students. Furthermore, the researcher used observation guideline in asking and gathering the data from the participants. On the other hand, Mack, N., et al. stated that the interview was gathering the data from the participant's perspective. In the interview, there were several questions answered by the teacher. This interview was conducted twice semi-partially structured to collect the teachers' opinion about the influence of the neurological impress method on the reading ability of dyslexic students and the background of dyslexic students themselves.

After the data collected, have analyzed it by using a qualitative approach with describing the results by using sentences. First, for the observation, the researcher observed the dyslexic students when they studied English, so the researcher knew how the neurological impress method applied in the teaching process. Besides that, this observation helped the researcher to know the influence of using the neurological impress method includes phonemic awareness, reading fluency, and reading comprehension of dyslexic students. Then, the researcher described the output of the observation by writing in sentences.

To get the data from the observation, the researcher also interviewed the teacher. There were two interview guidelines for the teacher. First, asking the teacher's opinion about the use of the neurological impress method in reading, then asking the teacher's perspective about the background of dyslexic students. In this interview, the researcher recorded the voice of the teachers and wrote a note about their arguments. After that, the researcher transcribed the recording after gathering the data. Last, the researcher wrote the results of the interview.

RESULTS AND DISCUSSION

A. Research Results

1. One to One Observation

The first instrument used to determine the use of the neurological impress method, whether it affects the reading ability of dyslexic students or not. The researcher used the observation guideline. Based on the observation guideline, there were physical, psychological, and social conditions being observed. The details of the information points were presented through the following descriptions:

a) Identification of the first student HHS

HHS has a normal physical condition, and there is no disturbance in sight or hearing. He is the last child with two older brothers. The development of HHS is good, but he still

has difficulty in reading and writing long sentences. Then the emotion of HHS is quite changing frequently, especially when studying. Besides that, HHS felt confident when he had to read a sentence, but he could not comprehend the text. In socio-cultural, HHS is an active student, and he likes to help others. For example: when his teacher asked HHS to take a book to the table, he directly took the book for her.

b) Identification of the second student RRA

RRA is a bit quiet; he does not want to speak until his teacher and researcher asked him first. RRA has a normal physical condition like the normal students; however, RRA is a moody person, especially when he has to study. Moreover, RRA is quite good at reading and writing some sentences, but he has weaknesses in understanding the meaning of the text itself. In communication, he still struggling with this condition; his teacher and parents always remind him to socialize with others.

c) Identification of the third student IWK

IWK is a student with a bright smile. He always tells some stories to others and enjoys socializing with the new person. He has a normal physical condition, and also, he has good emotional control. Furthermore, he has some weaknesses, such as always loss his concentrate while studying, and he still struggles with reading and writing a sentence.

2. Interview

There were two interviews have done by the researcher. First, doing an interview of the teachers' perspective about using the neurological impress method to help the dyslexic students boost their reading ability. Then, the interview of the teacher's opinion about the background of the dyslexic students themselves.

a) Result of Teacher's Perspective about the use of Neurological Impress Method on Reading Ability of Students with Reading Disabilities

Based on the result of the first interview, the teacher explained in short that applying the neurological impress method influences their students' reading ability, such as improving their phonemic awareness, reading fluency, and reading ability of the student with disabilities. For example, there was a question *"Did the dyslexic students' interest in using the neurological impress method to study?"*. She replied that her students *have a big interest, and she did the learning through an individual approach, so the students understood better what they were reading*. Then, when the researcher asked about the obstacles of using this method, the teacher answered, *"There have been no major obstacles to do this method because this method is very good for guiding children who are not yet able to read fluently"*. It meant that the teacher was very helpful in applying the neurological impress method. In addition, the teacher said that she chose the text with pictures then the students can understand the story while reading by seeing the illustration.

b) Result of Teacher's Perspective about the Background of Dyslexic Students Themselves

After the researcher interpreted the result of the interview, there was an important point, such as the social background of the students themselves played a necessary role to improve their reading ability that has to be highlighted. For example, when the researcher asked about the effort of HHS parents to develop their child's reading ability, *"Could you ever ask the parents of your students about their effort in helping their children to increase their reading ability at home?"*. Then answered by the teacher, *"Yes, his mother ever told me that HHS is very much cared for at home, as well as in his studies. When HHS studied, her father and mother always took turns accompanying him. Apart from that, HHS's cousin also helped HHS in studying"*, and also HHS's parents are a doctor and a soldier, so his parents are aware of the condition of their child's development in studying. Moreover, the condition of HHS family was the opposite of the RRA family. The teacher replied, *"RRA's mother did not care when RRA studied at home, then she said when RRA had homework,*

she rarely helped him". Therefore, the contrast condition of RRA parents who did not support their child while studying at home.

Another question that the researcher asked during the interview was, "*What are the special treatments that you do to help the students increasing their ability in reading?*". Then the teacher answered, "*Besides learning together in the classroom, I also gave additional lessons by coming to RRA's house for an hour because he couldn't concentrate for a long time. This lesson is usually held on Wednesday afternoon, but it is not optimal because I am also busy*". In a special case like RRA that the parent did not care about developing their child's study, the teacher gave special treatment like studying together. Moreover, for HHS and IWK, the teacher did not give them the additional time to study together because their family already supported them to study in their home.

It concluded that the social conditions of the students themselves were the main point to define the success of the dyslexic students in their studies.

B. Discussion

1. Diagnoses

From the results of observation and interviews with the teacher, these three students had the following problems:

a) Physical Condition

HHS, RRA, and IWK, normal (not disabled), there is no disturbance in vision or hearing

b) Psychological Conditions

a) Cognitive:

HHS and RRA have good writing skills and can read sentences fluently, but by reading one by one of the words; however, there are still guided by the teacher when IWK has difficulty writing and reading difficulties.

b) Affective:

IWK is emotionally stable, while HHS and RRA are moody people, so sometimes, they do not want to study.

c) Psychomotor:

HHS and RRA felt confident when reading sentences but were still guided by the teacher, and IWK felt insecure and always guided by the teacher.

d) Moral:

HHS and IWK like to help their peers in the class, but RRA sometimes ignores his friends when they want to ask for help, so teachers and parents are often reminded.

c) Social Condition

e) Involvement in the school environment

RRA is a bit quiet, and he does not want to speak until his friend, researcher, or teacher ask him and tends to be lazy. HHS and IWK tend to be active; they don't hesitate to ask questions either to their friend, researcher or teacher. Although sometimes, the questions asked by HHS and IWK are not clear.

f) Social Family Background

HHS and IWK parents are aware of the condition of their children, so they always accompany them in studying; still RRA parents are busy, so they cannot accompany him in the learning process.

Besides the information from the observation above, it is also seen that HHS, RRA, and IWK are dyslexic students; this is seen from the following characteristics:

- a. Difficulty in spelling correctly. One word pronounced many times with various words.

- b. Difficulty spelling words or syllables with similar shapes, for example, b – p - d. u - n, or m - n.
- c. When reading, children often go wrong to the next paragraph or not in order.
- d. Difficulty spelling the letters one by one in words
- e. Spelling mistakes that are done continuously.

2. The Effect of Using the Neurological Impress Method

From the conditions above, the teacher used the neurological impress method to increase the reading ability of dyslexic students. This method was adjusted by the teacher depending on the condition of the students themselves. Moreover, the neurological impress method was one by one approach that the teacher could focus on the students' problems consist of phonemic awareness, reading fluency and reading comprehension. The details explained below;

a) Phonemic Awareness

Using the neurological impress method could help the students to imitate the way of the teacher in reading. It had seen from the learning outcomes that identified the small elements when students read a sentence, such as correcting the pronouns p, b, d, which could affect their reading ability. For example: when RRA had to say "Black Paper", but he said "Black baber", and when HHS had to say "The color of the balloon is purple", and he said, "The color of the balloon is purple". It showed that from applying the neurological impress method, the teacher could directly correct the pronouns of their students, so in the future, they could differentiate the word correctly by themselves. It was in line with Soares's (2018) journal that mentioned the neurological impress method is the appropriate method to enhance the phonemic awareness of dyslexic students. In addition, this method proved to be one way to improve the phonemic awareness of dyslexic students.

b) Reading Fluency

In this stage, the neurological impress method was influential because when the teacher used this method, the students automatically imitated the teacher's reading. Furthermore, in another text, students could read fluently on their own because they had read the same word when they read a text with the teacher before. For instance: HHS ever read the sentence "Once upon a time, there were a rabbit and a turtle" with his teacher, and he had to read another text that had the similar sentence "Once upon a time, there were a cat and a dog". Then he could pronoun correctly the phrases "One upon a time" and "there were". Based on the survey of the national panel in Jordan, using the neurological impress method has enhanced the reading fluency of dyslexic students (Ziadat & AL-Awan, 2017). The researcher found a similar result with the previous study that the neurological impress method was helpful for the dyslexic students to imitate the way the teacher's reading, so the students can increase their reading fluency.

c) Reading Comprehension

Reading comprehension was the final step of reading ability. This method was the complicated stage because the students have to comprehend the sentences in the text to find the intention of the text itself. Furthermore, in this step, the researcher reported that the dyslexic students were developing their understanding of the text that they read. For example, IWK is a type of student that cannot concentrate and also hard to comprehend the text while studying. The way to make him enjoy while learning process was by studying together. Therefore, applying the neurological impress method was the suitable one, and IWK was guided by the teacher while reading so that his understanding of the text was increasing. Furthermore, the teacher used the text with pictures then the students could illustrate the story while reading. Based on the study of Flood et al. (2005) described that

the neurological impress method helped the students' disabilities to comprehend the text because the teacher tried to link the content of the text with the background knowledge of their students. Moreover, Flood also specified that the respondents of their research were students from countries whose mother tongue was not English. It is in line with the research conducted by the researcher, which showed that the neurological impress method is the best method to help dyslexic students improve their understanding of English text.

In addition, when the teacher applied the neurological impress method, the students enjoyed reading the book because they did not read the text alone by the first. Then day by day, the students felt confident when they had to read the text in front of the classroom. Besides that, the students would read the sentences with an increased volume of vocal and their expressions. It can be seen when HHS, RRA, and IWK were using this method for three weeks, they got improvement in reading English text, such as could distinguish the word that has a similar shape and could read the text more fluently. Moreover, the teacher usually trained the students 2 hours a day with a break of 5-10 minutes depends on the students' needed.

CONCLUSION

Reading ability is the key to master all the academic skills for young learners because the students who understand the content of the text, getting a lot of new knowledge. The problems faced by dyslexic students in reading ability are phonemic awareness, reading fluency, and reading comprehension. Dyslexic students are the students who have difficulty in deciding the spelling of words that have a similar form. On the other hand, the appropriate method to solve the reading ability problems for dyslexic students is the neurological impress method. The neurological impress method is the technique that the students' repetition how their teacher reads. Hence the students imitate the teacher to get the correct punctuation, pronunciation, and intonation. On the other hand, the social background of the dyslexic students has an important role in developing the students reading ability because the family is the first support system. Applying the neurological impress method helps dyslexic students to rise their ability. According to the observation and interview that have done by the researcher in Galuh Handayani Inclusive School Surabaya, it can conclude that the neurological impress method is the method that appropriates for increasing the reading ability of dyslexic students.

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