

A Transformative Model for Strengthening Teachers' Roles in Fostering Literacy Practices in Under-Resourced Preschool Classrooms

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Abstract

Background: Early literacy development of preschoolers strongly depends on teacher actions, which promote literacy practices. Preschool teachers who work in underfunded educational environments encounter multiple difficulties because they must manage insufficient resources and lack both educational resources and professional development opportunities. The challenges limit successful application of literacy practices which results in detrimental effects on early literacy growth of children. The researchers focused on creating and assessing a Preschool Literacy Practice Model as an organised structure to boost preschool teachers' contributions to developing literacy practices within classroom environments.

Method: The researchers applied a descriptive phenomenological qualitative method to understand teachers' practices for literacy development. A total of 15 preschool teachers who teach children between three to five years old in Centurion-based preschools took part in intense interview sessions. The research team analysed the gathered information with thematic methods, leading to the development of the model. The Preschool Literacy Practice Model followed Walker and Avant's theory development process and received evaluation through Chinn and Kramer's theory evaluation system. A group of experts used the Delphi technique to evaluate the model for clarity as well as its applicability and consistency, and its relevance to the field.

Results: The Preschool Literacy Practice Model introduces a transformative approach to strengthening literacy instruction in under-resourced classrooms. It comprises five interdependent components: context, inputs, processes, outputs, and outcomes, creating a structured roadmap for sustainable literacy development. By integrating strategic teacher training, targeted resource allocation, enhanced classroom literacy interactions, and ongoing evaluation mechanisms, the model provides a scalable and adaptable framework that empowers teachers. Its application enhances instructional effectiveness, fosters a more engaging and literacy-rich environment for pre-schoolers, and strengthens foundational literacy skills that extend into formal schooling.

Conclusion: The model serves as a practical and evidence-based framework for preschool teachers, policymakers, and education stakeholders. Its implementation can revolutionise early literacy education by improving teaching strategies, optimising resource utilisation, and bridging the literacy gap in under-resourced preschool settings.

Keywords

Preschool Literacy¹, Teacher Roles², Literacy Practices³, Under-Resourced Classrooms⁴, Educational Model Development⁵

1. Introduction

Literacy development in early childhood serves as a cornerstone for academic success and lifelong learning. The preschool years are critical for developing foundational literacy skills, including phonemic awareness, vocabulary acquisition, and print recognition (Shanahan & Lonigan, 2010). Research indicates that children who receive high-quality literacy instruction in preschool are more likely to succeed in later schooling, whereas those with poor literacy foundations often struggle with reading and comprehension throughout their education (Neuman & Knapczyk, 2022). However, in many under-resourced settings, preschool teachers face significant challenges in fostering literacy development due to limited access to teaching materials, inadequate professional training, and systemic barriers within the education sector (Slot et al., 2018).

Teachers play an essential role in shaping preschoolers' literacy skills through structured instruction, interactive learning activities, and engagement with diverse literacy resources (Howie et al., 2017). Despite this, many early childhood educators in South Africa and other low-resource environments lack the necessary support and training to implement effective literacy practices (Motshekga, 2015). This lack of preparation leads to inconsistent literacy instruction, ultimately contributing to poor literacy outcomes among young learners (Van Der Berg et al., 2019). The Preschool Literacy Practice Model proposed in this study aims to address these gaps by providing a structured framework for enhancing teachers' roles in fostering literacy development, particularly in under-resourced preschool classrooms.

A strong early literacy foundation is crucial in reducing educational disparities and promoting equitable learning opportunities (Fishman & Herrenkohl, 2022). Global initiatives such as the Sustainable Development Goals (SDG 4) emphasise the importance of providing quality early childhood education to ensure that all children are prepared for primary schooling (Rad et al., 2022). However, despite these international efforts, the practical implementation of effective literacy programmes remains a challenge, especially in low-income communities where teachers struggle with inadequate funding, limited classroom resources, and insufficient institutional support (Atmore et al., 2012). Research suggests that a structured, systems-based approach can enhance the effectiveness of literacy instruction by aligning teacher training, curriculum development, and resource allocation within a unified framework (Arnold & Wade, 2015).

This study is guided by two key theoretical perspectives: Sociocultural Theory (Vygotsky, 1978) and systems theory (Von Bertalanffy, 1972). Vygotsky's Sociocultural Theory emphasises the importance of teacher-child interactions in literacy learning, positing that children develop literacy skills through guided participation and scaffolding within a social context (Pentimonti & Justice, 2010). This theory highlights the critical role of teachers in mediating literacy experiences and fostering meaningful engagement with language and text (Hiebert, 2020). On the other hand, the systems theory provides a holistic lens for understanding how various interconnected factors – such as teacher training, resource availability, and educational policies – shape literacy outcomes in preschool settings (Shaw, 2009). By integrating these theoretical perspectives, the Preschool Literacy Practice Model presents a comprehensive approach to improving literacy instruction in early childhood education.

Despite the growing body of research on preschool literacy practices, gaps remain in understanding the specific roles of teachers in fostering literacy in under-resourced classrooms. Studies have largely focused on literacy curriculum design and classroom organisation, with limited attention given to how teachers navigate challenges related to training, resources, and instructional support (Johari & Yunus, 2021; Kılınççı & Bayraktar, 2021). This study sought to fill this gap by examining the experiences of preschool teachers and developing a structured, evidence-based model to enhance literacy practices. The model aims to provide practical solutions that can be adapted and implemented across diverse preschool contexts, particularly in low-income communities where literacy development is most at risk.

The primary aim of this study was to develop and evaluate a Preschool Literacy Practice Model that enhances the roles of teachers in fostering literacy practices in under-resourced preschool classrooms. To achieve this, the study was guided by the following objectives:

- To explore teachers' roles in fostering literacy practices in preschool classrooms.
- To identify challenges impeding effective literacy instruction.
- To develop a structured model to support preschool teachers in enhancing literacy outcomes.

The research was further driven by the following question: “What are the roles of teachers in fostering literacy practices in selected preschool classrooms in under-resourced settings?”

This study contributes to the field of early childhood education by offering a practical, evidence-based model that can be integrated into teacher training programmes, policy development, and classroom practices. The findings will be valuable to educators, policymakers, and stakeholders involved in literacy development, providing a systematic approach to improving literacy instruction in preschool settings. By addressing the structural and instructional barriers faced by preschool teachers, the study sought to create a sustainable model that fosters meaningful and impactful literacy learning experiences for young children.

1.1. Literature Review

1.1.1. Theoretical Foundations of Preschool Literacy Development

Preschool literacy development is deeply influenced by theoretical perspectives that shape early childhood education practices. Vygotsky’s sociocultural theory emphasises the role of social interactions and scaffolding in literacy acquisition, arguing that children develop literacy skills through guided participation with more knowledgeable individuals (Vygotsky, 1978). This perspective aligns with research suggesting that teacher-led literacy practices play a crucial role in enhancing early literacy development (Pentimonti & Justice, 2010). Complementing this, systems theory offers a broader framework by examining how multiple interconnected factors, including institutional support, teacher training, and parental involvement, influence literacy outcomes (Von Bertalanffy, 1972). By integrating these perspectives, this study situates the Preschool Literacy Practice Model within a structured framework that recognises both the immediate instructional environment and the broader systemic influences on preschool literacy development.

1.1.2. Conceptualising Preschool Literacy Practices

Literacy practices in preschool settings encompass a range of activities, including storytelling, phonemic awareness exercises, print awareness, and early writing experiences (Snow, Burns & Griffin, 1998). These practices are vital for cognitive and language development, influencing

children's ability to transition successfully into formal schooling. According to Neuman and Celano (2012), preschoolers exposed to literacy-rich environments demonstrate greater reading fluency and comprehension skills later in their academic journey. The role of teachers in integrating structured literacy practices, such as shared reading and interactive writing, has been well-documented (Justice et al., 2008). However, disparities in classroom resources and instructional quality significantly impact the extent to which these practices are effectively implemented in under-resourced settings (Van Der Berg et al., 2019).

1.1.3. Challenges in Preschool Literacy Instruction

Several barriers hinder the effective implementation of literacy instruction in preschool settings, particularly in under-resourced environments. One major challenge is insufficient teacher training, as many early childhood educators lack specialised knowledge in literacy pedagogy (Atmore et al., 2012). Research indicates that teachers with limited training in literacy instruction often struggle with incorporating evidence-based strategies into their classrooms (Wasik & Hindman, 2006). Additionally, inadequate teaching resources pose a significant challenge. Access to books, literacy manipulatives, and digital learning tools remains scarce in low-income communities, leading to gaps in literacy development among preschoolers (Nandi et al., 2016).

Another critical issue is the lack of parental involvement in literacy development. Studies suggest that children from disadvantaged backgrounds often experience limited exposure to literacy activities at home, making school-based literacy instruction even more crucial (Hart & Risley, 2003). However, many parents in under-resourced communities lack the knowledge or confidence to engage in early literacy activities with their children (Evans & Shaw, 2008). Furthermore, policy gaps and inconsistent early childhood education frameworks have led to fragmented literacy initiatives, making it difficult for preschool teachers to implement standardised literacy practices effectively (Motshekga, 2015).

1.1.4. Existing Models for Enhancing Literacy Practices

Several literacy intervention models have been developed to address early childhood literacy challenges. The Emergent Literacy Model (Teale & Sulzby, 1986) highlights the importance of integrating reading and writing experiences from an early age, emphasising a child-centred approach to literacy development. Another well-known framework is the Balanced Literacy Model, which combines phonics-based instruction with whole-language approaches to create a comprehensive literacy curriculum (Pressley, 2002). However, while these models provide valuable insights into literacy instruction, they often fail to account for the specific constraints faced by teachers in under-resourced settings.

The Preschool Literacy Practice Model, as proposed in this study, seeks to build upon existing frameworks by incorporating a systems-based approach that aligns teacher training, instructional strategies, and resource allocation within a structured framework. Unlike traditional models that focus solely on curriculum design, this model emphasises the role of teachers as active facilitators of literacy while acknowledging the institutional and community-based challenges that affect literacy instruction in under-resourced environments.

1.1.5. Bridging the Gap: A Systems-Based Approach

A systems-based approach to literacy instruction considers the interconnected factors that influence preschool literacy outcomes. According to Bronfenbrenner's Ecological Systems Theory (1979),

early childhood education is shaped by multiple layers of influence, including immediate classroom environments, school policies, and broader societal structures. The Preschool Literacy Practice Model aligns with this perspective by recognising the importance of multi-level interventions, where teacher training, classroom support, and parental involvement work together to create a holistic literacy ecosystem.

Key elements of the model include teacher capacity building through ongoing professional development, strategic resource allocation to enhance classroom literacy environments, and community engagement initiatives that empower parents to support literacy at home. By addressing these factors simultaneously, the model provides a sustainable solution for improving literacy outcomes in under-resourced preschool settings. The literature review highlights the critical role of teachers in fostering literacy practices and the significant challenges faced in under-resourced preschool environments. While existing literacy frameworks offer valuable insights, they often fail to address the systemic barriers that hinder effective literacy instruction. The Preschool Literacy Practice Model builds on previous research by offering a structured, systems-based approach that integrates teacher support, instructional strategies, and resource optimisation. By situating literacy development within a broader educational ecosystem, this model presents a scalable and adaptable framework that can be implemented across diverse preschool contexts, ultimately contributing to improved literacy outcomes for young children.

2. Methodology

1.2. Research Design and Approach

This study employed a descriptive phenomenological research design to explore the lived experiences of preschool teachers in fostering literacy practices within under-resourced settings (Creswell & Poth, 2016). Phenomenology is well-suited for studies that seek to understand participants' experiences, perceptions, and challenges in their natural environments (Moustakas, 1994). This qualitative approach facilitated an in-depth analysis of how teachers navigate literacy instruction with limited resources while also informing the development of the Preschool Literacy Practice Model (Van Manen, 2016).

1.3. Theoretical Framework

This study was guided by Walker and Avant's Theory Development Steps (Walker, 2006) and Chinn and Kramer's Theory Evaluation Framework (Chinn & Kramer, 2018). Walker and Avant's methodology was used to systematically develop and refine the Preschool Literacy Practice Model, ensuring its conceptual clarity and practical applicability. Chinn and Kramer's framework provided a basis for evaluating the model's clarity, consistency, generality, accessibility, and applicability. Together, these frameworks ensured that the developed model was both theoretically sound and practically useful in preschool literacy instruction.

The application of these frameworks in this study followed a structured approach. Walker and Avant's Theory Development Steps were used to conceptualise and define the key components of the Preschool Literacy Practice Model, ensuring that each element was grounded in empirical data and theoretical insights (Walker, 2006). The process included identifying core literacy challenges, defining the model's constructs, and systematically developing a framework that aligns with best practices in early childhood education (Neuman & Celano, 2012). Chinn and Kramer's Theory Evaluation Framework was subsequently employed to assess the validity and applicability of the model (Chinn & Kramer, 2018). The model was evaluated for clarity in defining teacher roles and instructional strategies, consistency in its application across different preschool settings, and generality to ensure adaptability to various learning environments (Justice et al., 2008). Accessibility

was examined in terms of its practical implementation in resource-constrained settings, while applicability was tested through expert reviews and feedback from preschool educators (Wasik & Hindman, 2006). This systematic approach ensured that the Preschool Literacy Practice Model is both evidence-based and practical, providing a structured guide for enhancing literacy instruction in under-resourced classrooms.

1.4. Study Setting and Population

The study was conducted in under-resourced preschool classrooms within selected regions where literacy challenges are prevalent (Neuman & Celano, 2012). The target population consisted of preschool teachers working in schools with limited access to educational resources. These teachers were chosen based on their direct involvement in early literacy instruction, ensuring that the study captured authentic experiences and strategies used in low-resource settings (Atmore et al., 2012).

1.5. Sampling Method and Sample Size

A purposive sampling technique was used to select participants who met specific inclusion criteria (Palinkas et al., 2015). This method was appropriate for identifying information-rich cases where participants had direct experience in preschool literacy instruction. A total of 15 preschool teachers were selected for in-depth interviews, allowing for data saturation while ensuring diverse perspectives across different educational settings (Guest, Bunce, & Johnson, 2006).

1.6. Inclusion and Exclusion Criteria

Inclusion Criteria:

- Preschool teachers with at least two years of teaching experience (Pianta et al., 2010).
- Educators working in under-resourced classrooms where literacy challenges are prevalent (Heckman, 2011).
- Teachers actively involved in early literacy instruction and curriculum implementation (Snow et al., 1998).
- Willingness to participate in interviews and follow-up discussions.

Exclusion Criteria:

- Teachers with less than two years of experience in preschool education.
- Educators working in well-funded or high-resource learning environments.
- Teachers without direct involvement in literacy instruction.
- Individuals unwilling to provide informed consent for participation.

1.7. Data Collection Methods

The study employed semi-structured interviews as the primary data collection method (Kvale & Brinkmann, 2015). Interviews were conducted face to face and via virtual platforms, where necessary, ensuring accessibility for all participants. The interviews focused on themes such as teaching strategies, challenges faced, resource constraints, and innovative practices in literacy

instruction. Additionally, field observations were conducted to complement interview findings, capturing real-time interactions in preschool literacy environments (Patton, 2022).

1.8. Data Analysis

Thematic analysis was used to identify patterns, themes, and recurring challenges across participant responses (Braun & Clarke, 2006). The collected data were transcribed, coded, and categorized using MAX Qualitative Data Analysis (MAXQDA) software to facilitate systematic analysis (Rädiker & Morgenstern-Einenkel, 2022). Key themes that emerged from the data were used to inform the development of the Preschool Literacy Practice Model, ensuring that the model was grounded in real-world teaching experiences.

1.9. Model Development Process

The Preschool Literacy Practice Model was developed through an iterative process guided by:

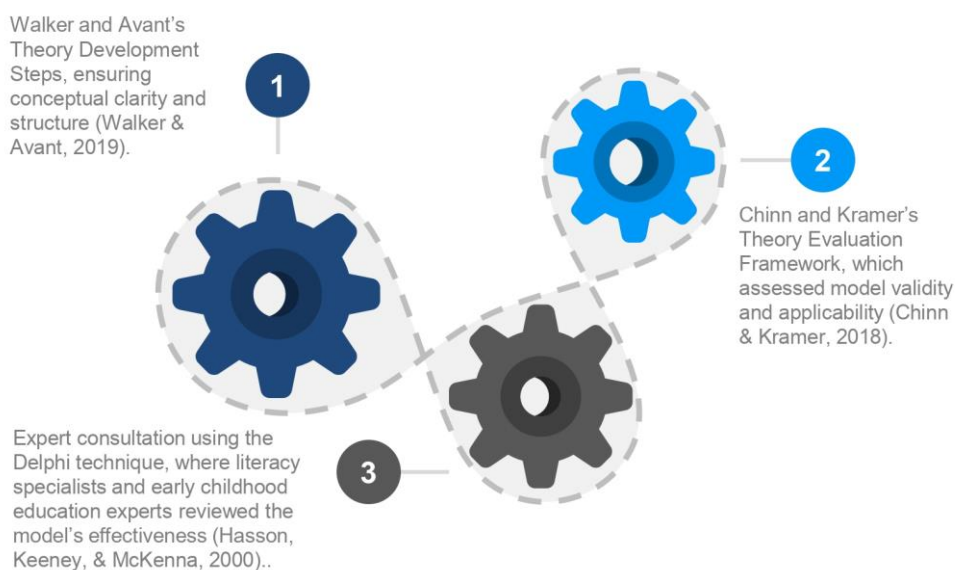


Diagram 1: Model Process

1.10. Ethical Considerations

This study adhered to ethical research standards to protect participant rights and confidentiality (Orb, Eisenhauer, & Wynaden, 2001). Ethical clearance was granted by the University of Zululand, and approval was obtained from the relevant Institutional Review Board (IRB) before data collection. Participants provided written informed consent, and confidentiality was maintained by anonymising responses. Ethical principles such as voluntary participation, the right to withdraw, and non-maleficence were strictly upheld throughout the study (Beauchamp & Childress, 2019).

1.11. Reliability and Validity

To ensure trustworthiness, the study incorporated credibility, transferability, dependability, and confirmability as key validity measures (Lincoln & Guba, 1985). Member checking was used, where participants reviewed transcripts for accuracy (Birt et al., 2016). Triangulation was achieved by using multiple data sources (interviews, observations, and expert reviews) to validate findings (Denzin, 2012). The Delphi technique was employed to refine the model and ensure expert consensus on its applicability (Okoli & Pawlowski, 2004).

This methodology section outlines the qualitative, phenomenological approach used to explore teachers' experiences in fostering preschool literacy in under-resourced settings. By integrating systematic model development steps, rigorous data analysis, and expert validation, this study ensures the credibility and applicability of the Preschool Literacy Practice Model.

3. Results

3.1. Overview of Findings

The findings from the study provided an in-depth understanding of the roles of teachers in fostering literacy practices in preschool classrooms within under-resourced settings. Data analysis revealed three major superordinate themes, each with sub-themes outlining the lived experiences, challenges, and strategies adopted by teachers. These themes aligned with the study's objectives and contributed to the development of the Preschool Literacy Practice Model. Table 3:1 shows the identified themes broken down into superordinate themes, and sub-themes.

Table 3.1: Summary of Themes and Sub-Themes

Superordinate Theme	Theme	Sub-Themes
Role of Teachers in Fostering Literacy Practices	Nurturer	Ensuring safety and protection, building trust, encouraging exploration
	Researcher	Enhancing literacy knowledge, understanding literacy policies
	Facilitator	Decision-making on literacy practices, expanding learning experiences
	Advocate	Liaising with parents, advocating for resources, ensuring child well-being
Literacy Practices Fostered in Classrooms	Talking	Learning words, using learnt words
	Rhyming	Learning rhymes, using rhymes to enhance literacy
	Reading	Learning alphabet letters and sounds, understanding print concepts, engaging in print awareness
	Writing	Orientation to writing, experimenting with writing
Challenges in Fostering Literacy Practices	Parental Influence	Lack of understanding, parental expectations, communication challenges
	Technology	Lack of internet access, technology use mismatch between home and school
	Government Support	Lack of teaching resources, insufficient teacher development, lack of incentives

3.2. Role of Teachers in Fostering Literacy Practices

3.2.1. Nurturer

Teachers play a nurturing role by ensuring preschoolers' safety, building trust, and encouraging active exploration of literacy practices. One participant highlighted,

"I keep my eyes on the tools just as much as I look at how they are using them, but with 26 children, it is not always possible when working alone" (Bella).

The challenge of overcrowded classrooms limits the ability of teachers to provide a structured literacy-rich environment. However, teachers employ creative strategies to promote safety and engagement, such as using songs for transitions and structured group interactions.

3.2.2. Researcher

Preschool teachers must continuously enhance their literacy knowledge and stay updated with policy guidelines. However, many teachers in this study lacked formal training in literacy instruction. As one participant noted,

"I would like to learn new things to improve my literacy teachings, but money and time are always a problem" (Faith).

The findings aligned with research suggesting that professional development is essential for improving literacy outcomes (Ebrahim, Okwany, & Barry, 2020).

3.2.3. Facilitator

Teachers in under-resourced settings make crucial decisions about the literacy experiences provided in classrooms. However, limited access to instructional materials affects their ability to implement evidence-based teaching strategies. One teacher explained,

"It is not easy to teach when you do not have materials, and what we get at the start of the year must last the whole year" (Cindi).

Research indicates that effective facilitation requires structured resource allocation (Mukiti, 2016).

3.2.4. Advocate

Teachers actively liaise with parents, advocate for learning materials, and ensure child well-being. However, collaboration with parents remains inconsistent, as expressed by a participant:

"Some parents are too busy and rely on nannies for preschool-related activities" (Anna).

Advocacy efforts focus on securing classroom resources and addressing child welfare concerns.

3.3. Literacy Practices Fostered in Classrooms

3.3.1. Talking

Preschool teachers encourage vocabulary development through storytelling and structured conversations. However, challenges arise with children who lack foundational language skills. One teacher noted,

"Most of the children in my class this year can't talk, whether in English or their mother tongue. This is concerning" (Anna).

Research supports the need for language-rich environments to enhance vocabulary acquisition (Rupley et al., 2012).

3.3.2. Rhyming

Rhymes are a popular literacy strategy, aiding phonemic awareness and memory retention. Teachers utilise both electronic and traditional methods, as one explained:

"We do rhymes electronically in the morning, then repeat them as a group activity" (Mandy).

Studies confirm that rhymes improve literacy retention and engagement (Prosic-Santovac, 2015).

3.3.3. Reading and Writing

Teachers introduce alphabet letters and print concepts, but inconsistencies exist in methodology. One participant stated,

"I teach alphabet letters using charts, but sometimes I start from Z and go backward to check understanding" (Mandy).

Research indicates that structured, evidence-based methods enhance literacy skills (Jones et al., 2013).

3.4. Challenges in Fostering Literacy Practices

3.4.1. Parental Influence

Parental involvement plays a critical role in early childhood literacy, yet the findings indicate that many parents in under-resourced communities lack the time, awareness, or resources to support their children's literacy development at home. Some parents perceive literacy instruction as the sole responsibility of teachers, leading to limited engagement in reading activities or vocabulary-building exercises outside the classroom. A participant noted,

"Some parents never check the children's books; they assume we are responsible for everything" (Elsie).

This aligns with research suggesting that when parental involvement is minimal, children's literacy acquisition is delayed, affecting long-term reading proficiency (Hart & Risley, 2003).

3.4.2. Technology Limitations

Technology has been widely recognised as a valuable tool in enhancing literacy practices, but disparities in access remain a significant challenge in under-resourced preschool settings. Findings show that while some schools have access to digital literacy tools, many lack functional internet, computers, or digital learning materials. One teacher stated,

"We hear about digital literacy, but we don't even have a working computer in our school" (Bella).

Even in cases where schools have limited access to technology, teachers reported a disconnect between home and school digital practices, making it difficult for learners to apply technological literacy skills consistently. These findings reinforce existing literature that highlights the digital divide as a barrier to equitable education (Neuman & Celano, 2012).

3.4.3. Government and Institutional Support

The findings suggest that inadequate government support and inconsistent policy implementation significantly hinder literacy development in preschools. Teachers reported a lack of teaching resources, limited professional development programmes, and low financial incentives as major barriers. One teacher expressed frustration, stating,

"Every year, we request materials, but we are told the budget is limited. We end up making our own charts and books" (Teacher 5).

The absence of continuous teacher training programmes also impacts literacy instruction quality, as many educators lack up-to-date knowledge of best practices in early literacy development. These findings align with studies indicating that teacher preparedness is directly linked to literacy outcomes in early education (Wasik & Hindman, 2006).

3.5. Summary of Challenges and Implications for Literacy Practices

The challenges identified in this study underscore the urgent need for a comprehensive, systems-based intervention to enhance preschool literacy instruction. The Preschool Literacy Practice Model, presented in the next section, directly addresses these challenges by proposing solutions such as structured parental involvement programmes, digital literacy integration strategies, and sustainable resource allocation frameworks.

4. Discussion and Model Presentation

The findings of this study provide critical insights into the role of preschool teachers in fostering literacy practices, the specific literacy strategies used in classrooms, and the challenges encountered in under-resourced settings. This section discusses these findings in relation to existing literature and highlights how they informed the development of the Preschool Literacy Practice Model as a structured, systems-based approach to addressing literacy instruction challenges in early childhood education.

4.1. The Role of Teachers in Literacy Development

The study reaffirmed that preschool teachers are key facilitators of early literacy development, acting as nurturers, researchers, facilitators, and advocates. These findings align with Vygotsky's Sociocultural Theory, which emphasises that children develop literacy skills through guided participation with knowledgeable others (Vygotsky, 1978). Teachers in this study described their efforts to create literacy-rich environments, despite resource constraints, by utilising interactive storytelling, phonemic awareness exercises, and emergent writing activities. This reflects prior research indicating that early exposure to literacy-rich environments enhances reading readiness and long-term academic success (Neuman & Celano, 2012).

4.2. Literacy Practices in Preschool Classrooms

Teachers in the study employed various literacy practices, including talking, rhyming, reading, and writing activities, to facilitate language and literacy development. However, the study found that these activities were not consistently implemented due to challenges such as a lack of materials, large class sizes, and inadequate teacher training. This supports findings by Wasik and Hindman (2006), who emphasised that effective literacy instruction requires a structured curriculum and access to appropriate resources. The use of rhyming and phonemic awareness exercises, as highlighted in this study, is consistent with research showing that early phonological awareness is a predictor of reading success (Goswami, 2002).

4.3. Challenges in Fostering Literacy Practices

The study identified three primary challenges affecting literacy instruction in under-resourced preschool settings: limited parental involvement, lack of technological resources, and inadequate government support. Teachers reported low levels of parental engagement, which aligns with research indicating that parental literacy behaviours significantly influence children's reading development (Hart & Risley, 2003). The digital divide was another significant barrier, with teachers noting that a lack of access to technology and educational software hindered literacy instruction. Studies confirm that technology-enhanced literacy instruction can significantly improve language development (Neuman & Celano, 2012). Lastly, the study highlighted gaps in government support, including inadequate teacher training and resource provision, reinforcing findings that systemic issues in early childhood education require policy-level interventions (Motshekga, 2015).

4.4. Development of the Preschool Literacy Practice Model

The Preschool Literacy Practice Model was developed based on the study's findings and validated through expert consultations using the Delphi technique (Hasson, Keeney, & McKenna, 2000). The model integrates a systems-based approach, ensuring that literacy instruction is not only teacher-centred but also supported by institutional structures, community engagement, and resource allocation strategies. This model provides a practical, adaptable framework for preschool teachers working in low-resource settings.

4.5. Key Features of the Model

The model comprises five interdependent components: context, inputs, processes, outputs, and outcomes. These components provide a structured approach to improving literacy instruction in under-resourced preschool settings. The table below shows the key components of the model.

Table 4.5: Model Features Table

Features	Approach
Context	Socio-economic and policy environment influencing literacy instruction
	Institutional support structures, including government and non-governmental funding for preschool education
	The role of cultural perceptions in shaping literacy development practices
Input	Teacher training programmes focusing on early literacy pedagogies
	Access to literacy materials such as books, writing tools, and digital resources
	Parental engagement programmes aimed at strengthening literacy activities at home
Process	Implementation of structured literacy instruction methodologies
	Classroom interaction strategies such as guided reading, storytelling, and phonemic awareness exercises

	Continuous assessment mechanisms to track literacy progress and identify learning gaps
Output	Enhanced teacher capacity and improved literacy instruction delivery
	Increased engagement in literacy activities among preschoolers
	Development of literacy-rich classroom environments, fostering a culture of reading and writing
Outcome	Improved literacy skills among preschool learners, ensuring readiness for formal schooling
	Long-term academic benefits, including higher reading fluency and comprehension levels
	Strengthened collaboration between schools, parents, and policymakers in sustaining literacy interventions

4.6. Development and Functioning of the Preschool Literacy Practice Model

The Preschool Literacy Practice Model was developed as a systems-based approach to addressing the identified challenges in fostering literacy practices in under-resourced preschool settings. The model functions as a structured framework that integrates key elements influencing literacy instruction, ensuring that all components work together to improve preschool literacy outcomes. It is designed to provide a holistic, sustainable, and adaptable approach to literacy instruction, addressing the specific needs of preschool educators, learners, and stakeholders. Figure 1 below shows the developed Preschool Literacy Practice Model for Teachers.

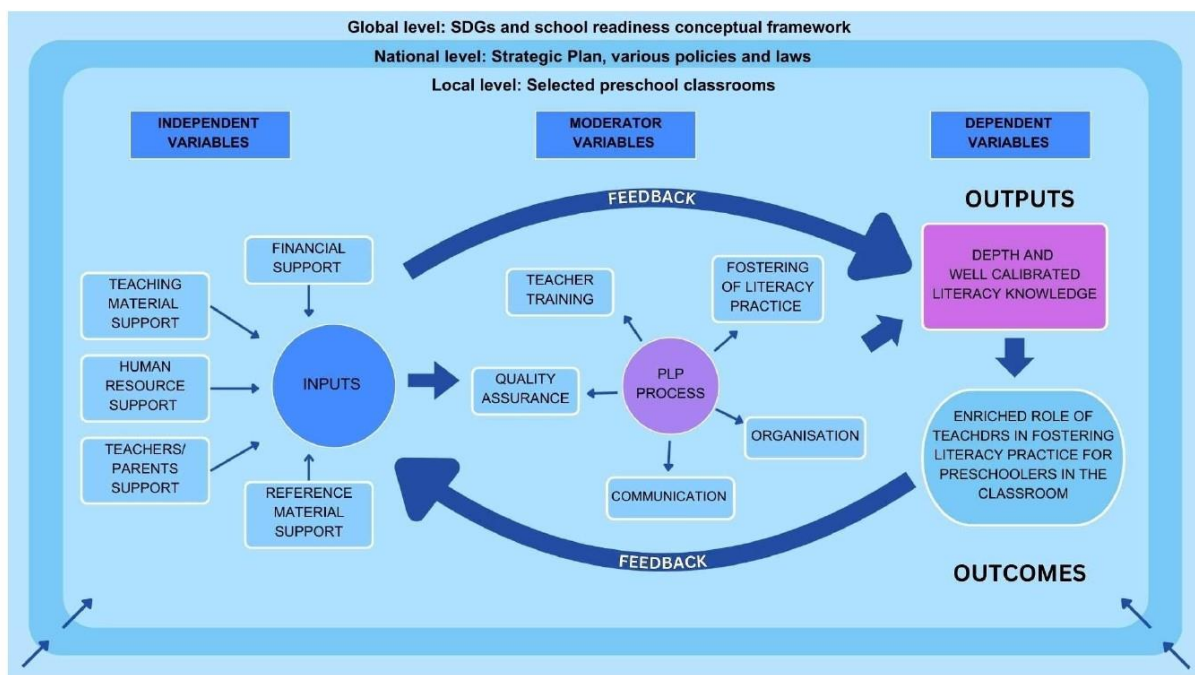


Figure 1: The proposed Preschool Literacy Practice Model for Teachers in Centurion, Tshwane Municipality

The model consists of five interdependent components: context, inputs, processes, outputs, and outcomes. These components interact dynamically to enhance literacy practices in preschool classrooms.

- I. **Context:** This refers to the socio-economic and policy environment influencing literacy instruction. The study found that underfunded preschool settings struggle with inadequate infrastructure, teacher shortages, and resource limitations, making it difficult to implement

effective literacy programmes. The model emphasises the importance of institutional and governmental support in providing sustainable literacy interventions. Policymakers and educational stakeholders must ensure that funding, infrastructure, and teacher support mechanisms are in place to create a literacy-rich learning environment.

- II. **Inputs:** These include teacher training programmes, literacy materials, and parental engagement initiatives. The model proposes targeted training for preschool teachers, equipping them with evidence-based instructional techniques and methods for fostering literacy skills in young learners. Additionally, structured home-school literacy partnerships are encouraged, ensuring that parents are actively involved in their children's early literacy experiences. By strengthening the availability and accessibility of teaching materials, the model ensures that educators have the necessary tools to implement effective literacy instruction.
- III. **Processes:** This component focuses on the implementation of literacy instruction strategies. Findings emphasise the need for structured, interactive, and engaging teaching methodologies to ensure effective literacy acquisition. The model incorporates best practices such as:
 - ✓ Phonemic awareness activities to improve early sound recognition and word formation.
 - ✓ Guided reading sessions where teachers facilitate structured reading exercises.
 - ✓ Interactive writing exercises to enhance early writing skills and print awareness.
 - ✓ Classroom storytelling and group discussions to develop oral language skills and comprehension.

These structured processes ensure that literacy instruction is not only engaging but also tailored to the developmental needs of preschool learners.

- IV. **Outputs:** This refers to immediate improvements in literacy instruction and teacher capacity. The implementation of structured literacy strategies results in enhanced teacher knowledge and instructional efficiency, leading to improved classroom engagement. Teachers become more confident in delivering literacy lessons, assessing student progress, and utilising available resources effectively. Additionally, there is an increase in learner participation and literacy engagement, which fosters a positive classroom environment conducive to literacy development.
- V. **Outcomes:** This component focuses on long-term literacy development and stronger academic foundations for preschool learners. The model ensures that preschool children acquire essential literacy skills that prepare them for formal schooling. Expected long-term outcomes include:
 - Higher literacy proficiency levels among preschoolers, leading to improved reading comprehension in later years.
 - Strengthened teacher competencies, ensuring that early childhood educators can sustain and enhance literacy practices over time.

- Greater parental involvement in literacy activities, creating a collaborative approach to early childhood education.
- Policy reinforcement and resource sustainability, where government and institutional stakeholders recognise the model as a viable framework for preschool literacy enhancement.

4.7. How the Model Works in Practice

The Preschool Literacy Practice Model operates as a cyclical and adaptive framework that allows for continuous assessment and improvement. It functions through the following mechanisms:

- Teachers undergo targeted professional development to build their literacy instruction competencies.
- Preschools implement structured literacy practices, ensuring that key teaching methodologies are applied consistently.
- Resources, including literacy materials and digital tools, are incorporated with preschools and policymakers, ensuring sustained access to these materials.
- Parents are actively engaged in literacy programmes, strengthening home-school connections in literacy development.
- Ongoing assessment and feedback mechanisms are integrated, allowing for continuous refinement of teaching strategies and literacy programmes.

By functioning as a comprehensive, multi-level intervention model, the Preschool Literacy Practice Model ensures that literacy instruction is sustainable, inclusive, and adaptable to different early childhood education contexts. The model's success depends on collaborative efforts among teachers, parents, policymakers, and other stakeholders, reinforcing a shared responsibility in promoting early literacy development.

4.8. Implementation Strategies

For successful adoption of the Preschool Literacy Practice Model, the following implementation strategies are recommended:

- **Teacher Capacity Building:** Training workshops focusing on evidence-based literacy instruction techniques (Wasik & Hindman, 2006).
- **Resource Mobilisation:** Strengthening collaborations with stakeholders to improve access to literacy materials (Van der Berg et al., 2019).
- **Parental Involvement Programmes:** Community-based initiatives aimed at equipping parents with skills to support literacy at home (Hart & Risley, 2003).
- **Policy Integration:** Advocacy for the inclusion of the model within national early childhood education policies to ensure sustainability (Motshekga, 2015).

4.9. Implications for Policy and Practice

The findings highlight the need for policy reforms to ensure equitable access to literacy resources and teacher development programmes. Governments and educational stakeholders must prioritise preschool education funding, provide structured digital literacy programmes, and promote parental engagement initiatives. Additionally, teacher professional development programmes should be expanded to equip educators with the necessary skills to implement effective literacy instruction in diverse classroom settings.

5. Conclusion and Recommendations

5.1. Conclusion

This study highlighted the critical role of preschool teachers in fostering literacy development, the instructional strategies employed in under-resourced settings, and the systemic challenges that hinder literacy instruction. The findings emphasise the complex interplay of teacher capacity, parental involvement, resource availability, and policy frameworks, all of which shape the effectiveness of literacy practices in early childhood education.

The study identified that teachers serve as nurturers, facilitators, researchers, and advocates, despite facing significant limitations such as inadequate training, a lack of instructional resources, and insufficient government support. Furthermore, the findings revealed that preschool literacy practices, including talking, rhyming, reading, and writing activities, are inconsistently implemented, largely due to the barriers imposed by economic constraints, technological limitations, and parental disengagement. Addressing these challenges requires a comprehensive, structured, and sustainable approach to early literacy development.

In response to these findings, the Preschool Literacy Practice Model was developed as a systems-based intervention to provide a holistic solution for improving preschool literacy instruction. The model integrates context, inputs, processes, outputs, and outcomes to ensure a structured, sustainable, and adaptable approach to early literacy education. By aligning teacher training, instructional methodologies, parental involvement, and government policy support, the model serves as a transformative framework to bridge the gaps in preschool literacy development.

However, while the model provides an evidence-based foundation for improving literacy instruction, its successful implementation requires multi-stakeholder engagement, continuous refinement, and adaptation to diverse educational settings. Future research should focus on longitudinal evaluations of the model's impact, ensuring its scalability and effectiveness in different early childhood education contexts.

5.2. Recommendations

Based on the study's findings and the proposed model, the following recommendations are provided for teachers, policymakers, researchers, and other stakeholders in early childhood education:

5.2.1. Policy Recommendations

- Incorporate the Preschool Literacy Practice Model into national early childhood education policies to ensure structured, evidence-based literacy instruction across preschools.
- Increase funding for early childhood education to provide preschools in under-resourced communities with adequate teaching materials, digital literacy tools, and infrastructure.

- Develop and implement standardised literacy training programmes for preschool teachers, ensuring that they are equipped with best practices in literacy instruction.
- Strengthen parental literacy support programmes by developing policies that encourage home-school collaborations, ensuring that parents play an active role in early literacy development.

5.2.2. Teacher Development and Training

- Expand professional development programmes for preschool teachers, with a focus on literacy instruction, child-centred teaching methodologies, and effective classroom management strategies.
- Establish mentorship programmes where experienced educators provide guidance and support to novice preschool teachers in implementing literacy practices.
- Introduce digital literacy training for teachers, equipping them with the skills needed to integrate technology into preschool literacy instruction.
- Ensure that teacher training curricula in higher education institutions incorporate the Preschool Literacy Practice Model, equipping future educators with structured literacy instruction strategies.

5.2.3. Parental Engagement Initiatives

- Develop community-based literacy programmes to educate parents on how to support early literacy development at home.
- Establish structured home-school partnerships where teachers provide parents with guidance, materials, and resources to facilitate literacy engagement beyond the classroom.
- Encourage the creation of reading culture initiatives within households by organising family literacy workshops, book-sharing programmes, and storytelling sessions in local communities.

5.2.4. Resource Allocation and Sustainability

- Ensure that preschools have access to essential literacy resources, such as age-appropriate books, writing materials, and digital learning tools.
- Develop sustainable funding models through public-private partnerships, ensuring that literacy programmes remain operational in under-resourced communities.
- Encourage the use of low-cost, high-impact literacy tools, such as print-rich environments, teacher-made instructional materials, and community libraries.

5.2.5. Future Research Directions

- Conduct longitudinal studies to assess the long-term impact of the Preschool Literacy Practice Model on literacy outcomes in preschoolers.

- Investigate the model's scalability and adaptability in different socio-economic and cultural contexts to ensure broader applicability.
- Explore the integration of emerging technologies, such as artificial intelligence and adaptive learning systems, to enhance literacy instruction in preschool settings.
- Examine the impact of teacher motivation and well-being on literacy instruction, ensuring that educators receive the necessary support and recognition for their roles in early childhood education.

This study underscores the urgent need for systemic interventions to improve early childhood literacy instruction, particularly in under-resourced preschool settings. The Preschool Literacy Practice Model provides a structured, adaptable, and evidence-based framework that addresses key challenges while ensuring sustainability and scalability. The success of this model depends on collaborative efforts by educators, policymakers, parents, and researchers, working together to enhance literacy opportunities for young learners.

By implementing the recommendations outlined in this study, stakeholders can take meaningful steps towards transforming early childhood literacy instruction, ultimately ensuring that all preschool learners – regardless of socio-economic background – receive high-quality, structured, and impactful literacy education that prepares them for lifelong learning success.

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