

Doi: 10.5958/2320-6233.2014.00015.7

16. A STUDY ON LANGUAGE DISORDER AND A DYSLEXIC CHILD

Nasim Elyasi Soren, Dept of Linguistics
Osmania University, Hyderabad- India

Abstract: Nowadays, there is a hot issue but it is not a new case anymore in psycholinguistics; it is dyslexia. Dyslexia is related to language disorder and learning disability. Yet, this study focused on the learning difficulties and learning method. This study described the types of difficulties of the dyslexic character and the method to overcome the difficulties. To get the data of difficulties and the method to overcome those difficulties, this study used descriptive qualitative approach. Besides, it used Levinson (Syndrome of Dyslexia) and Learner's (perception) theories to analyze data related to learning difficulties and Gillingham and Stillman's theory to analyze the method which is used to overcome learning difficulties. Based on the finding, it is found three types of difficulties which are appropriate with the types of dyslexia based on the problem. Those are reading, writing, and arithmetic disorder/difficulty. Those are because the character does not use five elements of visual and auditory perception for each basically academic skill which will be mentioned broadly in the paper.

Key word: *dyslexia, language disorder, learning disability, perception, and Gillingham and Stillman Method.*

Introduction

Language Disorder

There is a case in which a child experiences difficulty in communication with his fellow or his teacher for instance poor vocabulary or incorrect grammatical. It is known as language disorder. Better Health Channel (2009) states that language disorder may include difficulty in speaking, listening, and learning whether reading or writing; or a combination of all these areas. It shows that language disorder does not only affect speaking and listening but also learning. In addition, based on Haring (1974) "learning disability is a behavioral deficit almost always associated with academic performance and that can be remediated" (as cited in Somantri, 2007: 195). According to Indah & Abdurrahman (2008: 129) linguistically language disorder is "inability of acquiring and processing linguistic information". They point to two failures both acquiring and processing the information which can affect his basic language skills while

communicating with others. In addition, based on Allen (2010) language disorders involve the area of the brain that controls the processing of language and communication. It means that language disorder is not affected by physical handicapped. Language disorder affects learning disability. Because of that language disorder is divided into two based on learning disability such as expressive language disorder and receptive language disorder.

Receptive Language Disorder

According to Better Health Channel (2010) “receptive language disorder affects someone in understanding his interlocutor utterance. Other names of receptive language disorder are central auditory processing disorder and comprehension deficit.” Based on Logsdon (2010), receptive language disorder is a type of learning disability which affects understanding in speaking and sometimes in writing. In short receptive language disorder affects understanding in verbal communication and learning because of auditory processing disorder.

Expressive Language Disorder

According to Allen (2010), “expressive language is the ability to express your ideas and thoughts to others. Meanwhile, expressive language disorder is a condition in which a person has difficulty expressing themselves with language, both in speech and writing.” Based on Logsdon (2010), children with expressive language disorder have difficulty with language processing and the connection between words and ideas they represent. Some people may also have problems with pronunciation of words. Thus, expressive language disorder is an inability to express ideas and thoughts through language whether oral and written. Children who suffer language disorder have difficulties in understanding language, knowing what certain language concept means, following direction and remembering information presented orally. They need a little help from others to make everything clearer. Actually, they are bright and smart but they are different. In short, language disorder discusses about difficulties in communication whether verbal or nonverbal communications and affects understanding in learning basic skill including reading, writing, and mathematic calculations.

Dyslexia

Dyslexia is originally from Greek; “dys” means lack of or difficult and “lexia or lexicon” means pertaining the words (Mississippi Department of Education, 2002: 1). According

to Mississippi Law (in Mississippi Department of Education, 2002: 2) “dyslexia means a language processing disorder that may be manifested by difficulty in processing expressive or receptive, oral or written language despite adequate intelligence, educational exposure, and cultural opportunity”. Thus, it argues that dyslexia is not only about language disorder but also learning disability. Hudson, High, and Al Otaiba (2007) argue that, dyslexia is a specific learning disability in reading that often affects spelling as well. Specifically, learning disability (LD) is specific learning disability (SLD) (Wilmschurst, 2005:209). According to IDEA (Individual with Disability Education Act) (1999) specific learning disability (SLD) means “a disorder in one or more of the basic psychological process involved in understanding or using language, spoken or written, in which the disorder may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematic calculations” (as cited in Wilmschurst, 2005: 211). On the other hand, Neurologist and medical experts (Mississippi Department of Education, 2002: 3) often define dyslexia as a disability resulting from brain dysfunction which can be affecting learning academic skills such as reading, writing, spelling and math calculations. Children with dyslexia use their right brain more than left brain to process language information because of weakening function of corpus callosum (Letchumy, 2008: 117 and Ward, 2005:4). In addition, many researchers have proved that dyslexia is suffered by more boys than girls. Stein (2009) reveals in his presentation that one in three of US and UK eleven year olds leave primary school unable to read. In short, dyslexia is a kind of learning disability or specific learning disability. It is caused by the corpus callosum which does not work well and then the brain forces right brain to be used more than left brain to recognize and process letters, images, symbols, and concepts. In addition, dyslexia is not only about reading disorder but also writing disorder and arithmetic disability. Based on function impairment, dyslexia is divided into three types such as visual dyslexia, auditory dyslexia and visual-auditory dyslexia (Letchumy, 2008).

Visual Dyslexia

According to Letchumy (2008: 119) “visual dyslexia is a disorder that can see a word which consists of some letters as well but cannot differentiate and make interpretation what he has seen”. Then Stein (2009) argues that it is caused by visual magnocellular weakness. In short, visual dyslexia is a visual disorder which affects learning process of a dyslexic in grasping the meanings of printed materials that have to be seen.

Auditory Dyslexia

According to Letchumy (2008: 119) “auditory dyslexia is a disorder that cannot differentiate the similarity and difference between sounds they heard, be familiar with sounds of every word, and combine words in a sentence. Dyslexics cannot hear similar sounds in the beginning and ending such as boy and big, cat and math, and differentiate some words with the same vocal such as pin, pan, and pen”. Then Stein (2009) argues it is caused by auditory magnocellular weakness. In short, auditory dyslexia is an auditory disorder which affects learning process of dyslexic in understanding instructions or explanations that are delivered by interlocutor for instance his/her teacher.

Visual-Auditory Dyslexia

According to Letchumy (2008: 120) “visual-auditory dyslexia is combined between visual and auditory dyslexia also refers to as "Deep Dyslexia". Adyslexic or a person on this type has a problem in writing letters and words, grasping word-meanings, integrating the sounds of letters, and in pronouncing unfamiliar, and sometimes, even familiar words”. In short, visual-auditory dyslexia is a disorder of visual and auditory which affects learning process in understanding of materials that have to be seen or heard.

From definition and explanation about dyslexia division based on the problem above, there is another theory that is appropriate for this study. It is Dyslexia Syndrome Theory by Levinson (as cited in Letchumy, 2008). He has divided dyslexia into three types; reading dyslexia, writing dyslexia (dysgraphia) and arithmetic dyslexia (dyscalculia).

Reading Dyslexia /Reading Disability

In reading, children should have increased their both auditory and visual abilities to discriminate, remember and concentrate because those are very important to recognize the concept of symbols, alphabets and numbers, and meaning as well (Abdurrahman, 2003:12). If they increase neither auditory nor visual abilities, they will face any mistake in reading, for example children cannot discriminate word snack and snake even grasping meaning of the words. This disability/difficulty is called reading disorder or reading dyslexia. Normal/typical readers and dyslexic readers use different part of brain. Usually, normal readers use their part of brain appropriately. According to BRSS (2004) “brain imaging studies have revealed that when they are reading, typical readers activate areas of the brain that are mostly in the back of the left side of the brain. Dyslexic readers, on the other hand, under activate these reading pathways”. In short, reading disorder or

dyslexia is an inability to understand the meaning of passage from what they read using their eyes. This inability is caused by unfamiliar with words even letters and lack for visual memory. Because of that, children who suffer reading disorder do deletion, insertion, substitution, inversion, and mirror imaging.

Writing Dyslexia/Writing Disability

Since children are in school age, at least they should have reading skill and writing skill. Academically, writing skill is important because academicians must be able to put down their ideas in papers to explain the world whether change or judge the previous theory with the new one. In writing, someone needs to have visual, kinesthetic, and motor sensitivities, but dyslexics have them in low quality. In consequent, it affects their writing skill, called writing disorder.

Writing disorder is considered as dysgraphia. Dysgraphia is an inability to compose complete grammatical sentences. Yet, National Institute of Neurological Disorder and Stroke (2009) concludes that, "dysgraphia is characterized by wrong or odd spelling, and production of words that are not correct (i.e., using "boy" for "child"). They make inappropriately sized and spaced letters, or write wrong or misspelled words, despite thorough instruction". In his conclusion, Hornsby (as cited in Abdurrahman, 2003:204) points to the connection between reading and writing because when children study how to read they also study how to write what they read.

In short, writing disorder or dysgraphia is a disability to recognize letters with appropriate size, understand what he writes. This disorder happened because of visual and auditory impairment.

Arithmetic Dyslexia /Arithmetic Difficulty

Arithmetic is mathematics. Arithmetic is about using numbers, letters and symbols. Many students are not interested in learning mathematics because arithmetic or mathematic is difficult. In fact, arithmetic is important to practice our thought logically. There are some characteristics of children with arithmetic disability; spatial relation impairment, visual discrimination impairment, visual-motor association impairment, perseveration, object recognition impairment, and language and reading difficulties (Abdurrahman, 2003: 261). In spatial relation impairment, children are difficult in understanding whole numbers system. Then, visual discrimination impairment makes children are unable to discriminate geometry and other symbols. Besides, visual-

motor association impairment makes children cannot count things orally in order. Furthermore, perseveration makes children deceived then they just give attention to one object for long time. In short, arithmetic disability or dyscalculia is a disability of understanding of symbols, concept of number, mathematical operation, and shape. In addition, children with arithmetic disability do not use essential element of visual perception, spatial relation, to learn arithmetic.

Perception

For those with dyslexia, reading is difficult because it requires rapid visual to identify letters and rapid auditory to translate sounds into words (Stein, 2009). Research studies have identified differences in the processing of visual and auditory information in dyslexic children. That is why dyslexics need to remedy their visual and auditory perceptions to recognize what they have seen and heard. Lerner argues that, perception is an ability to attach appropriate meaning to what children see, hear, and touch (as cited in Abdurrahman, 2003: 151). This ability is to interpret what children experiences. In the following, there are some perceptions which are needed to diagnose dyslexia.

Visual Perception

According to Mississippi Department of Education (2002: 4) visual perception includes “the distinction of likenesses and differences in size, shape, direction, color, and other qualities of the visual symbol seen”. According to National Center of Learning Disability (1999: para.3) “a visual processing, or perceptual, disorder refers to a hindered ability to make sense of information taken in through the eyes. This is different from problems involving sight or sharpness of vision. Difficulties with visual processing affect how visual information is interpreted or processed by the brain”. In short, visual perception does not involve eyes only but also brain. Brain and eyes work together to interpret information which got from eyes.

Spatial Relation

According to Lerner (as cited in Abdurrahman, 2003: 154), spatial relation is a perception understanding of figure or symbol's place and relating to space as a physical dimension. This refers to the position of objects in space. It also refers to the ability to accurately perceive objects in space with reference to other objects.

Visual Discrimination

According to Lerner (as cited in Abdurrahman, 2003: 154), visual discrimination is an ability to differentiate one object from another in its surrounding environment. In addition, National Center of Learning Disability (1999: para.7) defines visual discrimination as “the ability to recognize an object as distinct from its surrounding environment”. One example of visual discrimination activity is differentiating between „b“ and „d“ in the word bird.

Figure-Ground Discrimination

According to Lerner (as cited in Abdurrahman, 2003:154), figure-ground discrimination is an ability to differentiate from its surrounding background. In addition, Plotnik (2005: 127) says that in organizing stimuli we tend to automatically distinguish between a figure and a ground: the figure, with more detail, stands out against the background, which has less detail.

Visual Closure

According to Lerner (as cited in Abdurrahman, 2003: 154), visual closure is an ability to remember, identify or recognize a symbol or object when the entire object is not visible. In addition, Plotnik (2005: 127) says that in organizing stimuli we tend to fill in any missing parts of a figure and see the figure as complete.

Object Recognition

According to Lerner (as cited in Abdurrahman, 2003: 154), object recognition is an ability to recognize the characteristics of objects while looking at the object. They use this ability to recognize its characteristic. In addition, attributes which children use to identify the character of objects include: letters, numbers, symbols, words, or pictures.

Auditory Perception

According to Lerner (as cited in Abdurrahman 2003: 153), auditory perception is the ability to distinguish similarities and differences between sounds. In addition, National Center of Learning Disability (1999: para.17) defines auditory processing disorder interferes with an individual’s ability to analyze or make sense of information taken in

through the ears. In short, auditory perception is an ability to use sense of hearing and brain to understand what they hear.

Phonological Awareness

According to Lerner (as cited in Abdurrahman, 2003: 153), phonological awareness is a skill that is needed to associate spoken word with written language. It is an understanding of the sound structure of language that is made up of words, syllables, rhymes, and sounds (phones).

Auditory Discrimination

According to Lerner (as cited in Abdurrahman, 2003: 153), auditory discrimination is an ability to remember difference between phonemes (sounds). This includes the ability to identify words and sounds that are similar and those which are different.

Auditory Memory

According to Lerner (as cited in Abdurrahman, 2003: 153), auditory memory is an ability to remember something that has heard. In addition, National Center of Learning Disability (1999: para.22) defines auditory memory as the ability to store and recall information which was given verbally. An individual with difficulties in this area may not be able to follow instructions which is given verbally or may have trouble recalling information.

Auditory Sequencing

According to Lerner (as cited in Abdurrahman, 2003: 153), auditory sequencing is an ability to remember the instruction in sequence orally.

Auditory Blending

According to Lerner (as cited in Abdurrahman, 2003: 153), auditory blending is an ability to blend elements of one phonic becoming one complete word. For example, the individual phonemes „b“, „i“, „r“ and „d“ are blended to form the word, „bird“.

Tactile and Kinesthetic Perception

According to Lerner (as cited in Abdurrahman, 2003: 155), tactile and kinesthetic perception is an ability to recognize objects through tactile (touched sense) and

kinesthetic (body movement) modality. Those kinds of perceptions are crucial needs in learning process to manage any info which is received especially words and numbers. Unfortunately, dyslexics still have to train their perceptions to recognize everything around them. In the other hand, there are some concepts and teaching techniques special for dyslexics to overcome them from their difficulties.

Teaching Method for Dyslexia/Learning Disability

Reading and spelling failure, writing difficulty and arithmetic disability are common problems for dyslexics. Those cause childhood misery, depression, even frustration. Because of that, some experts have made methods to overcome their learning disability. One of the methods is Glass Analysis Method. In this method (as cited in Abdurrahman 2003: 218) there are two sections; first is decoding and the second is reading. In first step, children are expected to recognize the phoneme (sounds) of copied words. In the second step, children are expected to attach a meaning of a printed word that they read. Glass thought that by using this method is expected children to apply their visual and auditory perception. In Glass Analysis Method, it has four steps in teaching words to children with dyslexia. First, a teacher asks the children to identify letters, words, and syllable completely. Second, the teacher asks the children to mention letters then syllable. Third, the teacher presents children letters and syllable. The last, the teacher presents an incomplete word then asks children to mention the rest of letters. On the other hand, Gillingham and Stillman (as cited in Letchumy, 2008) has improved a learning concept for children with dyslexia. There are three main of learning concepts for learning disability; first, teaching phonic directly through introducing the alphabets and its sounds, followed by ability to produce sound by combining words; second, use of variety of sense of body in teaching through visual, auditory, and kinesthetic modality; and the last, approaching of moving steps from the easiest level to the hardest one. This three learning concepts is enough to apply for children with learning disability in order to overcome them.

Types of Difficulties on Learning Disability of Dyslexic Character

According to Levinson (1994), dyslexia is divided into three types based on the difficulties; reading dyslexia, writing dyslexia and arithmetic dyslexia (as cited in Letchumy, 2008).

1. Reading difficulty (reading dyslexia)

Reading dyslexia is a learning disability in reading in which the sufferer experiences recognize letter, wrong spelling and grasping meaning of word evensentence (Abdurrahman, 2003: 206). When they are reading, they will see theletters are spread out and its position change then do deletion, addition/insertion, inverted, substitution and mirror imaging.

2. Writing difficulty (writing dyslexia)

Writing dyslexia is a learning disability in writing in which the sufferer experiences difficulty in recognizing letter, copying print words and wrong spelling. When children learn writing, they learn reading and speaking as well (Abdurrahman, 2003:224).According to Lerner (as cited in Abdurrahman, 2003: 153), children with dyslexia or learning disability including (writing dyslexia/writing disorder) have problem in their auditory and visual perception. They are not able to apply elements of auditory and visual perception. If children have auditory impairment, they are difficult to write what their teacher just said (Abdurrahman, 2003: 227).Furthermore, if children have visual impairment, they are difficult to discriminatealphabets with similar form even different form and then they do deletion, addition/insertion, inverted, and mirror imaging.

3. Arithmetic difficulty (arithmetic dyslexia)

Arithmetic dyslexia is a learning disability in arithmetic in which the sufferer experiences difficulty in recognizing symbols and numbers, copying print symbols and numbers, and doing arithmetic operation (addition, multiplication, etc).A child with arithmetic disability/difficulty is considered as dyscalculia. The dyslexic does perseveration and not recognizes symbols or numbers.According to Lerner (as cited in Abdurrahman, 2003: 259), children with arithmetic dyslexia experience visual impairment. This theory is supported by the finding that there is no finding which uses either visual or auditory perception.

Conclusion

Dyslexia is a kind of language disorder which affects academic skills (reading and writing) then becomes learning disability. From the analysis and discussion, it can draw some conclusions related to research problems. Here they are the conclusions. Based on the finding, it is found three types of difficulties which are appropriate with the types of

dyslexia based on the problem. Those are reading, writing, and arithmetic disorder/difficulty. Those are because the character does not use five elements of visual and auditory perception for each basically academic skill. To begin with reading dyslexia (disorder), the dyslexia character, uses three elements of five elements of visual perception; those are spatial relation, visual discrimination, and object recognition; and one element of five elements of auditory perception such as phonological awareness. Different from reading dyslexia, in writing dyslexia (disorder), he uses one element only of five elements of visual perception; it is object recognition; and none of auditory perception. On the other hand, in arithmetic dyslexia (disability), a dyslexic child does not use any of either visual or auditory perception. In addition, there is one element which does not use in any data; it is visual closure. It is because there is no scene in which commands the child to guess words or symbol incompletely visible. According to data and finding, the following suggestions are for parents, teachers and next researchers. To parents are suggested to apply Gillingham and Stillman's theory. To teachers are suggested to apply Gillingham and Stillman's theory as well and use various submedium to attract them in teaching reading, writing and arithmetic.

References

Abdurrahman, Mulyono. 2003. *Pendidikan Bagi Anak Berkesulitan Belajar*. Jakarta: Rineka Cipta.

Allen, Koren. 2010. *What is Expressive Language Disorder?* Retrieved August 7, 2010, from <http://www.wisegeek.com/what-is-expressive-language-disorder.htm>

BetterHealth Channel. 2009. *Expressive Language Disorder*. Retrieved April 12, 2010, from <http://www.betterhealth.vic.gov.au>

BetterHealth Channel. July 30, 2010. *Receptive Language Disorder*. Retrieved August 7, 2010, from http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Receptive_language_disorder

Brain Research Success Stories. 2004. *Dyslexia, Making a Difference Today*. Retrieved April 20, 2010, from http://www.sfn.org/skins/main/brss/brss_dyslexia.pdf

Hudson, R.F., High, L. Al Otaiba, S. 2007. *Dyslexia and the brain: What Does Current Research Tell Us?* Retrieved June 10, 2010, from http://www.1donline.org/article/Dyslexia_and_the_Brain%3A_What_Does_Current_Research_Tell_Us%3F

Indah, R. N. & Abdurrahman. 2008. *Psikolinguistik: Konsep dan Isu Umum*. Malang: UIN-Malang Press.

Letchumy, Vijaya. 2008. Disleksia dalam Konteks Pembelajaran Bahasa di Malaysia. Vol.16, (No.2): 115-139.

Logsdon, Ann. 2010. *Learning Disability: Expressive Language Disorder – Learning Disabilities in Expressive Language*. Retrieved August 7, 2010, from <http://learningdisabilities.about.com/od/learningdisabilitybasics/p/exprlangdisrdr.htm>

Logsdon, Ann. 2010. *Learning Disability: Receptive Language – Disorders of Receptive Language*. Retrieved August 6, 2010, from <http://learningdisabilities.about.com/od/learningdisabilitybasics/p/rsptvlan>
Mississippi Department of Education. 2002. *Mississippi Dyslexia Handbook: Guidelines and Procedures Concerning Dyslexia and Related Disorders*. Retrieved October 19, 2009, from <http://www.mde.k12.ms.us/acad/id/curriculum/02.../dyslexiahandbook.PDF>

Somantri, Sutjihati. T. 2007. *Psikologi Anak Luar Biasa*. Bandung: Refika Aditama.

Wilmshurst, Linda. 2005. *Essential of Child Psychopathology*. United States of America: John Wiley and Sons

Ward, Louise Brazeau. 2005. *DYSLEXIA AND THE UNIVERSITY*. Canada: Canadian Dyslexia Center (CDC) Inc. Retrieved January 13, 2010, from <http://www.dyslexiacenter.ca/English/files/UniversityandDyslexia.pdf>