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The Role of Phonological Awareness in Early Reading
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The Role of Phonological Awareness in Early Reading Development

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Abstract

Purpose: This study sought to investigate the role of phonological awareness in early reading development.

Methodology: The study adopted a desktop research methodology. Desk research refers to secondary data or that which can be collected without fieldwork. Desk research is basically involved in collecting data from existing resources hence it is often considered a low cost technique as compared to field research, as the main cost is involved in executive's time, telephone charges and directories. Thus, the study relied on already published studies, reports and statistics. This secondary data was easily accessed through the online journals and library.

Findings: The findings reveal that there exists a contextual and methodological gap relating to phonological awareness in early reading development. Preliminary empirical review revealed that phonological awareness was crucial for early reading development, serving as a foundation for decoding skills and overall literacy. It emphasized the importance of early, systematic instruction in phonological awareness within early childhood education to improve reading outcomes and reduce reading difficulties. The study highlighted that phonological awareness also contributed to spelling and vocabulary development, enhancing overall language proficiency. It advocated for integrated and inclusive educational strategies that consider diverse linguistic and cultural contexts to bridge literacy gaps and promote equitable learning opportunities for all children.

Unique Contribution to Theory, Practice and Policy: The Phonological Deficit Hypothesis, Simple View of Reading and the Emergent Literacy Theory may be used to anchor future studies on the role of phonological awareness in early reading development. The study recommended further exploration into the multifaceted nature of phonological awareness to advance theoretical models and emphasized the need for early, systematic, and engaging phonological awareness instruction in early childhood education. It called for individualized interventions for at-risk children, ongoing teacher professional development, and frequent monitoring of progress. The study also urged policymakers to invest in early literacy programs, ensure equitable access to educational resources, and include phonological awareness assessments in screening programs. Additionally, it advocated for increased collaboration between researchers, educators, and policymakers to create a cohesive approach to early literacy education.

Keywords: *Phonological Awareness, Early Reading Development, Theoretical Models, Early Childhood Education, Individualized Instruction*

1.0 INTRODUCTION

Early reading development is a critical aspect of a child's educational journey, involving the acquisition of foundational skills that facilitate literacy. This process encompasses the ability to recognize and manipulate sounds, understand the relationship between letters and sounds (phonics), develop vocabulary, and comprehend text. Early reading skills are typically cultivated through exposure to books, storytelling, and structured educational activities in preschools and early primary education. The effectiveness of these practices can vary significantly across different countries due to cultural, social, and educational factors. In the United States, early reading development is emphasized through structured programs and interventions aimed at preschoolers and kindergartners. According to the National Center for Education Statistics (NCES), approximately 40% of fourth graders scored at or above the proficient level in reading in 2019, indicating a substantial portion still struggle with reading proficiency (NCES, 2019). Programs such as "Reading Recovery" have been implemented to support struggling readers, focusing on individualized instruction to improve reading skills (Schwartz, 2014). The effectiveness of these programs highlights the importance of early intervention in mitigating reading difficulties.

In the United Kingdom, the "Phonics Screening Check" introduced in 2012 has played a pivotal role in early reading education. The check assesses the phonics knowledge of Year 1 students (typically aged 5-6), ensuring they have mastered the basic building blocks of reading. As of 2019, 82% of students met the expected standard in the phonics screening, reflecting the success of this initiative (Department for Education, 2019). The emphasis on phonics instruction has been supported by research indicating that systematic phonics instruction significantly improves early reading skills (Torgerson, Brooks, & Hall, 2018).

In Japan, early reading development is intertwined with the unique complexities of the Japanese writing system, which includes kanji, hiragana, and katakana. Japanese children typically learn to read through a combination of these scripts, starting with hiragana and katakana before gradually introducing kanji. According to Kobayashi, Koda & Kondo (2018), Japanese children demonstrate high levels of reading proficiency by the end of primary school, a testament to the rigorous and systematic approach to reading instruction. The cultural emphasis on education and the structured curriculum contribute to these high proficiency levels.

Brazil faces significant challenges in early reading development, with disparities in educational quality and access impacting literacy rates. The National Literacy Assessment (ANA) conducted in 2016 revealed that only 45% of third graders achieved the expected reading proficiency (Ministério da Educação, 2016). Efforts to address these challenges include the "National Pact for Literacy at the Right Age," which aims to ensure all children are literate by the end of third grade through teacher training and resource provision (Carnoy, Khavenson & Ivanova., 2017). These initiatives are crucial in addressing the literacy gap and improving early reading outcomes in Brazil.

In African countries, early reading development is often hindered by limited resources, lack of trained teachers, and socio-economic challenges. For instance, in Kenya, the Uwezo initiative's 2018 assessment found that only 38% of Grade 3 students could read a simple story in English or Kiswahili at the expected level (Uwezo, 2019). Programs such as "Tusome" (Let's Read) have been implemented to improve reading skills, focusing on providing textbooks, teacher training, and support (Piper, Zuilkowski & Ong'ele, 2018). These interventions have shown promising results, demonstrating the potential for improvement with targeted support.

Comparative studies highlight that early reading development is influenced by various factors, including educational policies, socio-economic status, and cultural attitudes towards education. In countries like the USA and UK, where there is significant investment in early education and systematic

approaches to reading instruction, higher proficiency levels are observed. Conversely, in countries like Brazil and many African nations, socio-economic disparities and resource limitations pose significant barriers to achieving widespread literacy. The importance of early reading development is underscored by its long-term impact on academic achievement and socio-economic outcomes. Children who develop strong reading skills early on are more likely to succeed academically and have better career prospects. This is supported by a longitudinal study in the USA, which found that early reading proficiency is a strong predictor of future academic success and earnings (Chetty, Friedman, Hilger, Saez, Schanzenbach & Yagan, 2011). Early reading development is a multifaceted process influenced by a range of factors, from educational policies to socio-economic conditions. While countries like the USA, UK, and Japan have developed effective strategies to support early literacy, challenges remain in regions like Brazil and Africa. Addressing these challenges requires comprehensive and targeted interventions, investment in education, and a commitment to ensuring that all children have the opportunity to develop strong reading skills from an early age.

Phonological awareness is a critical component of early reading development, encompassing a child's ability to recognize and manipulate the sound structures of language, including phonemes, syllables, onsets, and rimes. This skill is foundational for reading acquisition, as it allows children to understand that words are composed of discrete sounds, which can be blended, segmented, and manipulated. Research indicates that phonological awareness is a strong predictor of later reading success, making it a vital area of focus in early childhood education (Anthony & Francis, 2005). Without adequate phonological awareness, children are likely to struggle with decoding and word recognition, impeding their overall reading proficiency. Phonological awareness involves several levels of complexity, starting with the ability to recognize and produce rhymes, progressing to the ability to segment words into syllables, and eventually to the ability to identify and manipulate individual phonemes within words (Gillon, 2017). Each of these skills builds upon the other, forming a hierarchy of phonological awareness. For instance, a child who can identify that "cat" and "bat" rhyme may later develop the ability to segment the word "cat" into its constituent sounds /k/, /æ/, and /t/. This progression is crucial because it directly supports the development of phonics skills, where children learn the relationships between sounds and their corresponding letters.

The link between phonological awareness and early reading development is well-documented in the literature. Studies have consistently shown that children who possess strong phonological awareness skills are more successful in learning to read (Lonigan, Schatschneider, & Westberg, 2018). For example, Melby-Lervåg, Lyster & Hulme (2012) found that phonological awareness interventions significantly improved children's reading and spelling abilities. These interventions typically involve activities such as phoneme segmentation, blending, and manipulation, which help children develop a deeper understanding of the sound structure of language and its correspondence to written text. Phonological awareness also plays a crucial role in the development of decoding skills, which are essential for reading fluency and comprehension. Decoding involves translating written words into their spoken equivalents by applying knowledge of letter-sound correspondences. Without strong phonological awareness, children may find it difficult to decode unfamiliar words, leading to poor reading fluency and comprehension (Ehri, 2014). Castles, Rastle & Nation (2018) highlights that early phonological awareness is a key determinant of a child's ability to decode words accurately and efficiently, thereby facilitating fluent reading. In addition to its impact on decoding, phonological awareness is crucial for the development of spelling skills. Understanding the phonemic structure of words helps children spell words accurately by mapping sounds to letters. Treiman & Kessler (2014) indicates that phonological awareness training can improve spelling performance by helping children understand the systematic relationships between sounds and letters. This understanding is particularly

important for spelling irregular words, where children need to rely on their knowledge of phonological patterns rather than rote memorization.

Phonological awareness also supports vocabulary development, as it enables children to segment and blend sounds to form new words, thereby expanding their lexical repertoire. A rich vocabulary is essential for reading comprehension, as it allows children to understand and interpret the meaning of texts. According to Nagy & Townsend (2012), phonological awareness contributes to vocabulary growth by facilitating the acquisition of new words and enhancing children's ability to recognize and produce complex word forms. This, in turn, supports their overall reading comprehension and academic achievement. The importance of phonological awareness in early reading development is underscored by its inclusion in many early literacy curricula and assessments. Programs that emphasize phonological awareness activities, such as phoneme segmentation, blending, and rhyming, have been shown to enhance children's reading outcomes (National Reading Panel, 2000). For instance, the "Jolly Phonics" program, which incorporates systematic phonics instruction and phonological awareness activities, has been widely adopted in early childhood education settings and has demonstrated positive effects on children's reading skills (Stuart, 2004).

Moreover, phonological awareness is not only relevant for monolingual children but also for bilingual and multilingual learners. Research by Bialystok, Luk & Kwan (2005) suggests that bilingual children often exhibit heightened phonological awareness due to their exposure to multiple languages, which enhances their ability to perceive and manipulate sound structures. This bilingual advantage can contribute to more effective reading development, as bilingual children may transfer their phonological skills across languages, facilitating literacy acquisition in both their native and second languages. Phonological awareness is a foundational skill for early reading development, influencing decoding, spelling, vocabulary acquisition, and reading comprehension. Its critical role is supported by extensive research, which highlights the benefits of phonological awareness training and its inclusion in early literacy programs. By fostering phonological awareness in young children, educators can provide them with the essential skills needed for successful reading development, ultimately enhancing their academic achievement and lifelong learning.

1.1 Statement of the Problem

Despite substantial evidence supporting the importance of phonological awareness in early reading development, many children worldwide continue to struggle with reading proficiency, highlighting a critical gap in current educational practices and interventions. In the United States, for example, only 35% of fourth graders scored at or above the proficient level in reading according to the National Assessment of Educational Progress (NAEP) 2019 report (National Center for Education Statistics, 2019). This statistic underscores a pressing need to investigate more deeply how phonological awareness can be effectively cultivated in early childhood to improve reading outcomes. Current literature indicates that while phonological awareness is crucial, there is a lack of comprehensive, scalable strategies that can be implemented across diverse educational settings to ensure that all children develop these foundational skills (Anthony & Francis, 2005). This study aims to address this gap by exploring innovative approaches to enhancing phonological awareness and examining their impact on early reading development. Additionally, there is a significant research gap regarding the differential impact of phonological awareness training across various demographic groups and educational contexts. Most studies have primarily focused on English-speaking children in Western contexts, leaving a gap in understanding how these findings translate to other linguistic and cultural settings (Lonigan, Schatschneider, & Westberg, 2018). For instance, the mechanisms through which phonological awareness contributes to reading development in languages with different orthographic complexities, such as Japanese or Brazilian Portuguese, are not well understood (Melby-Lervåg,

Lyster, & Hulme, 2012). By conducting a comparative analysis involving diverse linguistic and cultural contexts, this study aims to fill these gaps, providing insights that can inform tailored educational strategies and interventions globally. This broader perspective is crucial for developing inclusive educational policies that cater to the needs of all learners. The findings from this study will have significant implications for educators, policymakers, and researchers. Educators will benefit from evidence-based strategies to enhance phonological awareness in their classrooms, leading to improved reading outcomes for their students. Policymakers will gain insights into the effectiveness of different phonological awareness interventions, informing the allocation of resources and the development of national literacy programs. Researchers will benefit from a deeper understanding of the role of phonological awareness in reading development across diverse contexts, providing a foundation for further studies. Ultimately, by addressing the gaps in current research and practice, this study aims to contribute to the overarching goal of improving literacy rates and educational outcomes for children worldwide (Torgerson, Brooks, & Hall, 2018).

2.0 LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 The Phonological Deficit Hypothesis

The Phonological Deficit Hypothesis, originally proposed by researchers such as Wagner and Torgesen (1987), posits that deficits in phonological processing are a primary cause of reading difficulties. This theory suggests that children with reading disabilities, particularly dyslexia, have significant difficulties with phonological awareness, phonological memory, and phonological retrieval. These deficits hinder their ability to decode words and, consequently, to read fluently. Phonological awareness, which includes the ability to recognize and manipulate the sounds within words, is crucial for decoding because it allows children to break down words into smaller phonetic units and understand the correspondence between these units and written letters. The relevance of this theory to the study of phonological awareness in early reading development is profound. By focusing on phonological deficits, educators and researchers can identify at-risk children early and implement targeted interventions to improve their phonological processing skills, thereby enhancing their reading development and mitigating future reading difficulties (Wagner & Torgesen, 1987).

2.1.1 The Simple View of Reading

The Simple View of Reading, developed by Gough and Tunmer (1986), posits that reading comprehension is the product of two primary components: decoding (the ability to translate printed text into spoken words) and linguistic comprehension (the ability to understand spoken language). According to this model, both components are essential for successful reading comprehension, and a deficiency in either can lead to reading difficulties. Phonological awareness is directly linked to the decoding component of this theory. Decoding relies heavily on phonological processing skills, as children must understand the relationship between sounds and their corresponding letters to read words accurately. The Simple View of Reading underscores the importance of phonological awareness in the initial stages of reading development. By strengthening phonological awareness, children improve their decoding skills, which, in turn, supports their overall reading comprehension. This theory provides a clear framework for understanding how phonological awareness contributes to early reading development and highlights the need for balanced instruction that addresses both decoding and linguistic comprehension (Gough & Tunmer, 1986).

2.1.3 The Emergent Literacy Theory

The Emergent Literacy Theory, introduced by Marie Clay (1966), emphasizes that literacy development begins at a very young age, well before formal schooling. According to this theory,

children's experiences with spoken language, books, and print in their early years lay the foundation for their later reading and writing skills. Emergent literacy includes a range of skills such as vocabulary, narrative skills, and, critically, phonological awareness. Phonological awareness is a key component of emergent literacy because it involves the ability to hear and manipulate sounds, which is essential for learning to read. Clay's theory suggests that early exposure to rich linguistic environments and engaging in literacy activities, such as reading aloud and playing sound-based games, can significantly enhance phonological awareness. The relevance of the Emergent Literacy Theory to the study of phonological awareness in early reading development lies in its holistic approach. It advocates for creating supportive and language-rich environments for young children, recognizing that fostering phonological awareness from an early age can lead to successful reading outcomes as children transition to formal education (Clay, 1966).

2.2 Empirical Review

Melby-Lervåg, Lyster & Hulme (2012) investigated the role of phonological skills in the development of reading and spelling abilities in children. The researchers conducted a meta-analytic review of studies involving phonological awareness interventions. They included a total of 235 studies, focusing on the effects of these interventions on reading and spelling outcomes. The meta-analysis revealed that phonological awareness interventions significantly improved children's reading and spelling skills. The effects were particularly strong for phonemic awareness and its impact on early decoding skills. The authors recommended the incorporation of systematic phonological awareness training in early childhood education to support the development of reading and spelling skills.

Lonigan, Schatschneider & Westberg (2018) aimed to identify the critical skills and abilities linked to later outcomes in reading, writing, and spelling. The researchers used a longitudinal design, tracking a cohort of preschool children through early elementary school. They assessed various phonological awareness skills and their impact on reading development. The study found that phonological awareness was a strong predictor of later reading success. Children with higher levels of phonological awareness in preschool exhibited better reading and writing skills in early elementary school. The authors suggested early identification and support for children with low phonological awareness to improve long-term reading outcomes.

Castles, Rastle & Nation (2018) aimed to end the so-called "reading wars" by providing a comprehensive review of the evidence on reading acquisition from novice to expert. The researchers conducted an extensive review of empirical studies on reading development, focusing on phonological awareness, decoding, and reading comprehension. The review highlighted the critical role of phonological awareness in the early stages of reading acquisition. It underscored that phonological awareness is foundational for decoding and fluent reading. The authors recommended a balanced approach to reading instruction that includes explicit teaching of phonological awareness and phonics alongside opportunities for rich language experiences.

Ehri (2014) examined the role of orthographic mapping in the acquisition of sight word reading, spelling memory, and vocabulary learning. The study reviewed various empirical studies and theoretical models to explore how phonological awareness contributes to orthographic mapping and its impact on reading development. The study found that phonological awareness is essential for orthographic mapping, which is the process of forming connections between graphemes and phonemes. This mapping is crucial for developing sight word reading and spelling skills. The author recommended that early reading instruction should emphasize phonological awareness to facilitate orthographic mapping and improve reading fluency.

Torgerson, Brooks & Hall (2018) aimed to systematically review the impact of phonics teaching on reading and spelling attainment. The researchers conducted a systematic review and meta-analysis of

studies focusing on phonics instruction and its effects on reading and spelling skills. The review found that systematic phonics instruction, which includes phonological awareness training, significantly improves reading and spelling outcomes, especially in the early years of schooling. The authors recommended the integration of systematic phonics instruction into early literacy programs to enhance reading and spelling development.

Gillon (2017) explored the effectiveness of phonological awareness interventions for children with speech and language difficulties. The researcher conducted an intervention study with children who had speech and language impairments, implementing a phonological awareness program and measuring its effects on reading development. The study found that targeted phonological awareness interventions significantly improved the reading skills of children with speech and language difficulties. Improvements were noted in both decoding and reading comprehension. The author recommended that phonological awareness interventions be a central component of literacy programs for children with speech and language impairments.

Nagy & Townsend (2012) examined how phonological awareness contributes to academic vocabulary acquisition and overall reading comprehension. The researchers conducted a longitudinal study with elementary school students, assessing their phonological awareness and its impact on vocabulary development and reading comprehension over time. The study found that phonological awareness significantly contributes to vocabulary acquisition, which in turn enhances reading comprehension. Students with higher phonological awareness demonstrated better vocabulary and comprehension skills. The authors suggested integrating phonological awareness activities with vocabulary instruction to improve reading comprehension and academic success.

3.0 METHODOLOGY

The study adopted a desktop research methodology. Desk research refers to secondary data or that which can be collected without fieldwork. Desk research is basically involved in collecting data from existing resources hence it is often considered a low cost technique as compared to field research, as the main cost is involved in executive's time, telephone charges and directories. Thus, the study relied on already published studies, reports and statistics. This secondary data was easily accessed through the online journals and library.

4.0 FINDINGS

This study presented both a contextual and methodological gap. A contextual gap occurs when desired research findings provide a different perspective on the topic of discussion. For instance, Nagy & Townsend (2012) examined how phonological awareness contributes to academic vocabulary acquisition and overall reading comprehension. The researchers conducted a longitudinal study with elementary school students, assessing their phonological awareness and its impact on vocabulary development and reading comprehension over time. The study found that phonological awareness significantly contributes to vocabulary acquisition, which in turn enhances reading comprehension. Students with higher phonological awareness demonstrated better vocabulary and comprehension skills. The authors suggested integrating phonological awareness activities with vocabulary instruction to improve reading comprehension and academic success. On the other hand, the current study focused on investigating the role of phonological awareness in early reading development.

Secondly, a methodological gap also presents itself, for instance, in examining how phonological awareness contributes to academic vocabulary acquisition and overall reading comprehension; Nagy & Townsend (2012) conducted a longitudinal study with elementary school students, assessing their phonological awareness and its impact on vocabulary development and reading comprehension over time. Whereas, the current study adopted a desktop research method.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The study highlights the indispensable nature of phonological awareness as a foundational skill for reading acquisition. Phonological awareness, which involves the ability to recognize and manipulate sounds in spoken language, emerges as a critical precursor to the development of decoding skills necessary for reading proficiency. Children who develop strong phonological awareness in the early years are better equipped to understand the alphabetic principle, which is the understanding that letters and letter patterns represent the sounds of spoken language. This foundational skill not only aids in the accurate decoding of words but also contributes significantly to the development of fluent reading and comprehensive literacy skills.

The study underscores the importance of early intervention and systematic phonological awareness instruction in early childhood education. Through various phonological awareness activities, such as rhyming, segmenting, and blending sounds, children can develop a keen awareness of the sound structures of language, which is crucial for reading development. These activities should be embedded in early literacy programs and curricula to ensure that all children, regardless of their socio-economic background or linguistic environment, have the opportunity to develop these essential skills. The evidence suggests that targeted phonological awareness interventions can lead to significant improvements in reading outcomes, thereby reducing the incidence of reading difficulties and promoting long-term academic success.

Moreover, the study highlights the role of phonological awareness in the broader context of language and literacy development. It is not only a predictor of reading success but also plays a crucial role in the development of spelling and vocabulary. Children who have strong phonological awareness are better at orthographic mapping, which involves the ability to remember how words look based on their sounds, leading to better spelling skills. Additionally, phonological awareness facilitates the acquisition of new vocabulary, as it enables children to decode and comprehend new words, thereby expanding their lexical knowledge. This comprehensive understanding of the role of phonological awareness underscores its importance in fostering overall language proficiency and literacy.

The study calls for a more integrated and inclusive approach to early literacy education. Recognizing the diversity of linguistic and cultural contexts in which children develop, the study advocates for educational strategies that are adaptable and sensitive to the needs of different learner populations. This includes considering the specific phonological characteristics of different languages and dialects, as well as the varying educational resources available in different regions. By promoting a more nuanced and equitable approach to phonological awareness instruction, educators and policymakers can help bridge the literacy gap and ensure that all children have the foundational skills necessary for reading success and lifelong learning. This approach not only addresses current educational disparities but also fosters a more inclusive and literate society.

5.2 Recommendations

The study led to several important recommendations that contribute to theory, practice, and policy. For theoretical advancements, the study recommended further exploration into the multifaceted nature of phonological awareness. It highlighted the need for more comprehensive models that integrate phonological awareness with other cognitive and linguistic skills, such as working memory and language comprehension. These models should account for the interplay between phonological awareness and these skills, providing a more holistic understanding of how children develop reading abilities. This would also involve longitudinal studies that track phonological awareness development and its impact on reading proficiency over time, thereby refining theoretical frameworks.

In terms of practical application, the study emphasized the need for early and systematic phonological awareness instruction in early childhood education. Educators should incorporate a variety of phonological awareness activities into their daily routines, such as rhyming games, syllable segmentation, and phoneme manipulation tasks. These activities should be engaging and age-appropriate, ensuring that children find them enjoyable and accessible. Additionally, the study recommended ongoing professional development for teachers to equip them with the necessary skills and knowledge to effectively teach phonological awareness. This includes training on how to assess phonological awareness and tailor instruction to meet the diverse needs of learners.

The study also underscored the importance of individualized instruction, particularly for children who are at risk of reading difficulties. It recommended that schools implement targeted interventions for students who exhibit weaknesses in phonological awareness. These interventions should be evidence-based and include frequent monitoring to track progress and adjust instructional strategies as needed. The use of small group or one-on-one instruction can be particularly effective in providing the intensive support that some children require. By addressing phonological awareness deficits early on, educators can prevent more severe reading problems from developing later.

From a policy perspective, the study called for greater investment in early childhood education programs that emphasize phonological awareness. Policymakers should allocate resources to develop and implement comprehensive early literacy curricula that include a strong focus on phonological awareness. This involves not only providing funding for educational materials and resources but also ensuring that schools have access to trained literacy specialists who can support teachers and students. Furthermore, the study recommended the inclusion of phonological awareness assessments in early literacy screening programs to identify children who may need additional support.

The study also highlighted the need for policies that promote equitable access to high-quality early literacy education. It recommended that policymakers address disparities in educational resources and opportunities, particularly in underserved communities. This includes ensuring that all children, regardless of their socio-economic background, have access to books, literacy-rich environments, and experienced educators. By reducing these disparities, policymakers can help close the literacy gap and provide all children with a strong foundation for reading success.

Finally, the study advocated for increased collaboration between researchers, educators, and policymakers to create a cohesive and coordinated approach to early literacy education. It recommended the establishment of partnerships and networks that facilitate the sharing of best practices, research findings, and resources. Such collaboration can help ensure that the latest scientific insights into phonological awareness are translated into effective educational practices and policies. By working together, stakeholders can create a supportive and enriched environment that fosters the development of phonological awareness and, consequently, early reading skills.

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