

The Readiness of Indonesian Inclusive Education in Implementing the Signalong Method for Students with Special Educational Needs

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Abstract

While Indonesian inclusive education aims for equitable access, conventional methods maladaptive to Students with Special Educational Needs (PDBK) still dominate. Thus, Signalong Indonesia, an Augmentative and Alternative Communication (AAC) approach, shows potential as a precise pedagogical intervention for PDBK. This study aims to analyze the readiness of Indonesian inclusive education in implementing the Signalong method for PDBK. A literature review design with descriptive-narrative analysis was employed, examining eight selected articles published during 2014–2024, sourced from Google Scholar, ResearchGate, and Scopus. Readiness was analyzed across five aspects: the need for Signalong Indonesia as a learning method, government readiness, education provider readiness, teacher readiness, and parental involvement. Results indicate that Signalong Indonesia has demonstrated strong empirical validity as a communication approach, and most education providers already possess adequate basic facilities and PDBK assessment procedures. However, unequal policy implementation across regions, a shortage of Special Companion Teachers (GPK), insufficient signalong-specific training, and low parental involvement remain significant systemic barriers. This study concludes that Indonesian inclusive education is not yet fully prepared to implement the Signalong method systematically and equitably, as robust coordination among all stakeholders has yet to be established.

Keywords: Inclusive education; Signalong Indonesia; students with special educational needs; learning methods.

Abstrak

Meskipun pendidikan inklusi di Indonesia dirancang untuk menjamin kesetaraan akses belajar, mayoritas penyelenggaraannya masih didominasi oleh metode konvensional yang tidak adaptif terhadap kebutuhan Peserta Didik Berkebutuhan Khusus (PDBK). Sebagai solusi, Signalong Indonesia yang berbasis *Augmentative and Alternative Communication* (AAC) menawarkan potensi substansial sebagai intervensi pedagogis yang presisi bagi PDBK. Penelitian ini bertujuan menganalisis kesiapan pendidikan inklusi Indonesia dalam mewujudkan metode *signalong* pada PDBK. Desain penelitian yang digunakan adalah *literature review* dengan analisis deskriptif-naratif terhadap delapan artikel terpilih yang diterbitkan pada periode 2014–2024, bersumber dari Google Scholar, ResearchGate, dan Scopus. Kesiapan dianalisis melalui lima aspek, yaitu: kebutuhan *Signalong* Indonesia sebagai metode pembelajaran, peran pemerintah, kesiapan penyelenggara pendidikan, kesiapan guru, dan peran orang tua. Hasil penelitian menunjukkan bahwa *Signalong* Indonesia telah terbukti secara empiris efektif sebagai pendekatan komunikasi, dan sebagian besar penyelenggara pendidikan sudah memiliki fasilitas dasar serta prosedur asesmen PDBK yang

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memadai. Namun, ketimpangan implementasi kebijakan antardaerah, kekurangan Guru Pendamping Khusus (GPK), minimnya pelatihan *signalong*, dan rendahnya keterlibatan orang tua masih menjadi hambatan sistemik yang signifikan. Penelitian ini menyimpulkan bahwa pendidikan inklusi Indonesia belum sepenuhnya siap untuk mewujudkan metode *signalong* secara sistematis dan merata, mengingat koordinasi yang kuat antara seluruh *stakeholder* belum terwujud.

Kata kunci: Pendidikan inklusi; *Signalong* Indonesia; peserta didik berkebutuhan khusus; metode pembelajaran.

Introduction

The right to quality education is a fundamental right for every child, without exception. Schools, as the primary educational institutions, should be able to provide a platform for every child of diverse characteristics and abilities to participate actively in their learning activities. In line with this principle, UNICEF (2017) defines inclusive education as an education system that includes all learners, welcoming and supporting them to learn, regardless of who they are and whatever their requirements or abilities may be. In the Indonesian context, the government has developed inclusive education as a platform for Students with Special Educational Needs (*Peserta Didik Berkebutuhan Khusus* or PDBK) to obtain learning opportunities and develop their potential optimally, in accordance with their respective needs and capabilities.

The Indonesian government categorizes PDBK into four groups: (1) Children with Special Needs experiencing Sensory Impairments; (2) Children with Cognitive Mental Impairments; (3) Children with Physical Impairments; and (4) Children with other impairments (Dinas Pendidikan Kota Depok, 2014). These four groups possess highly diverse learning needs; thus, the educational services provided must be carefully tailored to the conditions and potential of each individual.

The legal foundation for inclusive education in Indonesia has been explicitly regulated through Law No. 20 of 2003 concerning the National Education System, Chapter IV Article 5 paragraphs 2, 3, and 4, which guarantees the right to education for PDBK. This regulation was subsequently strengthened by the Minister of National Education Regulation (Permendiknas) No. 70 of 2009 concerning Inclusive Education for students who have abnormalities and possess the potential for intelligence and/or special talents. This regulatory framework has had a significant impact on the growth in the number of inclusive education providers in Indonesia. The Coordinating Ministry for Human Development and Cultural Affairs (Kemenko PMK) noted that as of September 2023, there were 44,477 regular school units serving as inclusive education providers, accommodating a total of 146,205 PDBK, and this number continues to demonstrate an upward trend year by year (Fauzan, 2023).

The growth in the number of inclusive education providers must certainly be balanced with appropriate and targeted teaching quality and methods. However, the reality on the ground indicates a sub-ideal condition. Based on the findings of Ahdiyat et al. (2017), the majority of inclusive education providers established by the government still employ conventional learning models, wherein PDBK and regular students are treated equally without any specialized adjustments to learning methods. This poses a serious problem, considering that PDBK particularly those with communication barriers require distinct pedagogical

approaches compared to regular students. Several studies reinforce that teachers' limited competencies in managing inclusive classrooms remain a primary obstacle in the implementation of inclusive education in Indonesia (Sheehy et al., 2024; Sheehy & Budiyanto, 2015). The diverse characteristics and impairments possessed by PDBK necessitate adaptive learning methods, as specialized learning methods have been proven to deliver a significant impact on the skill development and academic success of PDBK (The Avanti Team, 2023).

One of the most substantial dimensions of impairment for the majority of PDBK is the communication barrier. Communication barriers that are not addressed appropriately can result in low PDBK participation in learning and reduce their engagement in inclusive classrooms. Effective communication between teachers and PDBK has been proven to build PDBK engagement within inclusive classrooms, thereby rendering their learning more efficient and successful (Chen, 2019). Within this framework, the Augmentative and Alternative Communication (AAC) approach emerges as a solution; namely, a communication system designed to support individuals with verbal communication barriers through various alternative media, including sign language, symbols, and visual media.

A relevant AAC-based method to be considered within the context of Indonesian inclusive education is the signalong method. Signalong is a keyword signing approach that utilizes hand signs to emphasize key words within spoken sentences, thereby supporting multimodal communication in the classroom (Budiyanto et al., 2018). Unlike Deaf community sign languages, which possess their own independent grammar, signalong follows the spoken language word order and only signs the key words, making it easier for both teachers and PDBK to learn (Rofiah et al., 2023). Signalong is widely used in United Kingdom (UK)-based countries, such as England, Ireland, Scotland, and Wales, and has been adapted in several other countries, including Indonesia (Signalong, 2024). The adaptation of signalong into the Indonesian context is known as Signalong Indonesia, which employs signs adapted from Indonesian Sign Language (*Bahasa Isyarat Indonesia* or *Bisindo*) and is designed to align with the capacity limits of early childhood learners. Signalong Indonesia itself can be learned through specific sign videos, visual symbols, or through direct guidance from certified trainers (Kemendikbud, 2022). Recent research involving 214 kindergartens in Indonesia demonstrates that the use of Signalong Indonesia in Sign Supported Big Books (SSBB) activities is consistently associated with increased engagement, story comprehension, and learning enjoyment for both teachers and students (Sheehy et al., 2024), indicating its broad potential for application in inclusive educational environments.

Nevertheless, Signalong Indonesia is still classified as a relatively new learning method, with its adaptation having commenced less than a decade ago (Budiyanto et al., 2018). Therefore, before this method can be implemented systematically within inclusive classrooms, an in-depth investigation is required regarding the readiness level of various elements of Indonesian inclusive education providers to realize its implementation.

Based on the background articulated above, the research problem in this study is formulated as follows: What is the readiness of Indonesian inclusive education in implementing the signalong method for Students with Special

Educational Needs (PDBK)? Correspondingly, the objective of this study is to analyze the readiness of Indonesian inclusive education in implementing the signalong method for Students with Special Educational Needs (PDBK).

Methods

This qualitative study employs a literature review design. The selection of this design is predicated on the consideration that the topic of Indonesian inclusive education readiness in implementing the signalong method is relatively nascent; thus, an approach capable of mapping and synthesizing existing findings is required before a comprehensive conclusion can be formulated. Snyder (2019) explains that a literature review is a research method capable of building a robust knowledge foundation while concurrently driving theory development through a systematic approach to collecting and synthesizing previous studies. In a similar vein, defines a literature review as research that critically examines or reviews knowledge, ideas, or findings contained within academically oriented literature, and formulates their theoretical and methodological contributions to a specific topic.

The approach utilized in this research is a descriptive-narrative analysis, which involves systematically delineating and interpreting findings from the collected literature, and subsequently synthesizing them into a systematic and academically comprehensible explanation. This approach was selected as it aligns with the analytical-evaluative objective of the study, namely to analyze the readiness of various aspects within the Indonesian inclusive education ecosystem regarding the potential implementation of the signalong method.

The literature search was conducted systematically across several academic databases and scientific search engines, namely Google Scholar, ResearchGate, Scopus, and other relevant online research journal portals. The search was executed using three primary keyword clusters: (1) *Signalong Indonesia*; (2) inclusive education; and (3) learning methods. Combinations of these keywords were utilized alternately and in pairs to ensure comprehensive search coverage of the investigated topic. To maintain the relevance and quality of the utilized literature, the researchers established the following inclusion and exclusion criteria: The Inclusion Criteria comprise four elements: articles published between 2014 and 2024; articles discussing topics relevant to one or more of the three primary research themes, namely signalong, inclusive education in Indonesia, and PDBK learning methods; articles that are academic publications, including national journals, international journals, or academically accountable research reports; and articles available online and fully accessible (*full-text accessible*). Conversely, the Exclusion Criteria consist of three elements: articles not directly related to the context of inclusive education or PDBK; articles lacking clear author identification and publication year; and articles originating from non-scientific media such as news, blogs, or public opinion without an empirical foundation.

Based on the search utilizing the predetermined keywords, a number of articles were retrieved and subsequently filtered in stages using the aforementioned inclusion and exclusion criteria. The selection process was conducted in two stages: first, the researchers read the titles and abstracts to screen generally relevant articles; second, the researchers conducted full-text

readings to ascertain the alignment of the articles' content with the research focus. Through this selection process, eight published articles meeting all criteria and released during the 2014–2024 period were obtained. These eight articles constitute the primary data sources for this study.

The analysis of the eight articles was performed descriptively and narratively by identifying, comparing, and synthesizing the principal findings of each article. The synthesized results were then organized based on five identified readiness aspects, namely: (1) the necessity of *Signalong Indonesia* as a learning method; (2) the role and readiness of the government; (3) the readiness of inclusive education providers; (4) the readiness of classroom and shadow teachers; and (5) the role of PDBK parents.

Research Results

Based on a literature search using the predetermined keywords across various scientific databases, the researchers selected eight published articles that met all inclusion criteria and were published during the period of 2014–2024. Table 1 below presents a summary of the identity and key findings of each selected article.

Based on the eight articles analysed, it was found that studies on *signalong* and inclusive education in Indonesia can be mapped into two broad clusters: studies focusing on the development and implementation of the *Signalong Indonesia* method (Aliyah & Rofiah, 2020; Budiyanto et al., 2018; Rofiah et al., 2023; Sheehy & Budiyanto, 2014), and studies focusing on the conditions of the inclusive education ecosystem in Indonesia (Arifin et al., 2023; Dewi, 2017; Ni'matuzahroh, 2015; Purbasari et al., 2022).

The first cluster consistently demonstrates that *Signalong Indonesia* is a valid communication approach that has undergone various feasibility assessments. In terms of media development, the interactive multimedia-based digital dictionary developed by Aliyah & Rofiah (2020) received highly favourable validation from both content and media experts. Meanwhile, the research by Rofiah et al. (2023) indicates that the implementation of *Signalong Indonesia* through Sign Supported Big Books has proven effective in meaningfully improving children's engagement and learning comprehension in regular classrooms. However, Budiyanto et al. (2018) and Sheehy & Budiyanto (2014) both indicate that stigmatisation issues surrounding signing users and the limitations of existing teacher training models remain barriers that need to be addressed before this method can be implemented on a wider scale.

The second cluster reveals that the inclusive education ecosystem in Indonesia continues to face considerable inequities. Ni'matuzahroh (2015) found that although the majority of teachers possess awareness of inclusive education, their practical understanding of how to manage inclusive classrooms including the handling of students with special needs still requires significant improvement. This is consistent with the findings of Purbasari et al. (2022), which indicate that the primary challenges in implementing inclusive education in Indonesia are a shortage of competent human resources and limited infrastructure and facilities, compounded by low parental awareness of the importance of their involvement in their children's learning process.

Table 1. Summary of Selected Articles

Author(s) & Year	Title	Method	Key Findings
Budiyanto et al. (2018)	Developing Signalong Indonesia: issues of happiness and pedagogy, training and stigmatisation	Quantitative & Qualitative (questionnaire + interview)	A new inclusive teacher training model is needed; stigmatisation is a significant issue; the concept of suka (happiness) is an essential element of Indonesian inclusive pedagogy
Sheehy & Budiyanto (2014)	Teachers' attitudes to signing for children with severe learning disabilities in Indonesia	Quantitative & Qualitative (questionnaire + interview)	Teachers' overall response to the use of signing for children with special needs was positive; teachers were willing to receive training on its use
Aliyah & Rofiah (2020)	KDSI: Pengembangan Kamus Digital Signalong Indonesia Berbasis Multimedia Interaktif Bagi Anak Dengan Hambatan Komunikasi	Research and Development (R&D)	The Signalong Indonesia digital dictionary received a content validation score of 93% and a media validation score of 81%; rated within the very good criteria
Rofiah et al. (2023)	Fun and the benefits of Sign Supported Big Books in mainstream Indonesian kindergartens	Qualitative (observation & interview)	The use of Sign Supported Big Books (SSBB) based on Signalong Indonesia improved engagement, story comprehension, and enjoyment of learning among both teachers and students Most teachers demonstrated good awareness and readiness; key constraints included
Ni'matuzahroh (2015)	Analisis Kesiapan Guru dalam Pengelolaan Kelas Inklusi	Quantitative (questionnaire)	understanding of differentiated curriculum, knowledge about inclusion, and appropriate ways of treating students with special needs
Dewi (2017)	Peran Orang Tua Pada Paud Inklusi	Qualitative (observation, interview, documentation)	Parents can play an active role in inclusive education through seven forms of involvement, ranging from parenting to active participation in the school committee
Purbasari et al. (2022)	Perkembangan Implementasi Pendidikan Inklusi	Literature Study	Inclusive education implementation continues to face various challenges; key issues include a shortage of qualified human resources, limited infrastructure and facilities, and low parental awareness
Arifin et al. (2023)	Praktik pendidikan inklusif di sekolah dasar	Qualitative (observation, interview, documentation)	Assessment of students with special needs and learning programmes have been running well; however, government support for facilities, the addition of Special Companion Teachers (GPK), and enhanced parental involvement remain necessary

The findings of Arifin et al. (2023) further reinforce this, showing that while the assessment process for students with special needs and learning programmes are already running reasonably well, a shortage of Special Companion Teachers (GPK) and minimal parental involvement remain tangible challenges in the field. On the other hand, Dewi (2017) demonstrates that when parents are facilitated to participate actively, there are seven forms of roles they can undertake, ranging from supporting children's development and acknowledging their achievements, to participating in the school committee.

Overall, the review of these eight articles indicates a gap between the readiness of the Signalong Indonesia method which has been empirically proven to be effective on one hand, and the readiness of the Indonesian inclusive education ecosystem encompassing the government, education providers, teachers, and parents on the other. It is precisely this gap that forms the analytical basis for the discussion in this study.

Discussion

The Need for Signalong as a Learning Method

Before discussing the readiness of Indonesian inclusive education, it is essential to outline the prerequisites for utilizing signalong as a learning method in the classroom. Given that the signalong learning method is still considered relatively novel within the realm of Indonesian inclusive education, it should ideally be tested prior to full implementation; such trials could be conducted with classroom teachers or shadow teachers. The adaptation of Signalong Indonesia utilizes instructional media comprising interactive videos, photographic or illustrated visual aids, and symbols that are also demonstrated directly by trainers (Jauhari et al., 2008). Only after undergoing these trials and subsequent reviews can the method be considered for implementation within inclusive classrooms. Therefore, it can be concluded that the prerequisites for preparing the signalong learning method in inclusive classrooms encompass school facilities (Wi-Fi and laptops as instructional media), teachers (classroom or shadow teachers), and pedagogical model training (Budiyanto et al., 2018).

The Indonesian Government

The government, in its capacity, holds the responsibility to formulate an appropriate curriculum, as well as to facilitate the infrastructure, facilities, and necessities for inclusive education providers (Akbar & Kushandajani, 2023). In this regard, the central government has sought to realize a more structured inclusive education system through the enactment of the Minister of National Education Regulation (Permendiknas) No. 70 of 2009 concerning Inclusive Education for PDBK possessing potential. In reality, however, the implementation of this regulation exhibits varying degrees of success at the regional level. In major metropolitan areas such as Greater Jakarta (Jabodetabek) and Surabaya, local governments can be deemed to have made concerted efforts to realize and fulfill the needs of inclusive education (Arifin et al., 2023; Taufik & Rahaju, 2021). Conversely, in other cities, such as Jambi, local governments still exhibit a lack of attention and support regarding the requisites of inclusive education, particularly concerning the infrastructure and facilities of inclusive schools (Muazza et al.,

2018).

The underlying cause of this disparity in success stems from the varying levels of local government awareness regarding the importance of PDBK acquiring education in schools. According to Akbar and Kushandajani (2023), regions with unsuccessful inclusive education implementations are often those where local governments assume that central government policies are sufficient to address PDBK needs, thereby rendering further regional oversight unnecessary. This discrepancy in achievement among local governments in Indonesia unequivocally warrants the central government's attention, as PDBK are not exclusively located in major cities; consequently, the needs of PDBK in developing regions still require stringent monitoring. The government must also remain cognizant that inclusive education is an educational service system designed to enable children with special needs to learn in their closest community schools and interact with their peers.

Beyond PDBK and inclusive education providers, the government must also address the needs of subject teachers and shadow teachers regarding training or seminars. Training and seminars can assist teachers in augmenting their knowledge, heightening awareness of educational issues, and enhancing their pedagogical skills and competencies (Khadijah, 2017). To successfully implement the signalong learning method within inclusive classrooms, both classroom and shadow teachers must undoubtedly participate in specific signalong seminars and training. Within its policy framework, the central government strives to coordinate with local governments and allocate the necessary budget to ensure the continuous execution of competency-enhancement training for teachers (Winingsih, 2016). Contrary to the established policies, the reality faced by Special Assistant Teachers (*Guru Pendamping Khusus* or GPK) indicates that the implementation of inclusive education training remains suboptimal, despite the fact that such training could significantly aid GPK in addressing ongoing instructional challenges within the classroom (Purnomo, 2016). This discrepancy engenders doubt regarding the government's readiness to facilitate the signalong method training needs for GPK. Even if the budget for training has been appropriated, the training programs will remain difficult to materialize if the government fails to provide assistance and guidance in structuring the training specifically for GPK.

Education Providers

Inclusive education providers possess the role of aligning their schools with the concept of inclusive education, synchronizing school programs with the existing curriculum, equipping the school with adequate infrastructure and facilities, and matching teaching staff requirements with the needs of PDBK (Muazza et al., 2018). In this context, Indonesian education providers can be considered successful in fulfilling the aspects of aligning schools with inclusive education concepts and adapting school programs to the mandated curriculum. Based on the General Guidelines for the Implementation of Inclusive Education, education providers are required to conduct assessments on prospective PDBK to identify their conditions, needs, and characteristics; this is essential for determining the educational programs or interventions necessary to actualize their potential (Kemendikbud, 2022).

Assessments of prospective PDBK have been widely implemented by inclusive education providers. Beyond serving as a selection mechanism, these assessments are instrumental in designing the prospective PDBK's learning programs during their tenure at the school (Arifin et al., 2023). Such assessments are also vital if the signalong learning method is to be effectively implemented in the classroom. They are useful for evaluating the readiness and comprehension levels of PDBK when the signalong method is introduced. Furthermore, school infrastructure and facilities constitute a critical component in applying the signalong learning method to PDBK; classroom or shadow teachers require, at a minimum, facilities such as Wi-Fi access, and laptops or LCD projectors provided by the educational institution. This is primarily because signalong relies heavily on instructional media in the form of specialized interactive videos. Based on the literature review findings, Indonesian education providers generally possess the capacity to facilitate Wi-Fi access, along with laptops or LCD projectors, as supporting media for the Signalong Indonesia learning method in classrooms.

Classroom Teachers or PDBK Shadow Teachers

Shadow teachers are tasked with assisting classroom teachers in the PDBK learning process within the classroom, ensuring that it does not disrupt other students. However, based on research and report articles, many schools still experience a shortage of shadow teaching staff. For instance, a study conducted by Arifin et al. (2023) revealed that Special Assistant Teachers (GPK) are often required to handle two to three PDBK in each class; although guidance is provided on a rotational basis, these teachers still struggle to deliver optimal services for the PDBK. Another grievance articulated by shadow teachers is the lack of competency development training provided to them (Purnomo, 2016). In fact, the signalong learning method strictly necessitates the prior execution of such training before teachers can implement it in the classroom.

The Role of Parents

Parents may subconsciously play a pivotal role in the success of PDBK regarding the implementation of their learning methods. According to Dewi (2017), parents can play an active role in inclusive Early Childhood Education (ECE) through several means: (1) accompanying and stimulating the child's development; (2) demonstrating a willingness to accept, acknowledge, provide opportunities for, and appreciate the achievements of regular children in general and children with special needs (*Anak Berkebutuhan Khusus* or ABK) in particular; (3) recognizing the child's needs, interests, and talents; and (4) respecting the child's rights. Therefore, education providers, operating through shadow teachers, should ideally be capable of serving as a bridge between parents and children, as well as supporting parental participation in learning activities both at school and at home.

Conclusions and Recommendations

Overall, this study concludes that Indonesian inclusive education is not yet fully prepared for the systematic and equitable implementation of the signalong method. Although the potential of the Signalong Indonesia method as an effective

communication approach for PDBK has been empirically proven, the readiness of its surrounding ecosystem encompassing the consistency of local government policies, the availability and competence of GPK, and the active involvement of parents has not achieved a sufficient level to support comprehensive implementation. This state of unreadiness is systemic in nature, rather than an isolated deficiency in a single aspect; consequently, the application of the signalong method can only be recommended once robust continuity and coordination among all involved stakeholders have been established.

Based on the findings of this study, several recommendations are proposed for consideration by various stakeholders involved in the provision of inclusive education in Indonesia. First, the central government must intensify its oversight of inclusive education policy implementation at the regional level, particularly concerning the equitable distribution of infrastructure and facilities, as well as the provision of competency training for GPK, thereby ensuring that persistent inter-regional disparities can be progressively mitigated. Second, inclusive education providers are advised to facilitate limited trials of the Signalong Indonesia method within their institutions, engaging classroom teachers and GPK as the initial training cohorts prior to its application to PDBK, given that the existing signalong-based instructional media have been empirically proven feasible and effective. Third, classroom teachers and GPK must be actively involved in structured and tiered signalong training programs, allowing their proficiency in utilizing this method to be developed systematically rather than relying solely on individual initiatives. Fourth, educational institutions, in collaboration with the government, should design programs to enhance the awareness of PDBK parents regarding the critical nature of their active involvement in their children's learning processes; support from the home environment has been proven to be a pivotal factor in the successful implementation of any instructional method, including signalong.

For future research, the following avenues of inquiry are recommended. First, empirical research utilizing experimental or case study designs is required to directly measure the effectiveness of the Signalong Indonesia method's implementation in inclusive classrooms across various educational levels, thereby generating more robust and contextualized evidence. Second, comparative studies assessing the readiness levels for signalong implementation between inclusive schools in urban and rural areas would provide a more comprehensive understanding of the regional disparities identified in this study. Third, research specifically investigating the most effective design for signalong training programs tailored to GPK in Indonesia encompassing training models, duration, and evaluation mechanisms is urgently needed, considering the current absence of standardized training protocols for this method. Fourth, investigations into the perceptions and experiences of PDBK parents regarding the signalong method would serve as a valuable topic to enrich the understanding of the facilitating and inhibiting factors for the method's success beyond the school environment.

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