

A CASE STUDY OF USING IQRA' MULTI-SENSORY LEARNING MODEL TO ENHANCE EFL LETTER RECOGNITION AMONG GRADE 5 DYSLEXIA STUDENTS IN THE SOUTHERN BORDER PROVINCES OF THAILAND

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ABSTRACT

This study aims at investigating the use of IQRA' Multi-sensory Learning Model for dyslexia students to enhance EFL letter recognition and examining the student's view towards IQRA' Multi-sensory Learning Model. The study was conducted to help weak academic English learners in grade 5, who have been encountered with learning difficulty called dyslexia. To help them doing better in recognition the letter, IQRA' Multi-sensory Learning Model was applied during 6 weeks where students were taught how to code the English alphabets' sound through various Multi-sensory Learning activities and practicing reading from IQRA mini textbook. The data obtained were analysed both descriptive statistics and inferential statistics. The result revealed that the dyslexia students' mean score of post-tests was significantly different from their pre-tests illustrating a better performance of coding the sound and letter recognition after the use of IQRA' Multi-sensory Learning Model. Moreover, they also expressed positive perspective towards learning through IQRA' Multi-sensory Learning Model. Therefore, IQRA' Multi-sensory Learning Model is an effective teaching and learning model for enhancing the struggling readers especially students with dyslexia

Keywords: dyslexia, letter recognition, IQRA multi-sensory learning model

1.0 INTRODUCTION

Language plays a crucial role in human life as it is a tool for human to know each other, "And of His signs is the creation of the heavens and the earth and the diversity of your languages and your colours. Indeed in that are signs for those of knowledge" (30:22). Language is a magic bridge where humans can express their thoughts to others. It is a human nature's characteristic that is used to show their feelings and ideas [1]. Therefore, it can be defined as a formulation of concept that provides the possibility for humans to learn all conceptions of their thoughts through the method of symbolism [2], and "Language is primarily an auditory system of symbols" [3]. English is one of the widely used languages in communication

among people worldwide. Hence, learning English language has become the fundamental subject for every country including Thailand where it has been taught as a foreign language subject in both public and private schools at all

levels. Therefore, many Thai learners may master the English language at a young age. Mastering the language skills is a blessing. However, struggling one of those skills is a pain especially for disabled learners called Dyslexia who are suffering from reading and language-based processing skills. As such condition, it leads them to have less confidence and they might live their life uncomfortably. As a result, this study tended to help those struggling readers having a better coding skills through the use of IQRA' Multisensory Learning Model (IMLM) which is a blended teaching method of integrating Multisensory Learning Activities in teaching reading via phonics instruction by localizing the Qiraa-a-tee learning styles called IQRA mini-textbook, which student can practice reading English alphabets the same way as they first learn to recite their holy book- AL-Quran.

The study proposed one of the effective instructional methods to language teachers in order to aid the dyslexia student in EFL letter recognition. The keys theories leaded this study were integrated with Multi-sensory Learning Approach, Bottom-Up, Automaticity and the Law of Practice theory. Each theory provides evidences to support the use of IQRA' Multisensory Learning Model to enhance EFL letter recognition among Dyslexia students. Multi-sensory Learning approach provides the learners to have the merit of learning alphabetic pattern and words with engagement of all learning modalities [4] as children need to use many sensory modalities to explore their environment. Thus it is based on the idea that many students learn best when material is presented in several different modalities. Hence, children can be encouraged to move around, touch, smell and taste objects. It has been found that the more senses involved in investigating an object; the more likely they are to develop ways to remember the objects or recall their experiences [5]. In the meanwhile, EFL learners required to build automaticity in bottom-up skills such as phonics to decode and spell the words. One of the well-known techniques for successful EFL literacy instruction is to provide explicit instruction in phonics. Learning to have the ability of matching letters and sounds helps children automatically develop their EFL letter recognition and spelling patterns. [6].According to [7] , the bottom-up theory begins with the understanding of the code. [8] concluded that the bottom-up theory describes reading as a skill in which learners learn to read in a step-by-step way. This approach utilizes a Building-block approach starting with the foundation of phonics and phonemic awareness. The theory suggests that students must first learn the smallest unit in order to fully understand the more complex components, such as comprehension and inferences. Using the bottom-up theory helps enhancing the EFL letter recognition because of its sequential approach. This theory recognizes reading as the development process for the EFL dyslexia students which is best learned in a way that starts with a foundation and builds with complexity.

Another learning theory is law of exercise proposed by Thorndike. As Thorndike's theory represents the original S-R framework of behavioural psychology; learning is the result of associations forming between stimulus and the corresponding responses. Such associations or "habits" become strengthened or weakened by the nature and frequency of the

S-R pairings. The paradigm for S-R theory was trial and error learning in which certain responses come to dominate others due to rewards. One of the key features of this theory is repetition. The repeat of stimulation and the corresponding responses leads behavioural change. Thus IQRA' Multi-sensory Learning Model involved learners to be familiar with the law of practice theory. It sustains the exercise or the frequently practice of the appropriate response contributes to strengthen the connection between the stimulus and the corresponding response. These theories support students to have consistent practice through using IQRA' mini-text book which was designed to engage students in repeated reading the alphabet principle such a fundamental of language. Therefore, students read and repeat a text aloud from two to four times for each letter to reach a predetermined level of speed, accuracy, and recognition. As a result, this current study aims to investigate the effectiveness of IQRA' Multi-sensory Learning Model for dyslexia students based on the following research questions: (1.) is there a mean score significant difference between pre-test and post-test scores after implementing IQRA' Multi-sensory Learning Model, and (2.) what is the students' perspective towards Multi-sensory Learning Model.

1.1 Definition of dyslexia

The BDA has adopted the state that dyslexia is a learning difficulty that mainly affects the skills involved in accurate and fluent word reading and spelling [9]. Dyslexia people are difficulties in phonological awareness, oral memory and spoken processing speed. Dyslexia happens across the range of intellectual abilities. According to the [10] adds further clarity with its widely accepted and often adopted definition of dyslexia that is a specific learning disability that is neurological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. Besides that, consequence may include problems in reading comprehension and reduced reading experience that can impede the growth of vocabulary and background knowledge. In conclusion, dyslexia is the state of learning disabilities and facing difficulties in literacy skill. People who have dyslexia may encounter a problem in recognition the word and decoding capability. They also experience short term memory, sequencing and poor spelling.

1.2 Letter recognition

Letter Recognition is learner's competency in memorize the alphabet both lowercase and uppercase which is also known as Alphabet Recognition. It is a basic part of learning reading where the student should focus on the letter sound and memorizing their sound. They must be able to identify, classify comparable looking letters, and name each letter in the alphabet in order to make meaningful associations between letter symbols and their corresponding sound representations [11]. Many educators have long supported the technique of teaching reading with letter recognition as for the beginning readers' knowledge of the alphabet is affected a strong predictor of later reading success. Children who lack reading in early age will continue to fall behind their classmates. This is because children who can read will incline to read more, but children who struggle with reading tend to read less, and their reading skills are at a very low improvement [12] [13].

1.3 IQRA' Multi-sensory Learning Model

It is teaching and learning model designed specially for special need students especially students with dyslexia. This model included teaching activity called Multi-sensory Learning Activities (MLA) and IQRA Mini-Textbook

1.3.1 Multisensory Learning Activities (MLA)

Reference [14] stated that multi-sensory instruction which is based on the Orton Gillingham approach is a way of teaching that engages more than one sense at a time. The learners are required to use sight, hearing, movement, and touch. It gives kids more than one way to connect with what they are learning. This approach enhances their memory in language learning of dyslexia students because it emphasizes visual, auditory and kinaesthetic learning styles which stimulate the brain to receive the information in multiple ways [4]. For example, when reading, the student will trace the letter as they see it and say the name of the letter and sound it out.

1.3.2 IQRA Mini-Textbook

IQRA' means read which is an Arabic word. This study had provided a new method which was adapted from Reading Arabic alphabet under the name of IQRA' which is repeated reading that was produced from Indonesia. The researcher tried to adapt IQRA' from Arabic version to English version. Repetition is a teaching methodology that allows students to read and repeat reading a letter both aloud and silently to reach a predetermined level of speed, accuracy, and comprehension. Repeated reading was proposed in the writings of [15] and [16] in the late 1970s. It was found that engaging kids in repeated reading texts aloud greatly improved learners' reading ability. By time, these approaches were beneficial [17], as [18] stated that students learn to read faster, more accurately and they gain more challenging text through repeated reading. Additionally, [19] found that RR (repeated reading) strategies were able to improve students' fluency, reading rate score, and sense of confidence. In the same time, the study conducted by [20] had illustrated the positive effects of repeated reading on students with reading difficulties, especially at the elementary level as [21] provided positive findings which support primary teachers to implement repeated reading to increase reading accuracy, fluency, and comprehension of their pupils. Hence, IQRA' model as repeated reading supports the learning of English by creating confident readers who enjoy reading. It also provides multiple practice opportunities for a higher success rate in reading as readers are exposed to a bank of quickly identified words and this repeated language exposure will result in high reading performance.

2.0 METHODOLOGY

This action research was conducted on six dyslexia students who were selected by purposive sampling with one group pre-test and post-test design. The IQRA' multi-sensory teaching plan was implemented for 5 periods a week, a total of 30 periods. It introduced the sounds of

Aa to Zz by using IQRA' mini textbook and multi-sensory learning activities in teaching and learning. Then the pre-test and the post-test were given to students before and after the implementation of multi-sensory learning model in learning letters recognition. The test consisted of questions that assessed the participants' ability to recognize EFL letters (phonemic awareness: alphabet recognition; letter identification; sounds identifying and letter formation). In the same time the observation was taken place during the implementation and questionnaire was given to the students after the post-test in order to examine students' perspectives on using IQRA' Multi-sensory Learning Model in learning letter recognition.

3.0 RESULTS AND DISCUSSION

IQRA' MLA model has improved a group of six dyslexia students in letter recognition. There was a significant difference in the students' mean scores of pre-tests ($M=10.17$, $SD=4.070$) and the post-test ($M=16.83$, $SD=2.401$) conditions; $t(5) = -7.255$, $p = .007$. Based on the mean and the direction of the T-value, it can be concluded that there was a statistically significant improvement after the implementation of IQRA' MLA model. In the previous exposure to IQRA' MLA, one student out of a total of six scored the lowest, with a mark of 4. After implementing IQRA's multi-sensory learning activity, the students' scores improved. Two students received the highest score of 19 points, while the others received 18, 17, 15, and 13 marks in order. After six weeks of the implementation of IQRA' MLA in learning the English alphabet, students demonstrated an improvement. The students' numerical outcomes have improved as a result of the change. It indicated that the student's recognition of the letters had improved. There was a statistically significant difference between the pre-test and post-test. The result from this study reflected that four weeks of IQRA' MLA implementation positively improves students' letter recognition; treatment has affected students' letter recognition. Additionally, the questionnaire shows students' positive perspective on learning English alphabet using IQRA' MLA model as they expressed the enjoyment and happiness when studying. Moreover, they express that IQRA' MLA model also enhances their recognition of English letters better. Most of the students said that they prefer studying the letter through IQRA' MLA because various activities help them to remember the letter longer. Furthermore, this tool enables students to repeatedly pronounce the letter many times till they reach the level self-satisfaction. Besides that, IQRA' MLA is well-suit with the dyslexia students in helping them to stay concentrate on the lesson and the activity also attract their learning attention. As a result, it can conclude that IQRA' MLA model is effective in developing letter recognition skills in six dyslexic students

The result of the study indicated the improvement of students' performance after using IQRA' MLA Model. The average of students' score in the pre-test was only 10.17 while the percentage of students who master letter recognition was 16.7%. It showed that students' pronunciation was at the low level since most of them could not reach the standard minimum

score. However, the average of students' score was increased significantly, that was 16.83. The increment between pre-test and post-test was 6.6. It can be seen that IQRA' MLA model appeared to have a significant impact and it is strong empirical evidence suggesting that multi-sensory contribute to the development of letter recognition toward dyslexia students who were received IQRA' MLA consistently. A teacher needs some alternative techniques or methods to create a supportive environment in the teaching and learning process. Students will be more motivated to learn if the teacher invites them to a pleasant or joyful learning atmosphere. According to the results of the questionnaire, students prefer learning through IQRA' MLA model since it enhances their desire in learning English letters, as well as making them joyful and having fun while learning, and increasing their confidence. The combination of letter and activity repeated in cycle that involves students to use their senses helps low-achieving children exercise and recall more easily since their senses are engaged while learning. The IQRA' MLA model efficiently assisted learners in improving their reading skills, which contributed to a large share of the students' aggressive attitudes. Following that, students' academic performance improved and their motivation increased as a result of the intervention IQRA' MLA model had been implemented. It gives a great pleasure as a teacher to know that our students appreciate the activities done in the class, thus it ensures the effectiveness of teaching has occurred and encourages teachers to have a better future lesson design. When English sounds and letters are integrated with multi-sensory learning activities, this will advocate learning the phonemic awareness and alphabet recognition. It increases the student's long-term memory. By the use of repeated reading from IQRA mini-textbook, it provides students the chance to review the letter more often. This learning style helps students to identify what kind of learning suits them and promote a new way to get the information for long-term memory. Plus, teachers will be able to serve the need of students according to their learning styles. Many pieces of studies have been developed in using multi-sensory learning activity. The study by [22] mentioned that multi-sensory teaching techniques can motivate learners as it encourages and engages students to use many senses during their learning process. [23] studied the use of the multi-sensory instruction and teachers' perceptions concerning this method via observation and interviews. Teachers reviewed that students with disabilities got a positive benefit from the multi-sensory approach as they get more engagement and progression with the lessons. [13] examined the effectiveness of a Multi-sensory phonics program in improving letter recognition for preschool dyslexic children, integrating with several instructional methods. It was found that this suggested Multi-sensory learning approach program was effective in improving preschool dyslexic children's letter recognition. Another research was held by [4] which determined the effect of Multi-sensory Structure EFL Program on Developing Dyslexia Primary Pupils' Phonological awareness and spelling. The result stated that students in the experimental group performed better than the ones in a control group. In conclusion, employing the multi-sensory approach in the learning and teaching of dyslexics would enable

them to develop their reading and writing skills since it is a combination use of visual, auditory, tactile and kinaesthetic learning styles to activate different areas of the brain in an individualized manner.

4.0 CONCLUSION

The conclusion could be drawn from the fact that learning the English alphabet through IQRA'MLA model supports students' attitudes toward learning English with resulting in better numerical outcomes. Data obtained showed that IQRA'MLA model helps students to learn English alphabets faster and effectively as it attracts students' interest in learning and they become motivated and enjoy the activity. Dyslexia students are able to build bottom-up skills such as phonics to decode and spell automatically, thus students can become a good coder. This study confirms what has been demonstrated by others that using Multisensory learning activity is an effective means of developing EFL letter recognition skills of preschool dyslexia children [13]. The process to promote the learning of English also seems to work assertively in situations where students were aware of what their needs might be and how to cope with their struggles. Furthermore, implementing the IQRA' MLA in learning the English alphabet as the foundation of learning English is the greatest method that can enhance the student in recognizing the EFL Letter. Hence, this method also helps the student extend their blending skills to blend the sound for the next level.

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