NEED ANALYSIS OF DYSLEXIA STUDENTS IN ENGLISH READING COMPREHENSION INSTRUCTIONS

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Abstract: The challenges of learning English as a foreign language presented issue for dyslexia students who had deficiencies in reading comprehension involving information processing, concentration, and sensory motor skills. The aims of this research were to describe the dyslexia students' needs in English reading comprehension. The sample consisted of 117 dyslexia students aged 13-16 years old from Karya Murni Special Needs School and Ananda Karsa Mandiri School, North Sumatra, Indonesia. The data were in the form of descriptive qualitative research which was taken from interview, questionnaire, and test. The results of this research proved that English teachers were responsible

for diagnosing dyslexia because dyslexia's biological foundation could affect English reading instruction. A need analysis was conducted for dyslexia students in three different settings, namely necessities, lacks, and wants. English teachers' experiences with dyslexia students and the teaching and learning context of dyslexia students were explored in this research. By establishing necessities, lacks, and wants with needs analysis, English reading teaching materials could be prepared to influence children's early literacy skills by addressing their needs.

Keywords: *need analysis, dyslexia students, English reading comprehension instruction*

INTRODUCTION

English subject has become necessity as the first foreign language in Indonesia. It is a compulsory subject to be taught for three years in Junior High Schools and three years in Senior High School. English also has been taught in Elementary Schools as an elective subject since the implementation of the 1944 Curriculum (Stevani & Ginting, 2022). Furthermore, in the Law of the Republic of Indonesia, article 43 says that the government facilitates Indonesian citizens to acquire foreign languages to improve national competitiveness, but this allowance should be based on government regulation. On the contrary, researches related to learning difficulties like dyslexia and learning English as a foreign language are not much done yet in Indonesia while dyslexia students potentially faced some problems in EFL learning. Indonesia regulates inclusive education in Permendiknas No. 70, 2009 which says: Inclusive education is a system of education that provides opportunities for all learners who have abnormalities and have the potential of intelligence and/or special talents to follow education or learning in an educational environment together with learners in general (Andi & Arafah, 2017).

Learning disabilities and classroom foreign language are a notoriously unpromising combination. Ironically, teacher training in

Indonesia provides future teachers with few theoretical and few practical tools for treating students with different kinds of learning disabilities (O'Malley et al., 2002). Despite this deficiency in training, teachers are expected to teach mixed-ability classrooms and have to meet the school-based standards but inadequate support either in strategy or curriculum and even Indonesian government policy to help specific learning disabilities like dyslexia. Many students with dyslexia do not like school, which is partly evidenced by the fact that students with language disorders continue to experience one of the highest drop-out rates among all students with disabilities (Coskun & Mitrani, 2020).

In Indonesia, 50 million children who had dyslexia. In the formal education process, dyslexia students are mostly found in primary schools, especially in grade 1, 2, and 3. Indonesian psychologist, Irawati Irman added that dyslexia is one form of specific learning difficulty in children, such as difficulty reading, spelling, writing, and counting though. The government should focus more on making policies for dyslexic children, especially when they have to take a national exam (UN). The children needed additional accommodations such as enlarged text and additional text hours (Kompas, 2016).

Dyslexia is defined as having difficulty in identifying speech sounds and learning how speech sounds relate to letters and word relations. Children with learning disabilities may have problems with attention, memory, perception, information processing speed, and problem-solving abilities (Akyel & Ozek, 2010). Students with learning disabilities make up more than 50% of students with special education needs. The most common learning disabilities, dyslexia or special reading disabilities negatively impact students' academic lives as they experience problems at the level of phonological awareness that interferes with reading comprehension, fluency, and completion of reading tasks (Wu, 2012). 20% of dyslexia students also have attention deficits and weakness in motor skills, and 50% have deficits in visual focusing. In particular, time problems and lack of adaptation

related to fine motor skills are closely related to the acquisition of reading skills (Kizilaslan & Tunagur, 2021).

In addition to academic considerations, schools must consider the emotional impact of dyslexia on learning and achievement. There are several problems associated with dyslexia that appear to affect language learning, particularly reading comprehension, according to a preliminary study by Karya Murni Special Needs School and Ananda Karsa Mandiri School in North Sumatra, Indonesia. Children with dyslexia are also afraid to read aloud. Considering their fears, they always try to avoid oral reading. Their oral reading is filled with substitutions, omissions, and mispronunciations. Their oral reading is choppy and labored, not smooth or fluent. Consequently, a listener needs to rely on context to discern the meaning of what is read. The children with dyslexia equally disproportionately perform poorly on multiple-choice tests. They are usually unable to finish tests on time. They have disastrous spelling, with words not resembling true spelling (some spellings may be missed by spell check). They have messy handwriting despite what may be an excellent facility at word processing-nimble fingers (Bishop et al., 2009).

Previous research had been done to examine the condition of dyslexia students. In 2009-2010, only 40% of dyslexia students met the state standard while twenty-eight students did not meet the standard and eight dyslexia students received commended performance (Bajre & Khan, 2019). In Malaysia, most of the treatments were focused on the aspects of language, such as word mastery, alphabet identification, and writing skills. The conclusion was there were yet no studies that have employed the comprehensive method of combining the intervention of cognitive functions and linguistics-literacy deficits for dyslexia students, especially in reading comprehension (Lallier et al., 2013). There has not been any research that would study the effectiveness of the phonics method by learners with dyslexia or other learning differences in teaching English as a second language in the longitudinal research (Lohvansuu et al., 2021). The methods and techniques the Slovak teachers of English to teach

pronunciation were 33% use 'listen and repeat' technique, 28% prefer reading aloud, 18% read poems and songs, and 17% of teachers use visual aids (Lalvani, 2015).

The purpose of needs analysis is not only to recognize learners as language users but also to help them understand language use in the context of both target situations and learning environments. Most importantly, needs analysis helps dyslexia students to maximize language learning and skills in a given target context. This allows teachers and practitioners to shape the curriculum designs based on language course content based on learners' communicative needs, desires, and interests of the learners. Another way to look at the needs of students is to make a major division between present knowledge and required knowledge, and objective needs and subjective needs. Very roughly, Lacks fit into present knowledge, Necessities fit into required knowledge, and Wants fit into subjective needs (Andi & Arafah, 2017).

Needs analysis helps dyslexia students to maximize language learning and skills in a given target context (Wu, 2012). This allows teachers and practitioners to shape the curriculum designs based on language course content based on learners' communicative needs, desires, and interests of the learners (Kalsoom et al., 2020). As a result, the research problem is: What are dyslexia students' needs in English reading comprehension based on English teachers' perspectives in the aspect of teaching method, reading comprehension practice, and dyslexia behavioral in the classroom activities?

METHOD

This study aimed to find out the dyslexia students' need for English reading comprehension. The research design was in the form of descriptive qualitative research and it was part of survey research (Khasawneh, 2021). Descriptive research was to describe and interpret what it was. It was concerned with conditions or relationships that exist; practices that prevail; beliefs, points of view, or attitudes that were held; processes that were going on; or effects that were being felt

(Balido-Dean, 2010). Survey research was a brief interview or discussion with individuals about a specific topic. In one method known as a structured interview, the researcher asked each participant the questions (Hatcher et al., 2004). In the other method known as a questionnaire, the participant filled out the survey on his or her own (Maassen et al., 2022). The development of the survey research was based on the literature on dyslexia (Peltier et al., 2020).

This research was conducted in Karya Murni Special Needs School and Ananda Karsa Mandiri School, North Sumatra, Indonesia which consisted of 117 dyslexia students aged 13-16 years old. They consisted of five classes, where males were 52 dyslexia students and females were 65 dyslexia students.

Dyslexia students received 25 minute individual sessions or 35 minute group sessions to practice reading comprehension. A wide range of tests were administered to the dyslexic students to assess their verbal skills, phonological skills, and narrative structure through reading comprehension practice (Morris et al., 2018). For the first part of the assessment, the writers asked the children to translate an English word into Indonesian, using two or three syllables, based on the sounds they heard in 26 letters of the English alphabet. To name and spell the words, pictures were presented. For the second part of the assessment, dyslexia students were asked to read aloud in order to determine how well they comprehend narrative structure. They were scored according to the number of words they could read aloud. In this research, students with reading difficulties are defined as those who score low on either reading individual words or the sum of their reading passage scores (Severino et al., 2018).

In need analysis, the data were analyzed in the following ways: First, the writers conducted classroom observation by using an open-ended interview with the teacher and the dyslexia students to know both the student's and the school's needs regarding the weakness of dyslexia students and English reading comprehension. The writers conducted survey research by using an observation checklist to find out students' need analysis using an observation

checklist. Second, the writers analyzed data of dyslexia students based on the teachers' interviews, and observation checklist containing some indicators of reading problems as a guideline to identify what kind of need analysis of dyslexia students. Third, the data of the observation checklist were analyzed in the form of descriptions through sentences.

For the purpose of understanding how English teachers describe dyslexia, the writers asked English teachers to provide a short description of what they believed dyslexia to be. According to the statements describing English teachers' needs analysis to adapt teaching materials and evaluate dyslexia students, the statements were based on recommendations from theoretical studies and classroom observations (Andresen & Monsrud, 2022). Moreover, English teachers were asked whether they were confident to help dyslexia students succeed in English reading comprehension. In the light of the theoretical results presented by these studies, it was examined how this theoretical knowledge was used in sample studies (Colenbrander et al., 2018).

FINDINGS
The Need Analysis of Dyslexia Students in Teaching Method

Previous researchers found that teachers who had dyslexia students in their classrooms and the models they used to teach reading had never been examined in a study. A study by (Moats, 2019) found that teachers often misunderstood dyslexia students because they lacked a thorough understanding of dyslexia and its characteristics. Lack of studies about dyslexia made teachers felt unqualified, which negatively affected the performance of such students academically and their attendance at school. Moreover, teachers said they required support when teaching dyslexia students literacy (Schindler & Richter, 2018). Those who were closest to students with reading difficulties, elementary school teachers, could improve instruction and use that knowledge to positively impacted student achievement when they improved instructional practices in

their teaching. Thus, necessities of dyslexia students were described as follows: (1) Using peers as scribes, readers, or models, (2) Summarizing and repeating instructions, (3) Spoke slowly/clearly, (4) Providing immediate feedback, (5) Helped students repeat similar tasks they had completed successfully to ensure they understand that they were responsible for their achievements, (6) Arranging a study group, (7) Providing choices for assignments (e.g. write an essay, design a poster, or demonstrate an interpretative dance based on an English reading textbook), (8) Gave students more time to write examinations, (9) Keep directions short and simple and avoiding unnecessary words, (10) Providing a brief daily review session to reinforce long-term memory, (11) Instructed students to teach the material to someone else as an effective technique for reinforcing information, (12) Gaining students' attention before speaking, (13) Broke assignments into small segments, (14) Monitoring students' grasp of a pencil or a pen, (15) Using a larger font for printed materials, (16) Highlighting or bolding important information for students, (17) Paired students to check directions and instructions, (18) Modeling a think-aloud strategy – read a story to students, pause and predict what the text might be about, and summarize what had been read, (19) Linking reading to prior knowledge, (20) Wrote keywords on the whiteboard or word wall, (21) Provided students with opportunities to copy modeled lowercase letters, (22) Proofreading own and others' writing, (23) Students were taught to use punctuation and to recognize its function, (24) Helped the parents appreciate that they should not feel guilty or blame themselves for difficulties their child was experiencing, (25) Providing information about students' strengths, needs, and priority learning needs to parents, (26) Had a brain gym and facial therapy provided by psychology, (27) Using L1 in the test instruction, (28) Instructed students to paint and made crafts hand-made by using English instruction, (29) Instructed students to make telephone conversation, (30) Instructed students made a telephone conversation, and (31)

When meaning was unclear, the teacher asked the cause and the effect of the word/sentence in an English textbook.

Another study found that dyslexia students had lower intrinsic motivation, a lower perception of academic competence, and more behavioral problems than their peers (Duke et al., 2011). According to the study, participants' age and education level had no impact on their knowledge of dyslexia. A lack of confidence and low self-esteem were also observable in dyslexia students (MacFarlane et al., 2012). Other observable behaviors included forgetfulness, poor numeracy, speech and organization skills, and poor communication skill. A child with dyslexia could display the following characteristics, both in the school setting and at home: difficulty reading common words for his or her age and poor responses to effective sight word instruction. Within educational settings, these characteristics of dyslexia and other reading challenges should be observed so that dyslexia was not fundamentally differentiated from other reading difficulties (Caldani et al., 2020). Therefore, lacks of dyslexia students were described as follows: (1) Self-centered, (2) Lack of eye contact, (3) Being frightened of strangers, (4) Fidgeted and at a loss when their names were called by the teacher, (5) Seldom spoke to others, (6) Less concentration and appear to be forgetful or careless, (7) Had relatively weak self-control, (8) Had relatively weak muscle tone and had poor movement coordination between eyes and hands, (9) Found it difficult to learn new physical activities or ball games, (10) Wrote slowly and often could not keep their writing on the lines, (11) Be clumsy in using a pencil, a pen, or a spoon, (12) Chewing the ends of pens or pencils when thinking, (13) Had difficulty understanding long and complex sentences or oral instructions, (13) Be unable to understand a film or video, (14) Usually gave short and simple responses, (15) Mispronounced words, (16) Difficulty with abstract math, (17) Did not have self-confidence, (18) Had difficulty telling the time, (19) Had difficulty recognizing consonant letters in the English reading textbook, (20) Had vision problems, (21) Unable to separate right and left, (22) Unable to make tables in their notebooks, (23) Unable to distinguish loud and weak voices, (24) Made mistakes when taking

down a telephone message, (25) Got confused when given several instructions at once, (26) Had negative emotions on self-image, (27) Had unstable emotions, and (28) Anti-social behavior.

In modern education, teachers had an essential role in the development of literacy and the teaching of students with dyslexia, since recognizing and supporting students early increased the chances of their success. The teacher's ability to identify and meet the students' specific needs, especially those related to reading, was crucial to successful teaching of dyslexia students (Moslemi et al., 2011). Students with dyslexia should be given specific guidance, extended and effective test time, and constructive and positive feedback when selecting individualized teaching methods for them. It was important to consider each child's specifics, his or her age, and the subject or content being taught when choosing individualized teaching methods (Ainin, 2019). Another research showed that the teacher's attitudes toward inclusive education were influenced by knowledge gained through their initial training and professional development (Syakur et al., 2020). Therefore, wants of dyslexia students were described as follows: (1) Providing one-to-one instruction, (2) Allowing the tasks for different interests, (3) Standing close to the students, (4) Emphasizing reading routines, (5) Providing extra tutors in the classroom, (6) Encouraging students to generate ideas and say what they wanted to say, (7) Using checklists or rubrics before attending the lesson, (8) Involved students in developing assessment criteria and evaluation weighing, (9) Providing time for students to write what they were thinking at this time, (10) Reinforcing students to make positive statements, (11) Providing students with a homework log and/or calendar that fitted in the binder and teaching students how to use it, (12) Using a classroom calendar and reminding students of due dates, (13) Taught students organizational skills, (14) Allowing open book examinations, (15) Taught students to summarize while they read, (16) Taught to share time and daily news, (17) Setting goals for each student, (18) Using discussion formats rather than lectures, (19) Assisting students to

interpret social cues such as facial expressions and tones of voice, and (20) Giving praise or rewarding the students when they did good work.

The Need Analysis of Dyslexia Students in Reading Comprehension

Reading ability played a significant role in processing information. Students with difficulty mastering reading skills would experience more difficulties processing information (Stevani & Ginting, 2022). Having a clear understanding of the correspondence between letters in printed words and phonemes in spoken words was critical for dyslexia students (Rosales, 2020). Another study strongly supported the theory that early reading development was highly dependent on phonological skills and knowledge of letter sounds. Thus, our findings had direct implications for English reading guidance for dyslexia students. In early stages of learning to read, children should be taught phonemic skills and letter-sound knowledge directly as two of the factors contributing to their development of reading skills (Geraldine et al., 2020). Therefore, necessities of dyslexia students were described as follows: (1) Looked up the unknown words, (2) Taking notes when they were reading, (3) Taught how to arrange good answers and their functions in English sentences by using jumbled words, (4) Gave exercise of English articles, (5) Gave exercise of blending words based on the text, (6) Gave exercises of grammatical endings, such as -s, -ed, -ing, (7) Segmenting complex sentences into small segments, (8) Gave exercise of singular and plural words, (9) Gave exercise of the use of the preposition, (10) Gave exercise of possessive, (11) Gave exercise of apostrophe, and (12) Learnt to tell time on a clock.

Many expert definitions of dyslexia emphasized the same important feature, that was the primary symptom of dyslexia was low reading skills, resulting in low academic fulfillment. Ignorance of teachers' understanding of dyslexia, made dyslexia children who had low academic fulfillment sometimes labeled naughty or lazy (Polat et

al., 2012). Whereas low learning achievement was caused by low reading skills in a dyslexia student not caused by laziness, however due to the fact that there was a disorder of the neurology system withinside the brain. In addition, students with dyslexia had a disability that affected reading accuracy and reading fluency because of deficiencies in phonological processing. This phonological deficit prevented dyslexia students from doing more intensive language processing, which made it impossible for the reader to make sense of the text (Oviedo & Gonzalez, 2013). Another study found that even when early diagnosis was delayed, the most severe barriers to reading could be improved in elementary school with intensive instruction and students could move forward to their academic success. When students with dyslexia were provided with authoritative reading instruction, the impact of the disorder could be lessened and could help students to overcome and manage the most difficult challenges in the classroom (Rosales, 2020). Therefore, lacks of dyslexia students were described as follows: (1) Difficulty to get contextual clues, (2) Unfamiliar with vocabulary, (3) Difficulty following the direction in the text, (4) Decoding individual words slow down, (5) Difficulty to relate the picture and the text because of vision problems, (6) Difficulty to read line by line in good order because of vision problems, (7) Difficulty arranging the answers of reading in good order, (8) The tendency to skip over small words (a, an, the) while reading, (9) Difficulty segmenting and blending individual letter sounds and syllables, (10) Difficulty with sound/symbol correspondence, (11) Significant difficulty reading and spelling multisyllabic words, (11) Confusion with letters that look alike (e.g. b/d, p, w/m, h/n, f/t), (12) Reduced awareness of prefix, roots, suffixes, (13) Reading and spelling errors that indicate different meanings or no meaning at all, (14) The omission of grammatical endings when reading and writing (e.g. -s, -ed, -ing), (15) They did not recognize the tenses used in English text, (16) They often confused when encountering a complex sentence containing a dependent clause 'that', (17) Avoid the similarity of two words (e.g. hat and bat),

(18) Misinterpreted verb as an adjective, (19) Avoid grammatical rules in English, especially in question form (e.g. does he vs do he?), (20) Difficulty differentiating singular and plural word, (21) Incorrect use of prepositions when answering reading questions, (22) Difficulty finding the main idea in the text when reading text required an answer with multiple choices, (23) Had slowed down to find what, when, why, where, how questions, (24) Could not answer which paragraph when reading questions involved specific questions, (25) Incorrect use of an apostrophe, (26) Could not differentiate the use of possessive pronoun and possessive determiner in a text, and (27) Deletion of the indefinite articles, such as a, the, an.

Many teachers did not know how to teach reading and how to support students with reading difficulties because dyslexia was a developmental disorder that developed during reading due to dysfunction in the cognitive processing in the brain (Dong et al., 2020). The main symptom of dyslexia generally appeared when students entered primary school because, at primary school age, students began to learn to read early. It had been reported that when teachers were instructed to use a particular reading method to teach reading, dyslexia students could always be at risk of reading failures (Zolgar-Jerkovic et al., 2018). It should be noted that it was important in teaching reading to determine what reading method students need and how long and under what circumstances they were interested in reading comprehension (Chen et al., 2016). Therefore, wants of dyslexia students were described as follows: (1) Learned English text in English as Specific Purposes, (2) Learnt English text through communicative teaching, (3) Guiding them while they were reading, (4) Helping them to find the unknown words in the dictionary, (5) Learned English text as a story, (6) The text should contain a moral lesson as their motivation, and (7) There was brainstorming in an English reading text as an introduction, (8) The teacher allowed the learner to answer orally and inserting new types of exercises when reading comprehension tests, (9) The teacher using L1 in test instruction, (10) The teacher underlined keywords in reading

comprehension tests, (11) The teacher reduced the length of reading comprehension texts, (12) The teacher used paper dictionaries, and (13) The teacher taught test taking strategies, such as focus/concentration, explanation/repetition, preparation/simulation, and keywords, (14) The teacher used explicit instruction of hand movement and explicit instruction of mouth movements when teaching a foreign language to dyslexia students, (15) The teacher always slowing down the teaching pace and stimulating motivation when teaching a foreign language to dyslexia students, and (16) Dyslexia students had difficulty organizing their time.

The Need Analysis of Dyslexia Students based on Teacher's Interview

The results of teachers' interview of personal information, such as physical, emotional, and social aspect of the dyslexia students were described as follows:

> *My experience about children with dyslexia in reading had different thoughts from normal students. Sometimes they were quiet and had a difficulty communicating. They were daydreaming a lot. There were times when their concentrations in learning were also often disturbed, their willingness to tell a story was also lacking. If he or she did not pay attention, we must often call his or her name. Students also had limitations in their senses.*

Based on physical aspect, the dyslexia students had difficulty with their eyes, ears, and mouth regarding brain damage (Cahyono & Widiati, 2011). Based on emotions aspect, the dyslexia students had difficulty communicating with people around them and also daydreaming when a process of teaching and learning was conducted. Their responses to teachers' questions were slow because their concentration was always distracted (Agrawal et al., 2019; Hulme et al., 2012).

> *Students were not confident and there were some students who were aggressive too, so they had to be isolated. But for this year, both autistic and dyslexia students were mild to moderate in behavior.*

Based on the social aspect, some of the dyslexia students were aggressive and had to be isolated and they were shy to talk to normal people. Students with dyslexia had low self-development and have disparate views regarding demotivation and depression, as well as low educational attainment. The students were forced to work and pay attention and in a way he had pushed aside due to his ability to learn (Li et al., 2022).

> *Dyslexia students could not use visuals, especially images. Therefore, the teacher took the initiative to explain the picture to students. Students used Braille which had been edited by their class teacher. It was due to the fact that some of the students still had weaknesses in realizing English pronunciation, especially when they were spelling the words.*

Based on learning styles, the dyslexia students could not describe the picture in the textbook into words, so they always were given some instructions by their teachers to imagine the picture on their mind by using their own words. The comprehension of spoken language often caused difficulties in reading comprehension (Lohvansuu et al., 2021).

> *Reading texts that they used was only to get information, so they ignored the use of correct sentences and correct punctuation. Most of the students were very weak in grammar and had difficulty remembering vocabulary if it was not repeated at any time Students also often read aloud because of hearing loss. Teachers practiced more often and explained reading to students' everyday life.*

Based on their perception of reading comprehension, they only used English reading text to get information. They were prone to avoid the use of sentences and correct punctuation so that they focused on the most important information in the text (Alloway & Alloway, 2010). Furthermore, training in phonological skills and alphabetical literacy improved reading ability, reinforcing the claim that phonological skills were causally related to reading development (Anis et al., 2018).

> *Teachers usually directed dyslexia students answered the questions in the reading text by giving keywords and giving additional time to read the text 3 times due to interference with the visual.*

Based on reading comprehension testing, the teacher usually gave keywords to students, such as an important vocabulary or an important phrase as a clue to answer reading comprehension questions. The teacher usually gave students additional time to read the text until they got the information based on the text (Shanahan et al., 2006).

Based on the data interpretation, need analysis in reading comprehension for dyslexia was hoped to be useful to improve the proficiency or linguistic competence of dyslexia students and to serve as a model to what should be done to build better teaching and learning curriculum enhancement and evaluation. It was important to identify students' necessities, lacks, and wants to investigate how learners perceived English as a target language (Kundi & Alharbi, 2022). Effective teachers could analyze early detection of dyslexia students' difficulties and their instruction needs to be clear, focused, and direct.

DISCUSSION

As could be seen in results, the characteristics of dyslexia students in physical, emotional, and social had some negative impacts in linguistics-literacy in the first language and foreign language as shown in the need of dyslexia students in English reading comprehension. This result correlated with (Kundi & Alharbi, 2022) research that unlike the first language, which was mostly acquired through natural immersion, foreign languages were learned in a formal setting designed by language specialists (teachers) using a variety of methodologies, teaching materials, and strategies. Therefore, one could not assume that students with learning differences struggle in English foreign language only because of their intrinsic limitations. A learning difference was one variable that interacts with other variables connected with the learning

environment (methodology, strategies, materials, classroom climate, and so on). Although the learning difference was not caused by the environment, the environment still played a key role in creating or removing barriers to learning. Pupils with learning disabilities like dyslexia students needed appropriate instruction for creating a nurturing environment where all dyslexia students felt respected, valued, and supported academically, emotionally, and socially (Anis et al., 2018).

Based on the data interpretation, because reading was a complex process, there was no one strategy or one solution to help every struggling reader as could be seen in the descriptions of the characteristics of learning styles of dyslexia students and English reading comprehension tests. There was a relationship between learning styles and reading comprehension tests for dyslexia students that were more focused on individual ability which must be supported by the classroom atmosphere. If teachers had an insight into their students' learning styles, they would have a better understanding of each dyslexia students' needs and could modify and could adapt English materials from the lowest degree until the highest degree without having a negative effect on dyslexia students' English reading comprehension in the classroom activities. The need analysis of dyslexia students in reading comprehension materials could be a guide for teachers to identify potential difficulties with English material and if it was necessary, it could adapt existing materials and would produce their materials.

Need analysis in reading comprehension for dyslexia was hoped to be useful to improve the proficiency or linguistic competence of dyslexia students and to serve as a model to what should be done to build better teaching and learning curriculum enhancement and evaluation. It was important to identify students' necessities, lacks, and wants to investigate how learners perceived English as a target language. Effective teachers could analyze early detection of dyslexia students' difficulties and their instruction needs to be clear, focused, and direct. There were some reasons why the

dyslexia students had a difficulty in learning English as a foreign language, especially in English reading comprehension, such as: (1) neurological disorder, (2) malnutrition during pregnancy, (3) inherit genetic, (4) the hearing loss and vision problems, (5) their consciousnesses about everything around them could be lead to weaknesses in concentration, (6) auto-immune condition, (7) the dyslexia students relied on the teacher or parents to regulate their studying, (8) the dyslexia students' social dimensions, such as introvert personality made them difficult to use words in their native language so that it made a negative impact for their foreign language, such as English when they were trying to translate the words, (9) low self-esteem, (10) some of the dyslexia students did not live in a supportive environment, so that they developed behavior problems, and (11) they had a little motivation to correct their mistake.

There were some factors why dyslexia students had difficulty in reading comprehension, such as (1) there was little opportunity to practice English. Reading habit was not something automatically built in the students themselves, (2) they were not familiar with reading different kinds of texts so that reading sessions could be seen as a stressful moment in classroom activities, (3) the dyslexia students relied on much for abstract concepts so that they had a difficulty to express themselves in English words. It claimed that it had an effect to answer English reading comprehension test, (4) the dyslexia students had language anxiety so that they felt it was not safe to use a foreign language, made mistakes, and expressed their opinions, (5) some of English reading comprehension questions were not straightforward, such as the use of How questions and multiple-choice, so that the dyslexia students misunderstood the questions, (6) finding time to had a regular one-to-one discussion between the teacher and the dyslexia student was difficult, (7) the dyslexia students had a hard time to pronounce the words.

The contribution of this research was described as follows: (1) it was expected that teacher should give more motivation and reading comprehension strategies for dyslexia students to build reading

comprehension behavior due to their weaknesses in reading comprehension, (2) the English teacher should provide some practical training to train children with special needs regarding enriching the theories and practice of English reading comprehension. This would equip with skills to diagnose, assist, and support learners with dyslexia, (3) All the results could be contributed as a guideline for government in making curriculum for inclusivity, (4) It was needed that individual profiles and learning programs were essential parts to achieve learning target and avoid reading problems in the classroom, (5) The teacher must make the reports of the students' progress in class, including the students' response to any modifications in instructions, (6) Schools should employ systematic programs that address phonemic awareness and phonics to help dyslexia students, (7) Government should provide required enabling facilities, tools, and resources to ensure that proper assessment and assistance was made available to dyslexia students as the need was exist. For example, the government could provide English coursebooks including CDs with the texts read on CDs.

CONCLUSION

This research objective concerned with the areas where the dyslexia students encountered the most difficulty in reading comprehension in English as a foreign language. It was important to note that every teacher should equip himself or herself with accurate knowledge and a positive perception of dyslexia in order to meet the needs of dyslexic students. The knowledge and perception of dyslexia were the sources of teachers' abilities to teach students with dyslexia.

In order to improve the future results of foreign language instruction to dyslexia students, further measures should be taken to increase teachers understanding of the effects of foreign language learning and the cognitive and linguistic impairments connected to the dyslexia students. Thus, it was important to acknowledge the limitation of the present study. It would also be interesting to establish which foreign language was more appropriate for learning

by dyslexia students, whether the choice of foreign language was depended on the characteristics of the foreign language or those of the first language of the dyslexia students. Future dyslexia research should include large-scale regional and international studies of countries that were providing services and adopting inclusive policies for students with dyslexia. Such findings widely disseminated and interpreted could inform policy and practice in underdeveloped countries. In addition, policymakers, researchers, and educators would benefit from greater collaboration and guidance from international organizations on how to best meet the needs of students with dyslexia.

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