Unlocking early literacy: a needs analysis to evaluating the necessity of Malay reading modules in preschool education

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Article Info

ABSTRACT

This article investigates the critical issue of reading skill acquisition among preschoolers in Malaysia, particularly in the context of educational disruptions resulting from the COVID-19 pandemic. Through a qualitative study employing semi-structured interviews with five Sekolah Jenis Kebangsaan Tamil (SJKT) preschool educators, the research identifies several significant challenges: a lack of specialized reading modules for non-native Malay speakers, communication barriers, need for differentiated instruction and more engaging and interactive content. Furthermore, the study underscores the vital role of parental involvement in reinforcing literacy development at home. These findings highlight the urgent need for a structured and culturally relevant reading module, such as the proposed *Saya Boleh Baca* (I-SaBoBa) module, specifically designed to address the needs of Malaysian preschool children. The study concludes that addressing these gaps is essential for fostering early literacy skills, which are critical for future academic achievement. The proposed module seeks to mitigate these challenges by equipping educators and parents with effective tools to enhance children's reading proficiency within a supportive and engaging environment.

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1. INTRODUCTION

For preschool children, reading skills are essential to later academic success. A study by Pascal *et al.* [1] highlighted the significance of early literacy development, indicating that early reading proficiency is a strong predictor of future academic achievement. Furthermore, assessing the current proficiency levels of preschool children enables educators to implement targeted teaching strategies that promote literacy development from a young age. Previous research has focused on the importance of mastering reading skills among Sekolah Jenis Kebangsaan Tamil (SJKT) students in elevating the status of the Malay language. Factors believed to influence the mastery of reading skills have been explored in past studies, one of which is the teacher's approach to teaching reading skills. There exists a research and population gap that needs to be addressed to resolve issues of reading skill mastery starting from preschool education. Therefore, this study contributes to the field of preschool education research, focusing on the communication strand of the Malay language, to optimize the potential of SJKT preschool children in mastering reading skills.

Weaknesses in mastering reading skills among students have become an increasingly serious educational issue over the past 3 years, especially after school closures due to the COVID-19 pandemic.

According to a 2024 report by the World Bank Group, Malaysian students' reading skills fall short of expectations, as evidenced by 42% of grade 5 students failing to achieve the requisite level of proficiency. This issue is particularly pronounced among students from low-income backgrounds, with 61% of those in the lowest income quintile lacking mastery in reading skills. In contrast, only 18% of students in Vietnam were identified as nonproficient in reading by the end of grade 5. This disparity underscores the urgent need for targeted educational interventions aimed at enhancing reading skills, especially for students from rural areas [2]. External environmental factors, family influences, and individual learner characteristics play crucial roles in second language learning. A supportive learning environment and positive family dynamics can enhance learning outcomes, while individual planning and metacognitive strategies are essential for effective language acquisition [3]. Reading modules that incorporate gamification and contextual learning have been demonstrated to enhance reading comprehension skills. For example, an electronic English reading module developed for second language learners received high usability ratings from students, suggesting its efficacy in classroom environments [4].

However, recent research focusing on the problems and challenges faced by students in reading and writing skills, particularly those in the 1st year, is limited. This lack of research is concerning, as many 1st-year students, especially non-native Malay speakers, struggle with Malay language skills, including reading and writing activities. It is crucial for students to master and have a strong foundation in these skills before beginning formal education in the 1st year. This suggests that there is a need to explore and understand various perceptions regarding the issue of reading skill mastery, which represents a research gap that must be addressed, as well as a need to move beyond traditional teaching towards a transformation in teaching and learning of reading skills, starting from preschool education. The lack of appropriate teaching materials and standardized reading modules for non-native speakers is a significant challenge in educational contexts. Considering these findings, effective measures need to be taken to develop appropriate teaching modules and learning strategies to enhance students' reading skills as early as possible. This step is crucial to ensure that students have a strong foundation in reading skills, which will have a positive impact on their development as competitive individuals in society in the future. The objective of this needs analysis is to identify the development needs of the module *Saya Boleh Baca* (I-SaBoBa) to enhance Malay reading skills among preschool children and the research question are, what are the specific developmental needs of the I-SaBoBa module that must be addressed to effectively enhance Malay reading skills among SJKT preschool children.

2.   METHOD

Creswell and Creswell [5] explained that the phenomenological approach in qualitative research highlights the shared experiences of individuals who have directly engaged with the phenomenon under investigation. A qualitative study employing semi-structured interviews constitutes a robust methodology for the in-depth exploration of complex phenomena, particularly within the social sciences. This approach enables researchers to obtain rich, detailed data directly from participants, thereby yielding valuable insights into their experiences, perceptions, and motivations.

Elhami and Khoshnevisan [6] asserted that semi-structured interviews are effective due to their ability to balance the necessity for consistency across interviews with the flexibility required to investigate emerging themes. This methodological framework is particularly advantageous in PhD research, where a nuanced understanding of participants' perspectives is essential for the development of a comprehensive analysis. Notably, semi-structured interviews represent an effective qualitative research methodology for examining complex social issues, allowing researchers to gather in-depth and nuanced insights directly from participants. This approach achieves a balanced integration of consistency and flexibility, facilitating the exploration of emerging themes while fostering a supportive environment that encourages open dialogue [7], [8].

In this research, the researcher uses semi-structured interviews to gather in-depth insights into participants' experiences and perspectives, taking advantage of this method's flexibility and depth to explore complex issues thoroughly. This qualitative method is particularly effective for exploring complex issues, as it allows for flexibility in questioning while maintaining a consistent framework. As such, the interview questions designed for the need analysis in this research are grounded in a comprehensive review of relevant literature on reading skill acquisition in early childhood education, particularly in the Malaysian context. Accordingly, these interviews aim to delve into the challenges teachers face when teaching reading skills, the perceived need for a structured module like I-SaBoBa, and what content or structure such a module should have. Table 1 illustrates the section and interview questions [9]–[11], [5].

2.1. Validity and reliability of instrument protocol

The interview instrument for this study was rigorously validated by five experts, each with extensive backgrounds in early childhood education and the Malay language. Note that expert validation is critical in

ensuring the reliability and validity of qualitative research instruments, particularly when the research focuses on specific educational contexts [12]. The experts were selected based on their qualifications and experience in areas directly related to early childhood education. This validation process aimed to ensure that the questions were clear, relevant, and aligned with the research objectives while ensuring that the language used was appropriate for the target respondents. The validation process not only enhanced the quality of the interview questions but also contributed to the overall rigor of the study. Incorporating feedback from multiple experts ensured that the instrument was aligned with best practices in qualitative research and was capable of generating meaningful, actionable data [13]. As a result, the interview instrument is well-positioned to elicit rich, in-depth insights into the challenges and opportunities in teaching reading skills to SJKT preschool children in Malaysia, as well as the specific needs for a targeted instructional module like I-SaBoBa.

Table 1. The section and interview questions

Section	Importance	Supporting literature	Question
Section A: building rapport	Effective communication techniques, such as active listening and empathy, are essential for fostering a supportive environment.	Nurgaliyeva [9]	Participants' backgrounds, such as their teaching experience and educational qualifications.
Section B: probing challenges in teaching reading skills	Encouraging educators to reflect on their experiences, the study aims to identify both common and context-specific challenges.	Ithindi [10]	Questions in this section explore the current pedagogical practices in teaching Malay reading skills and solicit teachers' opinions on how to overcome these challenges.
Section C: exploring the need for a reading module	The exploration of a reading module is essential for addressing the diverse needs of students facing reading difficulties.	Hasan and Ahmad [11]	Participants are asked to share their experiences with previous reading modules and are encouraged to express their views on the essential components that should be included in a new module.
Section D: concluding thoughts and suggestions	This open-ended question allows educators to share insights that may not have been addressed in the preceding sections but are critical for the successful implementation of the module.	Creswell and Creswell [5]	Participants are invited to offer any additional suggestions or recommendations regarding the development of the reading module.

2.2. Sampling

In qualitative research, selecting participants is crucial for generating meaningful and in-depth data. The goal is to obtain rich, contextual insights into specific phenomena rather than to generalize findings to a larger population [13]. Consequently, qualitative research often employs non-probabilistic sampling techniques that prioritize selecting participants who can provide the most relevant and insightful information. In contrast to quantitative studies, which emphasize random sampling for generalizability, qualitative research utilizes purposive sampling methods and others to explore the subject matter in greater depth.

2.2.1. Purposive sampling

In this study, purposive sampling was employed to select participants for the need analysis phase. Purposive sampling is a non-random, judgment-based approach where participants are intentionally chosen based on predetermined criteria that align with the research objectives [14]. This method is particularly appropriate when researchers seek to understand a specific phenomenon, such as the challenges preschool teachers face in teaching reading skills and when the population of interest has unique or relevant characteristics. In this study, the researcher selected five preschool teachers from the Ministry of Education Malaysia as a sample for the needs analysis based on specific characteristics predetermined by the researcher. These teachers were selected since they represent the demographic the researcher aims to investigate. The inclusion criteria required the teachers to have more than five years of preschool teaching experience and to serve as preschool option teachers for SJKT preschool. Table 2 provides further details regarding the research sample involved in the needs analysis phase of the development of the I-SaBoBa module.

2.3. Data collection procedure

The data collection process for the study on preschool teachers was meticulously designed to uphold ethical standards and facilitate effective engagement. Interviews were scheduled after school hours to accommodate teachers' availability, ensuring thoughtful responses while minimizing classroom disruptions [15]. In addition, ethical approval was obtained from the Ministry of Education Malaysia, enhancing the study's credibility and ensuring compliance with established ethical guidelines [16]. At the same time, informed consent was acquired from all participants, emphasizing their autonomy and the voluntary nature of their involvement [17]. With consent granted, the interviews were audio-recorded, allowing for accurate data capture and thematic analysis while safeguarding participant confidentiality [18].

Thematic analysis is a common method in qualitative research used to identify, analyze, and report patterns within data. According to Creswell and Poth [13], this approach follows a systematic process of coding and categorizing data to reveal themes that provide insights into research questions. Thematic analysis is particularly valuable for its flexibility and its capacity to manage large volumes of qualitative data, making it suitable for various research contexts. By organizing and interpreting data systematically, researchers can identify meaningful patterns and themes that enhance their understanding of the phenomenon being studied. As such, this method ensures that the analysis is rigorous and reflective of participants' perspectives, thereby enhancing the overall credibility and depth of the research.

Table 2. Participant characteristics for need analysis in I-SaBoBa module development

Phase	Participants	Characteristic
Need nalysis of I-SaBoBa module development	Five SJKT preschool teachers	- Preschool option teacher. - Teachers with experience teaching SJKT preschool classes for five years and above under Malaysian Ministry of Education (MOE). - Teachers who teach SJKT Preschool classes in the State of Pahang.

3. RESULTS

3.1. Generating initial codes

Based on a detailed review of the transcripts, the following initial codes were identified. These codes represent recurring ideas and challenges highlighted by the teachers during their interviews regarding reading skills development, and the need for an analysis of specific Malay reading module development was summarized in Table 3. The coding process revealed significant patterns in teachers' perspectives, offering valuable insights into the pedagogical approaches and structural frameworks essential for effective Malay language reading instruction. This is particularly relevant to the design elements and content requirements for future module development.

Table 3. Initial codes

Code	Code's definition	Participant
Code 1: limited module	Teachers repeatedly expressed concerns about the absence of standardized reading modules suitable for SJKT schools. They emphasized a need for specific materials designed for their students.	(GP1, GP2, GP3, GP4, and GP5)
Code 2: challenges with non-native speakers	Language challenges, particularly for non-native speakers of *Bahasa Melayu*, were frequently mentioned. Teachers noted difficulties in engaging students who primarily speak Tamil at home, which made reading skills acquisition more challenging.	(GP1, GP2, GP3, GP4, and GP5)
Code 3: need for engaging content	Many teachers emphasized the importance of colorful and interactive materials to capture students' attention.	(GP1, GP2, GP3, GP4, and GP5)
Code 4: level-based teaching	Teachers identified that students come with varying levels of proficiency in reading, and there is a need for level-based teaching to cater to both slower and more advanced students.	(GP1, GP2, GP3, GP4, and GP5)
Code 5: role of parents	The role of parents in fostering communication in *Bahasa Melayu* at home is regarded as a crucial strategy for enhancing reading skills.	(GP1, GP2, GP3, GP4, and GP5)

3.2. Reviewing themes for the development of the I-SaBoBa module

In the process of reviewing the themes, it is essential to ensure that the identified themes accurately reflect the core challenges faced in enhancing reading skills among preschoolers in SJKT schools. The primary themes identified from interviews with five preschool teachers encompass the lack of specialized modules for reading skills, communication barriers, engagement through interactive content, the necessity for differentiated instruction, and parental involvement. These themes are elaborated upon in detail in Table 4 (see in Appendix). These themes were consistently referenced throughout the interviews, aligning well with the identified needs for developing the I-SaBoBa module.

4. DISCUSSION

The themes identified lack of specialized modules, communication barriers, engagement through interactive content, differentiated instruction, and parental involvement highlight critical areas for consideration in the development of the I-SaBoBa module. Notably, addressing these themes will ensure that the module is aligned with the specific needs of SJKT preschool children and provides a comprehensive, engaging, and effective tool for improving their reading proficiency. Addressing lack of specialized modules

for reading skills is essential for developing the I-SaBoBa module, especially for SJKT preschool children. A culturally and linguistically tailored module can alleviate the impact of limited resources by ensuring that the content meets the specific needs of the preschool children. According to a study by Hussar *et al.* [19], lack of specialized modules for reading skills in education can significantly affect learning outcomes, and customized educational materials can help bridge these gaps. Thus, by incorporating local cultural elements and language, the module can enhance reading proficiency among preschool children.

Another critical issue that must be addressed in the I-SaBoBa module is communication barriers. Implementing scaffolded language learning strategies can help overcome these obstacles, making it easier for preschool children to understand and engage with the content. Anjum *et al.* [20] emphasized that effective communication strategies are vital for improving educational outcomes, particularly in linguistically diverse environments. Hence, by providing structured language support within the module, educators can ensure that all preschool children, regardless of their language background, can benefit from reading activities. Creating an engaging module with colorful and interactive content can capture young learners' attention and enhance their enjoyment of learning. Herlina and Abidin [21] stressed that interactive and engaging educational materials are crucial for sustaining student interest and improving learning outcomes.

Desinguraj and Ebenezer [22] and Alegria and Kelly-Williams [23] explain that differentiated instruction acknowledges the diverse learning needs of students. Consequently, educators are required to design curriculum that address individual interests and abilities, employing a variety of methods to present lessons at different levels of complexity. Furthermore, it is essential for educators to plan for differentiation by considering factors such as time, resources, and complexity, thereby ensuring that all students have the opportunity to succeed in their learning experiences.

Furthermore, offering clear and structured activities for parents to implement at home can support efficient use of time and increase parental involvement, which is essential for reinforcing reading skills outside the classroom. Research by Hanson and Pugliese [24] and Utami [25] suggested that parental involvement significantly enhances children's academic performance. By addressing these themes, the I-SaBoBa module can become a comprehensive and effective tool for improving reading proficiency among SJKT preschool children. Numerous pedagogical and instructional factors impact children's academic performance. Educational institutions should actively support teachers in improving literacy and numeracy instruction by providing essential resources aimed at developing these skills in children. This approach not only promotes academic success but also equips children with critical thinking and problem-solving abilities that are essential for the 21st century.

5. CONCLUSION

In conclusion, this study shows that developing the I-SaBoBa module for SJKT preschool children requires a comprehensive approach that addresses several critical themes: lack of specialized modules for reading skills, communication barriers, engagement through interactive content, differentiated instruction, and the involvement of parents. Notably, by creating culturally and linguistically appropriate content, incorporating scaffolded language learning strategies, and providing interactive and engaging materials, the module can effectively meet the specific needs of preschool children. Additionally, including structured activities that involve parents will reinforce the learning experience at home, thereby enhancing overall reading proficiency. Nevertheless, addressing these themes, as highlighted by recent research, will increase the module's effectiveness and relevance, ultimately leading to improved educational outcomes for young learners. For future research, it is essential to further develop this module and to investigate its effectiveness in enhancing reading skills. Longitudinal studies examining the impact of the I-SaBoBa module on preschoolers' Malay literacy development, from initial exposure through early primary education, would provide valuable insights. Furthermore, comparative analyses between traditional reading instruction methods and the I-SaBoBa module approach could elucidate key pedagogical advantages that may be integrated into early childhood education curriculum.

AUTHOR CONTRIBUTIONS STATEMENT

This journal uses the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

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C : **C**onceptualization
M : **M**ethodology
So : **So**ftware
Va : **Va**lidation
Fo : **Fo**rmal analysis

I : **I**nvestigation
R : **R**esources
D : **D**ata Curation
O : Writing - **O**riginal Draft
E : Writing - Review & **E**diting

Vi : **Vi**sualization
Su : **Su**pervision
P : **P**roject administration
Fu : **Fu**nding acquisition

CONFLICT OF INTEREST STATEMENT

Author states no conflict of interest.

DATA AVAILABILITY

The data that support the findings of this study are openly available in [World Bank] at http://documents.worldbank.org/curated/en/099041724092521963/P50085018195b80ed18e7616028d3ea80a.

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APPENDIX

Table 4. Identified themes, descriptions, and supporting quotes for I-SaBoBa module development

Theme	Description	Supporting quotes
Theme 1: lack of specialized modules for reading skills	There are a significant lack of appropriate teaching materials and the absence of a standardized, tailored reading module suitable for non-native *Bahasa Melayu* speakers in SJKT schools.	*"We do not have a specific module to support children's reading skills."* (GP1) *"Furthermore, there is uncertainty about whether existing commercially available modules are suitable for the preschool children needs."* (GP5)
Theme 2: communication barriers	Non-native speakers face challenges in understanding and communicating in Malay Language, affecting reading and comprehension.	*"The challenge I face is that childrens inadequately communicate in Malay either at school or at home."* (GP1) *"Students find it difficult to understand and communicate in Malay."* (GP4)
Theme 3: engagemnet through interactive content	There is a need for colorful, interactive materials to engage preschoolers and keep them motivated in reading lessons.	*"Students are more interested in colorful digital modules; students do not get bored quickly."* (GP2) *"The module language must be simple and easy to carry; there needs to be colourful writing, attractive illustrations, and pictures."* (GP3)
Theme 4: need for differentiated instruction	Teachers identified that students come with varying levels of proficiency in reading, and there is a need for differentiated instruction to cater to both slower and more advanced students.	*"A module is effective if it suits the students. If it does not suit the students' level and if there is nothing fun about it, it is not effective."* (GP2) *"I suggest this module according to students' levels. That means from easy to difficult."* (GP4)
Theme 5: parental involvement	Parental engagement in reinforcing reading skills at home is essential, especially through communication in *Bahasa Melayu*, to support school-based learning.	*"I have encouraged parents to communicate in Malay with their children at home."* (GP3) *"We can also encourage students to communicate in Bahasa Malaysia with their teachers, friends, parents, and siblings at home."* (GP5)

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