**Article**

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# Phonemic Awareness and Word Decoding Through Multisensory Synthetic Phonics Instruction: Insights from East Malaysia

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## ABSTRACT

Mastering decoding skills in the English language is crucial for acquiring early literacy in English as a Second Language (ESL) children. However, many young Malaysian learners struggle to read in the English language. This paper presents the outcome of a quasi-experimental study conducted in East Malaysia, where Multisensory Synthetic Phonics Instruction (MSPI) was implemented to improve phonemic awareness and word decoding skills in English Language among Year 1 ESL pupils. Cambourne's (1979) Bottom-Up Approach Reading Framework underpinned the implementation of this mixed-method study, involving 172 pupils from 8 urban and semi-urban schools in East Malaysia. Data from the study were collected by administering the Phonics Assessment Sheets to pupils and conducting interviews with teachers who carried out the MSPI. Effect size calculation and thematic analysis were used to analyse the collected data. Findings revealed that MSPI has greatly improved pupils' phonemic awareness, with a smaller effect recorded for word decoding ability. Interviews revealed teachers' apprehension and also their approval of the MSPI in helping pupils to acquire decoding skills. The study proved the affordance of MSPI in promoting literacy skills among young learners. However, ensuring teacher buy-in is crucial for the successful implementation of MSPI.

**KEYWORDS: Decoding, ESL, Synthetic Phonics, Phonemic Awareness, Reading**

## INTRODUCTION

The Malaysian Education Blueprint (MEB) outlines 11 key shifts aimed at transforming the education system to meet world-class standards by 2025. One of the shifts is to "ensure every child is proficient in Bahasa Malaysia and English language and every child is encouraged to learn an additional language" (Ministry of Education Malaysia, 2013, p. 33). Hence, the emphasis is clear for all Malaysians to be proficient in the Malay and English languages, in addition to being proficient in heritage or vernacular languages.

The Standard-based English Language Curriculum (SBELC), which was first rolled out in 2011, underwent changes when it was aligned with the Common European Framework of Reference (CEFR) in 2017, with one of the intentions being to ensure SBELC includes approaches to pedagogy that are rooted in communicative competence (Ministry of Education, 2017). Teachers were advised to teach "basic literacy skills in order to build a strong foundation of language skills" (p. 6). Hence, the incorporation of phonics instructions would be deemed appropriate in ensuring that Malaysian pupils are provided with the necessary tools to acquire reading and, subsequently, other skills in the English Language (Yap & Lee, 2020).

While the country has great aspirations for its children, it is lamentable that Malaysian students' performance in the Programme for International Student Assessment (PISA) in 2022 has declined. The country scored 388 points in literacy skills, a 27-point decrease from the 415 points achieved in 2018 (Rajaendram, 2023). The Ministry of Education has reported in 2024 that more than a quarter of Malaysian Year 1 children have not mastered basic literacy skills (Ibrahim *et al*, 2024). Cambourne (1979) postulated in his framework that mastering letter-sound relationships in the English language is pivotal before they can progress to acquire abilities in decoding words and subsequently, the ability to comprehend reading texts. Nevertheless, it has been found that Malaysian learners struggle with reading, as they often fail to recognise letters and sounds, or mispronounce and skip words when reading (Ha & Mohamed, 2018).

While remedial literacy programmes, such as LINUS, were conducted in the past, they were saddled with challenges, including teachers' competency in remedial teaching and inadequate time to prepare lessons and materials (Sahib & Stapa, 2022). Kamal (2021) also revealed that learning to read in English remains challenging for Malaysian young learners, despite their sufficient interest in the language. One explanation is the analytical phonics approach used in Malaysian schools, which at times clashes with the inconsistent spelling and pronunciation of words in the English language (Abdullah *et al*., 2021). Teachers were also found to employ pedagogical strategies that did not cater to struggling and at-risk pupils (Kamal, 2020). The impact of poor reading is evident across all subjects, as independent reading is vital for gaining knowledge throughout the curriculum (Cimmiyotti, 2013). In fact, reading constitutes the foundation of academic success and lifetime learning. In everyday life, a person is expected to read street signs, advertisements, restaurant menus, recipes from cookbooks, and the dosage of medicine (Tomas *et al*., 2021).

It is with these concerns that this mixed-method study was developed as a means to determine the extent to which the Multisensory Synthetic Phonics Instruction (MSPI) can promote phonemic awareness and teach word decoding among Year 1 Malaysian ESL children. The study was conducted in one of the larger cities in East Malaysia. The article would also feature thematic findings

gathered from qualitative data, which are largely absent in most studies that investigate the use of phonics instruction (Jamaludin *et al*., 2015; Ha & Mohamad, 2018; Ahmad & Md Yunus, 2019; Yap & Lee, 2020; Widyana *et al*., 2020; Almansoori *et al*., 2024). The study was conducted to answer these four questions:

1. What is the effect of Multisensory Synthetic Phonics Instruction (MSPI) on the pupils' phonemic awareness as measured via the Phonics Assessment Sheet?
2. What is the effect of MSPI on the pupils' decoding ability as measured via the Phonics Assessment Sheet?
3. What are the effects of MSPI on pupils' phonemic awareness and word decoding as perceived by teacher-respondents?
4. What are the challenges reported by the teacher-respondents in the implementation of the MSPI?

## LITERATURE REVIEW

### *Theoretical models of reading*

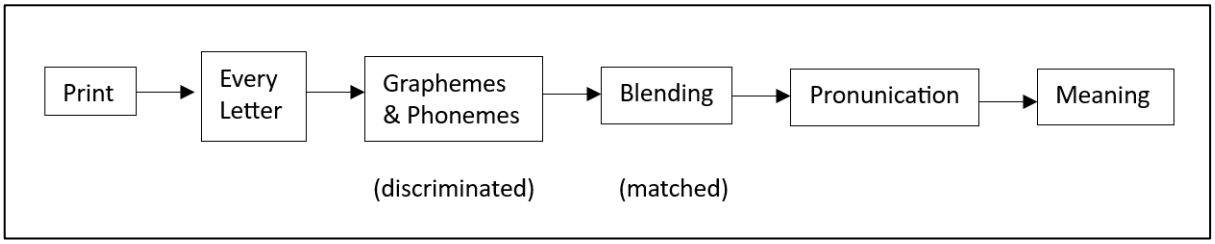
A rich number of past studies have offered various theories to explain how individuals learn to read, which in turn have guided numerous forms of instructional practices and learning materials. Historically, reading instruction has been primarily categorised into three approaches: bottom-up, top-down, and interactive (Ahsani & Budairi, 2022).

The top-down approach, rooted in the whole-language approach, posits that reading begins in the reader's mind, where one's prior knowledge and contextual cues are utilised to predict words and create meaning from a text (Goodman, 1967). In more recent years, interactive approaches have proposed that reading is neither strictly top-down nor bottom-up, but rather a dynamic process involving the simultaneous use of both lower-level decoding skills and higher-level comprehension strategies (Rumelhart, 1980). For ESL learners, interactive models are particularly relevant as they account for the complex interplay between decoding print and applying background knowledge for comprehension (Zainal, 2003). However, Ahsani and Budairi (2022) argued that lower-level reading processes, such as the letter-sound relationship and word recognition, are the core skills that ought to be strongly automatised as a prerequisite for developing reading fluency. Salleh and Yamat (2021) advocated for young learners to acquire phonemic awareness through a phonetically-based program before proceeding to develop reading fluency and reading comprehension through whole-language instruction. Therefore, bottom-up approaches remain essential for any young English language learner to develop the ability to read and spell in the language.

Cambourne (1979) stated that the bottom-up approach in L2 reading is viewed as a linear process that begins with encountering the print and ends with the formation of meaning from the materials read. The process is summarised in Figure 1 below.

**Figure 1**

*Cambourne (1979)'s Bottom-up Approach to Reading Model*




In his model, reading begins with the print, followed by recognising the letters, then graphemes, and finally phonemes. McGuinness (2004) views phonemes as the foundational blocks of the codes. The English language, although it comprises 26 letters (graphemes) in the alphabet, contains 44 sounds (phonemes) through the individual and combined use of these letters. The ability to discriminate each letter and its corresponding sounds leads to the matching and blending of phonemes and graphemes into words that can be pronounced, eventually leading to word recognition and the semantics of the recognised words. This study examined the use of MSPI up to the step of pronunciation of the model, where pupils were tested on their ability to sound out the letters (phonemic awareness) and subsequently blend and pronounce the words they saw (word decoding).

As the connection between the letters and their sounds is complex, there would be a need for children to be given explicit instruction so that they could grasp both the graphemes and phonemes of English. This concept is known as phonemic awareness, the ability to identify and manipulate the individual sounds (phonemes) in spoken words. Phonemic awareness has been proven in past research to be a powerful predictor of reading success (Adams, 1990; Stanovich, 2000; Ehri, 2022). Phonics instruction helps children apply this awareness to decode print. One way phonemic awareness can be taught is through phonics, in which children are taught to recognise, blend, and segment individual or combined letters (graphemes) and subsequently identify the sounds (phonemes) represented by these letters (de Graaff *et al*., 2009). Adept manipulation of letters and sounds would lead to decoding of words, as they would be able to use these skills to decode words which may be unfamiliar to them (Amadi, 2019).

While there are a few ways phonics can be taught to children, synthetic phonics has been found in studies to be the superior approach in promoting decoding ability among children (Glazzard, 2017). The term 'synthetic' phonics refers to the verb 'synthesise', which means 'put together' or 'to combine'. In spelling, children need to learn the skill of segmenting words, which involves identifying individual sounds within a word. Johnston and Watson (1998) undertook a longitudinal study of classes employing three distinct phonics-based reading instruction approaches, which included:

1. Traditional analytic phonics
2. Analytic phonics supplemented with intense instruction to help children hear phonemes and rhymes in spoken words
3. Synthetic Phonics

They found that the synthetic phonics method resulted in fewer underachieving learners (McGeown & Medford, 2014). Another study conducted in Scotland found that children taught with synthetic phonics were able to maintain their lead above their chronological age in word reading, spelling, and comprehension (Scottish Executive, 2005). The study suggests that synthetic phonics can bring parity of achievement to all children regardless of their socio-economic backgrounds. This argument was also supported by the outcome of research conducted by Scull and Lyons (2024) in Australia, where low-achieving Year 2 students who received frequent, targeted phonics instruction were able to catch up with the reading ability of their high-achieving peers by the end of the school year. Learners who have been taught synthetic phonics at an early age were also found to develop the ability to decode new words even after their teachers stopped using the method (Abdullah *et al*., 2021). In these studies, most pupils who have received the intervention not only maintained their gains in literacy but also continued to make improvements on their own.

*Multisensory Synthetic Phonics Instruction (MSPI)*

Multisensory refers to the acquisition of knowledge through various sensory modes (Dionne-dostie *et al*., 2015). Rostan *et al*. (2020) defined multisensory learning as an approach that engages various senses and applies the most suitable method to the learning experience. A multisensory literacy approach helps children learn in a fun and engaging way, as teaching and learning are facilitated through stories, actions, songs, and games. Diamond *et al*. (2002) postulated that children can remember what they learn when it is experienced through play, which is well-known through the saying of Montessori: 'Play is a Child's work' (Montessori, 2004). According to Carbo (1996), the different reading styles are visual, auditory, tactile, kinesthetic, global, and analytic. A multisensory approach, also known as VAKT (visual-auditory-kinesthetic-tactile), implies that students learn best when information is presented in different modalities (Mercer, 1994; Moustafa & Maldonado-Colon, 1999). Hence, a synthetic phonics approach to teaching reading skills, combined with a multisensory approach, can be seen as the ideal approach for promoting a practical and enjoyable learning experience for ESL children. It is with this premise that this study was envisioned and undertaken.

The MSPI originally covered five components: learning letter sounds, learning letter formation, blending, identifying sounds in words, or segmenting, and, lastly, tricky words (Ariati *et al*., 2018). However, only three of the major components are covered in this study, and their descriptions are provided in Table 1 below:

**Table 1**

*Components in the Multisensory Synthetic Phonics Instruction (MSPI)*

| **Components** | **Descriptions** |
|---|---|
| Learning the letter sounds | Pupils are taught the 42 main sounds of English in a specific order that allows them to start building words quickly. |

| | |
|---|---|
| Blending | Children are taught how to blend individual sounds to read whole words, a foundational skill for decoding. |
| Tricky words | Irregularly spelt words that cannot be decoded phonetically are taught separately by using a set of special symbols known as the Extra Symbols. |

The MSPI has been successfully implemented in many parts of the world, including the United Arab Emirates (Almansoori *et al*., 2024), Spain (Serna Crisol, 2024), and Indonesia (Widyana *et al*., 2020). MSPI has also been implemented in various parts of Malaysia, with evidence of positive outcomes. Studies conducted in the West Malaysian state of Kelantan (Jamaludin *et al*., 2015) and also in the rural schools in the East Malaysian state of Sarawak (Su & Hawkins, 2013) have also shown that children who have received MSPI showed better ability in decoding words in the English language and developed better word recognition ability. The improvement is seen via the pupils' improved scores in Phonological Awareness Literacy Screening PALS test (Jamaludin *et al*., 2015) and Burt's Revised Reading test (Callinan & Van der Zee, 2010; Eshiet, 2016; Ha & Mohamed, 2018). A study conducted by Yap and Lee (2020), which compared MSPI and non-MSP instructions, revealed that though children who were taught with both approaches made progress in their ability to decode words, it was the group taught using the MSPI who recorded a superior level of progress in their reading ability. Therefore, this study presents the findings of the MSPI as it was conducted in the East Malaysian state of Sabah to determine if the outcome is comparable to the research findings gathered from different parts of the country.

## METHODOLOGY

This research was undertaken primarily as an explanatory mixed-methods study, combining quantitative data gathered from a quasi-experimental study with qualitative data collected through interviews. The quasi-experimental study employed a pre-test, post-test design with control and experimental groups.

The research was conducted in eight urban and suburban schools located in a large city in the East Malaysian State of Sabah. Four schools were selected as experimental schools, and four schools were designated as control schools, as nominated by the Sabah State Education Department. The profiles of these experimental and control schools were closely matched in terms of locality, pupils' socio-economic background, and their proficiency in the English language. Consent was obtained from the Sabah State Education Department to conduct the study in schools, and the ethical guidelines provided by the Ministry of Education Malaysia were closely adhered to in carrying out the research.

A total of 172 Year 1 pupils (7 years old) from both school groups participated in this study, with each school nominating 21 or 22 pupils from a single Year 1 class. The rationale for selecting 7-year-olds was that it was pivotal for children aged 7 to receive intervention in word recognition skills to help them develop their reading abilities (Glazzard, 2017). Moreover, for Malaysian Year 1 pupils, phonemic awareness is one of the compulsory components included in reading skills instruction (Masturi & Kosnin, 2022). Hence, the pupils would receive timely instruction to help them acquire the

early literacy skills in ESL. The teachers assigned to teach Year 1 from four experimental schools underwent training to conduct MSPI. These teachers were chosen as they were all trained to teach English and have at least 5 years of teaching experience.

They subsequently conducted MSPI with Year 1 pupils in their respective schools over a 12-week period. The MSPI incorporates the use of songs, stories, flashcards, and actions to teach young children to recognise letter-sounds and to blend and decode words. The teachers were also trained to teach the Extra symbols, which are a set of artificial symbols used to teach children to recognise and sound out irregularly spelt 'tricky' words. The teaching was conducted through English lessons held four times a week. The state education department, district education offices, the MSPI trainer, and the lead researcher conducted support visits to four experimental schools at the midway point of the implementation period. The support visit helped to ascertain that MSPI were carried out as intended and that the teachers who participated in the study received additional support after their training in March. The teachers who were in control schools continue to teach phonemic awareness using non-MSPI methods. This would allow for comparison of effectiveness between MSPI and other approaches.

Two methods of data collection were employed to gather the necessary data for the study: Phonics Assessment Sheets (PhAS) and personal interviews. PhAS for Autumn Term 1 and 2, as used by Lloyd (2023), were utilised as pretests and posttests. There are two sections, comprising a total of 82 items. The first section consists of letter-sound knowledge (40 items), which is used to determine the level of phonemic awareness among pupils. The second section focuses on word decoding, which comprises 30 regularly spelt words and 12 irregularly spelt words. The second section of PhAS is administered to ascertain the pupils' ability to decode words by blending the phonemes. Pupils were given a score based on the number of items that they were able to sound out correctly for all 82 items. The instrument was assessed for internal consistency using Cronbach's alpha. Analysis of the pretest data (combined across all participants) revealed high reliability for both sections of phonemic awareness ($\alpha = .92$) and word decoding ($\alpha = .97$). The participating school teachers were briefed and trained on the scoring of the sheets prior to administering the assessment. The pupils' achievements in both sections were scored and tabulated, allowing for statistical analysis to be carried out. The statistical calculation of effect size (Cohen's *d*) was conducted to determine the effect of MSPI on the pupils' pre and post test scores on phonemic awareness and word decoding. Effect size calculation was chosen because it can indicate the magnitude of the difference between two groups. Hence, utilising this calculation would allow for the effectiveness of the treatment to be determined (Glass, as cited in Kline, 2004). Table 2 categorises the Effect size description based on the Cohen's *d* score achieved (Sawilowsky, 2009).

**Table 2**
*Cohen's d Value and Effect Size Classification*

| Cohen's d Value | Effect Size Classification |
|---|---|
| 0.01-0.19 | Very small (negligible) |
| 0.20-0.49 | Small |
| 0.50-0.79 | Medium |
| 0.80-1.19 | Large |
| 1.20 -1.99 | Very large |
| >2.00 | Huge |

Next, personal interviews were conducted with participating Year 1 teachers at the end of the research project. Respondents were asked to share their opinions on MSPI, focusing on the materials, training, progress made by pupils, and the challenges encountered during its implementation. The transcripts were analysed thematically according to Braun and Clarke's (2006) six-step approach to thematic analysis. Teachers were assigned pseudonyms to ensure anonymity.

The data subsequently underwent verification by both the teacher-respondents and the researchers involved in the study. Lincoln and Guba (1985) argue that member (participant) checking is crucial to establishing credibility in qualitative research. Teacher-respondents were invited to clarify, edit, elaborate on, or sometimes omit their words from the scripts provided (Carlson, 2010). Birt *et al*. (2016) postulate that member checking also fosters co-creation of meaning and aligns with ethical research practices that respect participants' perspectives. On the other hand, involving other researchers in checking interpretations serves as a form of investigator triangulation (Denzin, 1978), which enhances trustworthiness by comparing multiple perspectives. Subjecting qualitative data to peer scrutiny enhances dependability, since interpretations are less likely to rest on a single researcher's subjective lens (Shenton, 2004), thus keeping researcher bias in check.

## RESULTS & DISCUSSION

### *Research Question 1: What is the effect of Multisensory Synthetic Phonics Instruction (MSPI) on the pupils' phonemic awareness as measured via the Phonics Assessment Sheet?*

To answer the first research question, the results of the pupils' scores in the first section of PhAS have been tabulated and presented below.

**Table 3**
*PhAS Scores of Control and Experimental Schools for Phonemic Awareness.*

| School Groups | Pre-test Mean | Post-test Mean | Cohen's *d* | Effect Description |
|---|---|---|---|---|
| Control schools | 9.15 | 17.59 | 0.73 | Large |
| G Primary School | 9.05 | 15.35 | 1.29 | Very Large |
| P Primary School | 1.60 | 6.70 | 0.93 | Large |
| S Primary School | 20.76 | 31.14 | 0.97 | Large |
| U Primary School | 5.52 | 16.67 | 1.03 | Large |
| | | | | |
| Experimental schools | 1.10 | 34.39 | 4.96 | Huge |
| R Primary School | 0.11 | 34.61 | 4.98 | Huge |
| N Primary School | 0.07 | 35.59 | 10.74 | Huge |
| K Primary School | 4.25 | 39.67 | 8.37 | Huge |
| T Primary School | 1.53 | 25.86 | 2.60 | Huge |

Note. N = 172 (86 from control and 86 from experimental schools)
The inclusion of the effect size results for the control school was made in order to control for maturity. Comparison of results for the Phonemic Awareness component of PhAS, as shown in Table 3, reveals

that the average effect size for the experimental school is very much higher than that of the control school. This is despite the fact that the control schools have achieved rather large and very large Cohen's *d* scores. The experimental schools have different baseline scores, but three of the schools have managed to reach mean scores within 5 points of one another in the post test.

This finding is consistent with the results reported by Ekpo *et al*. (2010), Jamaludin *et al*. (2015), and Yap and Lee (2020), who found that children taught with MSPI achieved significantly higher scores, particularly in letter-sound recognition. This lends credence to MSPI as a superior approach in teaching phonemic awareness among young ESL learners.

***Research Question 2: What is the effect of MSPI on the pupils' decoding ability as measured via the Phonics Assessment Sheet?***

The second section of the PhAS measured pupils' ability to decode both regularly and irregularly-spelt words. The total score for this section is 40. The results for the pupils in this section are presented in Table 4.

**Table 4**
*PhAS Scores of Control and Experimental Schools for Word Decoding*

| School Groups | Pre-test Mean | Post-test Mean | Cohen's *d* | Effect Description |
|---|---|---|---|---|
| Control schools | 9.36 | 17.56 | 0.61 | Medium |
| G Primary School | 14.20 | 18.80 | 1.28 | Very Large |
| P Primary School | 0.85 | 1.55 | 0.32 | Small |
| S Primary School | 17.71 | 30.71 | 1.02 | Large |
| U Primary School | 5.28 | 18.38 | 0.85 | Large |
| | | | | |
| Experimental schools | 1.33 | 19.83 | 1.45 | Very Large |
| R Primary School | 0.57 | 23.00 | 1.81 | Very Large |
| N Primary School | 2.32 | 10.72 | 0.69 | Medium |
| K Primary School | 1.31 | 30.80 | 2.67 | Huge |
| T Primary School | 0.93 | 20.57 | 1.77 | Very Large |

Note. N = 172 (86 from control and 86 from experimental schools)

The scores achieved for this section of PhAS were rather different. While two of the schools in the control group have higher baseline scores, the effect size recorded at the end of the research period ranged from small to very large. The experimental schools continued to outperform the control schools, scoring medium to huge Cohen's d scores. However, compared to the effect size scores achieved for the first section, this section's improvement is relatively modest. This suggests that while MSPI is very effective in developing pupils' phonemic awareness, it may not be as effective in developing pupils' ability to decode words, although the high scores achieved on the post-test are still commendable. This outcome is similar to that of Almansoori *et al*. (2024), who found that kindergarten children showed

significant improvement in letter-sound recognition, phoneme blending, and segmenting after receiving MSPI.

Referring to Cambourne's model, while MSPI is very helpful in ensuring pupils possess the ability to discriminate the phonemes and graphemes, the next stage of blending and pronunciation may not be too successful. This indicates the limit to the effectiveness of MSPI. Nevertheless, the positive scores achieved for both components in the PhAS scores would contradict an earlier study by Ha and Mohamed (2018), who reported no significant difference between the experimental and control groups in their reading ability. However, in their study, reading age was used as a measure to determine the outcome of using MSPI.

***Research Question 3: What are the effects of MSPI on pupils' phonemic awareness and word decoding as perceived by teacher-respondents?***

The findings from the interviews yielded rather insightful sharing from the respondents, who were the teachers who taught MSPI to the pupils in experimental schools. They have helped shed light on explaining the outcomes indicated in the analysis of the Phonics Assessment Sheets (PhAS) scores. They also offered findings for this study, which PhAS could not capture.

***Theme 1: Teachers were able to see the difference in the pupils' abilities***

When the respondents were prompted to share their thoughts on their pupils' progress, they were positive about the differences they observed in their pupils as they conducted the MSPI with the children. The results indicated in the PhAS were echoed by the respondents, who offered their observations of their pupils' progress.

> *Students can* ***read the simple words****.*
>
> Joanna

> ***Slow learners*** *who were* ***not interested in learning*** *can* ***memorise all the 42 sounds****.*
>
> Hannah

> ***60% of students can say the sound without the actions,*** *and 30% rely on the actions.*
>
> Mae

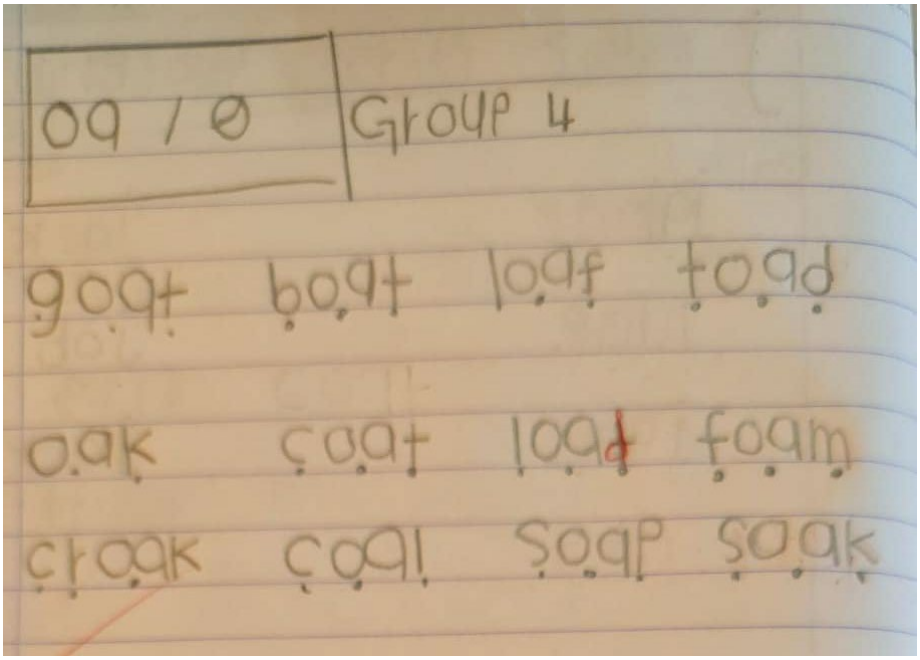
> *Sounding* (single letters) ***they can do very well.*** *CVC they are quite good. Double consonants (diagraph), they struggle.*
>
> Damia

The teachers were able to notice tangible behaviours demonstrated by the children. In the case of Hannah and Mae, in particular, the actions for the sounds used in MSPI helped the children recall the letter sounds. This suggests that the multisensory approach to teaching phonics can be more effective in facilitating the acquisition of phonemic awareness and word decoding.

***Theme 2: Children can be taught to read irregularly spelt words via the use of MSPI***

One of the areas of investigation is the use of a set of Extra symbols in the MSPI. The Extra symbols were taught in MSPI with the intention of helping children to learn 'Tricky' words – words that are either irregularly-spelt or words that have diphthongs. The teachers, while teaching the children using these new symbols, have devised a strategy that involves the use of dots (as seen in Figure 2) to indicate the number of phonemes in a word, helping children blend and pronounce the words.

**Figure 2**
*Phoneme Dots that Accompanied the Use of Extra Symbols in Teaching Diphthongs*




> *The extra symbols are helpful when they are reading. But let's say the sounds oi, au, the symbols helped them to sound correctly. So example the word goat. Four letters but only 3 sounds. I think the dots at the bottom of the words in the JP books. the rest (students) will need to rely on the dots or the extra symbols to help read words.*
>
> Mae

> *use the symbol, use the dots below they know it's 'ei' cause it indicates that it is a diphthong. e.g. 'Tail' Four letters, but three dots below, so they remember the letters '-ai-' as one sound. They will segment it correctly.*
>
> Hannah

> *I didn't focus so much on it but I used the dots. I pointed out to them and focused on them rather than the symbols. The symbols are not too many. The dots make it easier.*
>
> Damia

While some teachers admitted to having a lack of confidence in teaching the Extra symbols, others have decided to proceed with the instructions and have reported positive results in their classrooms.

> *The students have no problem understanding the extra symbols. Sometimes when I did revisions with them, I wrote the symbols and letter combinations and they could sound them.*
>
> Mae

> *The good thing about the Extra symbols is they can still differentiate them because of the action. The written symbols of the extra symbols are helpful when they are reading. But let's say the sounds oi, au, the symbols helped them to sound correctly.*
>
> Hannah

> *The students were able to absorb the lessons on extra symbols quite well…*
>
> Damia

The explanation provided by the teachers could help clarify the achievement gap shown by the pupils in both components of PhAS, where pupils who may not have truly benefited from the teaching of Extra symbols were unable to achieve high scores in the word decoding section of PhAS.

### *Theme 3: MSPI provides an enjoyable learning experience*

Other than marked differences in the pupils' ability to sound out letters and decode words, the teachers also reported that the pupils have enjoyed the learning process. The MSPI used in this study incorporated the use of songs, visuals, actions and stories. The teachers who used MSPI were able to create a fun learning experience for the pupils.

> *Students are **eager** for the teacher to enter the classroom. They **look forward to** and **love their English lessons.***
>
> *Mae*

> *The students are **very happy** and **excited** to go to school every day because they **love the programme***
>
> Gemma

> *Students are more **involved** in the teaching session, they actively participated by **doing the actions**, the **singing of songs.***
>
> Hannah

> *The activities are **very engaging**. They enjoyed working in **small groups** and were able to work independently as the activities were quite **hands-on**.*
>
> Damia

As the respondents are also the participating pupils' teachers for English, the positive response shown by the pupils towards the English language as a result of MSPI can be observed and noted. A positive attitude towards learning phonics can also contribute to the children's ability to acquire phonemic awareness and word decoding skills.

### *Theme 4: Gaps of Mastery*

One of the glaring outcomes of the study was the pupils' inability to do well in the second component of word decoding. While the pupils have largely mastered the phonemic awareness component and reported positive responses to learning the language, the teacher-responders also reported gaps in their pupils' ability to decode and read words in English.

> ***Blending*** *not really. But I think one thing that might explain the reasons why they cannot blend or say the words could be they didn't have too much time.*
>
> Mae

> *But at the basic lowest level every student can recognise all the letter sounds and do the segmenting.* ***Blending*** *they struggle. When they see the letter if they can't sound it out, if they* ***can't remember*** *I use the action to prompt them to remember.*
>
> Hannah

> *If recognising the individual sounds in the alphabets they can do it, but with* ***the words*** *and all they can't. If they can articulate the sounds … they should be able* ***to blend*** *but they can't seem to be able to do it. I don't really know how to connect the two.*
>
> Valerie

The teachers noted that the pupils have learnt through MSPI to recognise the sounds of the letters. Most of them were able to recognise the letter sounds on their own, though some required some prompts from the teachers. However, blending the letter sounds to form a word becomes challenging for the pupils. The same phenomenon is also reflected in another study conducted in the Philippines, where Tomas *et al*. (2021) reported that young Filipino children may recognise individual letters and sound them out correctly, but they were unable to blend the phonemes in order to arrive at a pronunciation of a word.

This issue can be explained as Malaysians, being mostly ESL learners of the English language, could have difficulties in mastering decoding skills in English due to the interference of their mother tongue. Differences between orthography and phonography in English and first languages can lead to confusion in letter sounds, pronunciation of consonant clusters, and irregularly spelt English words (Mramboa & Ligembe, 2022). Therefore, teachers are encouraged to practise appropriate strategies to enhance phonological skills or to explore approaches other than phonics to assist young ESL learners to read (Mramboa & Ligembe, 2022; Wyse & Bradbury, 2022).

### *Research Question 4: What are the challenges reported by the teacher-respondents in the implementation of the MSPI?*

Teacher-respondents shared both internal and personal challenges in their participation in this study, where they incorporated MSPI in their teaching of phonemic awareness and word decoding to year 1 pupils.

#### *Theme 5: Overcoming personal hurdles*

When the respondents were asked about their experience learning and teaching MSPI, they expressed overcoming challenges that were personal in nature. Some of these challenges arose from the fact that they had limited knowledge in phonics instruction, and they were concerned about not being able to deliver MSPI to their satisfaction, which in turn would affect the pupils' learning progress.

> *It's not that I don't like (MSPI),* ***but I feel a bit lost*** *for certain sounds. I will try my best to teach it*
>
> Gemma

> *In the beginning it was* ***very scary****. I was* ***worried that I couldn't carry it out****. I was afraid to* ***fail the students***
>
> Valerie

> *I really* ***appreciated the teaching skills*** *I* ***learned*** *from the MSPI training.*
>
> Mae

> *I felt overwhelmed because I* ***did not have any experience with any phonic instructions.***
>
> Damia

> *I* ***struggled*** *at the beginning (missed the MSPI training) because I have* ***to learn most of it by myself****, through the book. Internet but then I already set my mind that I will do it because I know it can help (the students)*
>
> *Hannah*

While some of the teachers interviewed for this study were able to overcome their fear, others were nevertheless rather apprehensive about teaching the Extra symbols found in MSPI. Although the teachers have been given training to conduct the programme with their Year 1 pupils, two teachers expressed their apprehension about using MSPI. This sentiment could explain the scores for pupils from experimental schools in PhAS, where they achieved a relatively consistent and almost full score for the phonemic awareness section, but gained varying scores for the word decoding section.

> *but I still have grey areas with the extra symbols. I do not know why but I just feel like can I not teach the extra symbols. I did try, I think it's in my heart and for my students. I did try to teach but I don't know how to say. Other cards are fine. I don't quite get it myself so it's a little hard so I am not confident to teach the kids myself.*
>
> Valerie

> *But sometimes there are few sounds young like that these are the difficult, so that I cannot make(the sound) properly… how to do that, Only I I'm not confident with it*
>
> Gemma

Turnbull (2002) posited that teachers can have different levels of buy-in toward the same programme based on their prior experience and their understanding of the programme's requirements. The term "buy-in" can be defined as "an internal acceptance of and commitment to an idea, innovation, or curricular change" (Joram *et al*., 2020, p.9). The excerpts have shown that the teachers had no problem teaching the regular phonemes, but they couldn't understand and grasp the Extra symbols. Hence, they

became reluctant to introduce these symbols to their pupils. Perhaps a stronger buy-in on the MSPI would require teachers to be given additional training, particularly on the use of Extra symbols. Hence, they could understand their use and be more willing to try teaching these symbols to the pupils in the future

These insights by teachers, to a certain extent, also echoed findings in the past by Tschannen-Moran and Barr (2004), who posited that teachers with high levels of self-efficacy would be more receptive and more motivated to experiment with novel instructional practices. While these teachers may not have expressed their confidence in teaching English to Year 1 children, they were nevertheless very responsive to the adoption of MSPI in their phonics instructions, even the artificial Extra symbols, which they were not particularly familiar with.

***Theme 6: School programmes & pupil absenteeism hamper learning progress from MSPI***

When the teachers were prompted about the challenges faced in implementing the MSPI, they cited pupil absenteeism and lack of time to carry out the MSPI due to various other school programmes happening during lesson hours. The respondents opined that they did not have the opportunity to complete and reinforce the learning of MSPI as they were rushed into finishing their teaching duties and other programmes.

> *The problem is **attendance** and school programmes. **A lot of programmes**. 8 to 10 students are absent most of the time*
>
> *Damia*

> *I feel like it is unfair for the students when there are so **many programmes** in the school. There are no lessons throughout the whole day so I cannot conduct lessons in school it really **disturbs the teaching** and learning process*
>
> *Valerie*

> *Those who come to school often I can see the improvement but those who have issues they will be sick and **they will be absent** for a month sometimes… cases like fever and cough*
>
> Mae

Pupils who were absent from school would miss out on the instructions given via MSPI, and various programmes held by schools would deprive the children of the chance to learn phonics consistently from their teachers. There is an urgent need for the Malaysian Ministry of Education to reduce the workload of teachers, allowing them to focus their time and effort on teaching and helping children acquire literacy in English. Studies have shown that Malaysian primary school teachers experience stress (Taat, 2023) due to managing high levels of workloads and responsibilities, both teaching-related and non-teaching. Malaysian English teachers were found to require more in-service training and workshops to further develop their teaching competency (Bayuong & Hashim, 2023). They also have to face pressure from superiors and teach a large number of pupils (Amzat *et al*., 2021). Stress and burnout have been proven to decrease teachers' vigour, which in turn adversely affects their commitment level. Moreover, it may also lead to attrition, which negatively impacts students' achievement (Kim *et al*., 2017; Ronfeldt *et al*., 2013). As seen in this study, for MSPI to prove its worth, the teachers need to be given the room to conduct their lessons with minimal interruptions from outside the classroom.

## CONCLUSION

As a method of teaching decoding skills, MSPI has proven its effectiveness in promoting literacy skills among young ESL learners. The higher effect size scores recorded by the experimental schools in comparison to the control schools for both phonemic awareness and word decoding are a testament to the finding. The progress made by the students, as seen in the Phonics Assessment Sheet (PhAS), has also been echoed by data collected from the interviews. Teacher respondents shared their observations on how the children have made progress in their ability to sound out letters and decode words for reading. Aside from making progress in the decoding skills, the children who have participated in the study also reported enjoying their English language lessons.

Nevertheless, the pupils' lower achievement scores in word decoding compared to phonemic awareness also supported the argument that synthetic phonics may not be the magic bullet to teaching reading in the English language. Bowers (2020) opined that the phonics approach has not proven itself to be more effective than alternative methods, such as the whole language approach. Exclusive use of the phonics approach is also criticised due to the many irregularities in grapheme-phoneme correspondences in the English language itself (Amadi, 2019). This means that while recognising individual phoneme sounds may be learnt successfully, blending the sounds together does not guarantee correct pronunciation of the word every time, thus limiting the effectiveness of approaches such as MSPI (Glazzard & Stones, 2020). Wyse and Bradbury (2022), in their meta-study on phonics instruction in reading, do not support a synthetic phonics orientation in reading instruction; instead, they advocate for a balanced instructional approach. Teachers ought to learn and use a combination of approaches to help pupils learn how to read.

This study also highlighted the important role of teachers, showing that those who are positive and willing to try novel approaches to teaching can attain better teaching outcomes. Past studies have shown that teachers have reacted to innovations in teaching and learning differently, with some responding positively and making changes to their instructional strategies, while others have shown reluctance to embrace the new programme (Bailey, 2000; Datnow, 1998; Sikes, 1992). Teachers who do not see the relevance or effectiveness of a particular change are most likely to be unwilling to make the suggested changes (Turnbull, 2002). It is essential for teacher educators, policymakers, and the government to offer ongoing and personalised support to teachers. This approach helps address any barriers that might prevent teachers from fully committing to new instructional practices, making them more willing to adopt innovative methods in their teaching repertoire.

In announcing the implementation of the new curriculum, the Malaysian Ministry of Education has decided to restructure primary school into three levels, beginning in 2027. The first level (Years 1 and 2) will focus on ensuring that primary school pupils have developed a solid foundation in literacy skills. Early intervention programmes will be conducted to help pupils who have fallen behind (Ministry of Education Malaysia, 2025). It is hoped that the English language teachers can be encouraged to focus on helping children acquire essential literacy skills.

As a suggestion for future research, a larger study involving participating teachers and pupils nationwide can be pursued. This would further demonstrate the viability of MSPI as an approach in promoting early literacy among year 1 children across different contexts and settings in the country. Alternatively, a longitudinal case study can also be undertaken with a small group of teachers and their students. Such a study, conducted over a period of time, could contribute to shedding more light on

gradual changes seen in pupils' literacy achievement and teachers' professional development as they engage in MSPI.

This study ultimately suggests that MSPI remains a viable intervention in promoting literacy among Year 1 students, although the results can vary between phonemic awareness and word decoding. While further evidence may be warranted to ascertain the ways literacy acquisition was promoted, the study shows that teachers' buy-in is essential in ensuring that any intervention programme conducted in school could have a chance to prove its worth and bring about positive outcomes for the pupils.

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