

## Reading Error Mechanisms of Levinson Dyslexia Theory: A Perspective in Malaysia

Vijayaletchumy Subramaniam, Kavenia Kunasegran

Department of Malay Language, Faculty of Modern Languages and Communication,  
Universiti Putra Malaysia  
Email: profvijaya.upm@gmail.com

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### Abstract

It is known that children diagnosed with dyslexia have difficulties in language learning, especially where reading and writing is concerned. Dyslexics find it difficult to discriminate letters visually and auditorily. This study is done to examine the reading errors in Malay language among dyslexic students. The study sample comprises of 10 dyslexic students chosen from Ampang dyslexia centre of Malaysia Dyslexia Association. This study leans on the Levinson Theory (1993) that focuses on seven types of reading error mechanisms, namely removal, transfer, insertion, replacement, reversal, condensation, addition or wild guesses. The study data was compiled through observations and testing. Researcher used reading texts in Malay language according to the suitability of the learning level as the study tool in examining the reading errors of dyslexic students. The study outcome proves that dyslexic students have shown some difficulties in several reading aspects, which are removal, reversal, replacement, insertion and wild guesses. All these five types of reading errors have been found to support the Dyslexic Levinson Theory (1993) and the outcome also shows several reading errors done by the dyslexic students are beyond the expectation and findings of the theory. Derived from this study, further researches can be focused on the interventions and learning techniques that are suitable to the level of learning of dyslexic students.

**Keywords:** Reading Aspects, Malay Language, Dyslexia, Levinson Theory

### Background

In the Malay language reading aspects, the letter-sound knowledge has proven to become a great indicator for the evaluation of students' reading and spelling abilities. The knowledge of letters contributes to the decoding skills in children's language learning from the aspect of phonemic awareness. The knowledge of letters and sounds is an important basic pre-requirement for children to master their reading. In the education scope, children with special needs are portrayed as extraordinary, compared to the normal ones. They include children with dyslexia, which is a specific learning issue (Lyon, et. al., 2003). This learning disorder encompasses dyslexia, dysgraphia and dyscalculia. Dyslexia is the most common learning disorder among children in Malaysia as compared to issues like dysgraphia and dyscalculia

(Special Education Department, 2018). Dyslexic children have to confront various challenges and obstacles in their learning process. In general, learning problems are associated with neurology development that influences an individual's ability to process, store and reproduce information (Ugwu, 2015). Thus, the learning disorder gives an impact to the dyslexic children's cognitive process.

The International Dyslexia Association, or commonly known as IDA estimated that almost 15-20% of the world population experience at least one or more symptoms of dyslexia. Specific learning issues have existed for a long time. However, the awareness and acknowledgment given to dyslexia learning issues as imposing a great influence in our education system recently have been spread to the public (Adubasim & Nganji, 2017). There are many differences in the learning process experienced by dyslexic children. Snowling (2000) defines dyslexia as a learning difficulty in the acquisition and processing of language manifested by the lack of efficacy in the processes of reading, spelling and writing. This indicates that dyslexic children will have a problem carrying out tasks if it involves any of the three aspects, reading, spelling and writing. In brief, dyslexic children have to be adapted to a learning method that might differ across every individual learner, due to the fact that the dyslexic children have different learning levels.

Ikediashi (2012) takes the view that dyslexia is a disturbance that is related to the reading, writing and spelling process. This definition categorizes dyslexia not only as a problem that influences the ability to read, listen and write but also a distinct learning issue, in terms of the operation and coherence domains in reading disorder. The definition of dyslexia put forth by IDA has been more widely received and acknowledged as IDA is a well-established professional research body in the field of dyslexia. According to IDA, dyslexia is a specific learning issue that has a link with neurological traits (2007). IDA gives proof that there is a significant difference in the brain structure among dyslexic children compared to their normal counterparts. Dyslexia may be caused by slow brain development or lacking in the language phonology domain. Meanwhile, a dyslexic individual's cognitive capability can also be linked with this shortcoming.

### **Problem Statement**

Dyslexic children demonstrate reading problems in their learning process (International Dyslexia Association, 2020). In general, reading skills are integral and have become the mainstay in the process of learning. Children diagnosed with dyslexia will tend to face difficulty in language, especially where reading is concerned. This is due to the fact that they are challenged when discriminating letters visually and auditorily. The confusion over letters is caused by the dominant use of the right side of the brain (Davis, 1994). They have a problem in identifying and discriminating letters.

The most significant issue in the reading aspect of dyslexic students is the ability in identifying letters and matching the letters with the corresponding sounds (Amirin, 2020). Thus, this situation has left a gap for the researcher to pay attention to the reading aspects of dyslexic students. One's language mastery depends on their understanding of phonemic, phonetic and phonology. If this issue is not addressed, dyslexic students will not be able to match the letters with their right sounds. Not only that, this obstacle will lead to less than satisfactory

vocabulary mastery. Thus, the dyslexic children's language ability will not be at par with that of their normal peers.

Previous works have proven that there are several dominant determinants in dyslexic students' reading issues, such as the work conducted by (Lee and Wheldall, 2011; Lee, 2008; Goulandris, 2006). Lee (2008) is of the opinion that reading, spelling and decoding are able to measure dyslexia literacy difficulty. According to Goulandris (2006), the letter-sound understanding has been proven to be a very good major indicator in evaluating reading achievement. The study done by Lee and Wheldall (2011) highlights the fact that dyslexic students do not have sufficient knowledge and ability in segmenting letters and sounds. Apart from that, Kavenia & Vijayaletchumy (2021) produced a similar study to Wheldall (2011); Lee (2008) showing that dyslexic students will demonstrate ongoing reading problems if they are not curbed early on. Kavenia & Vijayaletchumy (2021) even offered their recommendation that various interesting learning activities should be introduced so that students can read and achieve early literacy.

The problem raised is strengthened through a pilot study conducted in Dyslexia Center, Ampang (Amirin, 2020). The pilot study involved 15 dyslexic students who had been diagnosed clinically. From the total of 15 dyslexic students, 12 of them had problems in identifying the letters correctly. Researcher had tested their letter discrimination by using a checklist containing 8 letters that were to be matched with some pictures. The finding reveals that 80% of the students have a problem in the aspect of letter discrimination which is a significant skill in mastering reading. This is a gap that needs to be addressed by the researcher as the focus is on the reading problem faced by dyslexic students based on Levinson Theory (1993) in Malay Language reading aspects. The study by Busri & Mohammad (2021) is found to be similar with the current study, where dyslexic students are found to have problems in Malay Language reading aspects. This is very important in student learning because they require basic reading to ensure that their learning progresses well and smoothly. The study by Busri & Mohammad (2021) even finds that the learning process would not take place very well as students would be confused when they were asked to read. The study outcome establishes that the mastery of symbols, counseling orientation and reading practice needs to be done so that students can enjoy reading the material or text. Nor & Baharudin (2021) agree with the view raised by Busri & Mohammad (2021) and add that students need to be given the chance in a variety of ways. Sometimes, a proposed activity would not be suitable for some dyslexic students' learning level, so teachers need to play their role in reformulating the activity so that it is more effective and students can understand the lesson.

Stemming from the dyslexic-based literature that has been discussed, it is worth noting that the learning issue for dyslexic students, needs to be reviewed meticulously. The studies have exposed a gap on the reading issues among dyslexic students. Additionally, in Malaysia, about 500,000 children suffered from dyslexia in 2020 and there is a possibility that the number is increasing. Through the data, it is found that the studies might still be considered scarce. More studies are necessary so that this issue can be resolved. Thus, this current work is set to identify and discuss the reading error mechanism among dyslexic students. From the weakness shown by past studies, researcher will analyse the reading errors of dyslexic

students according to their learning ability or level, which is beginner, intermediate and advanced, following (Levinson Theory, 1993).

### Methodology

Researcher has adapted the qualitative research design in collecting and analysing the study data. The qualitative design is more appropriate to be used to enable the subject to be observed (Creswell, 2014). This study leans on Levinson Theory (1993) in examining the reading errors among dyslexic students. Citing Levinson (1993), there are seven types of reading error mechanisms among dyslexic students, namely removal, transfer, insertion, replacement, reversal, condensation, addition or wild guesses. In this study, the sample comprises of 10 dyslexic students that have been diagnosed with dyslexia after undergoing a specialist's diagnostic test at the Dyslexia Center Malaysia. Researcher selected this 10 dyslexic students at random from the study location. All the subjects selected represented three learning levels, namely beginner, intermediate dan advanced. Researcher conducted the study at Ampang dyslexia centre of Malaysia Dyslexia Association. In the period of study, researcher did an observation in the classroom to examine the reading errors made by dyslexic students. The errors were measured based on the reading text used by the teacher at the school. The data obtained was analysed descriptively to identify the reading errors among dyslexic students based on (Levinson Theory, 1993).

### Finding and Discussion

#### *Reading Error Based on Levinson Theory (1993)*

According to Levinson (1993), there are seven types of reading error mechanisms among dyslexic students, namely removal, transfer, insertion, replacement, reversal, condensation, addition or wild guesses. This study examines the reading errors made by dyslexic students according to their level of learning, which is beginner, intermediate and advance following the Levinson Theory (1994).

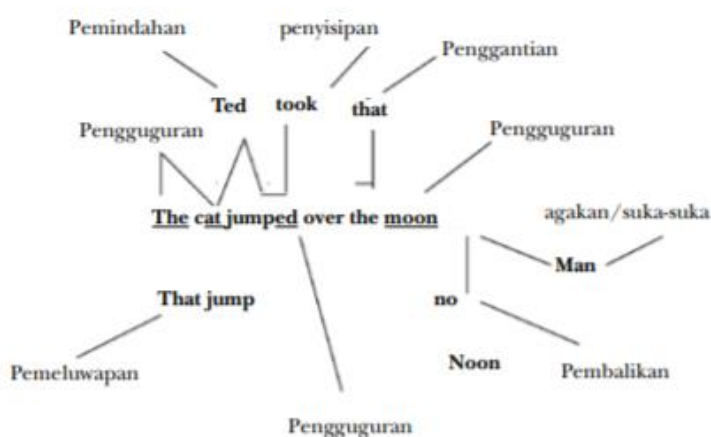


Diagram 1: Levinson Theory Conceptual Framework (1993) in Malaysia (Vijayaletchumy Subramaniam, 2003)

#### **Learning Level: Beginner (i).**

The study subjects in this Beginner Level have made more reading errors of removal dan reversal types, as put forth in (Levinson Theory, 1994).

Table 1

*Type of Reading Error (Removal)*

Type of Reading Error	Subject:	Word	Error
Removal	S1	kera	kea
	S2/4	ini	ni
	S3/5	saya	say
	S4	tebu	tbu
	S5	madu	mad

- S1: Ini kera. (*original*)  
Ini kea. (*error*)
- S2/4: Ini kera (*original*)  
Ni kea. (*error*)
- S3/5: Ini kera saya. (*original*)  
Ini kera say. (*error*)
- S4: Saya beri kera tebu. (*original*)  
Saya beri kera tbu. (*error*)
- S5: Saya beri kera tebu madu. (*original*)  
Saya beri kera tebu mad. (*error*)

Levinson Theory (1993) divides the removal-type reading error to two aspects, which is letter removal and word removal in the sentence. Nonetheless, in this study, the subject only made letter-removal reading error. The outcome establishes that most of the removal errors come from the problem of identifying and combining letters with the sounds.

Based on the sentences given, there are several reading errors of removal type done by the subject of study. As shown in Table 1, S1 read <kera> as <kea>. S1 dropped the letter /r/ when reading the word *kera*. S2 and S4 made the same error when reading the word <ini> as <ni>. S2 and S4 did not pronounce the sound /i/ at the beginning. Based on the third sentence in the text, S3 and S5 had dropped the letter /a/ in the word <saya>. S4 read <tebu> as <tbu>. S4 dropped the letter /e/ when reading the word *tebu* in the sentence. S5 did not pronounce the sound /u/ at the end of the word <madu>. Based on the sixth sentence in the text, S5 had dropped the letter /u/.

Based the researcher's observation, the subjects face a difficulty in combining the sound and the letter pronounced. This challenge has become the main factor why dyslexic students removed the letter in the words they read. The combination of the letter and the sound is the basic skill in reading. Reading error of removal-type is a significant error among beginners.

Table 2

*Type of reading error (Reversal)*

Type of Reading Error	Subject:	Word	Error
Reversal	S1	ini	iui
	S2	bela	bale
	S3	bela	dela
	S4	beri	deri
	S5	tebu	bute
	S6	madu	mabu
	S7	madu	mapu
	S9	madu	wadu

- S1: Ini kera. (*original*)  
lui kera. (*error*)
- S2: Saya bela kera. (*original*)  
Saya bale kera. (*error*)
- S3: Saya bela kera. (*original*)  
Saya dela kera. (*error*)
- S4: Saya beri kera tebu. (*original*)  
Saya deri kera tebu. (*error*)
- S5: Saya beri kera tebu. (*original*)  
Saya beri kera bute. (*error*)
- S6: Saya beri kera tebu madu. (*original*)  
Saya beri kera tebu mabu. (*error*)
- S7: Saya beri kera tebu madu. (*original*)  
Saya beri kera tebu mapu. (*error*)
- S7: Saya beri kera tebu madu. (*original*)  
Saya beri kera tebu wadu. (*error*)

Echoing this removal-type reading error, Levinson Theory (1993) divided the reversal type of reading error into two aspects, namely letter reversal and syllables reversal in sentences. In the context of this study, the outcome points to the fact that the dyslexic students had made removal error in both aspects, namely letter reversal and syllables reversal in the sentences. Based on Table 2, there are several reversal-type reading errors made by the subject. S1 had read <ini> as <iui>. S1 had reversed the letter /n/ to become /u/ when reading the word. Meanwhile in the syllables reversal-type reading error, S2 read the word <bela> as <bale>. S2 had reversed the arrangement of the syllables in the word <bela>. S3 had read <bela> as <dela>, when S3 made the error in terms of the letter reversal /b/ to /d/. The same error was made by S4 which is reversing from the letter /b/ to /d/ for the word <beri>. Based on the fifth sentence in the reading text given, S5 had reversed the syllable <tebu> to become <bute> when reading the word. S6 and S7 had made the error when they reversed the letter /d/ to the letter /b/ and /p/ for the word <madu>. S8 then made the error of reversing the letter /m/ to /w/ for the same word as S6 and S7.

Based on past studies concerning reading issues, letter reversal is a significant issue among dyslexic students. The studies done by Wan Muna Ruzanna Wan Mohammad, Vijayaletchumy Subramaniam, Adi Yasran Abdul Aziz and Abdul Rahim (2011) examined reading error and writing, especially in terms of the spelling error in the writing. The outcome finds that dyslexic students have a difficulty to identify the phoneme and exchange of letter in the spelling process. The outcome also highlights that students often make letter errors like 'b d', 'u-n', 'm-w', 'g-q', 'p-q', and 'b-p'. Similar to the study, the study done by Siti Wan Aminah Wan and Suria Baba (2018) aimed to identify the difficulty faced by dyslexic children in their reading. The outcome shows that all the subject have reading difficulties in terms of the letter reversal, inaccurately naming the letters and not pronouncing the spelling correctly. Based on subjects' reading ability, researcher concludes that explicit grapheme-phoneme knowledge and syllables segmentation are very important in mastering language.

TEXT
<p><u>Kera</u></p> <p>Kera. Ini kera. Ini kera saya. Saya bela kera. Saya beri kera tebu. Saya beri kera tebu madu.</p>

Diagram 2: Text For Beginner Level

**Learning Level: Intermediate (ii).**

The study subjects in this Intermediate Level have made more reading errors of replacement and removal types.

Table 3

*Type of reading error (Replacement)*

Type of Reading Error	Subject:	Word	Error
Replacement	S1	sekolah	sakolah
	S2	rendah	randah
	S3	baru	bara
	S4/S8/S9	dicat	dikat
	S5	warna	warni
	S6	tepi	tipi
	S7	cantik	kantik
	S8	bersih	birsih
	S9	selesa	salesa
	S10	belajar	bilijar

S1: Ini sekolah. (*original*)

Ini sakolah. (*error*)

S2: Ini sekolah rendah. (*original*)

Ini sekolah randah. (*error*)

- S3: Ini sekolah rendah baru. (*original*)  
Ini sekolah rendah bara. (*error*)
- S4: Sekolah baru dicat warna oren. (*original*)  
Sekolah baru dikat warna oren. (*error*)
- S5: Sekolah baru dicat warna oren. (*original*)  
Sekolah baru dicat warni oren. (*error*)
- S6: Sekolah baru ini di tepi pawagam. (*original*)  
Sekolah baru ini di tipi pawagam. (*error*)
- S7: Sekolah baru ini bersih dan cantik. (*original*)  
Sekolah baru ini bersih dan kantik. (*error*)
- S8: Sekolah baru ini bersih dan cantik. (*original*)  
Sekolah baru ini birsih dan cantik. (*error*)
- S9: Pelajar sekolah selesa belajar. (*original*)  
Pelajar sekolah salesa belajar. (*error*)
- S10: Pelajar sekolah selesa belajar. (*original*)  
Pelajar sekolah selesa bilijar. (*error*)

Based on Table 3, there are several replacement-type reading errors made by the subjects. Subjects replaced the letter with a different vowel or consonant. S1 had replaced the vowel /e/ to /a/ in the word <sekolah>. The vowels were also replaced by S2 and S3 for the words <rendah> and <baru>. S2 had read <rendah> as <randah> while S3 read the word <baru> as <bara>. Next, S4 had replaced the consonant /c/ to /k/ in the word <dicat>. Additionally, two other subjects, namely S8 dan S9 had made the same reading error when replacing the consonant in their reading. S5 had read <warna> as <warni> whereas S6 read <tepi> as <tipi>. Both subjects had replaced the vowels /a/ and /e/ to the vowel /i/ when reading the word. S7 had replaced the consonant /c/ to /k/ in the word <cantik>. The last three subjects, namely S8, S9 dan S10 had made a reading error when they wrongly replaced the vowel. S8 had read <bersih> as <birsih> and S9 read <selesa> as <salesa>. S10 had replaced the vowels /e/ and /a/ to become /i/ in the word <belajar> that was read as <bilijar>.

The issue of replacement in this reading aspect happens as the researcher finds that dyslexic students were not able to discriminate the letter and the sound phonologically. In the aspect of the language phonology, the study carried out by Kamal (2020) identifies the phonological error especially phonemes and syllables in English. The outcome exposes that dyslexic students made errors in phonemes, syllables and words from phonology processing like missing the phonemes, separating the syllables and reading non-words. However, the study outcome does not focus on the issue of replacement in dyslexic students' reading. The error made by the subject in separating and combining the phonemes and syllables is proven as a phonological issue in language, and the replacement issue is also an error that can affect students' reading skills. To add, dyslexic students have weak phonological awareness or phonological processing ability (Jimenez et al., 2010). In their perceptions and cognitive, especially related to ortographic reading and processing, this skill can influence the language learning of the dyslexic students.



Table 4

## Type of Reading error (Removal)

Type of Reading Error	Subject:	Word	Error
Removal	S1	sekolah	selah
	S2/S4	ini	ni
	S3	rendah	redah
	S4	oren	ren
	S5	di tepi	tepi
	S6	cantik	canti
	S7	selesa	sesa

- S1: Sekolah. (*original*)  
Selah. (*error*)
- S2: Ini sekolah. (*original*)  
Ni sekolah. (*error*)
- S3: Ini sekolah rendah. (*original*)  
Ini sekolah redah. (*error*)
- S4: Sekolah baru dicat warna oren. (*original*)  
Sekolah baru dicat warna ren. (*error*)
- S5: Sekolah baru ini di tepi pawagam. (*original*)  
Sekolah baru ini di tepi pawagam. (*error*)
- S6: Sekolah baru ini bersih dan cantik. (*original*)  
Sekolah baru ini bersih dan canti. (*error*)
- S7: Pelajar sekolah selesa belajar. (*original*)  
Pelajar sekolah sesa belajar. (*error*)

In line with the subjects in the Beginners' Learning Level, this removal error also occurred in the Intermediate Level. Based on Levinson Theory (1993), the removal error is divided into two aspects which is letter removal and word removal in the sentences. As it is with the beginners, they had made the error in terms of letter removal only. However, the outcome shows that the intermediate students had made both errors, letter removal and word removal in the sentences.

Based on the sentences given, there were several removal errors made by the subjects. S1 had read <sekolah> as <selah>. S1 had removed the syllable /ko/ when reading the word. S2 and S4 made the same error when reading this word <ini> as <ni>. S2 and S4 did not pronounce the sound /i/ at the beginning. Based on the third sentence in the text, S3 dropped the letter /n/ in the word <rendah>. S4 had read <oren> as <ren>. Based on the observation, one dyslexic student had read the word <di tepi> as <tepi>. S5 had dropped the word when reading the sentence in full. S6 had removed or dropped the letter /k/ when reading the word <cantik> in the sentences. In syllable reading, S7 did not pronounce the syllable /le/ in the word <selesa>. Based on the eighth sentence in the text provided, S7 had dropped the syllable /le/.

Researcher finds that the outcome has gone beyond the expectation of the Levinson Theory (1993) whereby it is stated that there are only two types of removal errors, namely letter removal and word removal in the sentences. Levinson Theory has not detailed the syllable removal in the words read. That said, this study has shown that dyslexic students, namely S1 and S7 had dropped syllables in their reading. This can be classified as a probability and it cannot represent the population of dyslexic students but researcher has found that this error can also be made by dyslexic students in their reading.

In going through the syllable knowledge of dyslexic students, the study done by Lee and Wheldall (2011) examines the knowledge of syllables and phoneme combination in the vocabulary acquisition. The finding shows that both syllables and phonemes have not fully been mastered by the dyslexic students. Even so, both aspects are important to be mastered in vocabulary acquisition or language learning. Researcher has also proven that reading errors have been made abundantly by the dyslexic children as they do not have sufficient knowledge and ability in letter and sound segmentation. In the context of this study, Lee and Wheldall (2011) support the issue raised in this current work. However, it has been observed that the subjects have specific issues in reading such as letter, syllable and word removal. As far as the spelling skills are concerned, students need to master the sound and letter. The knowledge about the connection between the sound and letter necessitates phonology learning in language (Jamieson & Simpson, 2006).

TEXT
<p><u>Sekolah saya</u></p> <p>Sekolah.  Ini sekolah.  Ini sekolah rendah.  Ini sekolah rendah baru.  Sekolah baru dicat warna oren.  Sekolah baru ini di tepi pawagam.  Sekolah baru ini bersih dan cantik.  Pelajar sekolah selesa belajar.</p>

Diagram 3: Text For Intermediate Level

### Learning Level: Advanced (iii)

The outcome establishes that the subjects in the Advanced Level made insertion errors and wild guesses. At this level, the subject no longer made the reversal and removal errors in their reading.

Table 5

*Type of Reading error (Insertion)*

Type of Reading Error	Subject:	Word	Error
Insertion	S1	pulang	pula-lang
	S2	kampung	kama-pung
	S3/S4	melawat	mela-lawat
	S4	tidak	tia-dak
	S5	bunga	bung-ga

- S1: Pada cuti sekolah yang lepas, Fatimah pulang ke kampung ibu dan ayahnya. (*original*)  
 Pada cuti sekolah yang lepas, Fatimah pula-lang ke kampung ibu dan ayahnya. (*error*)
- S2: Pada cuti sekolah yang lepas, Fatimah pulang ke kampung ibu dan ayahnya. (*original*)  
 Pada cuti sekolah yang lepas, Fatimah pulang ke kama-pung ibu dan ayahnya. (*error*)
- S3: Mereka ingin melawat datuk dan nenek di kampung. (*original*)  
 Mereka ingin mela-lawat datuk dan nenek di kampung. (*error*)
- S4: Fatimah memakai baju lengan panjang supaya tidak digigit oleh nyamuk. (*original*)  
 Fatimah memakai baju lengan panjang supaya tia-dak digigit oleh nyamuk. (*error*)
- S5: Ada bunga ros, bunga matahari, bunga kemboja, bunga kenanga, bunga orkid dan lain-lain. (*original*)  
 Ada bung-ga ros, bung-ga matahari, bung-ga kemboja, bung-ga kenanga, bung-ga orkid dan lain-lain. (*error*)

Based on Table 5, there were some insertion errors made by the subjects of the study. The errors were glaring when the subjects had inserted some non-existent vowels or consonants in the word. S1 had inserted the vowel /a/ for the <pulang> and it became <pula-lang>. the same error was made by S2 and S3 for words <kampung> and <melawat>. S2 read <kampung> as <kama-pung> while S3 read the word <melawat> as <mela-lawat>. Next, S4 had inserted the vowel /a/ after the vowel /i/ making it combined in the word <tidak>. S5 had inserted the consonant /g/ in the word <bunga>. S5 had read <bunga> as <bung-ga> by repeating the sound /g/ when reading the word.

In the reading aspect, dyslexic students have to deal with some challenges as the ability to store and process sounds of utterances is associated with the reading of letters and the learning of phonemes. If the dyslexic students cannot master letter and phoneme systems, it would be difficult to pin down, or acquire and adapt to, the sounds of utterances in reading (Brady dan Shankweiler, 1991). The testament to this statement is seen in the reading errors made by the subjects. Dyslexic students who have yet to master the letter and sound systems lack the skills in spelling and reading.

Table 6

*Type of Reading error (Wild guesses)*

Type of Reading Error	Subject:	Word	Error
Wild guesses	S1	dan	di
	S2	setelah	kete
	S3	yang	sayang
	S4	memakai	memakan
	S5	lengan	dengan

- S1: Pada cuti sekolah yang lepas, Fatimah pulang ke kampung ibu dan ayahnya. (*original*)  
 Pada cuti sekolah yang lepas, Fatimah pulang ke kampung ibu di ayahnya. (*error*)
- S2: Setelah tiba, nenek membawa Fatimah ke kebun bunganya yang terletak di tepi rumah. (*original*)  
 Kete tiba, nenek membawa Fatimah ke kebun bunganya yang terletak di tepi rumah. (*error*)
- S3: Setelah tiba, nenek membawa Fatimah ke kebun bunganya yang terletak di tepi rumah. (*original*)  
 Setelah tiba, nenek membawa Fatimah ke kebun bunganya sayang terletak di tepi rumah. (*error*)
- S4: Fatimah memakai baju lengan panjang supaya tidak digigit oleh nyamuk. (*original*)  
 Fatimah memakan baju lengan panjang supaya tidak digigit oleh nyamuk. (*error*)
- S5: Fatimah memakai baju lengan panjang supaya tidak digigit oleh nyamuk. (*original*)  
 Fatimah memakai baju dengan panjang supaya tidak digigit oleh nyamuk. (*error*)

Based on Table 6, there are several reading errors based on wild guesses made by the subjects of this study. S1 had read the word <dan> as <di>. S2 came up with <setelah> as <kete> while S3 produced the word <sayang> instead of <yang>. As was S3, S4 had also blindly read the word <memakai> as <memakan>. S5 read <lengan> as <dengan> as that was the word he recognised.

Upon observation, dyslexic students had made these wild guesses as they did not give focus to the text when they were reading. They did not demonstrate any confidence in their reading. Previous studies have shown that dyslexic students have problems in their concentration and retaining their long-term memory. They struggle to remember the arrangement of the letters, numbers, sequences, to name but a few. In terms of reading, the study done by Walda, van Weerdenburg, van der Ven & Bosman (2021) looks into the role of attention span in the reading of dyslexic children. The study reveals that their concentration has affected their reading skills. This is supported by our observation in the class, where students were not able to read the sentences in full without having to stop or losing focus.

**TEXT**Kampung Halaman

Pada cuti sekolah yang lepas, Fatimah pulang ke kampung ibu dan ayahnya. Mereka ingin melawat datuk dan nenek di kampung. Setelah tiba, nenek membawa Fatimah ke kebun bunganya yang terletak di tepi rumah. Fatimah memakai baju lengan panjang supaya tidak digigit oleh nyamuk. Ada bunga ros, bunga matahari, bunga kemboja, bunga kenanga, bunga orkid dan lain-lain.

Diagram 4: Text For Advanced Level

**Discussion**

From the study done, researchers have established several findings that have not met the expectation of the (Levinson Theory, 1993). It is found that dyslexic students have not made the error “condensation” as mentioned in (Levinson Theory, 1993). It is noted that this type of error does not occur in Malay Language reading. Nonetheless, there were some errors and reading issues that were quite shocking to proponents of the (Levinson Theory, 1993). Some include the fact that dyslexic students often spell phonetically when reading. They will pronounce every letter in separation before combining the sound in the syllable. This was often demonstrated by the subjects and this difficulty further slowed down their reading process.

As another case, dyslexic students always skip the words when reading any given text. If the text happens to contain too many words in the sentences, they will skip some words. This is consistent with the study conducted by Kavenia & Subramaniam (2018); Mohammad *et. al* (2011) who have studied reading errors among dyslexic students in Malaysia. The study finds that dyslexic students have shown some reading errors such as skipping the words, not following the sequences of the words, repeating them and so on.

The influence of the English phonics has also played a part in affecting the dyslexic students’ reading skills in Malay Language. They are often confused with the pronunciation of the English phonics which is definitely very different from those in Malay Language. For instance, the Intermediate students had read the word <dicat> as <dikat>. This is undoubtedly influenced by the English phonics. At the time of writing, there has yet to be a study in Malaysia that examines the influence of foreign language phonics in the reading of Malay Language among dyslexic students.

**Conclusion**

All in all, the subjects from the three learning levels have shown reading errors of various types- removal, reversal, replacement, insertion and wild guesses. These five types of reading errors have supported Dyslexia Levinson Theory (1993) while the findings have also proven that some of the students’ reading errors have not met the theory’s expectation. Some include the fact that the condensation error does not exist in Malay Language reading, dyslexic students often skip the words when reading the sentences and the influence of English phonics that differ from the Malay ones. Also, the findings raises the awareness of dyslexia teachers that an effective intervention needs to be adopted in ensuring that the dyslexic students are able to master basic reading aspects. Thus, more detailed research in

this field is needed to develop a platform that can strengthen the language domain and the reading of dyslexic students.

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