

Difference Reading of the Indonesian Word Groups on Dislexia Patients in Medan City

Gustianingsih^{1,2}, Elmeida Effendi³, Ali⁴

¹ USU Postgraduate, Faculty of Cultural Sciences, Universitas Sumatera Utara, Medan, Indonesia, 20155

² Internal Reviewer of Research Institution of Universitas Sumatera Utara, Medan, Indonesia, 20155

³ Lecturer of Faculty of Medicine, Universitas Sumatra Utara, Medan, Indonesia, 20155

⁴ Faculty of Teacher Training and Education, Islamic University of Sumatera Utara, Jl. SM Raja, Teladan, Medan, Indonesia, 20216

Keywords: Deviation of reading and writing, Dyslexic patients.

Abstract: The objectives of this study were: (1) to classify the difficulties of reading Indonesian word groups in Dyslexic Patients (PDS), and (2) to classify the difficulty of understanding long instructions in a short time Dyslexic Patients (PDS). Theoretically, this research explains the intervention and ability concerning memories, productions, thoughts, meanings, and emotions that are very influential in someone's speech when speaking because there is a disorder in the brain. This research applied research and development method. This research oriented to a cycle begun with the collection of information research results in the form of difficulty reading and writing by involving 3 (three) Dyslexic patients. Method used for data collection was reading and writing tests. The basic technique used was tapping technique, i.e. tapping the PDS 1-3 taken from Medan Extraordinary School. Data analyzing was done in order to classify the difficulty found in reading and writing and to classify long instruction in the same time. The research found that dyslexic patients are not able to read and write tree words or the complex words and dyslexic patients are also difficult to understand long instructions as their long-term memories are also damaged.

1 INTRODUCTION

Dyslexia is a reading disability that primarily concerns with a particular language base, which affects the ability to learn words and compose words even though the child has an average or above average intelligence level, sufficient motivational and educational opportunities and normal vision and hearing

Dyslexia usually occurs in children with normal vision and intelligence. Children with dyslexia usually speak normally, but have difficulty interpreting "spoken language" and writing. Dyslexia tends to be lowered and more common in boys. Dyslexia is mainly caused by brain abnormalities that affect sound processing and spoken language. This disorder is a congenital abnormality, which can affect the decomposition of words as well as impaired spelling and writing. (Ali and Gustianingsih, 2018)

Dyslexia comes from the Greek word "dys" which means difficulty and "lexia" which means words. In other words, dyslexia mean difficulty in processing

words. Dyslexia is an abnormality with the basis of neurobiological abnormalities and is characterized by difficulty in recognizing the word precisely or accurately in spelling and in the ability to encode symbols. There are two kinds of dyslexia, developmental dyslexia and acquired dyslexia.

Developmental Dyslexia is innated and due to genetic or hereditary factors. People with dyslexia will carry this disorder for the rest of their lives or cannot be cured. Not only have difficulty reading, they also experience the barriers to spelling, writing, and some other language aspects. However, dyslexic children have normal or even above average levels of intelligence. With special handling, the obstacles they experience can be minimized. And acquired dyslexia is acquired due to interference or changes in the way the left brain reads (Downing, 2013).

Some experts also define dyslexia as a condition of input processing or different information (from normal children) often characterized by reading difficulties that may affect the areas of cognition, such as memory, input processing speed, timing

ability, coordination, and control motion. There can also be visual and phonological difficulties, and there is usually a difference in ability in various aspects of development (Paris and Carter, 2013)

Dyslexia usually occurs in children with normal vision and intelligence. Children with dyslexia can usually talk normally, but have difficulty interpreting "spoken language" and writing. Dyslexia tends to be lowered and more common in boys (Ritchie, 2012). Dyslexia is primarily caused by brain abnormalities that affect sound processing and spoken language. This disorder is a congenital disorder, which can affect the decomposition of words as well as spelling and writing disorder ([http:// www.dyslexia-indonesia.org](http://www.dyslexia-indonesia.org)).

2 RELATED THEORIES

2.1 Dyslexia Symptoms

The symptoms of dyslexia may be difficult to recognize before the child enters school, but some early symptoms may identify the problem, such as irregularities perceiving other people's speech delivered to the patient, distortion of vision when looking at pictures around the patient, hearing aberrations of the songs that are heard in the sufferer and when the child reaches school age, the teacher of the child may be the first to be aware of the problem. (Webb and Lawson, 2011)

Actually, dyslexic people have signs and symptoms that have a high risk such as telulang talking, adding vocabulary after being able to speak very slowly, experiencing difficulty "rhyming" (rhyme) when the child has not attended school. When the child has entered school the signs and symptoms have become more visible: (1) Reading at the level below what is expected for the child's age, (2) experiencing a disturbance in processing and understanding something that the child hears, (3) (4) experiencing interruptions in following instructions more than one at the same time, (5) experiencing interruptions to recite pronunciation of unfamiliar words, (6) experiencing hearing impairment (when at certain moments of hearing) can not make similarities and differences in the singing of words that are almost the same as "put" for "put", (7) experiencing impaired vision (see writing on the signboard for words in reverse (b for d or "birth" to "dead"). (8) Under 8 years of age, dyslexic children will continue to look reversed after their age, spelling and difficult to learn a foreign language (Wang, 2011).

2.2 Handling

Children with dyslexia require individual teaching and treatment for dyslexia often involves multisensor education programs. Moral support from parents is also an important part. The best treatment is direct instruction, which incorporates a multisensory approach. This type of treatment consists of teaching sounds with different cues, usually separately and (if possible) part of the reading program.

Indirect instructions can also be applied. It usually consists of training to speak a word or reading comprehension. The child is taught how to process sound by mixing sounds to form words, by separating words into letters and by recognizing the position of sounds in words. (eg in recognizing parts or patterns and distinguishing different types of sounds) or problems with memories, conversations, thoughts and hearing.

Distractions that cause problems in speaking, listening, reading, writing or math skills, as well as specific developmental disorders. Learning difficulties are impairments in learning abilities including in terms of speaking, listening, reading, writing, or math skills. Children who experience learning difficulties can be seen from their academic ability a year or two under their age children with normal intelligence. Often these learning difficulties seem to coincide with other difficulties such as ADHD (Attention Deficit / hyperactivity disorder) caused by functional irregularities of certain parts of the brain. This is due to hereditary factors.

Learning difficulties are associated with brain dysfunction that affects basic skills such as perceptual sensory ability. In general, learning difficulties in the academic field include:

2.3 Dyslexia

It is also called a developmental disorder reading. Symptoms include: (1) Difficulty in connecting letters with sounds, (3) Difficulties in forming sukukata, (4) Reversal of letter positions, (5) Speech disorder, (6) Doubt in words, (7)) Less understanding of the meaning of the sentence.

1) Assessment

Assessment of learning difficulties can be done by one or more of the experts, such as psychologists, psychiatrists, and neurologists. Assessment that can be done is through IQ test to determine the ability of verbal and non verbal child, test projectif to evaluate the emotional level.

2) Treatment

Basically the treatment for children learning difficulties is remedial education and psychotherapy. Both can be implemented simultaneously or one follows the other as needed. Remedial should be done individually with a tutor. The goal is to find and tear down the walls that cause learning difficulties.

Basically the most needed by children with learning difficulties is the affection, understanding and patience of the people around him, especially from parents. After that then can be done proper handling.

Dyslexia is a learning disorder, in which a person has difficulty reading, writing, or spelling. Dyslexic sufferers will have difficulty in identifying how spoken words should be changed into letters and sentences, and vice versa. Dyslexic, based on gender, male sex has memory memory disorders, knowledge, fine motor skills, body balance for a sample of 40 people from preschool shows 27.5% (11 adults) show symptoms at risk of dyslexia, but only 15% (6 people) indicates a very high risk of having a dyslexic symptom. Boys are more affected by dyslexia than girls. 40% more children fail to mention abaca / letters, 5% do not recognize rhymes / first letters, and 3% can not distinguish language sounds). The Malaysian Education Ministry disclosed that since 2001 many preschool-aged children were exposed to dyslexia of 290,000 school pupils from 4.9 million total pupils (KPM, 2000). 4% of the world's population is significant to have dyslexic symptoms (Moses, 2002). These special needs children include dyslexic children who also need special education to be socially acceptable in a meaningful life (Bent, 2014).

Noorr (2011) has budgeted 314,000 children who are studying in Malaysia Malaysia with dyslexia Setiausaha Parlimen, Ministry of Education in 2004 (Komala, 2011) also reported that 5% of cases of dyslexia or one in 20 students are detected dyslexia compared with Down syndrome disease. which is about one in 600 people detected dyslexic disease and about one in 700 people increased sharply also reported by the President of the Malaysian Social Harmony Union (PSHM). Increasing dyslexia in Malaysia makes Malaysian government recommend to do research about dyslexia to be known early handling of dyslexia. According to studies conducted by Meier, Hammond and Hughes, and Spaafford and Grosser, there are two factors that cause the emergence of this disorder problem, among which are genetic factors or heredity and biological factors. Studies have shown that dyslexia is caused by chromosomes 1, 15 and 16 that may be inherited from

generation to generation. In most cases, there is a family expert having the same problem, the only thing that sets them apart is the stage of seriousness. While biological factors are an outcome factor that culminates with a preterm birth or an insufficient lunar birth, lack of oxygen at birth as well as birth complications. Damage to the brain during the birth process is also one of the impetus to the problems and disorders of the child in the learning process (Maliphant and Saraga, 2011). In fact, the child who faces this problem has a normal stage of intelligence and has no hearing and vision problems. Nor are they classified as weak and foolish. This problem can be overcome if the parents and teachers can recognize this disorder. Umar, Rahman, et al., Says that the Malaysian kingdom expects its people to be able to master 100% literacy capability by 2020. Nevertheless, the proficiency of reading, writing and guessing (3M) principles may be difficult to obtain. According to Julina, about 40% of students are not capable and do not master 3M due to students facing severe cognitive problems such as dyslexia. Dyslexia has a high population and may lead to various problems of individuals, families, communities and countries. 10% -15% of the world population has dyslexic problems (Rohati, 2011).

3 RESULT AND DISCUSSION

3.1 Difficulty Reading Indonesian Language Group to Dyslexic Patients

- (1) Researchers: Try to read this word "shoes"
PDS-1: "panu"
Researchers: Read the "horse"
PDS-1: "luda"
Researchers: Read "Kuda Lumpung"
PDS-1: "luda lumpum"
Researchers: Read the "Goat Cage"
PDS-1: "ladan landin"

The above-mentioned PDS-1 reading events are very worrying for children with dyslexia. The words read do not match what is written. Some words are omitted and some phonemes swap, like [t] and are swapped to [n], and the [se] element in word [shoes] is lost, unreadable by PDS-1. Similarly, the word [horse] is read as [luda]. The sound [k] is converted into sound [l]. For Word base. PDS-1 has an interruption of reading one word. Certain sounds are exchanged by him and read them imperfectly. The age of PDS-1 is

10 years. Age that is perfect enough to read a word. In Indonesia in general, children begin to enter primary school (SD) at the age of 6/7 years, so the age of 10 years actually the child is in the 5th grade elementary school. In grade 5 elementary school is basically children have read fluently long sentences.

For the case of two words (group of words) PDS-1 apparently equates the sound of [l] in the first word position [horse] to [luda] with the second word [lumping]. This language event can be phonologically traced into a progressive assimilation form. The front [l] sound affects the [k] sound at the back to sound [l].

In particular, which occurs in PDS-2, different cases of reading the child. Words that children read backwards, the composition of words is not systematically arranged, the way of reading there is at the lowest level and not in accordance with the age of children, children also disturbed hearing, so disturbed the process of language and language understanding, understand the instructions that very simple even disturbed let alone follow the instructions more than one at the same time, sight and hearing is also disturbed, so can not distinguish and find the similarity between the word one with the other word can not spell and can not learn a foreign language. PDS-2 has difficulty distinguishing "bamboo" with "lamp"; or they misunderstand words that sound almost identical, such as "seventy" with "seventeen". This difficulty is not due to hearing problems, but is related to the processing of inputs in the brain. Here's an illustration below:

(2) Researchers: Read "bamboo"

PDS-2: [lamu]

Peneliti: read the "lights"

PDS-2: [lamu]

Researchers: which is "bamboo" and which is "light".

PDS-2: "light" he pointed 'bamboo', when asked again 'bamboo' he pointed "lamp"

Researchers: read "seventy" (70) and "seventeen" (17)

PDS-2: [tujubas] and [tujuoh]

When asked which "seventeen" with "seventy", reversed he pointed to it, and at all the PDS-2 did not understand the instruction. Besides the PDS-2 was unable to read two words / groups, PDS-2 also suffered from interference understanding. When associated with neurolinguistics, PDS-2 is impaired in both brain hemispheres. In the Wernicke field is the part of the brain located on the left hemisphere of the brain specially regulating the understanding of language, and the right hemisphere, the khujusus

governs the language of reading and writing skills (Ali and Gustianingsih, 2015).

3.2 Difficulties of Understanding Long Words of Instruction in One Short Situation

In this case the PDS is incapable of understanding the instruction of long and many words at the same time. The PDS very much regulates the words that have been delivered to him completely and perfectly. Here's an illustration when researchers see the mother PDS-3 memeberi message to his son.

(3) Mother: "Keep the bag in your room upstairs, change clothes, wash your feet and hands, then go down again for lunch with mom, but do not forget to take it too your math homework book, yes".

PDS-3: Mak .. this is Prku "basa nesa" (bahasa Indonesia). School bag still on, shirt schools have not been replaced, hands and feet have not been washed.

Mother: PR Bahasa Indonesia, taken mother. Mom told PDS-3 to come back with instructions the first "Save the bag in your room upstairs, change clothes, wash your feet and hands down, then down again for lunch with Mom.

PDS-3: Climb again to the top of the stairs, up on it down again by saying "yok Maam" (meaning to take her mother to lunch), but the bag remains slung over the child's shoulders, hands and feet have not been washed.

Mother: Ouch nang (dear call a mother to the only child). Yes, eat us yes, but keep your bag in your room, banging your bag who was carried his son, Son silently looked at his mother.

PDS-3: Son rises again to the 2nd floor and takes off his bag, then he drops back down.

Mother: Nice my son, your bag is stored in your study cabinet? Your hands and feet are washed?

PDS-3: Shut up, bewildered. Climb again up and followed by his mother. Above the 2nd floor, Mom gave an example of putting a child's school bag into a study cabinet and bring the child to the bathroom to wash hands and feet.

From the above illustration on data (3), it is clear that this dyslexic child is incapable of understanding long and complex sentence instructions in the same situation, short time. The PDS-3 is only able to remember the last words of "eating with mom", after which the mother shakes the child's bag, the PDS-3 is

able to remember the second message of the ibunta, but forgot the 3rd message and the 4th message.

Refreshing on the above data, can be done positive handling in children, assessment, and positive treatment with great patience and affection.

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3.2.3 Treatment

Basically, the treatment for children learning difficulties is remedial education and psychotherapy. Both can be implemented simultaneously or one follows the other as needed. Remedial should be done individually with a tutor. The goal is to find and tear down the walls that cause learning difficulties. Basically, the most needed by children with learning difficulties is the affection, understanding and patience of the people around him, especially from parents. After that then can be done proper handling.

4 CONCLUSION

The conclusions that can be drawn from this paper are difficulty Reading Indonesian to Dyslexic Patients, not just reading word group, but reading one word also has difficulty. The words of a group of words are read in reverse, the composition of the words is not organized systematically, the way of reading is at the bottom and not in accordance with the age of the child. Children also disturbed hearing, so disturbed the process of language and language comprehension.

Understanding very simple instructions once disturbed let alone follow the instructions more than one at the same time, sight and hearing is also disturbed, so it can not distinguish and find the similarity between words with one another. Children have difficulty distinguishing "bamboo" from "light"; or they misunderstand words that sound almost identical, such as "seventy" with "seventeen". This difficulty is not due to hearing problems, but is related to the processing of inputs in the brain.

ACKNOWLEDGEMENTS

The Authors gratefully acknowledge that the present researcher is supported by Ministry of Research and Technology and Higher Education Republic of Indonesia. The support is under the research DRPM - DIKTI of Year 2018 Contract: No.1140A/UN5.1.1R/PPM/2018, SP DIPA-042.06.1. 401516/ 2018, date December, 5th 2018.

REFERENCES

- Ali, Gustianingsih. 2018. "Teaching Bilingual Education for Indonesian at University". *Asian Journal of Humanities and Social Sciences*. Vol 7(1): 59- 61, Februari 2018.
- Bentzen, F. 2014. "Sex Rations in Learning and Behavior Disorder". *American Journal of Orthopsychiatry*. (23): 529-531
- Calfee, R.C. 2012. *Memory and Cognitive Skill in Reading Acquisition*. In D.D. Duane and M. Rrawson (eds), Reading, Perception and Language. Baltimore: York Press
- Downing, J. 2013. "Cognitive Factors in Dyslexic Child". *Psychiatry and Human Development no.4*.
- Gustianingsih. 2015. Phonological of Indonesian Disorder on Autistic Spectrum Disorder in Medan City . *Research Report of SIMLITABMAS*

- Komala. 2011. "There are 20 Student are Detected Dyslexia". *Journal Teknologi Pendidikan Malaysia, Jilid 1, Nombor 2, Juni 2011*
- Maliphant, R and Saraga. 2014. *Journal Of Child Psychology and Psychiatry (15): 175-185*
- Meier, J.H. 2015. "Prevalence". *Journal Of Learning Disabilities. (4):1-6, 2015*
- Moses. 2011. "Preschool-Aged Children Were Exposed to Dyslexia". *Journal Teknologi Pendidikan Malaysia, Jilid 1, Nombor 2, Juni 2011*
- Noor Afzan. 2011." Children Who are Studying in Malaysia with Dyslexic". *Journal Teknologi Pendidikan Malaysia, Jilid 1, Nombor 2, Juni 2011*
- Paris, S.and Carter A. 2015. Semantic Reading and Constructive Aspect of Sentence Memory in Children Developmental. *Research Quarterly, 40 (2): 184-202*
- Ridge Way, A and Quinones, G. 2012. Dislexic, Lancet. *Australian Journals of Teacher Education. 37 (12): 46-55*
- Rohaty, Mohd. Majzub. 2011. "Population Dyslexia Problem".*Journal Tegnology Pendidikan Malaysia, Jilid 1, Nombor 2, Juni 2011*
- Vandenberg B and Emery D. 2012. International Journalo Of Special Education 24 (1): 45-52
- Wang. Q.L. 2014. Innovation in Education and Teaching International. *Journal Pendidikan Bahasa Melayu- JPBM (Malay language Educational Journal-MYLEJ). ISSN: 2018, Vol 4 Bil 2: 36-43, November 2014.*

