

# THE USE OF MULTISENSORY TECHNIQUE IN THE TEACHING OPEN SYLLABLES READING SKILL FOR PRESCHOOLERS FROM A TEACHER'S PERSPECTIVE

Nurul Nabila Amirah Rostan<sup>1</sup>, Hazhari Ismail<sup>2\*</sup>, Anis Norma Mohamad Jaafar<sup>3</sup>

<sup>1</sup>Pusat Anak Genius Negara (PAGN) Air Panas, Setapak, 53200 Kuala Lumpur, Malaysia

<sup>1,2,3</sup>Department of Early Childhood Education, Faculty of Human Development, Sultan Idris Education University, 35900 Tanjong Malim, Perak, Malaysia

mairamea@gmail.com<sup>1</sup>, hazhari@fpm.upsi.edu.my<sup>2</sup>, anisnorma@fpm.upsi.edu.my<sup>3</sup>

\* Corresponding Author

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## ABSTRACT

The ability to read is important for an individual as it is related to language proficiency. Therefore, language proficiency among children is the foundation of cognitive development which involves the process of knowledge acquisition through reading activities. Various ways and methods can be applied in order to improve children's reading skills. This is to ensure that they are not experiencing any problems during a learning session. This study aims to identify the teacher's perspective towards the use of multisensory technique in a teaching lesson for 6-year-old preschoolers on reading open syllables. By using a qualitative approach, two teachers from a private preschool in Shah Alam, Selangor are chosen to participate in a semi-structured interview. Both teachers are experienced in the field of Malay literacy, specifically in reading methods. The study has found that teachers used multisensory technique in reading lessons on how to read open syllables. It produced a positive effect towards the development of children's reading skills. However, multisensory technique must be strengthened by using the proper material that is suitable for children to ensure its effectiveness.

**Keywords:** multisensory technique, reading skills, open syllables, preschoolers

## INTRODUCTION

Preschool education is an initial experience that is vital in the world of education. An effective lesson, and school experience that is fun and meaning, can provide students with skills, self-confidence, and positive attitude for the next stage of learning. Early Childhood Education in Malaysia refers to the programmes that are prepared for children since they were born until the age of eight. This also includes children at the nursery or kindergarten, preschool or primary school. Such programmes are conducted by numerous educational institutions that may vary in nature (Kassim & Abdul Jalal, 2015).

Multisensory method is a teaching approach and simultaneous learning that utilises the application of visual, auditory, kinesthetics, and tactile. This method is able to assist children who are facing difficulty in mastering their reading skills by emphasising on secondary senses which act as a medium of collecting information from environmental stimuli. Furthermore, multisensory literacy approach is a learning process that utilises visual, auditory, kinesthetics and tactile sensory to improve memory and ease the process of learning. The level of understanding acquired by the children are higher if more senses are

used during their learning process. Multisensory is also defined as a combination of information that is acquired through various sensory modalities (Dostie et al., 2015).

Reading skills allow an individual and the society to thrive regardless of the location. Preschoolers who are proficient in reading tend to showcase excellent academic results from primary school until secondary school. Reading must be included as a routine and practiced by every human being. This is because the success of a race or nation is determined by the culture of reading (Ismail, 2019). A nation is successful when its citizens are thriving with the culture of reading. An excellent mastery in the field of reading can further develop one's ability to discover endless knowledge that knows no boundary (Mohamad, 2014). There are many preschoolers who are still not able to proficiently read words, struggling in reading, and being left behind in terms of reading proficiency due to their inability to read at all (Mohamad, 2014). It shows that children with low level of proficiency in reading must not be taken lightly and serious attention needs to be provided by all teachers.

Teachers who still use conventional methods, such as teacher-oriented approach, as part of their teaching process is one of the factors why the main goal of national preschool curriculum is not accomplished successfully. According to Abdullah et al. (2014), this method results in one-way interaction where the teachers are dominant and in control of the whole learning activity. On the contrary, the students are not actively involved and only listened passively. Children who are passive during teaching and learning process are the product of teacher-oriented approach as a teaching method. However, past studies have shown that teachers are still turning their attention to using conventional teaching methods (Mahzan, 2013), while Abdul Rahim (1998) in Zakaria (2015) stated that the failure of teachers in using a suitable approach during lessons is the reason why students lose interest, bored, and sleepy.

## Multisensory Technique

Tarakci (2016) stated that humans have seven types of senses. The first five senses are auditory, visual, olfactory, gustatory, tactile followed by vestibular and proprioceptive. Auditory is the sense of hearing while visual is the most important sense as it involves vision. Auditory is used for listening to sounds, tones, or sound clarity through the ears. Furthermore, visual is used to identify colours, lights, shapes, patterns, or movement of objects using eyesight. Tactile involves the sense of touch to identify temperature, pressure, texture or shape through the skin. Gustatory is the sense of taste by using the tongue to detect saltiness, sourness, sweetness, and savouriness (Macpherson, 2011). In addition, olfactory involves the sense of smell to identify odours that can be found in the surroundings (Macpherson, 2011). Next, vestibular is the sensitivity towards movement and balanced motor skills. Proprioceptive is defined as the awareness of the level of energy needed in order to move the body during body positioning.

This sense also helps in the process of curving, bending, and straightening muscles to ensure smooth movement (Tarakci, 2016; Macpherson, 2011). Aja et al. (2017) defined multisensory as an approach that involves various senses which are selected as best as possible in order to provide a suitable learning experience. This is to ensure that the objectives of teaching and learning are achieved. Huda (2015) stated that visual, auditory, and kinesthetics learning (VAK) involve numerous senses such as eyesight/vision, hearing, and

movement. This model aims to combine three components to broaden the skills of students in their learning. Ghaedi and Jam (2014) mentioned that the VAK model is based on the use of eyesight/vision, hearing, and touch. This model establishes itself as the overall styles of learning for students so that it can be applied in every learning activity.

The differences that can be found between these four concepts are derived from Cibrian et al. (2016), whereby the concept of multisensory is leaning more towards the simultaneous stimulation of senses and able to increase body awareness, self-expression, as well as helping to develop social skills of children. This is not mentioned by other concepts of multisensory including Setyawati (2017) as she has settled for certain differences regarding the relationship between multisensory technique, as well as various learning styles and children's level of intelligence which may vary. The work also emphasised on one of the techniques of multisensory known as Fernald Method in order to uncover children's reading skills.

## Reading Skills

Experts in the field of education opined that reading skills can be defined as the ability to understand what is being read, ability to collect information, and learning skills. In this context of study, the reading skills that would like to be investigated on are the ability to read open syllables. Reading is one of the skills that children need to master and also prioritised by National Preschool Standard Curriculum (2017 Review) in the aspect of communication. The ability to read open syllables is one of the branches of reading skills (Mohd Sainan et al. 2020). Children must be able to master syllables that end with a vowel. Syllables are a basic component in the formation of sound for certain languages. Open syllables are formed by having a consonant followed by a vowel. Syllables are formed only when the sound of vowels is present since sound of consonants alone is not enough to create a syllable. On the other hand, open syllables are syllables that end with a vowel.

The concept of reading skills has a few similarities as stated in the studies conducted by Elias and Sulaiman (2016) whereby they all mentioned about the process involving mind and cognitive in generating knowledge when children are reading. The similarities that exist between studies conducted by Tarasat and Daud (2014) involves teaching and learning methods of reading whereby they both mentioned that traditional techniques in teaching reading are gradually becoming ineffective. However, there is a distinct difference by Mwome (2017) in comparison to the other concepts of reading skills. Mwome (2017) touched on how gender influence reading skills. Female children are found to be more actively involved in reading activities compared to male children. He also emphasised that reading skills must be prioritised for six-year-old children so that they are not left behind once they enter school. At the age of six, children are supposed to be at the stage of mechanical reading such as being able to recognise alphabets/letters, and pronounce letters/alphabets, syllables, words, phrases, and simple sentences. Children must also be able to analyse and synthesise open and closed syllables in order to form certain words.

## Theory of Language Development

According to Jean Piaget, the ability to converse comes naturally, but it must be stimulated by the surrounding. Piaget's theory focuses on the cognitive development of children's methods of learning whereby they learn how to gain self-knowledge through active discovery of their surroundings. This cognitive development is divided into four stages, namely sensorimotor, preoperational, concrete operational, and formal operational stage. Six-year-old kindergarten children are on the pre-operational stage. Ranging between two to seven years old, children start utilising language to state something and possess a high level of creativity. Hence, they need a conducive and effective learning environment specifically for language activities (Nachiappan, 2017). Children's experiences have a significant impact on their development and knowledge. Jean Piaget stated that the learning and thinking process of children are represented as the interaction among themselves and their surroundings. He believed that children learn effectively when they do something on their own while being supported by their teacher, and having a stimulative learning environment (Gordon & Browne, 2017). Children progress in four stages which are sensorimotor, preoperational, concrete operational, and formal operational stage. Children require experiences that are suitable for the real world, direct touch, and fun discoveries that utilise various materials (Vardanyan et al., 2018).

## The Study on Multisensory Technique

A study conducted by Ruhaena (2015) presented a multisensory model that was designed in order to increase preschoolers' interest in literacy and improve parents' mastery in stimulating their children's interest. This study was conducted as a result of parents lacking the necessary skills in choosing and conducting literacy activities that are suitable for their children's needs. The data regarding children's needs and parents' problems were acquired from feedback forms/questionnaires and focus group discussion. The feedback forms/questionnaires were filled out by 75 mothers whose children are between 3-5 years old in Surakarta. Afterwards, 26 of them attended the focus group discussion. The data acquired showed that difficulties in early development of children's literacy are real. Most of the children were not interested in doing literacy exercises and the parents tried unsuccessfully to attract their children's attention and interest.

Jasmine and Connolly (2015) analysed the effectiveness of multisensory activities towards spelling proficiency among second grade students at a school located in the suburb using quasi-experiment. Six different multisensory activities were conducted for six weeks as part of the methodology. Some of the multisensory activities used were *textured writing*, *wiki sticks*, *shape writing*, *whisper phone*, *skywriting*, and *human typewriter*. The data were analysed through evaluation of pros and cons, observation, and questionnaire. This research showed that the spelling accuracy of the children who were involved with the multisensory activities increased drastically. The data collected from the questionnaire also showed that repetition of multisensory exercises was extremely useful. The repetition helped the children in memorising words that they spelled to stay with them for a long time.

Based on the study by Sari Rakhmawati et al. (2018), the authors concluded that there were significant changes by group who utilised multisensory technique in pronouncing consonants and vowels whereby the minimum result for the pre-test increased from 35.34 to



41.58. In the aspect of recognising alphabets/letters, the result also increased from 42.97 to 50.63. This proves that multisensory technique has a positive effect towards four to five years old children as they were able to utilise their senses while using multisensory technique through reading applications and writing on flour. This study is also similar with the ones written by Nainggolan et al. (2017) and Sari Rakhmawati et al. (2018) whereby they mentioned about the effectiveness of multisensory in learning that utilises visual, auditory, kinesthetics, and tactile, or commonly known as VAKT. However, these studies differ in terms of the objectives. For instance, Nainggolan et al. (2017) investigated on the effectiveness of VAKT towards reading skills. On the other hand, Sari Rakhmawati et al. (2018) also had a different objective whereby they investigated on identification and pronunciation of letters/alphabets. The sample data used were also different. Nainggolan et al. (2017) acquired data involving special needs children while Sari Rakhmawati et al. (2018) used daily preschoolers as part of their sample data.

### The Study on Reading Open Syllables

A research conducted by Mwoma (2017) concluded that two major factors, house and school, were present in influencing children's mastery in reading. Some of the house factors that affected the children's reading skills were the presence of reading materials at home, a literate mother, the language that was used at home, and the support of parents in providing a conducive reading environment. The school factors also played a role whereby the ability of teachers, teaching materials, children's relationship with their teacher, the methods of teaching reading, and early registration for school greatly influenced children's reading skills. Maniam et al. (2018) conducted a study using the approach of learning through playing as an initiative to improve the students' mastery in segmentalising open syllables. This approach is regarded as a colourful and entertaining way of learning about open syllables by using a virtual reality technology known as *Lihat Baca Taktil Berwarna* (LBTB)/See and Read Coloured Textile (SRCT). It is used to increase students' mastery in reading and writing open syllables. The pre-test and post-test showed a significant improvement after using the virtual reality technology. Clearly, the use of virtual reality technology has the ability to improve students' mastery in segmentalising open syllables. Teaching aids that require students to utilise all of their senses also play a huge role in children's learning.

## METHODOLOGY

### Methods and Sampling

Two teachers chosen as samples for this study were designated as Teacher 1 (GPAKK1) and Teacher B (GPAKK2). GPAKK 1 and GPAKK 2 has a Bachelor's Degree in Early Childhood Education from a government university and Diploma in Early Childhood Education from a private college in Shah Alam, Selangor respectively. Both teachers have vast experience as a kindergarten teacher for over 5 years.

Semi-structured interview was used to collect the data. The questions were prepared before the commencement of interview sessions. However, the answers were open-ended whereby it could be broaden in par with the researcher's discretion and sample. A few additional questions for the teachers were presented spontaneously if necessary. Five





questions were given to acquire the answers for the research question. The answers from the teachers were recorded and transcribed for the purpose of data analysis. Then, the data were analysed through thematic approach to answer the research question.

## FINDINGS

The findings showed that both teachers, GPAKK1 and GPAKK 2, used teaching aids that emphasised on visual, auditory and kinaesthetic sensory. According to GPAKK1, she taught the children to pronounce open syllables by instructing them to mimic the movement of her lips and the sound projected from her mouth. Once the children were fluent enough, she started to use syllables charts that contained a few syllables with the pictures it represented.

*"I teach open syllables to the children by teaching them to read one syllable at a time first. For instance, ba bi bu be be bo. Once the children are able to pronounce those syllables, only then I proceed to combine the syllables to form a word such as ba + ca = baca. I demonstrated the pronunciation of the syllables first before instructing the children to do so. Then, I tell them to pronounce the syllables repeatedly so they can memorise it."* (GPAKK 1)

*"Once they are fluent, I will then use syllables chart whereby the earlier pictured syllables are made into a chart."* (GPAKK 2)

Other than that, GPAKK1 also used teaching aids in the form of multisensory which involved the use of visual activity (visual), listening (auditory), movement (kinaesthetic), and tactile (touching pebbles). GPAKK 1 methods are more towards letting the children experiencing their senses through nature such as going for a *nature walk*.

*"Not only that, I also use natural materials when I want to give examples to the children when they are learning. For example, if I want to teach about syllables to the children, I like doing activities such as nature walk and finding pebbles. Afterwards, I will teach the children how to spell, write, and read using those pebbles. I like using this method because children are more excited and will not get bored when learning how to read."* (GPAKK 1)

On the other hand, GPAKK 2 stated that she used reading books, games of letters/alphabets, and reading cards. The teaching aids that were used involved the sense of visual, auditory, and kinaesthetic through a game of letters/alphabets. The game was played using a ball and emphasised on the aspect of traditional learning such as the application of a book titled "Mari Membaca".

*"Some of the teaching aids are books such as "Mari Membaca", game of alphabet/letters that requires the children to select and combine a small ball that is glued with letters/alphabets alongside their friends. For example, if one of the children selects the letter B and his friend selects the letter A, I will call them forward and let them present the combination of letters that they made and its pronunciation in front of their friends. I encourage them to spell and read the syllables out loud together with their friends. Their friends must*

*also participate and take turns. Besides that, I use alphabet cards to form a syllable. The way it is played is the same as the previous one but uses different cards.” (GPAKK 2)*

*“I practice multisensory technique when teaching because the children favour these types of teaching a lot. However, I still focus on the use of reading books because to me, traditional methods cannot be left behind. I believe that children must also learn in the style of back-to-basic even though there are new methods of learning.” (GPAKK 2)*

Not only that, GPAKK 2 also stated that she used teaching aids favoured by the children such as sand, playdough, leaves, and flower petals.

*“I previously used playing methods using solid materials such as sand, playdough, leaves, flower petals, and others during the period of teaching language and reading open syllables. The activity that the children like the most is reading while forming open syllables using playdough with different colours. I will play an audio track for the children to listen to and show them the syllables that were mentioned in the audio track. Then, the children will form the syllables using the coloured playdough that they like the most. (GPAKK 2)*

Both teachers gave a positive response towards the use of multisensory technique in teaching reading of open syllables. This matter was proven through the data extracted from the interview sessions of GPAKK 1 followed by GPAKK 2.

*“In my point of view, multisensory technique is very effective in teaching open syllables to the children as they can choose, arrange, combine syllables together using pictures, and pronounce the syllables. Children can also listen to the sound of syllables that they pronounced, and it can greatly assist them in reading syllables. Most importantly, multisensory technique is rarely utilised in a serious manner in our country. Unlike Malaysia, other countries have already started to use this technique, one hundred percent.” (GPAKK 1)*

*“This technique is good and suitable for the teaching and learning process of reading open syllables for children. It can assist children in recognising alphabets/letters and reading syllables with ease as children will not get bored of this technique. They are more interested to learn and excited to repeat the activities in class. For me, this technique is relevant. However, as teachers, we still need formal guidance and instructions in order to execute this technique holistically.” (GPAKK 2)*

## DISCUSSION

In conclusion, the interview sessions that were held proved that most teachers used multisensory teaching aids even though it was not applied extensively. This is in line with Jasmine and Connolly (2015) whereby multisensory materials like *textured writing, wiki sticks, shape writing, whisper phone, skywriting, and human typewriter* help children to



memorise words spelled by them and allow it to stay in their long-term memory.

Teachers also used traditional methods such as books. The use of books in teaching children to read open syllables is on par with the *Bottom-Up* model whereby children must recognise the alphabets first before being able to read fluently. The *Bottom-Up* model requires the reader to decode texts word-to-word, letter/alphabet-to-letter/alphabet, and sentence-to-sentence. The reader identifies the attributes of the alphabets/letters, connects the attributes together to form a word, and combine the letters/alphabets together to form a spelling. GPAKK 2 used a traditional book known as “Buku Mari Membaca” that began with the reading of letters/alphabets and moved onto the combination of complex letters/alphabets.

“Buku Mari Membaca” used by GPAKK 2 only utilised visual sensory whereby the children only need to look at syllables provided in the book and read them. This shows that only one type of sensories were used by the children when they were reading the book. Similarly, a study conducted by Gori (2015) stated that children under the age of eight possess the ability to have a dominant sense depending on the activities that were done. The integration of senses does not occur during children’s learning. The findings showed that unisensory is more dominant compared to multisensory for children around the age of six. Eventhough the use of reading books are considered as a traditional method, it is still relevant and can help children with a dominant visual sense.

GPAKK 2 used books that consisted of different varieties such as interactive books, sensory books, illustrated books, books with sounds and others. Furthermore, GPAKK 2 did not limit herself to using only a regular book in teaching children to read open syllables. This is because the format of a book is not only limited to printed books but can also be accessed in other forms such as audio, audio-visual, digital or interactive. A teacher must use teaching materials and interactive learning as it is very effective in early literacy, reading skills, and language development of children. The downside of using interactive books is the hindrance of parents in accepting technology as one of the medium to improve their children’s reading skills. Parents believe that reading must involve printed books as technology is only related to entertainment (Kucirkova & Littleton, 2016).

GPAKK 1 used multisensory teaching aids in the form of pebbles. She was more inclined to provide sensory experiences for the kids in the form of nature such as *nature walk*. Children were taught to spell, write, and read words using pebbles. She discovered that the children were more comfortable doing these types of activities in learning how to read. This statement correlates with the study of Maniam et al., (2018) whereby the learning approach through playing games is an initiative to help children segmentalise open syllables. The joy that the children experience through the use of teaching aids which integrate every human sense plays a huge role in their development. The use of teaching aids favoured by all children such as sand, *playdough*, leaves, and flower petals as by GPAKK 2 motivated the children to be happier when learning to read. This correlates with Jean Piaget’s statement whereby the speaking ability of children comes naturally and must be continuously stimulated with the help of their surroundings (Mohammad Saleh et al., 2020). Children are more likely to learn by building their self-knowledge through active discovery of their surroundings.

Both teachers gave a positive response towards the use of multisensory technique in reading lessons of open syllables. They also encouraged the use of this technique as it







provides many benefits towards teachers and childrens. This finding is supported by Agus (2012) in Setyawati (2017) whereby multisensory is stated as a method that is systematic and stimulate every human sense in learning. Multisensory methods emphasise on learning through the principle of visual, auditory, kinaesthetic, and tactile as it can help children to unleash their hidden potential. The teachers also agreed that children enjoyed learning using multisensory technique as investigated by Subramaniam et al. (2013) whereby children are more inclined to participate in an activity that provides a conducive learning environment.

Hence, teachers must play a big role for the children in producing fun and enjoyable feelings specifically in learning to read. Some of the initiatives that can be executed by teachers are by preparing a conducive classroom and learning corner, using a playing-while-learning approach, and providing quality and child-friendly teaching materials so that they are able to gain a meaningful experience while learning. Nachiappan (2017) asserted that children need a fun and effective learning environment especially in language activities. He believed that children learn effectively by doing something on their own and supported by a conducive learning environment that stimulates their senses (Syed Chear & Md Yunus, 2017).

## Implications

Based on the collected and analysed data, it is clear that the use of multisensory technique has a positive effect towards children's reading level of open syllables. Clearly, this technique is reasonable to be used and executed holistically and in great detail. Institutions that provide education programmes must establish multisensory technique as a technique that must be mastered by college students. Programmes or courses related to multisensory must also be produced and certified by Malaysian Qualifications Register (MQA). The existing teachers of Early Childhood Education must also be given holistic training and guidance from time to time in order to apply multisensory technique in teaching and learning.

The already established National Preschool Standard Curriculum can also be improved by integrating Montessori, Reggio Emilia, High Scope, and Waldorf approach by taking the technique of Fernald and Orton- Gillingham into account. Not only that, this study can also be the *turning point* of all preschools in providing teaching materials and conducive kindergarten facilities that support multisensory technique. Eventhough the preparation of teaching materials and conducive kindergarten facilities will result in the increase of costs, kindergarten owners must look for other initiatives to tackle this problem. For example, owners can increase the fee that matches with the quality of education provided at the kindergarten. This subject supports the National Child Policy which gives an opportunity and room for children to achieve their holistic development in a conducive environment.

## CONCLUSION

From the study, it was found that the effectiveness of using the multisensory technique in teaching open syllable reading skills for preschool children. The learning should be fun, impactful and meaningful for children development. In shifting from the conventional method to the new method is not easy. It requires a full of efforts, training and preparation to ensure the learning process will become smooth. This is an option for preschool teachers to



explore what are the other pedagogical approaches that suit for implementing within the classroom settings. By having this technique, it is hoped the learning outcomes of every session with children are met. Due to the modern era, be integrating the multisensory and technology is needed for adaptation and enhancement the learning process. If it suitable for open syllable reading skills, teachers are advised to continue the multisensory technique where appropriate.

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