

ABSTRACT

Title of Capstone: BEFORE READING BEGINS: SUPPORTING
EARLY LITERACY INSTRUCTION
THROUGH PROFESSIONAL
DEVELOPMENT AND COACHING

Jonica Jill McPhail, Doctor of Education, 2026

Capstone directed by: Dr. Victoria Page-Voth, Department of Counseling,
Higher Education and Special Education

Early literacy skills developed in preschool are associated with later reading outcomes; however, instructional practices in early childhood classrooms vary considerably. Research suggests that differences in prekindergarten teachers' early literacy knowledge, pedagogical beliefs, and professional development experiences may influence the consistency with which evidence-based literacy practices are implemented. This Capstone synthesizes research addressing (a) relationships between teachers' literacy knowledge and beliefs and classroom practice, (b) instructional practices that support early literacy development, and (c) coaching-based professional development approaches used to support the implementation of evidence-based early literacy instruction.

Drawing on this literature, the Capstone presents Before Reading Begins, a practitioner-oriented professional development and coaching framework designed for preschool settings. The framework integrates foundational knowledge-building, differentiated coaching supports, and a

sequenced professional development cycle aligned with research on early literacy instruction and teacher learning. The product is offered as one example of how research-informed principles may be translated into a feasible professional development structure to support instructional coherence and fidelity in early childhood classrooms.

Keywords: early literacy, evidence-based practices, instructional coaching, prekindergarten, professional development, teacher knowledge

BEFORE READING BEGINS: SUPPORTING EARLY LITERACY INSTRUCTION
THROUGH PROFESSIONAL DEVELOPMENT AND COACHING

by

Jonica Jill McPhail

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Advisory Committee:

Dr. Victoria Page-Voth, Chair
Dr. Agnesanne Danehey
Dr. Philip J. Burke
Dr. Paula Beckman
Dr. Yewon Lee
Dr. Wayne Slater, Dean's Representative

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DEDICATION AND ACKNOWLEDGMENTS

This paper is dedicated to my children, Justin Gentry and Devon McPhail; my daughter-in-law, Tammy Gentry; and my granddaughters, Kyra Gentry and Inara Gentry. I could not do life without all of you. For the record, having a crazy mom (and grandmother) builds character, and you are all doing just fine.

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LIST OF ABBREVIATIONS

ACF	Administration for Children and Families
AK	Alphabet Knowledge
C+D	Coaching With Demonstration
C-only	Coaching-Only
CE	Continuing Education
DHH	Deaf and Hard of Hearing
EC	Early Childhood
ECE	Early Childhood Education
ECT	Early Childhood Teacher
ELLCO	Early Language and Literacy Classroom Observation Toolkit
EL	Emergent Literacy
GCE	General Classroom Environment
IDEA	Individuals With Disabilities Education Act
IRA	International Reading Association
LARS	Literacy Activities Rating Scale
LEC	Literacy Environment Checklist
LLC	Language, Literacy, and Curriculum
NAEYC	National Association for the Education of Young Children
NELP	National Early Literacy Panel
NIFL	National Institute for Literacy
OL	Oral Language
PA	Phonological Awareness

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PBC	Practice-Based Coaching
PD	Professional Development
pre-k	Prekindergarten
RQ	Research Question
RTI	Response to Intervention
SEL	Social Emotional Learning
SES	Socioeconomic Status
STEM	Science, Technology, Engineering, and Mathematics
TBQ	Teacher Beliefs Questionnaire
TELBS	Teacher Early Literacy Beliefs Survey
TELKA	Teacher Early Literacy Knowledge Assessment
TKA	Teacher Knowledge Assessment
WRITE	Writing Resources and Interactions in Teaching Environments

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SECTION 1: INTRODUCTION

Early literacy develops long before formal instruction. Cunningham et al. (2009) pointed out,

The road to literacy begins long before a child enters school. ... It begins at birth when the sounds of language are first perceived, and this journey continues throughout the preschool years, enriched by stories heard, rhymes rehearsed, and songs sung. (p. 487)

However, many students in the United States face challenges attaining the foundational reading and writing skills essential for academic success, lifelong learning, and effective participation in the workforce (Lonigan et al., 2011). Literacy skills support learning across all content areas throughout a student's educational career, significantly impacting their ability to engage fully in a literate society. Developing reading skills is fundamental to preparing individuals with the competencies necessary for personal and social advancement (Lonigan et al., 2011). These findings underscore the importance of understanding how early childhood education (ECE) has historically evolved to address literacy gaps and provide learning opportunities for all children (Lonigan et al., 2011).

Research links the root of reading difficulties in the kindergarten and elementary years to the lack of opportunities in early childhood (EC) to learn language and early literacy skills at home and in preschool settings (U.S. Department of Education, 2015). The impact of EC reading skill development is profound since children's early acquisition of phonological awareness (PA), alphabet knowledge (AK), and print concepts strongly predicts later literacy achievement (Hindman & Wasik, 2008; Justice et al., 2009). Consistent with Lonigan and colleagues' (2011) research, when these foundational opportunities are missed, the consequences, as reflected in national data, show that many children enter kindergarten already behind in critical language and

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reading skills. It is estimated that 40% of kindergartners are at least 1 year behind their peers in critical language and reading readiness skills (Snow & Matthews, 2016). One-third of all fourth graders and one-quarter of all eighth graders struggle with reading (Nation's Report Card, 2022). If a child is considered a poor reader at the end of the first grade, they seldom acquire grade-level reading skills by the end of elementary school (Lonigan et al., 2011).

The importance of ECE has long been recognized, with roots dating back to early approaches that continue to influence practice today. One of the earliest examples of ECE originated with Friedrich Fröbel, who established the first kindergarten in Germany in the 1840s and used a play-based, child-centered approach to support the development of young children (Shirakawa & Saracho, 2021). In 1909, Maria Montessori (1964) published *The Montessori Method* in Italy. Montessori established an educational method that emphasized individualized, hands-on activities and fostered children's independence within a structured, child-centered learning environment (Lillard, 2019).

In the United States, John Dewey published *Experience and Education* (1938), which emphasized that effective education should directly engage children's lived experiences and personal interests to promote meaningful learning (Dewey, 1998). In 1966, New Zealand educator Marie Clay coined the term *emergent literacy* (EL) to describe how children engage with print in attempts to read and write before developing conventional literacy skills such as decoding or spelling. Clay emphasized that literacy learning begins before formal instruction, and that reading and writing develop in tandem, rather than sequentially (Whitehurst & Lonigan, 1998; Giles & Tunks, 2015). These early approaches provided the groundwork for current EC programs, many of which continue to emphasize play, individualized instruction, and

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experiential learning as key elements of literacy development (Dewey, 1998; Lillard, 2019; Shirakawa & Saracho, 2021).

Building on these early approaches and child development research, the United States introduced national initiatives to provide systematic support for ECE (Administration for Children and Families [ACF], 2023; National Early Literacy Panel [NELP], 2008). In recognition of the impact of ECE, the U.S. government established Head Start in 1965, an initiative designed to promote school readiness by providing educational opportunities to preschool-aged children from low-income families (ACF, 2023). Longitudinal research, including the Perry Preschool Project from 1962–1967 and the Carolina Abecedarian Project from 1972–1985, demonstrated the positive effects of high-quality preschool education on long-term educational, economic, and social outcomes (Campbell et al., 2012).

Alongside federal initiatives, professional organizations such as the National Association for the Education of Young Children (NAEYC) have played a role in articulating standards for high-quality EC programs (NAEYC, 2020). According to NAEYC (2020), a high-quality preschool program is designed to promote the development and learning outcomes of young children. The NAEYC Early Learning Program Standards define a *high-quality program* as one that is developmentally appropriate and incorporates play-based and hands-on learning to support communication, cognitive, social-emotional, and physical development. A high-quality program employs educators who use ongoing assessment to provide responsive, individualized instruction and partner with families to help enrich children’s educational experiences. The educators provide a safe, inclusive classroom environment that encourages exploration, belonging, and community. A high-quality preschool program also needs effective program

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leadership to support continuous improvement through clear policies, reflective practice, and professional development (PD; NAEYC, 2020).

The National Institute for Literacy (NIFL) convened the NELP in 2002 to address the knowledge gap on early literacy development for children ages zero to 5. The panel's purpose was to synthesize the research to support decision-making in educational policy and practice that affect early literacy development. The NELP information helped develop early literacy-specific resources for families, teachers, family literacy practitioners, and EC educators, and support staff development for EC educators (NELP, 2008).

The NELP's objective was to identify interventions, parenting activities, and instructional practices that foster early literacy skills, precursors to later literacy abilities. The NELP's meta-analysis of nearly 300 articles found eleven variables with moderate to significant predictive connections to later literacy development: AK; PA; rapid automatic naming; rapid automatic naming of objects or colors; writing or writing name; phonological memory; concepts about print; print knowledge; reading readiness; oral language (OL); and visual processing. The NELP's findings are foundational in guiding both research and classroom practice, and they continue to shape how policymakers, teacher educators, and practitioners prioritize instructional approaches in preschool classrooms (Lonigan et al., 2010).

In a 1998 joint position paper, the NAEYC and the International Reading Association (IRA) emphasized the importance of teaching children early literacy skills, including *PA*, *AK*, and *OL*, as three significant predictors of later reading success. This position is supported by the research of Whitehurst and Lonigan (1998) and Snow et al. (1998), which found that *PA*, *AK*, and *OL* are three key foundational early literacy skills that support later literacy

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achievement. These foundational skills facilitate a smooth transition into formal reading, thereby providing essential building blocks for reading acquisition (Pullen & Justice, 2003).

According to Justice and Kaderavek (2002, p. 8), early literacy is the “reading and writing knowledge and behavior of children who are not yet conventionally literate.” Building a preschool child’s early literacy foundation is crucial because the skills acquired during these formative years often have a lasting impact by supporting sustained academic achievement and laying a solid foundation for continued success throughout their early schooling (NELP, 2008).

PA is a broad metalinguistic skill that involves sensitivity to sound structures in speech that range from larger units like syllables and onset-rime segmentation (in which the onset is the first sound in a word and the rime is the rest) to individual phonemes, which are the smallest sound units (Callaghan & Madelaine, 2012). It includes oral tasks such as rhyming, syllable counting, phoneme blending, and segmentation, all of which are fundamental for language and literacy development (Callaghan & Madelaine, 2012). PA is a crucial skill for later reading, and it should be taught directly rather than relying on incidental teaching by teachers (Hawken et al., 2005).

Along with PA, children need to develop AK to support decoding and word recognition (Pullen & Justice, 2003). AK is crucial for developing word recognition and decoding skills. It involves understanding the systematic relationship between letters and sounds, which allows children to analyze and blend phonemes during decoding. Children lacking this understanding often struggle with effective word recognition and decoding (Pullen & Justice, 2003). AK helps beginning readers connect spoken words to print through understanding of letter names and letter sounds. Letter-name knowledge supports early spelling, aids in learning to read, and enhances word knowledge before children fully acquire AK (McLachlan & Arrow, 2010).

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OL is a critical component of EC development and literacy; it encompasses both receptive (understanding) and expressive (speaking) language skills. It also includes lexical knowledge (vocabulary), grammatical structures (syntax and morphology), phonology (sound system), and pragmatics (social use of language). Cabell et al. (2022) defined OL as “the understanding and production of language, including lexical and grammatical knowledge” (p. 1199). Strong OL skills serve as the foundation for later literacy development, including reading comprehension and written expression, because children who develop strong OL abilities are better equipped to decode words and construct meaning from text (Cabell et al., 2021).

Children who enter school with PA, AK, and OL skills tend to exhibit enhanced reading proficiency throughout the first through third grade (Lonigan et al., 2010). This early linguistic and early literacy foundation is crucial, and the skills acquired during these formative years often have a lasting impact, as they support sustained academic achievement and lay a solid foundation for continued success throughout their early schooling (NELP, 2008). Kindergarten students entering school with limited literacy and language skills have difficulty catching up with their peers and are at high risk of referral to special education services (Gettinger & Stoiber, 2016).

Although children’s acquisition of early literacy skills is essential, the responsibility for creating supportive literacy environments lies with EC educators. Fostering early literacy skills requires teachers to hold content knowledge and use effective, research-based instructional practices (Cunningham et al., 2009). Preschool literacy interventions intended to improve educators’ ability and children’s early literacy outcomes, are exemplified by initiatives such as Head Start (ACF, 2023), *Early Reading First* (U.S. Department of Education et al., 2007), Preschool Development Grants (U.S. Department of Education, n.d.a.), Race to the Top: Early Learning Challenge (U.S. Department of Education, n.d.b), Individuals with Disabilities

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Education Act (IDEA) Part C (IDEA 2004), and other federally funded projects NELP, 2008; Wasik & Hindman, 2020). These initiatives emphasize evidence-based literacy instruction, PD for educators, and comprehensive supports to strengthen foundational literacy skills in young children (Justice et al., 2008; Piasta et al., 2018).

Research shows that prekindergarten (pre-k) children require intentional exposure to key language and literacy experiences (e.g., PA, AK, OL, print referencing) to lay the early foundations for reading and writing (Lonigan et al., 2010). A teacher's knowledge of early literacy content comprises knowledge regarding these foundational domains and developmental processes that support early literacy development. This knowledge enables teachers to intentionally select, model, and scaffold evidence-based practices that enhance children's literacy learning (Cash et al., 2015). In addition, teachers' knowledge of PA, AK, and OL has been shown to predict instructional quality and positively impact children's literacy outcomes (Weadman et al., 2023). An EC educator's knowledge of language and its development is related to increases in children's OL, and their knowledge of literacy predicts gains in children's print knowledge, AK, and PA (Schachter et al., 2016). EC educators who lack the knowledge to support early literacy may be less able to provide evidence-based early literacy instruction (Weadman et al., 2023).

Cunningham and colleagues (2009) suggested that EC educators tend to overestimate their literacy knowledge and are often unaware of what they do not know. Justice and colleagues (2008) and Schachter and colleagues (2016) suggested that the quantity and quality of language and literacy instruction in many preschool classrooms are frequently suboptimal, with limited explicit teaching and insufficient instructional time devoted to literacy development. EC educators should be encouraged to examine and critically articulate their literacy-related

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knowledge and beliefs, and to consider how these may affect their classroom practices (Besser-Biron et al., 2024). Educator training and support can impact the implementation of literacy instruction and intervention strategies (Cunningham et al., 2009).

Many pre-k teachers enter the classroom with limited content knowledge of early literacy concepts and varying pedagogical beliefs, which can restrict their ability to deliver high-quality, evidence-based instruction (Piasta et al., 2020; Schachter et al., 2016). These gaps often lead to inconsistent use of instructional practices that support early literacy skills, such as PA, AK, and print concept skills, which are strongly linked to later reading achievement (NELP, 2008). Although PD has been shown to improve teacher practice, its effectiveness in strengthening teacher knowledge, shaping pedagogical beliefs, and improving student literacy outcomes remains uneven (Besser-Biron et al., 2024; Ottley et al., 2015; Wasik & Hindman, 2011).

Collectively, these research studies underscore the need to examine not only what children need to learn but also how teachers' knowledge, beliefs, and practices influence early literacy instruction in preschool settings (Schachter et al., 2016; Piasta et al., 2020). Addressing how pre-k teachers' content knowledge and pedagogical beliefs shape their literacy instruction and identifying effective PL approaches to strengthen evidence-based practices are essential to improving early literacy outcomes and reducing later reading difficulties (Hindman & Wasik, 2008; Neuman & Cunningham, 2009; Piasta et al., 2019; Schachter et al., 2016).

The problem of practice addressed in this Capstone is that many pre-k children enter formal schooling without the early literacy skills (PA, AK, OL, print concepts, and early writing) that are fundamental to reading achievement. The variability in teachers' literacy content knowledge and pedagogical beliefs limits children's opportunities to engage in high-quality,

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evidence-based literacy experiences. Thus, this Capstone explores the following research questions (RQs):

- RQ1: How does the literacy subject knowledge and beliefs about early literacy of pre-k teachers impact the early literacy practices that those teachers use in the classroom?
- RQ2: What instructional practices effectively support early literacy development in pre-k students?
- RQ3: What coaching-based professional development approach effectively prepares pre-k teachers to implement evidence-based early literacy instruction?

SECTION 2: LITERATURE REVIEW

Introduction

Over recent decades, researchers and policymakers have increasingly acknowledged the critical role of early literacy in promoting early academic success and emphasized its enduring social and economic implications for families and society (Cadime et al., 2024). This literature review explores the intersection of teacher knowledge and beliefs, instructional practices in early literacy, and effective PL for teachers. By investigating how these elements interact, this literature review aims to identify effective PL for pre-k teachers to foster the early literacy skills that help pre-k students to become successful readers.

The research underscores the importance of early literacy in EC as a predictor of later reading achievement (Whitehurst & Lonigan, 1998). Effective classroom instruction in early literacy skills, such as phonemic awareness, OL, and print awareness, is foundational in preventing later reading problems (Pullen & Justice, 2003). Classroom instruction must be evidence-based to ensure that all children, regardless of socioeconomic status (SES), receive exposure to critical literacy skills within EC classrooms (Fuchs & Fuchs, 2006). Participating in preschool programs that provide high-quality literacy instruction is one of the most viable ways to improve children's transition to reading instruction and reduce the prevalence of reading difficulties in later grades. (Justice et al., 2008).

Understanding preschool teachers' beliefs is essential because they are more likely to implement recommended practices that closely align with their pre-existing ideas about effective instruction. Beliefs encompass teachers' assumptions and perspectives regarding developmental areas or pedagogical approaches. Therefore, gaining insight into teachers' beliefs about

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children's interest in and enjoyment of early literacy activities can significantly shape instructional practices (Gerde et al., 2019).

Understanding preschool teachers' knowledge is crucial because it directly influences how effective PD translates into high-quality teaching practices and improved child outcomes. Teachers' knowledge of early language and literacy development provides the foundation necessary for implementing successful instructional strategies. Without clearly identifying what teachers already know, PD efforts may not effectively achieve their primary goal of enhancing children's language and literacy skills (Hindman & Wasik, 2011).

The literature reviewed in this section was not specifically focused on preschool children with disabilities or preschool special education classrooms. Most of the reviewed studies addressed early literacy instruction, teacher knowledge, instructional practice, or coaching in preschool settings more broadly, such as through Head Start, universal pre-k, and mixed early childhood contexts. Some studies did include disability-related populations, settings, or program variables. For example, McCollum et al. (2011) involved teachers working in classrooms containing children with disabilities and children considered at risk. Snyder et al. (2015) reviewed practice-based coaching in relation to embedded instruction for children with disabilities, and Justice et al. (2010) examined program-type variables that included early childhood special education contexts. However, the literature base as a whole was not centered on disability-specific early literacy instruction or on how evidence-based practices may need to be adapted for children with more significant support needs. As a result, the findings from this review are most directly applicable to preschool early literacy instruction broadly, and their application to preschool special education contexts may require additional adaptation and caution.

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Several limitations of the reviewed literature should also be noted. The literature reviewed across the three research questions provides useful insight into teacher knowledge and beliefs, early literacy instruction, and coaching-based professional development. At the same time, the studies varied in important ways that limit how broadly the findings can be applied. Sample sizes ranged from very small single-case and small-group studies to larger quantitative investigations, and participant selection, settings, and outcome measures were not consistent across the literature base. Several studies were conducted in specific contexts, such as Head Start, state-funded pre-k, or particular district and program settings, which may limit generalizability to other preschool populations and instructional contexts. In addition, not all studies directly measured children's outcomes, and those that did often examined a limited set of literacy skills or short-term changes rather than longer-term effects. Taken together, these limitations do not diminish the value of the findings, but they do suggest that the literature should be interpreted with some caution, particularly when considering broader application across settings, populations, and implementation conditions.

Methodology

A systematic search strategy was implemented to identify peer-reviewed literature relevant to the following three RQs:

1. How does the literacy subject knowledge and beliefs about early literacy of pre-k teachers impact the early literacy practices that those teachers use in the classroom?
2. What instructional practices effectively support early literacy development for pre-k students?
3. What coaching-based professional development approach effectively prepares pre-k teachers to implement evidence-based early literacy instruction?

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Searches for RQ1 and RQ2 were conducted from January 2025 to April 2025. The search for RQ3 was conducted in May and June 2025. All searches were done through the University of Maryland Libraries' EBSCOhost platform, which aggregates multiple discipline-specific databases. The following EBSCOhost collections were queried: Academic Search Ultimate, APA PsychInfo, Education Source, ERIC, Primary Search, Professional Development Collection, SocINDEX with Full Text, and Teacher Reference Center. All searches for the three questions were restricted to English-language articles published between 2005 and 2025 to capture contemporary research aligned with current instructional frameworks. Figure 1 presents a schematic of how the entire vetting process was carried out.

The keywords used for RQ1 in the search were *prekindergarten*, *teacher knowledge*, *teacher practices*, and *emergent literacy*. The final Boolean search expression was *prekindergarten or preschool or pre-k AND teacher knowledge AND teacher practices or instructional practices AND emergent literacy or early literacy*.

The database query for RQ1 returned six records. The title and abstract screening, guided by pre-established inclusion criteria (focusing on teacher beliefs/knowledge, EL content, and pre-k settings), resulted in the retention of six articles for full-text review. Records indexed under attention-deficit/hyperactivity disorder; technology; engineering; science, technology, engineering, and mathematics (STEM); mathematics; speech-language pathology, or multilingual education were excluded at this screening level. Dissertations and conference papers were also excluded. A backward reference search of these six articles identified five additional articles, resulting in a final corpus of 11 articles. Following a detailed full-text review, two articles were excluded due to insufficient relevance, leaving a final corpus of nine articles directly aligned with RQ1.

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The keywords used for RQ2 were *evidence-based practice*, *emergent literacy*, *strategies*, and *prekindergarten*. The final Boolean search expression was *evidence-based practice* or *evidence-based* or *best practice* AND *emergent literacy* or *early literacy development* AND *strategies* or *methods* or *techniques* AND *prekindergarten* or *preschool* or *pre-k* or *early childhood*. To improve precision, results were filtered to peer-reviewed, full-text records whose major subject heading included EL.

The database query for RQ2 returned 83 records. The title and abstract screening, guided by pre-established inclusion criteria (focusing on EL, evidence-based practice, and pre-k settings), resulted in the retention of 12 articles for full-text review. Records indexed under Clicker 5, Arabic, autism, daycare, executive function, speech-language therapist, Literacy 3D, articulation, assistive tech, dual-language learners, STEM, motor, social-emotional learning (SEL), deaf and hard of hearing (DHH), response to intervention (RTI), Reading Rescue, mathematics, and inclusion were excluded at this screening level. Dissertations and conference papers were also excluded. A backward reference search of the 12 articles identified three additional sources, resulting in a corpus of 15 articles. Following a detailed full-text review, seven were excluded for insufficient relevance, leaving eight. During the writing process, one article was removed after critical review indicated it did not align closely with the focus of the Capstone literature review, resulting in a final corpus of seven articles directly aligned with RQ2.

The keywords for RQ3 used for the search were *evidence-based practice*, *prekindergarten*, *professional development*, and *emergent literacy*. The final Boolean search expression was *evidence-based practice* or *EBP* or *evidence-based* or *best practice* AND *prekindergarten* or *preschool* or *pre-k* or *early childhood* AND *professional development for educators* AND *emergent literacy* or *early literacy*.

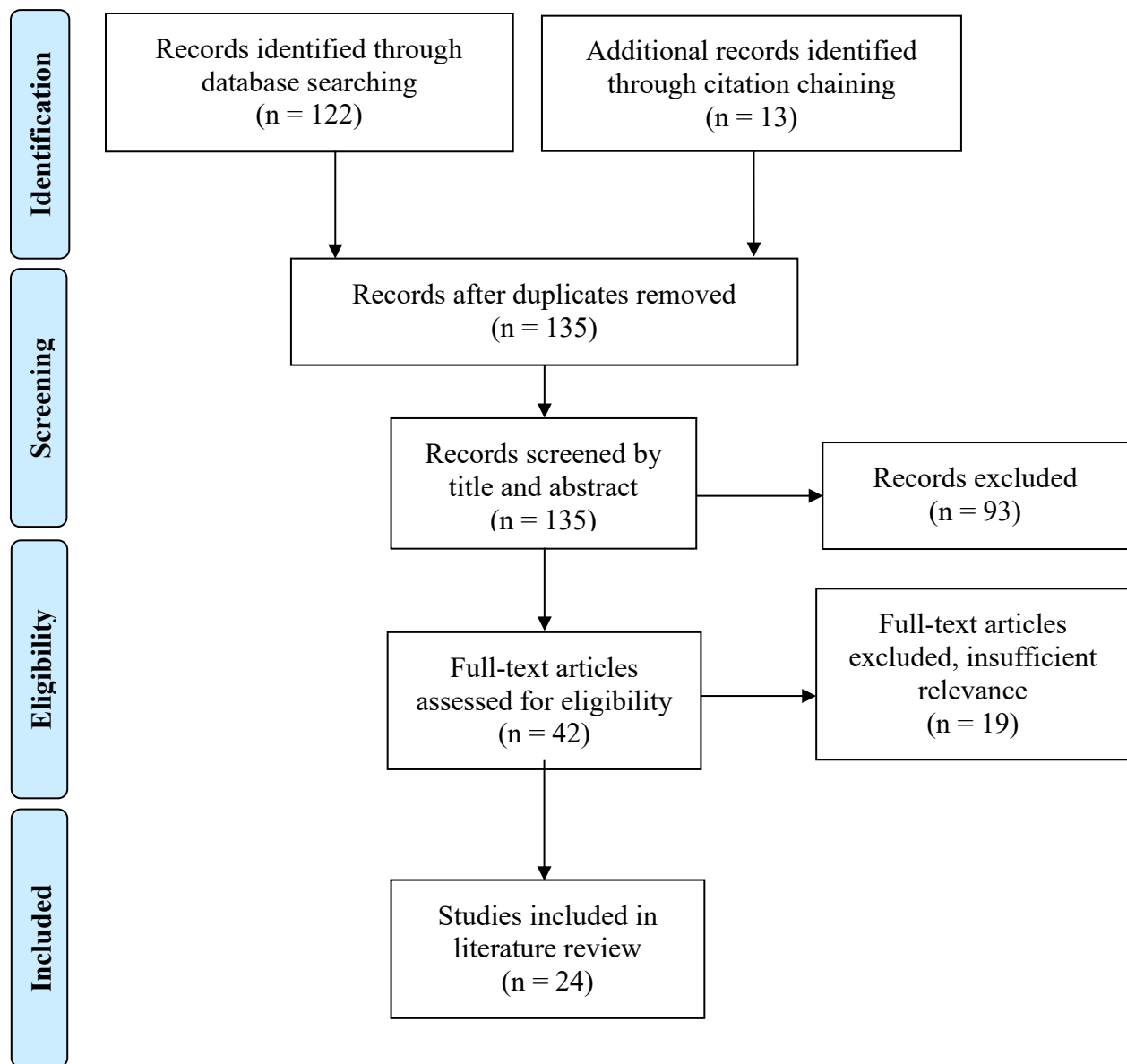
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The database query for RQ3 returned 33 records. The title and abstract screening guided by pre-established inclusion criteria (PD, EL, evidence-based) retained 11 articles for full-text review. Records indexed under executive function, dual language learners, motor, SEL, non-English speaking, DHH, RTI, Reading Rescue, mathematics, STEM, and inclusion were excluded at this screening level. Dissertations and conference papers were also excluded. A backward reference search of these 11 articles identified four additional articles, resulting in a final corpus of 15 articles. A forward reference search identified one additional article, resulting in a final corpus of 16 articles. Following a detailed full-text review, eight articles were excluded due to insufficient relevance, leaving a final corpus of eight articles directly aligned with RQ3.

This literature review examines three interconnected factors in pre-k EL instruction: teacher beliefs and knowledge, evidence-based instructional practices, and PL approaches. The review is organized into three sections addressing a specific RQ.

Figure 1

PRISMA Search Diagram



RQ1-Related Literature

RQ 1 asked the following: How does the literacy subject knowledge and beliefs about early literacy of pre-k teachers impact the early literacy practices that those teachers use in the classroom? This section presents the literature related to this question. Across these studies, the literature addresses teacher beliefs, teachers' literacy knowledge and classroom practice, the role of preparation and professional development, and early writing as one context in which these relationships are visible.

Teacher Beliefs About Early Literacy

Researchers have examined what pre-k teachers believe about early literacy and how those beliefs relate to the kinds of practices they emphasize in the classroom. Hindman and Wasik (2008) examined Head Start teachers' beliefs about early literacy instruction and their subsequent use of evidence-based practices in the classroom. Their study examined how teacher beliefs shape classroom practices, particularly for children from low-income families who rely on preschool programs for foundational literacy experiences.

Hindman and Wasik (2008) employed a quantitative methodology, utilizing a survey and background questionnaire to collect information from 28 Head Start teachers in an urban area on the East Coast. Using the 30-item TBQ (Hindman & Wasik, 2008), the researchers examined four dimensions of literacy instruction: code-based skills, OL/vocabulary, book reading, and writing. The TBQ items were rated on a 5-point Likert Scale.

Hindman and Wasik (2008) found variability in Head Start teachers' literacy beliefs. Teachers' views aligned more closely with research-based practices for OL (expressive and receptive vocabulary) and book reading (repeated and interactive reading). In contrast, beliefs about code-based skills (letter knowledge, phonemic awareness) and writing (scribbling,

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practices. Although teachers generally agreed with procedural practices (e.g., what to do), they were less likely to endorse the developmental reasons (e.g., why practices are effective) behind them. Less than half supported teaching children phonemic awareness skills despite strong evidence of its importance for decoding. Teacher experience was positively associated with evidence-based beliefs about OL, but education and specialization were not significantly associated.

Overall, Hindman and Wasik (2008) found that Head Start teachers' beliefs were strongest and most research-aligned regarding OL and book reading, but weaker and more inconsistent regarding PA, AK, and early writing. Teacher experience (but not formal education) was associated with stronger beliefs about OL. Future research should investigate how teacher beliefs impact classroom practice, how to influence teachers' pedagogical beliefs about code-related and writing skills, and refine measurement tools for teacher beliefs.

Cadime et al. (2024) investigated the relationship between preschool teachers' beliefs about and instructional use of literacy practices, as well as the moderating role of experience and PD instruction. They found that teachers' beliefs about early literacy influence the learning experiences they design to support children's literacy development.

Cadime et al. (2024) categorized teachers' beliefs into holistic and technicist perspectives. Teachers with holistic beliefs view early literacy as a social, community-based, and culturally defined process emphasizing the construction of meaning. Teachers with more holistic perspectives on literacy prioritize interactive strategies such as singing, rhyming, shared reading, and conversations to foster OL and PA. These teachers use modeling and scaffolding to nurture writing skills. In contrast, teachers with technicist beliefs adopt a skill-based, componential approach that focuses on conventional reading and writing skills taught sequentially. The

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technicist perspective emphasizes discrete skills, such as letter knowledge and early writing, through structured lessons.

Cadime et al.'s (2024) quantitative study included 266 preschool teachers, with half reporting receiving early literacy content instruction during their preservice education and the other half attending continuing education (CE) courses on early literacy before participating in the study. The authors utilized two 5-point Likert-scale self-report measures to collect numerical data on teachers' beliefs and practices. Teachers' beliefs were assessed using a self-report scale measuring holistic and technical orientations toward written language (Cadime et al., 2024). The Teacher's Emergent Literacy Practices Scale (Cadime et al., 2024) measured the frequency with which teachers use classroom practices that promote OL, PA, code-related skills, and the relationship between oral and written language.

Cadime and colleagues (2024) found that preschool teachers in this study predominantly held holistic beliefs about early literacy rather than technicist beliefs. Teacher practices promoting OL and PA were most frequently implemented. Practices targeting written language and the relationship between oral and written language were less frequent. Teachers who had received CE in early literacy demonstrated holistic beliefs that prioritize the use of strategies that integrate literacy development into everyday experiences. They implemented significantly more instructional practices designed to promote PA and the relationship between oral and written language. Similarly, teachers who received early literacy content during preservice education implemented more instructional practices to promote written language and the relationship between oral and written language. The authors found that CE in early literacy moderated the relationship between teachers' beliefs and the frequency of their practices. Other tested variables, such as years of teaching experience, educational levels, and initial training in early literacy,

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were not found to be significant moderators. The findings suggest that CE is a positive approach for promoting changes in preschool teachers' practices and using evidence-based strategies to foster early literacy skills, regardless of their beliefs (Cadime et al., 2024).

Cadime et al. (2024) indicated that preschool teachers hold more holistic than technicist beliefs and emphasized the importance of integrating the two approaches to promote OL, PA, and the relationship between oral and written language. CE emerged as a key factor in enhancing evidence-based practices and fostering high-quality preschool education regardless of teachers' personal beliefs. Cadime et al. suggested that future researchers should investigate teachers across different countries to determine whether the findings are applicable across diverse contexts, and should conduct longitudinal studies to track the evolution of beliefs and practices over time. They also proposed using qualitative and mixed-method approaches, such as interviews and classroom observations, to capture daily teaching practices more effectively. Last, they also emphasized the need to connect teacher beliefs and practices directly to children's literacy outcomes to understand their impact on learning.

Teacher Knowledge and Practice

In addition to beliefs, researchers have examined teachers' literacy-related knowledge and the extent to which that knowledge is reflected in classroom instruction and child outcomes. Cash et al. (2015) investigated whether teachers' knowledge of language instruction predicts children's vocabulary growth and whether teachers' knowledge of literacy instruction predicts children's development in print knowledge and PA. The authors also examined whether teachers' beliefs regarding language and literacy instruction are associated with children's gains in these areas. Prior research suggests teacher knowledge about literacy instruction has a greater

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impact on instructional practice than teacher beliefs about that instruction (McCutchen et al., 2002, as cited in Cash et al., 2015).

Cash and colleagues (2015) defined language skills as the vocabulary and linguistic concepts that span the breadth of a child's receptive (understanding) and expressive (speaking) skills; their use of pragmatic and social language, such as the ability to initiate and maintain social conversations; and narrative skills, which are the ability to organize and share information. Literacy skills include PA, print knowledge, and AK. These skills are interrelated concepts that predict children's subsequent reading and decoding skills (Cash et al., 2015).

Cash and colleagues (2015) conducted a quantitative study analyzing data from 262 preschool teachers and 1,134 children from large community preschool programs. The teachers participated in two phases of PD: a 14-week college-level course and a subsequent web-mediated coaching model, MyTeachingPartner (Pianta et al., 2008). Teachers' beliefs were measured using the Beliefs About the Importance of Language and Literacy Skills (BILLS) Scale (Hamre & Justice, 2007), an unpublished instrument assessing preschool teachers' perceptions of the importance of specific early language and literacy skills (Cash et al., 2015), wherein teachers rated the importance of specific skills for children entering kindergarten. Teacher knowledge was measured using the Knowledge About Language and Literacy Skills (KALLS) Scale (Hamre & Justice, 2007), an unpublished measure in which teachers categorized specific child skills into appropriate early language and literacy domains (Cash et al., 2015) in which teachers categorized children's skills into appropriate language/literacy domains. Standardized tests were administered to measure children's language and literacy skills in both the fall and spring.

Cash and colleagues (2015) found that teacher knowledge, rather than teacher beliefs, impacted children's language and literacy development during pre-k. Teachers' knowledge of

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language practices was positively associated with children's gains in expressive vocabulary, but not with their gains in receptive vocabulary. Similarly, teachers' knowledge of literacy practices was associated with gains in print knowledge but not in PA. However, teacher beliefs about the importance of language and literacy skills were not related to children's skill development (Cash et al., 2015).

Cash and colleagues' (2015) findings suggest that teacher PD may be more effective when it focuses on improving teachers' knowledge of early language and literacy rather than trying to change their beliefs about instruction. Their research suggests that teacher disciplinary knowledge is important for children's language and literacy development in pre-k. Future research should clarify the roles of teacher knowledge and beliefs, refine measurement tools for teacher knowledge, and evaluate PD instructional models that can dependably build teachers' early literacy knowledge base and connect it to child literacy outcomes.

Schachter et al. (2016) investigated the relationship between EC educators' knowledge, beliefs, education, and teaching experience, and the provision of language and literacy instruction. Schachter and colleagues' (2016) study surveyed 222 ECTs to collect information on their knowledge and beliefs as well as on their education and teaching experience. The Teacher Knowledge Assessment (TKA) of Early Language and Literacy Development (Neuman & Cunningham, 2009) was used to assess the knowledge of use teachers apply in their instruction, including developmental, theoretical, and implementation knowledge. Knowledge of use refers to educators' practical understanding of how to apply their knowledge in classroom settings to support children's learning. Additionally, the Preschool Teacher Literacy Beliefs (Hindman & Wasik, 2008) assessment was used to examine the intersection of teachers' beliefs about language and literacy instruction with the development of early literacy.

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Schachter and colleagues' (2016) quantitative study revealed specific associations between teacher characteristics and instructional practices. Teachers with higher content knowledge offered more OL and vocabulary instruction. Those teachers also provided more instructional time in the classroom.

Interestingly, teachers' reported beliefs showed an unexpected inverse relationship with the actual instruction occurring in the classroom. When teachers strongly believed in the importance of code-based instruction (explicit instruction in decoding skills), they spent less time on it in the classroom. Similarly, stronger beliefs in favor of OL and vocabulary instruction were negatively associated with actual instructional time. These findings suggest a possible misalignment between teachers' expressed beliefs and their actual teaching practices (Schachter et al., 2016). When teacher training was considered, teachers with EC-related degrees delivered substantially more content-based instruction and allocated more instructional time than teachers without such degrees. In contrast, teachers with more years of teaching experience consistently predicted lower levels of instruction in both code-based and OL, as well as vocabulary. This negative association may reflect veteran teachers' limited exposure to contemporary instructional approaches and updated research-based practices (Schachter et al., 2016).

Overall, Schachter and colleagues' (2016) findings suggest that content knowledge is positively associated with OL and vocabulary instruction but does not predict instructional practice in the classroom. Teacher beliefs were negatively associated with instruction, whereas possessing an EC-related degree was positively associated with instructional practices. Future research should examine other factors, such as curriculum, environment, and child characteristics, that can affect instruction.

Teacher Preparation and Professional Development

Several studies have also considered how teacher preparation and professional development shape literacy knowledge, beliefs, and classroom practice. Recognizing the critical role of EC educators' knowledge and beliefs in shaping instructional practices and children's literacy development, Ottley et al. (2015) investigated the impact of a state-funded PD program on ECEs' language and literacy knowledge and beliefs. The authors examined how educators' language and literacy knowledge and beliefs changed over 18 months and whether this growth was predicted by ECEs' initial knowledge and beliefs, self-efficacy, and openness to change. The authors defined language and literacy knowledge as ECEs' understanding of the early literacy components of OL, including phonemic awareness and print awareness. Language and literacy beliefs were defined as ECEs' beliefs, thoughts, and understanding of how young children develop early literacy skills.

Ottley and colleagues' (2015) longitudinal study examined changes in the language and literacy knowledge and beliefs of 87 EC educators. Additionally, they investigated predictors of these changes, including self-efficacy (confidence in achieving outcomes), openness to change (learning through trial and error), and initial levels of knowledge and beliefs. Participants were randomly assigned to a state-sponsored PD program focused on early literacy, but no control group was included.

The study employed the TKA of Early Language and Literacy Development (Neuman & Cunningham, 2009) to measure educators' knowledge of literacy practices through 70 items that covered core competencies, including PA, OL, literacy curriculum, and child development fundamentals. Educator beliefs were assessed with the Preschool Teacher Literacy Beliefs Questionnaire (TBQ; Hindman & Wasik, 2008), which evaluates educators' beliefs about

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literacy development and practices across four domains: code-based skills, OL, book reading, and writing.

Ottley and colleagues (2015) created the Efficacy to Promote Language and Literacy Learning Scale to measure educators' self-efficacy using a 5-point Likert Scale. The researchers also employed a 7-question measure to assess openness to change in new language and literacy instructional practices, which used a 5-point Likert Scale.

Ottley et al. (2015) found that over the course of a year of PD, ECEs improved their literacy-related knowledge and beliefs. Specifically, the authors found that after PD, ECEs' beliefs shifted to align more closely with current research and theory on early literacy. In other words, they became more likely to endorse developmentally appropriate, evidence-based practices (e.g., seeing scribbling as valuable, recognizing that all children can engage with literacy, and acknowledging the teacher's active role in supporting early literacy). Educators with higher self-efficacy were found to have literacy-related beliefs more aligned with early literacy theory (that literacy learning begins before formal education). Educators who were more open to change demonstrated greater knowledge of language and literacy after participating in PD.

Ottley and colleagues' study revealed PD's potential to enhance ECEs' literacy-related knowledge and beliefs, with openness to change and self-efficacy as possible factors influencing outcomes. The researchers found changes in the extent to which educators' views aligned with research-based, developmentally appropriate practices. Teachers with less research-aligned beliefs held assumptions that children must be ready to engage with literacy materials or that scribbling and drawing are a waste of time. In contrast, teachers with more research-aligned beliefs recognized that all children can meaningfully participate in literacy activities and that scribbling and drawing represent valuable early writing. The findings indicated that PD was

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beneficial for educators, regardless of their initial knowledge or beliefs, as educators who began with misconceptions shifted toward research-aligned perspectives, and those researchers who were already aligned further refined their understanding (Ottley et al., 2015).

Pre-k teachers' effectiveness in fostering early literacy centers on their content knowledge of language and literacy development and their pedagogical beliefs about teaching and learning processes. Together, these factors shape the nature, quality, and frequency of literacy activities in the classroom (Cash et al., 2015). This literature review for RQ1 reviews nine articles that explore how pre-k teachers' pedagogical beliefs and content knowledge influence their early literacy instruction. These studies examine the intersection of what teachers know and what they believe, and how these factors affect their classroom practice.

To better understand the pedagogical reasoning of pre-k teachers, Flynn and Schachter (2017) explored pre-k teachers' assumptions about how young children learn and also how their assumptions influenced their instructional practices. Flynn and Schachter conducted a qualitative exploratory study examining the pedagogical reasoning and assumptions of pre-k teachers regarding children's learning. The data for this study were collected as part of a larger investigation into the beliefs of EC teachers (ECTs) regarding their work. Subjects were eight pre-k teachers from two private schools serving socioeconomically similar populations (upper middle to upper class). The schools differed in curricular focus (social-emotional versus academic).

Teachers were observed and video-recorded four times in their classrooms, twice during two whole-group instruction sessions and twice during two language and literacy instruction sessions. Interviews in which teachers reviewed video recordings and discussed their instructional reasoning were conducted within 24 hours of the observations. Transcripts from

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interviews and observational notes were analyzed, and emerging themes regarding teachers' assumptions about learning were identified (Flynn & Schachter, 2017).

Flynn and Schachter found that the pre-k teachers in their study conceptualized learning as a passive process of engagement and repetition. Teachers believed that this process helped children memorize information necessary for early elementary learning. This future focus led to teacher ambivalence about whether children would retain the information being taught. Teachers believed that attention and interest were precursors to learning. They also believed that responding to children's questions, engaging their interests, and using routines were essential for maintaining engagement. Repetition was seen as a central instructional strategy, with teachers viewing repeated exposure as key to helping children remember information.

Teachers with more formal education and certifications had a greater understanding of advanced learning concepts that focused on connections and understanding rather than rote memorization. Teachers with less formal training and experience focused on classroom management and engagement rather than on learning outcomes.

The authors found that pre-k teachers often conceptualize learning as a process of engagement and repetition to help children remember information. The pre-k teachers in the study focused on preparing children for future learning by teaching content that they did not expect children to retain. Despite good intentions, the teachers demonstrated rudimentary conceptions of how young children acquire knowledge and relied on narrow instructional methods, such as routines and repetition (Flynn & Schachter, 2017).

Flynn and Schachter's study highlights the importance of teacher preparation that includes EC-specific literacy training, PD that enhances pedagogical reasoning, and fostering a deeper understanding of how children learn symbolic systems, such as literacy. The study called

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for a shift from teaching solely for future readiness to teaching for meaningful learning in the present.

Regarding preservice education, Weadman et al. (2023) examined early-career ECTs' beliefs about their role in supporting preschoolers' OL and early literacy skills. Findings revealed that teachers value their role in supporting OL and early literacy; however, they also feel unprepared by their preservice education. Teachers expressed low confidence in their knowledge of OL and early literacy, as well as in their ability to identify children with language difficulties. The teachers frequently demonstrated a misunderstanding of literacy and OL constructs, and sometimes used these terms interchangeably, even though OL and early literacy skills are distinct skills that are precursors to proficient reading. OL involves understanding and producing spoken words, sentences, and conversations in social contexts. Early literacy skills precede the development of reading and writing. These skills include code-based concepts such as PA and print knowledge, as well as vocabulary and OL skills.

Weadman et al. (2023) conducted individual, audio-recorded, semi-structured, in-depth interviews with nine early-career ECTs. All participants were female and had 1–2 years of teaching experience as qualified ECTs. All had earned an undergraduate degree in EC teaching within the past 5 years. The study articulated four main themes.

The first theme that emerged from the interviews indicated that ECTs believe that OL and early literacy skills are integral to preschool programs. Daily classroom activities reported reading to children, encouraging verbal exchanges, introducing the alphabet, and promoting print awareness. However, activities such as dialogic (interactive) book reading and PA activities were rarely used.

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A second theme that emerged from the interviews was that teachers lacked conceptual understanding of OL and early literacy. Many teachers broadly defined early literacy as including reading, writing, and spelling, as well as numeracy, art, dance, and drama. Literacy was described as "communication in all its forms" (Weadman et al., 2023, p. 162), suggesting that teachers did not distinguish between language and literacy. Teachers used terms for speech, language, or phonetics interchangeably, indicating a lack of understanding. For example, teachers described speech articulation (sound production errors) as an indicator of OL development. However, OL includes the spoken communication skills of vocabulary, grammar, and expression, while early literacy encompasses the foundational reading and writing concepts that precede conventional literacy. The lack of conceptual understanding of these concepts impedes teachers' ability to support children's OL and early literacy needs (Weadman et al., 2023).

Weadman et al. (2023) found that in the third theme, while ECTs felt equipped to support early literacy skills, they were uncertain about what comprises normal language development. The lack of understanding of preschool children's language development makes it difficult for teachers to determine if children's language difficulties require intervention. This knowledge gap highlights the need for improved education and support for ECTs to help them identify language difficulties.

In Weadman et al.'s (2023) fourth theme, ECTs reported that their preservice education had a stronger focus on EL but did not adequately prepare them to support children's OL development. They described their OL education as too broad or too theoretical, with little emphasis on the skills needed to address children's OL needs. This theme suggests that the lack

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of preparation indicates a need for preservice education to address OL needs and identify children with language difficulties.

Weadman and colleagues (2023) found that ECTs value their role in supporting OL and early literacy skills within their classrooms. However, the teachers' lack of confidence, knowledge gaps, and insufficient preservice education left ECTs underprepared to address OL and early literacy difficulties in preschool classrooms. Weadman et al. (2023) recommended that future research use larger, more representative teacher samples, track changes in teacher knowledge and confidence longitudinally, examine the impact of preservice preparation and PD, connect teacher practices to children's literacy outcomes, and better distinguish between OL and early literacy constructs.

Early Writing Development

Early writing offers a more specific context for examining how teachers' knowledge and beliefs are reflected in classroom practice. Preschool children's writing reflects their developing knowledge of letters, PA, and the process of using written marks to convey ideas, thoughts, or messages effectively. Children's written marks progress from early scribbles and symbols to letters, words, and numbers, reflecting the development of their writing skills. Preschoolers who receive literacy instruction that includes writing demonstrate better literacy skills and achieve higher literacy outcomes in elementary school (NELP, 2008).

Gerde et al.'s (2019) study investigated preschool teachers' beliefs and practices regarding early writing by examining how teachers support writing instruction, the alignment between their beliefs and practices, and the influence of programmatic characteristics (type of preschool program and curriculum used) and teacher background.

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Gerde et al. (2019) conducted a mixed-methods descriptive study that recruited 32 preschool teachers from diverse programs, including Head Start, state-funded pre-k, university preschools, and nonprofit centers, to gain a comprehensive understanding of preschool teachers' writing instructions and beliefs. Data collection included structured interviews, classroom observations, and demographic surveys. Observations utilized the Writing Resources and Interactions in Teaching Environments (WRITE) assessment tool (Gerde et al., 2015) to measure the availability of writing materials and teacher-child interactions. Interviews explored teachers' beliefs about writing and their self-reported instructional practices, while demographic surveys captured the characteristics of both teachers and programs.

The WRITE assessment revealed that preschool classrooms provided a range of materials and interactions to support writing, with a primary emphasis on environmental supports and handwriting practice. Teachers' self-reports aligned closely with these observations. Nearly all classrooms provided writing materials and environmental print consistent with teachers' descriptions of creating print-rich environments through signage, labels, and books. However, teachers emphasized classroom setup more than direct instruction or active child engagement. Although over half the teachers reported facilitating handwriting activities, such as name writing and letter formation, few described practices targeting other literacy skills, like PA or print concepts (Gerde et al., 2019).

Teacher interviews revealed that few preschool teachers actively encouraged children to use writing for communication, such as supporting their interests, discussing writing ideas, or creating meaningful writing opportunities. Observations confirmed that activities focused on composing skills were limited, with minimal teacher modeling of writing and little recording of children's dictated words. Notably, children initiated almost all of the writing activities. Despite

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providing handwriting support and print-rich environments, teachers made limited intentional efforts to promote meaningful writing (Gerde et al., 2019).

Gerde et al. (2019) found that preschool teachers provided writing materials and supported handwriting but rarely engaged students in composing or connecting writing to broader literacy skills, resulting in limited pedagogical approaches. They recommended that future research explore ways to expand teachers' instructional strategies for writing, especially with meaning-making and composition, and examine how PD can better align teacher beliefs and practices with research-based recommendations.

Besser-Biron et al. (2024) analyzed authentic early writing samples from preschoolers, examined preschool teachers' appraisals of the children's writing, and provided subsequent suggestions for developing early writing skills. Besser-Biron et al.'s exploratory mixed-methods approach included 110 public preschool teachers who analyzed writing products from three anonymous 5-and-a-half-year-old children at different developmental levels. In the initial level, the child used some letters mixed with symbols, reversed letters, and omitted spaces between words, and the writing did not match the intended message. In the intermediate level, the child wrote clear letters with some spacing, omitted vowels, and partially matched writing to the intended message. At the advanced level, the child clearly wrote letters, separated words, and accurately matched writing to the intended message. To evaluate preschool writing, the teachers completed two open-ended prompts for each writing product, asking them to describe the child's writing knowledge and propose methods to enhance writing development. Participants also responded to a 19-item survey assessing their literacy beliefs and covering letter knowledge, PA, and early writing.

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Besser-Biron et al. (2024) found that the developmental level of the child's writing significantly influenced teachers' assessments and instructional recommendations. Teachers emphasized promoting writing knowledge (letter knowledge and PA) for children at the initial writing level. In contrast, for students at intermediate and advanced levels, the teacher's recommendations targeted more complex aspects of writing development, such as orthography (the conventions governing spelling and writing) and writing system mechanics (e.g., directionality, linearity, spacing, punctuation). Findings indicate that teachers with stronger early literacy beliefs provided significantly more references to children's writing and gave more recommendations for supporting writing development based on the child's writing level.

Besser-Biron and colleagues' (2024) findings suggest that preschool teachers' literacy beliefs are linked to their knowledge of writing development. Preschool teachers with stronger beliefs about the importance of early literacy and supporting literacy development focus on writing development and writing knowledge, and offer more instructional recommendations to develop early writing skills. Future research should expand the understanding of preschool teachers' beliefs and knowledge about early writing by including composing and more complex aspects of writing, rather than focusing solely on letters and phonology. Besser-Biron and colleagues suggested that studies investigate how teacher training and PD can strengthen support for children's writing and highlight the need for research linking teachers' evaluations and instructional practices with children's actual writing development.

Conclusion

Across the nine reviewed studies addressing RQ1, the researcher examined how pre-k teachers' knowledge and beliefs influence their early literacy instruction, revealing meaningful relationships between what teachers know and believe and what they do in their classrooms.

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Researchers found consistent positive results regarding teachers' content knowledge about early literacy. Teachers with greater content knowledge used evidence-based instruction in early literacy and achieved better student language and reading outcomes (Cash et al., 2015; Schachter et al., 2016). These teachers implemented more code-focused activities (e.g., phonics) and meaning-focused activities (e.g., storytelling). These benefits persisted even when researchers accounted for teachers' years of experience and educational backgrounds, suggesting that specific literacy knowledge is more important than general teaching experience (Schachter et al., 2016). Providing PD increases knowledge levels, and these gains align with observed improvements in practice (Ottley et al., 2015).

The relationship between teachers' beliefs and subsequent classroom practices proved variable and unpredictable. Cadime et al. (2024) found that teachers with child-centered, holistic beliefs about learning implemented more language-rich activities, while other studies revealed the opposite. Gerde et al. (2019) and Schachter et al. (2016) found that teachers' beliefs about literacy instruction often contradicted or failed to align with their actual classroom practices, thus creating a disconnect between stated beliefs and daily classroom practices. This disconnect is evident among less experienced teachers, who tend to focus on classroom management and engagement rather than early literacy outcomes (Flynn & Schachter, 2017; Hindman & Wasik, 2008).

The literature review for RQ1 revealed that pre-k teachers' content knowledge of early literacy is a more consistent predictor of their instructional practices and children's outcomes than teacher beliefs alone. Research indicates that educators with more in-depth content knowledge deliver more comprehensive OL and vocabulary instruction, which subsequently promotes children's development in expressive vocabulary and print awareness (Cash et al.,

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2015; Schachter et al., 2016). Conversely, educators' pedagogical beliefs often diverge from their instructional practices, with some indicating strong support for code-focused or OL instruction yet providing limited classroom time to these areas (Hindman & Wasik, 2008; Gerde et al., 2019). PD and CE can enhance teachers' content knowledge and evidence-based practices, while preservice instruction often leaves new teachers feeling underprepared, particularly in OL (Ottley et al., 2015; Weadman et al., 2023). Research indicates that teachers' pedagogical reasoning may reveal limited conceptions of learning, such as the belief that repetition alone is adequate for learning. This finding suggests that EC educators require training that integrates literacy content knowledge with the way young children learn (Flynn & Schachter, 2017).

RQ2-Related Literature

RQ2 asked the following: What instructional practices effectively support early literacy development for pre-k students? This section presents the literature related to this question. The literature related to RQ2 addresses broad instructional orientations, shared reading as a context for early literacy instruction, and broader classroom literacy practices and instructional delivery.

Early Literacy Instructional Approaches

Preschool literacy research indicates that classroom experiences and instruction lay the foundation for later reading success (Callaghan & Madelaine, 2012; Connor et al., 2006; Giles & Tunks, 2015). The literature review for RQ2 examines teaching methods and classroom strategies that support children's early literacy development, with a focus on approaches to early literacy development and instructional strategies used to support early literacy in pre-k students. Giles and Tunks (2015) examined how ECTs (from pre-k through second grade) viewed young children's literacy development. They reviewed two specific approaches to literacy: the Reading

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Readiness approach, which emphasizes systematic, skills-based instruction, and the EL approach, which advocates child-centered, play-based learning.

Reading Readiness is a skills-based approach that systematically and explicitly teaches foundational reading skills. Reading Readiness is based on waiting for children to mature before actively teaching essential pre-reading skills. Reading Readiness utilizes structured, teacher-directed programs to emphasize phonics, decoding, and other mechanical aspects of reading. Critics argue that the Reading Readiness approach places too great an emphasis on isolated skills, subsequently neglecting aspects of comprehension, child engagement, and social interaction, which some consider integral to literacy development (Giles & Tunks, 2015). The EL approach recognizes that literacy development begins before kindergarten as children engage in early reading and writing behaviors influenced by their environment. These steps include interactions with adults and peers as well as exposure to environmental print. An EL approach to classroom instruction emphasizes integrating literacy into daily activities. Examples of such activities include fostering skills in print awareness, comprehension, and symbolic thinking (Giles & Tunks, 2015).

Giles and Tunks (2015) employed a quantitative, descriptive research design to investigate ECTs' perceptions of literacy acquisition. The survey consisted of 20 items related to literacy acquisition, divided into Reading Readiness and EL sections. Teachers' perceptions were measured using the Literacy Acquisition Perception Profile, with scores calculated for each subscale. The surveys were emailed to 271 pre-k to 2nd-grade teachers in a southern U.S. school district. Seventy-six ECTs (11 pre-k, 28 kindergarten, 19 first grade, and 18 second grade) responded (response rate of 28%). Teaching experience ranged from 0 to 25-plus years, with 52% of participants having 6–15 years of total teaching experience. Additionally, 35% reported

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0–5 years of experience at their current grade level. Fifty-two percent of the participants had advanced degrees, including 35 master’s degrees, three educational specialist degrees, and one doctoral degree.

The results of the surveys were not statistically significant for perceptions of literacy acquisition by teachers’ educational level, nor for perceptions of literacy acquisition by grade level taught. Teacher experience at the current grade level did result in a statistically significant difference in the Reading Readiness subscale. This difference may reflect historical shifts in teacher preparation.

In Giles and Tunks’ (2015) study, teachers with more than 21 years of teaching experience had completed a teacher preparation program in the late 1980s and early 1990s and were exposed to EL principles that emphasized meaning-based, play-based, and child-centered learning. In contrast, teachers with 6 to 10 years of teaching experience favored the Reading Readiness approach. They received teacher preparation that emphasized code-based instruction and measurable outcomes, as promoted by the policies of No Child Left Behind (Giles & Tunks, 2015).

Giles and Tunks (2015) concluded that although teachers vary in their perspectives on literacy instruction, effective early literacy instruction may require a flexible approach that integrates Reading Readiness and EL to provide balanced instruction for all students. Future research should include examining how teacher preparation programs and ongoing PD influence teachers’ early literacy perspectives over time.

Shared Reading

Shared reading is presented in the literature as a central context for supporting multiple areas of early literacy development. Building on Giles and Tunks’ (2015) call for flexible,

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balanced teaching, Callaghan and Madelaine (2012) examined how PA and shared book reading support early literacy growth in preschool.

PA is the ability to recognize and manipulate the sound structures of spoken language, including larger units such as syllables and rhymes, as well as smaller units like individual phonemes. Callaghan and Madelaine (2012) found that systematic PA instruction to either individuals or small groups improved preschool students' PA skills. A meta-analysis published by the NELP (2008) revealed benefits for preschool children when PA instruction was combined with instruction focused on print awareness (the connection between written and spoken words). This result suggests that the interaction between teaching letter-sound correspondence and names, combined with PA instruction, positively impacts decoding skills.

Shared book reading is an interactive practice in which an adult reads aloud to children and comments on illustrations, asks questions, and encourages discussion. This practice supports the development of OL, vocabulary, and listening comprehension, which are essential for later reading comprehension. There are two types of shared book reading: non-dialogic reading and dialogic reading.

Non-dialogic reading is a cornerstone in most preschool literacy programs. It involves reading a picture book from beginning to end with brief pauses to comment on pictures or to answer questions. Once a book is read in this manner, the teacher will employ dialogic reading techniques with the children during the following shared book reading session.

Dialogic reading actively engages children in the reading process. Teachers use open-ended questions, turn-taking, and feedback to encourage children to expand their answers beyond simple yes/no responses about the book. Callaghan and Madelaine (2012) noted that dialogic reading has a moderate impact on children's OL and listening comprehension (NELP, 2008).

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Although dialogic reading promotes OL and listening comprehension, teachers may be unfamiliar with this approach, thus highlighting the need for training in dialogic reading techniques. The studies reviewed by Callaghan and Madelaine (2012) suggest the importance of using both non-dialogic and dialogic reading because they provide a foundation for later reading skills by improving listening comprehension and vocabulary in children.

Callaghan and Madelaine (2012) cited a study by Neuman and Dwyer (2009), which reviewed 10 U.S. government-funded curriculum programs supporting literacy instruction. Neuman and Dwyer found that, while new vocabulary was introduced across all programs, there was little opportunity to practice or review vocabulary systematically. However, the systematic use of words is a structured and intentional practice that helps children learn, retain, and use vocabulary, thereby providing frequent practice, multiple exposures to words, and opportunities to use them in various contexts. Without repeated exposure and systematic use of words, children are unlikely to acquire vocabulary at the pace needed to narrow achievement gaps (Neuman & Dwyer, 2009).

Callaghan and Madelaine (2012) also cited a study by Wasik and Bond (2001), who investigated the effects of shared interactive book-reading techniques on vocabulary development in 127 preschool children randomly assigned to either a treatment group or a control group. The study revealed that interactive book reading combined with explicit vocabulary instruction and practice improves vocabulary development in preschool children. This study highlighted the importance of structured and systematic approaches to vocabulary instruction in early literacy programs.

Callaghan and Madelaine (2012) emphasized that formal reading instruction is not appropriate for preschool. However, the foundational skills of vocabulary, OL, listening

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comprehension, and letter knowledge are built through PA instruction and shared book reading. Unfortunately, many preschool teachers lack an understanding of PA, shared book reading, and dialogic reading, and may also lack the skills to teach these concepts effectively. Importantly, a preschool literacy program should incorporate PA, shared book reading, and dialogic reading, and provide PD for teachers on these instructional methods (Callaghan & Madelaine, 2012).

Within shared reading, researchers have also examined how teachers' attention to print can strengthen early literacy growth. Although shared book reading improves a preschool student's PA (Callaghan & Madelaine, 2012), Justice et al. (2009) examined whether preschool teachers' use of print-referencing read-alouds promotes children's print knowledge, AK, and writing.

Justice and colleagues (2009) employed a randomized controlled trial design to investigate the effect of a print referencing intervention on preschoolers' knowledge of print. Participants included 106 preschool children from 23 EC classrooms. Classrooms were randomly assigned to one of two conditions: a print referencing group (14 classrooms) and a comparison group (9 classrooms). Teachers in the print referencing group received training, a manual, and feedback to embed verbal and nonverbal print references during 120 large-group storybook reading sessions across 30 weeks. The comparison group employed typical reading practices with the same frequency and used the same storybooks.

Child outcomes were measured through standardized assessments of print knowledge, AK, and name-writing ability (to assess early writing). These areas were chosen because they are components of early literacy development and are linked to later reading and writing achievements (Justice et al., 2009). Language measures were included for exploratory purposes to examine whether the intervention might also influence broader language development. The

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quality of preschool classrooms varied widely in terms of teacher qualifications, instructional practices, and overall environment, and was evaluated to ensure that differences in classroom environments did not impact the study's results.

The results of Justice et al.'s (2009) study indicated that preschool teachers' use of the print referencing intervention improved children's print knowledge, AK, and name-writing ability compared with the business-as-usual instruction group. Although no differences were found in language development, the findings support the use of structured, print-focused reading strategies to strengthen foundational literacy skills in EC settings and underscore the value of explicit print referencing as an effective, evidence-based practice for promoting early literacy. Justice et al. (2010) also investigated how incorporating print-referencing read-alouds into classroom routines can support children's early literacy development, particularly print knowledge. They examined potential moderators, including child-level factors (age, initial literacy skills, and language ability) and classroom-level characteristics (program type, instructional quality, SES, teacher education, and experience). Results revealed that children exposed to print-referencing read-alouds had gains in print knowledge, with no adverse effects on language development.

In this randomized controlled trial, Justice et al. (2010) focused on data from 59 teachers and 379 children in two of the study conditions. They randomly assigned teachers to (a) conduct whole-class read-alouds 4 times per week for 30 weeks using a print-referencing style, (b) conduct whole-class read-alouds 2 times per week for 30 weeks using a print-referencing style, or (c) conduct whole-class read-alouds 4 times per week for 30 weeks as the teacher normally would (comparison). For this study, only teachers assigned to conditions A and C were compared to test the effects of print referencing.

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To examine the potential moderators, the authors considered classroom and child measures. The classroom measures include teacher education level (e.g., high school diploma, college degree, or graduate degree), years of teaching experience in preschool, type of preschool program (Head Start, state-funded, private, EC special education), family SES, and instructional quality. Child measures included language ability and print knowledge.

Justice et al.'s (2010) findings indicate that teachers who used the print referencing 4 times a week made more verbal references to print and had a positive influence on children's print knowledge. However, children in higher-quality classrooms or classrooms with higher average SES made greater gains in print knowledge over the academic year. In contrast, teacher education, years of experience, and program type showed no significant relationship with children's growth in print knowledge. Although higher classroom SES is associated with overall print knowledge gains, the effectiveness of the print referencing intervention was consistent across classrooms with varying SES levels, suggesting that the print referencing intervention benefits children regardless of SES background (Justice et al., 2010).

Children who received print referencing instruction showed greater gains in print knowledge across the school year than children in the comparison group. The effectiveness of the intervention was not influenced by any specific differences between the children (age, initial print knowledge, or language ability) or setting differences (program type, instructional quality, classroom SES, teacher education, or experience; Justice et al., 2010).

The findings indicate that the scalability (the ability of an intervention to maintain a positive impact across diverse settings) and practicality (ease of implementation in real-world settings without requiring extensive resources, training, or practice changes) of this evidence-based PR intervention for improving early literacy outcomes in various preschool settings are

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notable (Justice et al., 2010). After an 8-hour PD, teachers made modest changes to their read-aloud techniques using the commercially available books in their preschool classrooms. Teachers learned how to apply verbal and nonverbal references to print that benefited children regardless of moderating factors. Justice et al. (2010) noted that print referencing techniques can be implemented across preschool classrooms with minimal cost and training and produce measurable improvements in children's print knowledge.

In addition to PA and print knowledge, shared reading has also been examined as a context for vocabulary instruction (Callaghan & Madelaine, 2012; Justice et al., 2009, 2010). To determine whether vocabulary instruction strategies differ between Head Start and private preschool teachers, Lipsky and Adelman (2016) examined vocabulary instruction practices during shared reading among 52 preschool teachers (23 from Head Start and 29 from private preschools) from the southeastern United States, all of whom had comparable levels of education and experience. Teachers videotaped shared reading sessions that were analyzed for the vocabulary strategies of definition, contextualization, and orthographic/phonological techniques (which focus on spoken and written words through rhyming, spelling, or repetition activities). Target words were classified by utility level into three categories: frequent (common, everyday words), high-utility, and low-utility. Researchers assessed extratextual language complexity using the mean length of utterance (how many meaningful parts of words are spoken in a sentence).

Lipsky and Adelman (2016) found that Head Start teachers implemented substantially more vocabulary instruction during shared reading than private school teachers. Head Start teachers explained word meaning and connected new words to children's experiences. Both groups of teachers focused on high-utility words, though Head Start teachers taught a broader

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range of vocabulary. However, private preschool teachers engaged in richer conversations but provided less explicit word instruction. The researchers suggested that Head Start teachers may emphasize direct vocabulary instruction because low-income students often have limited exposure to vocabulary. In contrast, private school teachers may assume their affluent students already have sufficient vocabulary, so they prioritize other instructional areas.

Lipsky and Adelman's (2016) findings suggest that both groups of teachers contribute to children's language development in different ways. Head Start teachers use explicit vocabulary instruction, while private school teachers provide more exposure to language structures. Together, the results underscore the importance of striking a balance between direct vocabulary instruction and rich, interactive dialogue to optimize children's early language and literacy development.

Literacy Practices and Instructional Delivery

Beyond shared reading, the literature also considers how early literacy instruction is enacted more broadly across preschool classrooms. Hawken et al. (2005) and Connor et al. (2006) examined the literacy practices teachers report using and how instruction is delivered across classroom routines and groupings.

Hawken et al. (2005) examined Head Start teachers' views and practices regarding the development of foundational skills in early literacy, which are needed for children's reading success. Hawken et al. (2005) reported that children from low socioeconomic backgrounds enter kindergarten behind their peers in early literacy skills, including phonological awareness, print awareness, and letter recognition.

Hawken and colleagues (2005) examined the correlation between Head Start teachers' beliefs and instructional practices, as well as their early literacy instruction, and identified any

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early literacy areas that may require additional emphasis or PD. Their quantitative study employed a 24-item survey that assessed teachers' practices in book knowledge and appreciation, print awareness, PA, AK, and early writing. Survey questions were aligned with the Head Start Child Outcomes Framework, which is a guideline developed to assess critical skills for school readiness.

Hawken and colleagues' (2005) survey indicated that Head Start teachers supported daily instruction in early literacy, prioritizing book knowledge and appreciation, as well as print awareness. Teachers reported daily or weekly book handling, name writing, and print referencing during story reading, as well as playing with alphabet puzzles or magnetic letters, providing literacy props in dramatic play, offering a variety of writing tools, and displaying children's writing in the classroom. These strategies focus primarily on book knowledge and print awareness.

Hawken and colleagues (2005) found that, despite its importance for reading success, PA was taught less frequently. Head Start teachers most frequently (1 to 2 times per week to daily) had children identify initial sounds in words and practice rhyming with nursery rhymes or rhythm games. Nearly half of the teachers seldom or never used phonological activities, such as syllable identification (e.g., "Mon-day") or blending of sounds to form words (e.g., /c/, /a/, /t/ = cat). Hawken et al. reasoned that Head Start teachers may feel less confident in teaching PA or may view these skills as less developmentally appropriate for preschoolers. The authors also noted that children in Head Start are at a higher risk of entering kindergarten without phonological skills.

Hawken et al. (2005) indicated that Head Start teachers value and employ various evidence-based practices to implement early literacy outcomes, but they focus on developing

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book knowledge and print awareness rather than PA. Teachers often underutilize the explicit, direct teaching of PA skills because they may lack the preparation and guidance to teach PA effectively and may benefit from developing skills in evidence-based PA instruction.

Where Hawken et al. (2005) described the frequency with which teachers reported using foundational literacy practices, Connor et al. (2006) examined how instruction varied by grouping, skill focus, and student needs.

Connor and colleagues (2006) examined preschool instruction across four dimensions. The first dimension considered who directs children's attention: teacher-managed, teacher-child-managed, and child-managed activities. The second dimension differentiated activities by code-focused letters and sounds and meaning-focused language skills and comprehension. The third dimension separated activities into explicit (teaching specific skills) and implicit (indirect learning). Finally, the fourth dimension distinguished between instruction delivered to the entire class (classroom level) and instruction tailored to individual students or small groups (student level).

Connor et al.'s (2006) findings indicate that code-focused activities, such as PA and alphabet recognition, when provided in small-group/student-level activities, better predicted the development of letter-word skills and AK. Children with weaker initial literacy benefited most from explicit, code-focused small-group instruction. Meaning-focused instruction helped children better understand and utilize language for its intended meaning. Teachers who provide classroom-level, meaning-focused instruction by (a) using read-alouds with discussions, (b) implementing vocabulary activities, and (c) pointing out print conventions create experiences that foster comprehension, vocabulary development, decoding, and OL skills. Overall, student-

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level instruction improved alphabet and letter-word skills more effectively, although classroom-level instruction was more beneficial for vocabulary development (Connor et al., 2006).

Connor et al.'s (2006) findings indicate that effective preschool instruction benefits all children. However, it is most effective when combined with explicit, code-focused small-group instruction and enriched, meaning-focused whole-class experiences. The combined approach effectively supports early literacy and vocabulary development.

Conclusion

The studies reviewed for RQ2 indicate that evidence-based instruction supports early literacy development in pre-k. The use of evidence-based strategies, including explicit PA instruction, dialogic and shared reading, and systematic print referencing, supports AK, OL, print awareness, and early writing (Callaghan & Madelaine, 2012; Connor et al., 2006; Giles & Tunks, 2015; Justice et al., 2009, 2010). Taken together, these early literacy practices integrate code-focused and meaning-focused components needed for children's literacy development.

These researchers found that instructional effectiveness differs by grouping and lesson focus. Connor et al. (2006) found that small-group, code-focused instruction (such as PA and AK) supports print knowledge and decoding, while whole-group, meaning-focused instruction (read-alouds, vocabulary) enriches comprehension and OL skills. The strength of each format suggests that the balanced delivery of code-focused and meaning-focused experiences fosters literacy development (Callaghan & Madelaine, 2012; Connor et al., 2006; Giles & Tunks, 2015). Research indicates that shared or dialogic reading is a mode for modeling OL and introducing vocabulary and supports both listening comprehension and expressive language by embedding print or sound awareness (Callaghan & Madelaine, 2012; Justice et al., 2009, 2010; Lipsky & Adelman, 2016).

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Overall, the research indicates that evidence-based strategies of PA, dialogic reading, and print referencing are effective in supporting young children's early literacy development; however, many preschool teachers may not be familiar with these approaches or lack the confidence to apply them consistently and effectively in the classroom (Callaghan & Madelaine, 2012; Justice et al., 2009). Without targeted instruction for preservice teachers or ongoing PD in early literacy, teachers may miss opportunities to build foundational literacy skills in EC through intentional, structured interactions during reading and language activities (Hawken et al., 2005; Justice et al., 2010; Lipsky & Adelman, 2016).

RQ3-Related Literature

RQ 3 asked the following: What coaching-based professional development approach effectively prepares pre-k teachers to implement evidence-based early literacy instruction? This section presents the literature related to this question.

Practice-based coaching has been described as job-embedded professional development that occurs in classroom settings to support teachers in acquiring and refining specific instructional practices (Snyder et al., 2015). Coaching involves aligning classroom practices, demonstrating the value of new strategies for enhancing student outcomes, and distinguishing between new and existing practices (Hsieh et al., 2009). This literature review for RQ3 examines three coaching approaches identified in the research: skill-focused coaching, practice-based coaching (PBC), and instructional coaching. It also considers coaching intensity as an implementation feature that may shape teacher outcomes. Across these studies, coaching-based PD supported teachers in implementing evidence-based early literacy practices and, in some cases, was associated with gains in children's language and early literacy development.

Skill-Focused Coaching

Hsieh et al. (2009) conducted a single-subject intervention study to evaluate the effects of skill-focused coaching on ECTs' use of early literacy teaching strategies (see Table 1). The teaching strategies addressed six early literacy areas that predict later reading ability; these strategies were grouped into three clusters for the study: Cluster A—OL and comprehension; Cluster B—PA and alphabet principle; and Cluster C—print concepts and written language. Each cluster was coached separately to allow teachers to focus on one strategy at a time, to facilitate classroom use and mastery, and to receive feedback. The strategies were derived from three sources: research linking practice to outcomes, position papers and summaries, and research-to-practice books on early literacy (Hsieh et al., 2009).

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Table 1

Comparison of Skill-Focused Coaching, PBC, and Instructional Coaching

Dimension	Skill-focused coaching	PBC	Instructional coaching
Definition	Targets specific clusters of early literacy teaching skills (e.g., book reading, PA, print/writing) using performance-based feedback and observational data (Hsieh et al., 2009; McCollum et al., 2011).	A structured, cyclical model with three components—shared goals and action planning, focused observation, and reflection/feedback—implemented in collaborative partnerships to support fidelity of evidence-based practices (Snyder et al., 2015).	A collaborative, job-embedded coaching model emphasizing coteaching, modeling, and reflection to improve overall instructional quality and child outcomes (Gettinger & Stoiber, 2016).
Scope	Narrow: focuses on one cluster of literacy strategies at a time, often tied to teacher performance criteria (Hsieh et al., 2009).	Broad: integrates multiple teaching practices across daily instruction and links them to child outcomes (Snyder et al., 2015).	Flexible: can target specific literacy strategies or broader instructional goals across the curriculum (McCollum et al., 2011).
Process	Pre-observation discussion, teacher practice/observation, visual data feedback and discussion, with targets set by skill cluster (Hsieh et al., 2009; McCollum et al., 2011).	Coaching cycle: (1) shared goals and action planning, (2) focused observation, (3) reflection and feedback, with emphasis on collaborative problem solving (Snyder et al., 2015).	The partnership cycle of co-planning, modeling, observation, and reflective feedback is embedded in teachers' daily practice (McCollum et al., 2011).
Focus	Mastery of specific literacy behaviors (e.g., dialogic reading prompts, PA games, print referencing).	Integration and sustained use of effective practices across classroom routines with fidelity.	Continuous refinement of instruction to improve classroom interactions and overall instructional quality.
Strengths	Efficient for improving discrete literacy skills; teachers show measurable increases in strategy use within coached clusters (Hsieh et al., 2009; McCollum et al., 2011).	Builds reflective practice and sustainability; strengthens fidelity of implementation and sometimes leads to measurable child gains (Dennis et al., 2024; Snyder et al., 2015).	Encourages teacher ownership, adaptation, and broader improvements in classroom literacy environments (McCollum et al., 2011).
Limitations	Transfer to broader practice may be limited; some strategies (e.g., expansions) are more complex for teachers to master (Dennis et al., 2024; Hsieh et al., 2009).	Resource- and time-intensive; variability in teacher uptake and maintenance when supports fade (Dennis et al., 2024; Snyder et al., 2015).	Outcomes vary by coach expertise and teacher engagement; it lacks the structured fidelity emphasis of PBC.
Example in Early Literacy	Coaching a teacher to use expansions and questioning strategies during storybook reading consistently.	Embedding rhyming, vocabulary, and inferential questioning across circle time, centers, and small-group lessons within the PBC cycle.	Working with teachers to strengthen small-group literacy instruction by co-teaching shared book reading and providing reflective feedback.

Note. Adapted from Dennis et al. (2024); Hsieh et al. (2009); McCollum et al. (2011); Snyder et al. (2015).

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Five full-time ECTs volunteered to participate in the study. The authors' coaching process consisted of three steps. First, teachers were introduced to the strategy, given examples, and asked to plan collaborative activities to practice it. In Step 2, teachers practiced the strategy during classroom activities, with coaches observing and providing feedback using data collected during the observation. In Step 3, teachers who did not meet the criterion of using 80% of strategies across three observations were given a booster session to review the strategies and resolve any difficulties.

Coaching sessions occurred 2 to 3 times per week over 6 weeks. Data were collected using checklists for each cluster to ensure consistent implementation of the strategies and the intervention. Teachers completed questionnaires to rate their satisfaction with the coaching and to assess their knowledge and confidence in using early literacy strategies. Children's literacy performances were measured before and after the coaching intervention to evaluate growth.

The data indicated that coaching increased teachers' use of early literacy teaching strategies across all three clusters. All five teachers showed increased use of strategies during intervention and maintained higher levels over baseline after the intervention ended (Table 2).

Table 2

Teachers' Use of EL Strategies Pre- and Post-Maintenance After Coaching

Cluster	Baseline (%)	Intervention (%)	Maintenance (%)
A. Vocabulary/Information/Comprehension/ Narrative	55.5	91.2	84.0
B. PA/Alphabetic Principle	21.6	74.3	84.0
C. Print Concepts/Written Language	29.7	79.4	79.4

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On a 5-point Likert Scale (1 = least; 5 = most), teachers reported that they valued the ongoing feedback and collaborative approach of the coaching process. Their self-rated knowledge of early literacy increased substantially. They rated the training content as highly useful and expressed strong confidence in their ability to create early literacy activities and a literacy-rich classroom environment. Additionally, teachers rated the effectiveness of coaching on children's early literacy skills using a 10-point Likert Scale, with an average score of 9.8, indicating a high perceived impact (see Table 3).

Table 3

Teachers' Perceptions of Coaching (N = 5)

Measure	Scale	Pre-intervention mean	Post-intervention mean
Self-rated knowledge of EL	5-point Likert	3.4	4.9
Satisfaction with training content	5-point Likert	–	5.0
Confidence in creating literacy activities/environment	5-point Likert	–	4.8
Effectiveness of coaching on children's EL skills	10-point Likert	–	9.8

– Items were measured post-intervention

Hsieh and colleagues (2009) provided preliminary evidence that coaching may be associated with changes in children's early literacy skills, even though the study did not allow for experimental control of child behavior. Data on children's literacy skills were collected pre- and post-coaching intervention. These results suggest that coaching may directly impact children's literacy skills (Table 4).

Table 4*Children's EL Skills Pre- and Post-Coaching*

Skill area	Pretest mean	Posttest mean
Picture naming	19.00	21.12
Alliteration	1.74	4.61
Rhyming	3.84	6.91
Print knowledge	4.48	7.15

Hsieh et al.'s (2009) preliminary findings for skills-focused coaching suggest benefits for children's early literacy skills, but more research is needed to confirm causal effects. The skills-focused coaching intervention offers a structured, data-informed, and collaborative PD model designed to support the implementation of literacy teaching strategies.

McCollum et al. (2011) examined how skill-focused coaching influenced preschool teachers' use of early literacy instructional strategies. Skill-focused coaching is a PD approach targeting specific teaching skills or strategies to enhance instructional practices. Their study replicated the single-subject study by Hsieh et al. (2009), focusing on the same three early literacy skill clusters: Cluster A—story comprehension and language; Cluster B—PA and alphabetic principle; and Cluster C—print concepts and writing. However, in the earlier study (Hsieh et al., 2009), coaching lasted 6 weeks; in the study by McCollum and colleagues, the coaching cycle occurred biweekly over 1 year.

McCollum and colleagues (2011) conducted a quantitative study involving 12 state-certified ECTs who worked in state-funded pre-k classrooms serving children with disabilities and children considered at risk due to low SES. Seven teachers received coaching in the three

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early literacy clusters, and five (control) did not. An orientation was provided to familiarize the intervention group with the coaching process and the format of the observation checklist used to measure teachers' use of early literacy strategies across the three clusters. Based on prior research by Hsieh et al. (2009), successful implementation of instructional strategy was defined as demonstrating at least 80% of the skills listed on the observation checklist.

McCollum and colleagues' coaching cycle involved four steps: (a) a brief pre-observation discussion to set goals and review previous data, (b) observation of the teacher's instruction, (c) a review of the collected data together to evaluate performance, and (d) collaboratively planning improvements for the next session. Coaches used graphs and percentages to deliver clear, objective feedback, promoting open and supportive discussions.

The 80% criterion for using the expected teaching strategies within each cluster was met as follows: in Cluster A, 6 out of 7 teachers; in Cluster B, all 7 teachers; and in Cluster C, 5 out of 7 teachers. Most of the teachers in the implementation group reached the 80% criterion within five coaching visits. In the control group, no teachers reached the criterion for Cluster B or C, and only one teacher met the criterion for Cluster A.

McCollum and colleagues (2011) also measured the effect of coaching on the classroom environment with the Early Language and Literacy Classroom Observation (ELLCO) Toolkit, which includes four sections: Literacy Environment Checklist (LEC), General Classroom Environment (GCE), Language, Literacy, and Curriculum (LLC), and Literacy Activities Rating Scale (LARS). There were no significant differences between the implementation and control groups pre-intervention. Post-intervention, the implementation group scored higher than the control group in LEC, LLC, and LARS; however, there was no difference in GCE between the groups.

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McCollum and colleagues (2011) demonstrated that skill-focused coaching significantly improved teachers' use of early literacy teaching strategies and positively influenced the broader classroom literacy environment, as measured by ELLCO. Future research should evaluate the influence of teacher characteristics, classroom environment factors, and administrative support on the effectiveness of skill-focused coaching and its impact on child outcomes.

Although skill-focused coaching centers on discrete clusters of literacy strategies, the next group of studies examines PBC as a broader coaching framework for supporting implementation with fidelity through shared goals, focused observation, and reflection.

Practice-Based Coaching

Snyder et al. (2015) explored the role of PBC as a PD strategy to help ECTs use evidence-based teaching practices with fidelity (i.e., how closely the practices align with the design). Focusing on effective teaching practices, PBC integrates components of shared goals and action planning, focused observation, and reflection and feedback in a collaborative partnership between the coach and teacher. The PBC cycle is designed to develop and strengthen the collaborative partnership through reciprocity and dialogue.

Collaborative partnerships enable teachers to implement evidence-based practices with ongoing coaching support while working independently. As teachers implement new practices, coaches provide prompts and explicit feedback to help them gradually achieve the fidelity of implementation.

The first component of PBC is *shared goals and action planning*. The teacher and coach collaboratively outline goals and an action plan based on a needs assessment to identify the teacher's current practices and potential areas for improvement. In the second component,

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focused observation, the coach gathers information on the fidelity of the implementation of the target practices through in-person or video observation.

In the third component, *reflection and feedback*, the teacher and the coach discuss what is working and what needs improvement. The coach also gives constructive feedback to support the teacher's growth. The final component involves assessing and reviewing goals and accomplishments as well as developing a plan to sustain the practices targeted during PBC (Snyder et al., 2015).

Snyder and colleagues (2015) reviewed two studies sponsored by the Institute of Educational Sciences (an independent research arm of the Department of Education) that used PBC to support EC educators in implementing explicit teaching practices. Study 1 focused on embedded instruction (practices integrating learning opportunities into daily classroom routines and activities) for children with disabilities, and Study 2 focused on teachers' implementation of the pyramid model (practices that support social, emotional, and behavioral development).

Study 1 assigned 36 preschool teachers working with children with disabilities to one of three PD conditions. In the first condition, workshop training combined with on-site and remote coaching provided teachers with 15 hours of initial training, followed by 16 weeks of coach-led sessions that alternated between face-to-face and remote formats, including email, phone calls, and videoconferencing.

The second condition, workshop training with self-coaching and web-mediated support, involved teachers receiving the same 15 hours of initial training but engaging in self-coaching activities for 16 weeks. Weekly email reminders and access to a secure website with instructional resources, including tips, tools, and videos, supported this self-coaching. The third condition was

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the control group, which was a business-as-usual PD in which teachers continued their school district PD activities without any additional structured interventions or PBC.

Study 1 demonstrated that preschool teachers receiving on-site PBC showed improved fidelity in implementing embedded instruction practices when compared to those in the self-coaching and business-as-usual conditions. Self-coaching was less consistent in supporting practice implementation, with varying levels of teacher engagement. The improved fidelity of embedded instruction practices was associated with positive learning outcomes for children, particularly those with disabilities. Study 1 denotes the importance of structured coaching and individualized support in achieving learning outcomes.

Study 2 involved 40 preschool teachers randomly assigned to two PD conditions for instruction and implementation of pyramid model practices. Condition 1 was 19 hours of workshop training plus on-site coaching over 12–16 weeks. Condition 2 was business-as-usual district PD without structured interventions or coaching. Study 2 confirmed that on-site PBC supported teachers in implementing pyramid model practices with fidelity in contrast to those participants in the business-as-usual condition.

Snyder et al.'s (2015) findings from both studies support PBC as a strategy for PD in implementing evidence-based practices in ECE, and PBC has the potential to improve the fidelity of teachers' classroom practices and child learning outcomes. Importantly, future research is needed to investigate different coaching styles, including self-coaching, peer coaching, and expert coaching.

Shannon et al. (2021) extended the PBC literature by examining how coaches facilitated debrief conversations within a PBC partnership. Using a direct behavioral observation coding system, the authors analyzed 21 video-recorded debrief meetings across three occasions for

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seven coach–teacher dyads participating in an onsite PBC condition. The study examined the proportion of time spent in different conversational foci, who initiated those exchanges, and the types of verbal behaviors coaches used during the debrief meetings (Shannon et al., 2021).

Results indicated that the largest proportion of time was spent in reflection and feedback, followed by goal setting and action planning. Coaches consistently used supportive and constructive feedback and clarifying questions, and teacher initiations increased across occasions, particularly around problem-solving and reflection. Shannon and colleagues (2021) suggested that coaches can maintain fidelity to a structured PBC protocol while still individualizing the process in response to teachers’ needs, context, and progress over time. These findings further support PBC as a collaborative and responsive framework rather than a fixed sequence delivered the same way in every partnership.

Dennis et al. (2024) investigated the impact of PBC combined with scripted supports on preschool teachers’ use of shared book reading practices. In shared book reading, the exchange between student and teacher goes beyond simply reading the text. Shared book reading is an interactive practice in which an adult reads aloud to children while commenting on illustrations, asking questions, and encouraging discussion (Callaghan & Madelaine, 2012). It is identified as an effective strategy to promote children’s expressive and receptive vocabulary (Zucker et al., 2013).

Dennis and colleagues (2024) used a single-case multiple-baseline design across three dyads of preschool teachers and students to examine the effects of PBC on shared book reading. The PBC included instructional sessions, weekly coaching, and the use of scripted prompts to help teachers implement shared book reading strategies (question/evaluate and expand/repeat). The question/evaluate strategy used literal questions (asking for the target word and its

definition) and inferential questions (combining prior knowledge with information from the book). The expand/repeat strategy involved the teacher adding one to two words to a child's utterance and having the child repeat the expanded sentence. The daily shared book-reading sessions were conducted one-on-one between the teacher and the child and were video-recorded.

The results across the three teacher-child dyads suggest that PBC with scripted supports can strengthen teachers' implementation of shared book-reading strategies and positively influence children's language development. Teachers demonstrated varying levels of fidelity in applying the two targeted strategies of question/evaluate and expand/repeat, yet each dyad showed measurable gains in children's vocabulary knowledge.

The results also illustrate that implementation fidelity matters. Children in dyads where teachers applied strategies more consistently (e.g., Dyad 2) tended to show more balanced growth across both literal and inferential knowledge. At the same time, even partial or inconsistent implementation (e.g., Dyad 1, Dyad 3) yielded measurable language benefits, thereby underscoring the strength of shared book reading as a context for language facilitation.

Table 5 shows that during shared book reading, when teachers correctly used question/evaluate and expand/repeat strategies, children learned more words and improved their ability to define and use them to share information and knowledge. Children's literal and inferential knowledge improved because the teachers directly taught and reinforced definitions by asking questions, evaluating responses, connecting to children's prior knowledge, and expanding on children's responses (Dennis et al., 2024).

Table 5*Shared Book Reading Strategy Effectiveness*

Dyad	Teacher strategy use	Child literal knowledge (pre/post)	Child inferential knowledge (pre/post)
1	Question/Evaluate: 74% Expand/Repeat: 63%	0.33 → 1.91	1.33 → 1.66
2	Question/Evaluate: 96% Expand/Repeat: 92%	0.19 → 1.69	0.31 → 1.69
3	Question/Evaluate: 55% Expand/Repeat: 27%	1.25 → 2.75	1.50 → 3.00

Dennis et al.'s (2024) findings suggest that PBC may be an instructional approach that increases teachers' implementation of evidence-based strategies and supports the development of early literacy and language in children. Future research should explore the long-term sustainability of PBC outcomes, specifically whether teachers continue to implement shared book-reading strategies with fidelity and successfully integrate these practices into their regular classroom routines after coaching and scripted supports are withdrawn.

Whereas the PBC studies emphasize a structured coaching cycle and the interactional processes within that cycle, instructional coaching is presented in the literature as a related but more flexible, classroom-based model that relies heavily on modeling, coteaching, and guided reflection.

Instructional Coaching

Gettinger and Stoiber (2016) examined the utility of instructional coaching for improving preschool teachers' use of evidence-based early literacy practices. Instructional coaching is a practice-based PD approach that provides personalized, classroom-based support through

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collaboration between the coach and teacher. The authors compared whether coaching sessions with or without demonstrations and modeling of book-reading practices resulted in greater improvements in teachers' literacy-enhancing behaviors and overall classroom environments. Book reading was chosen as the focus because it was considered an effective way to promote early literacy skills in young children (NELP, 2008).

Gettinger and Stoiber's (2016) year-long quantitative study included 22 Head Start teachers assigned to one of two coaching conditions. The coaching with demonstration (C+D) cohort included in-class direct modeling of book-reading practices by the coach. The coaching-only (C-only) without demonstration did not include in-class modeling of practices. The PD for both cohorts consisted of monthly instructional sessions on evidence-based literacy targeting PA, OL/vocabulary, AK, and print/book awareness. In addition to the PD and direct in-class modeling and coaching, coaches observed teachers, provided feedback, facilitated self-assessment, and collaborated to develop action plans to address identified needs.

The results of Gettinger and Stoiber's 2016 study indicate that teachers in the C+D cohort significantly improved their literacy-focused behaviors compared to those in the C-only cohort. Coaches' demonstrations effectively enhanced teachers' use of strategies for PA, AK, and print awareness. Teachers in the C+D cohort generalized these practices beyond book-reading sessions into small-group and spontaneous interactions. The C+D cohort also improved its overall classroom literacy environment as measured by the ELLCO Pre-K Toolkit.

Teachers in the C-only cohort improved in OL/vocabulary, AK, and print/book awareness during book-reading sessions. They increased their use of literacy-enhancing behaviors, such as asking open-ended questions, pointing out letters, and drawing attention to print in books, during book-reading sessions. However, the C-only cohort did not show

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improvement in PA. The C-only cohort was not explicitly shown how to embed PA strategies, such as emphasizing letter sounds, rhymes, or syllables into book reading. In small-group activities, their overall literacy-focused behaviors, especially PA, were significantly lower than those of the C+D cohort. The C-only cohort improved their classroom environment, as measured by the ELLCO Pre-K (Smith & Dickinson, 2002), but not to the same extent as the C+D cohort.

Gettinger and Stoiber (2016) provided insights into the effectiveness of coaching, demonstrating that it improves teachers' literacy-focused behaviors, interactions, and classroom environments. C-only was less effective in promoting general implementation of literacy practices, particularly PA strategies. However, the study was limited by the small sample size, the lack of long-term follow-up, and the absence of direct student outcome measures.

Beyond the design of the coaching model itself, the literature also raises a related question about dosage. The following study examines whether the frequency, duration, and overall amount of coaching matter for teacher learning and practice.

Coaching Intensity

Coaching, as a form of PD, is designed to improve teachers' skills and classroom practices, ultimately enhancing child outcomes. Weber-Mayrner et al. (2018) described coaching as a social process of supporting teachers by recognizing their existing knowledge and skills and helping them strengthen those abilities. Their study examined the implementation of a statewide EC literacy coaching program and focused on the intensity of coaching and its impact on educators' literacy knowledge and practices. The researchers defined coaching intensity as dose (length of each coaching session) and frequency (number of coaching sessions) over a given duration (total time coaching was provided).

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Weber-Mayrer et al. (2018) conducted a quantitative study that employed a multi-year, multi-cohort design to evaluate a statewide EC literacy coaching program. The researchers analyzed the relationship between coaching intensity and changes in teacher literacy knowledge and practices. Sixty-five ECTs were assigned to one of three conditions: (1) 30 hours of literacy PD in a workshop format; (2) 30 hours of literacy PD plus monthly coaching; (3) a comparison group that did not receive any PD or coaching.

Coaching intensity was measured with an online coaching log, and coaches documented dose, frequency, duration, and cumulative time. On average, each session lasted 1 hour and 53 minutes, with coaching sessions ranging from 18 minutes to 6 hours. Teachers received an average of 13 sessions (ranging from 1 to 96). The total coaching period ranges from 1 to 283 days. Cumulatively, teachers received an average of 21 hours of coaching (ranging from 30 minutes to 69 hours). Conversely, the actual coaching intensity deviated from the planned level. Coaching sessions were 25% longer than intended. As a result, teachers received fewer sessions and a shorter overall coaching duration, less than half the intended frequency, and almost 2 months shorter than planned. However, *the dose form* (specific coaching activities) was not included due to a lack of detailed information from the coaches.

Teachers' proximal knowledge (understanding of concepts and practices aligned with PD) was measured using 18 multiple-choice items directly related to the content of the five literacy domains targeted by the PD (environment, OL, play, early reading, and early writing). Teachers' distal knowledge (general knowledge about early literacy and child development) was measured with a 70-item questionnaire on early language, literacy, and child development concepts. Teacher practice was measured with two observational tools to evaluate the classroom literacy environment and teacher-child interactions.

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Weber-Mayrer et al. (2018) found that teachers' proximal knowledge increased with longer coaching sessions, thereby inferring a positive relationship between time and learning. In contrast, distal knowledge improved with more frequent coaching sessions. However, higher cumulative coaching time (total hours) was negatively associated with distal knowledge, suggesting that more time alone does not necessarily improve broader conceptual understanding.

Findings regarding the impact of coaching intensity on teacher practice were nuanced. Although coaching was associated with improvements in literacy practices, analyses of dosage indicated that longer session duration was negatively associated with gains in classroom literacy environment scores, suggesting that greater time per session did not correspond with larger improvements in physical literacy supports (e.g., availability of books, environmental print, writing materials) (Weber-Mayrer et al., 2018). Teacher–child interactions were measured using the Classroom Assessment Scoring System (CLASS; Pianta et al., 2008). No significant associations were found between coaching intensity measures (dose, frequency, or duration) and observed interaction quality, suggesting that variation in coaching intensity was not directly associated with changes in teacher–child interaction scores.

Weber-Mayrer et al. (2018) demonstrated that the variability in coaching intensity complicates the evaluation of coaching effectiveness and may contribute to mixed findings in the literature regarding the impact of coaching on teacher and child outcomes. Their analysis found that more frequent and sustained coaching was linked to improved teacher proximal knowledge, thus indicating the value of ongoing PD opportunities.

Conversely, Weber-Mayrer et al. (2018) found that longer sessions and higher cumulative coaching hours were negatively associated with the classroom literacy environment and teachers' distal knowledge. The authors suggested that coaches spend more time with teachers who need

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additional support beyond the PD's literacy focus, a suggestion that reflects a need to distinguish between the quantity of coaching and its quality and focus when determining its effect (Weber-Mayrer et al., 2018).

Weber-Mayrer et al. (2018) highlighted the importance of examining coaching in terms of dose, frequency, and duration rather than treating it as a uniform support. This concern is echoed in Yang et al. (2022), whose systematic review similarly suggests that variation in coaching dosage and intensity may help explain differences in outcomes across studies.

Yang et al. (2022) examined coaching as a PD approach in early childhood education through a systematic review of 33 randomized controlled trials and quasi-experimental studies. The review focused on the effects of coaching on teacher instruction and child development while also analyzing features of coaching interventions that may help explain variation in outcomes. Of particular relevance, the authors explicitly coded intervention duration (dosage) and identified intensity, frequency, and duration as conditions that may influence coaching effectiveness.

Yang et al. (2022) included peer-reviewed studies conducted primarily in preschool settings, many of which focused on language and literacy or teacher-child interaction. Their review compared coaching models not only by outcomes but also by design features, such as coaching procedures, intervention duration, and implementation fidelity. This approach was important because it allowed the authors to examine how coaching differed structurally across studies rather than treating coaching as a single, uniform intervention.

Yang et al. (2022) found substantial variation in how coaching was delivered across studies. Some interventions were relatively brief, lasting 7, 8, 12, 14, or 15 weeks, while others extended across 6 months, 7 to 9 months, 1 year, 1 to 2 years, or 2 years. In some studies, dosage

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was described as a set amount of coaching, such as 12 weeks at 2 hours per week, seven 50-minute coaching sessions across 15 weeks, or a 30-hour program. Coaching frequency also differed notably across studies. Some interventions included weekly coaching meetings, weekly phone calls, or weekly mentoring, whereas others used biweekly videotaping and feedback cycles or monthly mentoring meetings. These differences indicate that coaching was not implemented as a uniform condition across studies but rather varied meaningfully in how much support teachers received, how often it occurred, and how long it was sustained.

Yang et al. (2022) also highlighted the importance of dosage-related variables when interpreting findings. In discussing teacher knowledge outcomes, they noted that one null result may have been related to the minimal dosage of coaching treatment, suggesting that weaker effects may reflect insufficient coaching exposure rather than the ineffectiveness of coaching itself. In addition, the authors reported that 25 of the 33 studies (75.6%) assessed coaching fidelity in some way, while 8 studies (24.2%) did not report how fidelity was evaluated. The absence of consistent fidelity reporting is relevant because a coaching model may appear substantial in duration or frequency, while variation in implementation may alter its actual intensity in practice.

Overall, Yang et al. (2022) suggested that coaching should not be viewed as a single, equivalent form of PD across studies. Rather, coaching interventions varied considerably in dosage, duration, frequency, and overall intensity, from short-term support lasting several weeks to sustained interventions extending over 1 or 2 years. The authors' attention to these structural differences supports the conclusion that coaching effects must be interpreted in relation to how much coaching was delivered, how often it occurred, and how long it was sustained.

Conclusion

The studies reviewed for RQ3 indicate that coaching-based PD supports pre-k teachers in gaining, improving, and mastering early literacy instructional practices. The coaching interventions targeted PA, shared book reading, OL/vocabulary, print concepts/writing, or other specific evidence-based instructional practices rather than broad pedagogy (Dennis et al., 2024; Gettinger & Stoiber, 2016; Hsieh et al., 2009; McCollum et al., 2011). Researchers who measured children's early literacy skills found promising gains in children's outcomes concurrent with improved teacher implementation, but causal links remain tentative (Hsieh et al., 2009; Dennis et al., 2024).

Regardless of the label—skill-focused, practice-based, or instructional—all coaching models follow a similar sequence: skill introduction, goal setting, observation, objective feedback, and action planning (Hsieh et al., 2009; McCollum et al., 2011; Snyder et al., 2015). Within PBC in particular, coaches and teachers developed collaborative partnerships through reflection, problem-solving, and responsive feedback, with teacher initiation increasing over time (Shannon et al., 2021; Snyder et al., 2015). Later review evidence also suggests that coaching should not be treated as a uniform support condition, as studies differed considerably in dosage, duration, frequency, and overall intensity (Yang et al., 2022; Weber-Mayrer et al., 2018).

Findings for RQ3 indicate that coaching is an evolving but evidence-based form of PD that can support preschool teachers beyond workshop-only or business-as-usual PD and can strengthen early literacy teaching in pre-k classrooms (Dennis et al., 2024; Gettinger & Stoiber, 2016; Hsieh et al., 2009; McCollum et al., 2011; Shannon et al., 2021; Snyder et al., 2015; Weber-Mayrer et al., 2018; Yang et al., 2022). Taken together, this literature suggests that coaching effectiveness is shaped not only by the practices targeted and the quality of coach–

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teacher interaction, but also by how much coaching is provided, how often it occurs, and how long it is sustained.

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SECTION 3: A COMPREHENSIVE IMPROVEMENT PLAN: BEFORE READING BEGINS: AN EARLY LITERACY PROFESSIONAL DEVELOPMENT AND COACHING FRAMEWORK

The problem of practice addressed in this Capstone is that many pre-k children enter formal schooling without the early literacy skills (phonological awareness (PA), alphabetic knowledge (AK), oral language (OL), print concepts, and early writing) that are fundamental to reading achievement (NELP, 2008; Snow & Matthews, 2016). The variability in teachers' literacy content knowledge and pedagogical beliefs limits children's opportunities to engage in high-quality, evidence-based literacy experiences. Research indicates that many educators enter the classroom with limited subject knowledge and understanding of early literacy skills, including PA, AK, OL, and print concepts (Piasta et al., 2019). These interdependent early literacy skills are strong predictors of later reading achievement (NELP, 2008). When children lack foundational literacy skills upon entering school, they are at greater risk of persistent reading difficulties that may be difficult to mitigate in later grades (Snow & Matthews, 2016). These challenges are addressed through the comprehensive improvement plan for this Capstone: *Before Reading Begins: An Early Literacy Professional Development and Coaching Framework*. This is a tiered coaching and workshop framework to align teachers' knowledge, beliefs, and instructional practice.

The foundational skills of PA, AK, OL, print concepts, and early writing are interconnected and essential precursors to reading and writing (NELP, 2008). When children acquire these skills in preschool, they move into formal literacy instruction with fewer difficulties. In comparison, children who lack these foundational skills face an increased risk of reading difficulties that become problematic in later grades (Snow & Matthews, 2016).

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Evidence-based early literacy instruction includes intentional support for PA, AK, OL, print concepts, and early writing through explicit sound-focused instruction, vocabulary-rich teacher-child interactions, print-focused shared reading, and authentic writing experiences. When these instructional practices are implemented with clarity and fidelity, they support children's development of language, print knowledge, and emergent writing skills that are predictive of later reading achievement (Hindman & Wasik, 2008; Justice et al., 2009; NELP, 2008). When implemented intentionally and supported through sustained PD and coaching, these early literacy practices prepare children for future literacy learning (Justice et al., 2009; Snow & Matthews, 2016).

PA instruction is a foundational component of early literacy. Explicit, small-group activities that teach children to identify rhymes, segment syllables, and manipulate phonemes significantly strengthen decoding and word recognition in later schooling (Callaghan & Madelaine, 2012; NELP, 2008). However, Hindman & Wasik (2008) found that many teachers underemphasize code-based practices, such as PA, in favor of meaning-based practices, such as book reading, underscoring the need for targeted PD and coaching to ensure fidelity.

Dialogic reading is a practice that supports early literacy by fostering active engagement through reader prompts that encourage children to predict, recall, and discuss text. This interactive story-reading approach supports OL development and vocabulary growth, thereby strengthening the foundational language and inferential processes that underlie later reading comprehension (Justice et al., 2009; Snow & Matthews, 2016; Wasik & Hindman, 2011). Schachter and colleagues (2016) found that teachers with more substantial knowledge of OL development provided more substantial dialogic reading experiences, demonstrating that PD must integrate both knowledge-building and opportunities for practice.

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Justice and colleagues (2010) demonstrated that when teachers incorporate print referencing techniques, such as tracking text and drawing attention to letters and words, children's understanding of print concepts and AK improves. A more recent study by Justice and colleagues (2008) indicated that these gains can be achieved in everyday classroom contexts when teachers intentionally integrate print referencing into routine storybook reading. Print referencing practices provide children with repeated opportunities to connect spoken language with written forms, which lays a foundation for decoding and reading fluency.

Children who participate in early writing activities, such as dictation, labeling, and composing messages, begin to link their literacy learning with authentic communication. Early writing activities provide a setting for connecting OL, PA, and letter knowledge (Besser-Biron et al., 2024). Gerde and colleagues (2019) emphasized the importance of moving children away from isolated handwriting drills and toward writing tasks with real-life communication purposes. When teachers scaffold early writing through modeling and shared composition, children strengthen their comprehension, motivation, and sense of identity as writers (Gerde et al., 2019).

Despite evidence supporting early literacy practices such as PA, AK, OL, print concepts, and early writing, research indicates that teachers underutilize or inconsistently implement these aforementioned practices (Cash et al., 2015). Hindman and Wasik (2008) found that while teachers valued book reading, they undervalued PA and early writing. Similarly, Gerde and colleagues (2019) reported a gap between teachers' stated beliefs about writing and the actual opportunities they provided for children. These findings highlight a disconnect between teachers' pedagogical beliefs and evidence-based practice, a gap that necessitates knowledge-building and reflective coaching (Ottley et al., 2015; Weber-Mayrer et al., 2018).

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Providing ECTs with a PL framework and coaching over time addresses the persistent gap between teacher beliefs and classroom implementation. PL supports teachers in recognizing the value of PA, AK, OL, print referencing, and early writing skills, and also develops the skills to embed these skills across classroom activities (Schachter et al., 2016). Drawing on this dynamic, specific coaching models illustrate how these frameworks are applied in practice. PBC provides iterative cycles of observation, feedback, and reflection that connect research-based strategies to classroom instruction (Snyder et al., 2015). Similarly, Wasik and Hindman (2011) found that skill-focused coaching improved teachers' fidelity in using print references and other literacy practices, resulting in measurable gains in children's AK and print concepts.

Taken together, PA, AK, OL, print referencing, and early writing are an evidence-based core of early literacy practices that predict later reading achievement (Hindman & Wasik, 2008; NELP, 2008). By preparing teachers with the knowledge, strategies, and professional support needed to implement these practices with fidelity, classroom instruction becomes a powerful lever for improving children's vocabulary, PA, and early writing outcomes (Justice et al., 2009; Schachter et al., 2016; Snyder et al., 2015).

Research indicates that business-as-usual PD experiences, such as workshops or single-day instructional sessions, are inadequate for supporting long-term changes in teacher practice (Piasta et al., 2020; Schachter et al., 2016). Although such PD instruction can increase teachers' awareness of evidence-based instructional strategies, this form of PD lacks the ongoing support necessary for teachers to implement practices consistently and with fidelity in their classrooms (Weber-Mayrer et al., 2018). As Snow and Matthews (2016) noted, "It's easier to improve classroom practices than the skills of children in those classrooms" (p. 62). Without ongoing feedback and opportunities to practice within their classrooms, teachers may return to previous

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habits or implement new approaches cursorily, resulting in limited impact on children's learning outcomes (Snyder et al., 2015).

Conversely, PD that integrates coaching demonstrates an ongoing impact on teacher literacy practices and measurable improvements in children's literacy skills (Gettinger & Stoiber, 2016; Snyder et al., 2015). Coaching supports the transfer of evidence-based strategies into classroom practice by offering teachers individualized feedback, modeling, and structured opportunities for reflection (Snyder et al., 2015; Weber-Mayrer et al., 2018). Notably, long-term personal coaching enables teachers to refine their instructional skills and maintain high-quality literacy practices throughout the school year (Snyder et al., 2015; Weber-Mayrer et al., 2018).

This suggested comprehensive improvement plan comprises a four-phase PD cycle with a tiered coaching model (Snyder et al., 2015). It is designed to strengthen pre-k teachers' early literacy knowledge, align instructional beliefs with evidence-based practice (Schachter et al., 2016), and improve the fidelity of classroom literacy instruction (Hindman & Wasik, 2008; Piasta et al., 2009). The cycle is implemented through a PD and coaching framework that sequences knowledge-building workshops with differentiated coaching supports aligned with teachers' instructional needs. The four phases—(1) Foundation Building, (2) Instructional Practice Development, (3) Sustained Implementation and Generalization, and (4) Reflection and Sustainability—function as an integrated, year-long learning structure. Coaching and structured reflection are embedded within each phase. The goal is to support teachers in applying early literacy concepts across instructional contexts. This is consistent with evidence that sustained, job-embedded PD is more effective than one-time workshops in producing instructional change (Snyder et al., 2015; Weber-Mayrer et al., 2018). Across phases, the emphasis remains on developing content knowledge while directly addressing persistent misalignments between

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teachers' beliefs and classroom practice (Hindman & Wasik, 2008; Piasta et al., 2018). Teacher-, child-, and program-level outcomes are examined to determine whether participation in the PD cycle is associated with improvements in instructional fidelity and children's early literacy development (Cash et al., 2015). The four-phase design supports continuous instructional refinement over time and positions sustained implementation as the mechanism for long-term improvement in early literacy instruction.

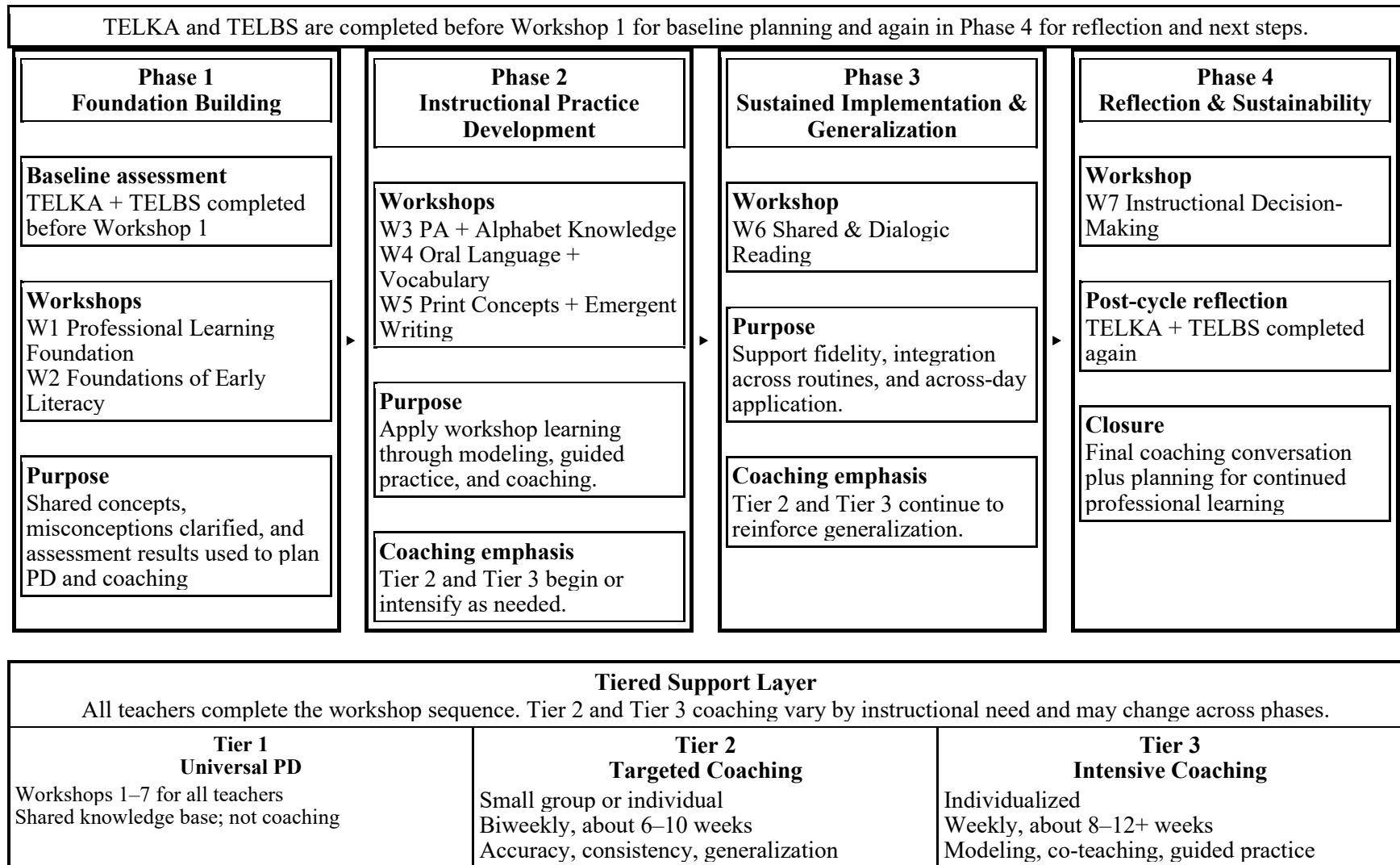
Providing teachers with tiered PD experiences ensures that all teachers have access to high-quality PD, while also supporting each teacher's individual PD needs. Studies demonstrate that teachers exhibit considerable differences in their knowledge, beliefs, and confidence in applying early literacy practices, which directly affects the quality of instruction provided to children (Cash et al., 2015; Schachter et al., 2016). A one-size-fits-all approach to PD for early literacy is insufficient, as some teachers may require more intensive, targeted support to implement early literacy strategies (Cunningham et al., 2009). In some cases, other teachers may need extensive, personalized coaching to overcome ongoing difficulties (Weber-Mayrer et al., 2018).

The coaching tiers and PD phases serve distinct but complementary purposes within the Before Reading Begins framework. The four phases describe the sequenced progression of PD over time, moving from foundational knowledge to sustained implementation and reflection. In contrast, the coaching tiers describe the level and intensity of instructional support provided to individual teachers at any point in the PD cycle. All teachers participate in each phase of PD, while coaching intensity varies by instructional need and may change across phases. Coaching tiers are not sequential, evaluative, or permanent and do not correspond to teacher ability or performance (Snyder et al., 2015; Weber-Mayrer et al., 2018).

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Figure 2

Before Reading Begins: Four-Phase Professional Development and Coaching Framework



Tiered Coaching and Professional Development Framework

Research consistently documents substantial variation in pre-k teachers' early literacy knowledge, instructional beliefs, and confidence implementing evidence-based practices, and these differences shape the quality and consistency of literacy instruction children receive (Cash et al., 2015; Schachter et al., 2016). PD models that rely solely on uniform training are insufficient to address this variability, as teachers enter PD with varying levels of conceptual understanding and instructional readiness (Neuman & Cunningham, 2009; Piasta et al., 2018). To respond to this challenge, the Before Reading Begins framework incorporates a tiered coaching structure embedded within the broader PD cycle. Tiered, job-embedded coaching has been shown to reduce variability in instructional implementation and support more consistent use of evidence-based practices across classrooms (Diamond & Powell, 2011; Snyder et al., 2015). This approach ensures universal access to high-quality, research-based PD while allowing the intensity and form of coaching to vary based on instructional need rather than evaluation or accountability.

Tier 1 serves as the universal PD experience for all teachers. All participants engage in structured, facilitator-led workshops delivered across the PD cycle and aligned with the Before Reading Begins workshop sequence. These workshops establish a shared, research-based foundation for early literacy instruction by building conceptual clarity before any coaching support is introduced. Content focuses on foundational domains of early literacy, such as OL, PA, AK, print concepts, and early writing, and clarifies how these domains function together to support later reading development (NELP, 2008; Piasta et al., 2020). Facilitators provide explicit instruction, model evidence-based practices within authentic classroom routines, and guide teachers in analyzing classroom examples to connect theory to practice (Gettinger & Stoiber,

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2016; Hindman & Wasik, 2008). Structured reflection and discussion are embedded throughout to support teachers in examining instructional beliefs, addressing misconceptions, and considering classroom application, a process shown to be essential for addressing persistent belief–practice misalignments (Neuman & Cunningham, 2009; Schachter et al., 2016). Tier 1 is PD, not coaching, and is non-evaluative. Participation is universal and does not indicate instructional need, performance level, or teacher effectiveness. Instead, Tier 1 establishes the shared knowledge base that supports coherent instructional improvement and prepares teachers to engage productively in coaching when appropriate (Snyder et al., 2015).

Tier 2 provides targeted coaching support for teachers who will benefit from additional time and guidance to apply workshop learning with greater accuracy, consistency, and intentionality. Participation in Tier 2 reflects instructional need for focused support. Tier 2 coaching typically occurs through time-limited coaching cycles, often biweekly over 6 to 10 weeks, and may be delivered individually or in small groups. Coaching focuses on one or two clearly defined instructional priorities drawn directly from workshop content—such as shared reading, PA routines, print referencing, or early writing—to support depth rather than breadth of implementation (Piasta et al., 2020). Core components include collaborative goal setting, focused observation using a narrow, goal-aligned lens, and reflective feedback and planning grounded in concrete classroom evidence. This cyclical coaching process has been associated with improved instructional fidelity and more intentional use of evidence-based practices (McCollum et al., 2011; Snyder et al., 2015). Tier 2 coaching is supportive and collaborative, not evaluative or corrective, and placement is flexible; teachers may move into or out of Tier 2 as instructional contexts and PD needs evolve (Cash et al., 2015).

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Tier 3 provides intensive, individualized coaching support for teachers who require additional time and structured guidance to build foundational understanding and apply early literacy practices with confidence. Placement in Tier 3 reflects instructional complexity and support needs rather than teacher competence, motivation, or commitment. Tier 3 coaching typically occurs through high-frequency, job-embedded coaching cycles, often weekly over an extended period of 8 to 12 weeks (or longer as needed). Coaching is highly scaffolded and intentionally sequenced, allowing teachers to focus on small, achievable instructional goals that build toward more complex and integrated practice over time. Core supports include explicit modeling of evidence-based practices within classroom routines, co-teaching and guided practice, targeted short-term instructional goals, and personalized feedback. Research indicates that coaching approaches incorporating modeling, guided practice, and sustained feedback are associated with stronger implementation fidelity and more durable instructional change (Diamond & Powell, 2011; Gettinger & Stoiber, 2016; Snyder et al., 2015). Although Tier 3 coaching is intensive in structure, it remains supportive in purpose and is non-evaluative and nonpunitive.

The tiered coaching framework creates a responsive PD environment that supports teachers at their level of instructional development while maintaining a shared foundation of early literacy knowledge. Within this framework, PD is organized across a sequenced set of phases that reflect how teachers develop instructional understanding over time. The phased structure targets distinct aspects of instructional change, beginning with establishing shared conceptual foundations and progressing to sustained, generalized use of evidence-based practices. By anchoring differentiated coaching supports within this phase sequence and differentiating support based on instructional need rather than accountability, the framework

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supports sustained instructional growth, greater coherence across classrooms, and more consistent implementation of evidence-based early literacy practices (Cash et al., 2015; Snyder et al., 2015).

TELKA data inform instructional support planning by identifying patterns of conceptual strength and areas requiring further development across early literacy domains

The TELKA is criterion-referenced and not normed; performance bands reflect levels of conceptual understanding rather than comparison among teachers (31–35 = Exemplary; 26–30 = Proficient; 21–25 = Developing; 15–20 = Emerging; 0–14 = Intensive Support Needed). These bands provide indicators of conceptual clarity but do not independently determine coaching intensity. Tier placement is determined through triangulation of TELKA results, classroom observation, and evidence of instructional implementation. Teachers demonstrating conceptual clarity (typically within the Proficient or Exemplary ranges) but inconsistent enactment of evidence-based practices may benefit from Tier 2 targeted coaching focused on strengthening precision and generalization. In contrast, teachers demonstrating gaps in foundational understanding (often reflected in Developing, Emerging, or Intensive ranges) aligned with limited or inaccurate classroom implementation may receive Tier 3 intensive, scaffolded support to establish conceptual clarity and instructional stability. Tier placement reflects instructional support needs rather than evaluation status and is revisited regularly as teachers demonstrate growth in knowledge, fidelity, and independent instructional decision-making.

To make these tier decisions more explicit, Table 6 provides a decision-making guide that outlines how TELKA patterns, classroom observation, teacher reflection, and evidence of implementation may be used together to determine initial coaching support and movement across tiers. This guide is meant to support coaching decisions within Before Reading Begins. It helps

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clarify when Tier 1 is enough, when Tier 2 would be helpful, and when Tier 3 is needed. Tier decisions should reflect instructional need, not teacher value or evaluation status. Decisions should be based on more than one source, including TELKA patterns, classroom observation, teacher reflection, and evidence of implementation.

Evidence Sources for Tier Decisions

Tier decisions should be based on multiple sources of evidence, not a single score or one isolated observation. Evidence sources may include:

- TELKA patterns showing areas of conceptual strength or need across early literacy domains
- Classroom observation of targeted routines and teacher moves
- Teacher reflection about what was taught, why it mattered, and how children responded
- Implementation evidence showing whether the practice is accurate, consistent, and used across contexts

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Table 6

Tiered Decision-Making Guide for Coaching Support

Dimension	Tier 1: Universal Professional Development	Tier 2: Targeted Coaching Support	Tier 3: Intensive Coaching Support
Conceptual understanding of early literacy practices	Shows a generally solid understanding of the targeted early literacy area. Can explain what the practice is for and distinguish key ideas with little support.	Shows a basic understanding but some areas are still uneven or not fully clear. May need support to strengthen precision, consistency, or carryover.	Shows significant gaps or ongoing misunderstandings that get in the way of using evidence-based practices accurately. Needs explicit clarification before working independently.
Observed classroom implementation	Uses workshop-aligned practices accurately during typical classroom routines without added coaching support.	Uses practices inconsistently, partially, or only in limited situations. Practice is generally on the right track, but accuracy, consistency, or intentionality vary.	Implementation is limited, inaccurate, or unstable across routines. The teacher may mix up domains, leave out key parts of the practice, or rely on readiness-based thinking rather than evidence-based instruction.
Use across routines and contexts.	Uses the targeted practice across more than one classroom routine clearly and intentionally.	Uses the practice in one routine or context, but carryover across the day is still developing.	Has difficulty starting or sustaining the practice even in one routine without substantial support, modeling, or prompting.
Response to observation and feedback	Can reflect on instruction and use feedback to make small refinements with minimal support.	Benefits from focused observation, reflective feedback, and action planning to strengthen follow-through.	Needs frequent observation, explicit guidance, and immediate feedback to understand how to adjust instruction and why the adjustment matters.
The teacher's explanation of instructional purpose	Can clearly explain what skill is being targeted, why it matters, and how the practice supports children's learning.	Can explain the general purpose of the practice, but the explanation may still lack precision or developmental clarity.	Has difficulty explaining the purpose of the practice or linking it to children's literacy development without direct support.
Level of support needed	Universal workshop participation is enough right now. The teacher may still benefit from routine check-ins or collaborative reflection.	A time-limited coaching cycle focused on one or two priorities will likely strengthen implementation. Support is typically biweekly and may be individual or a small group.	High-frequency, individualized coaching is needed to build understanding and support accurate implementation. Support is typically weekly and includes modeling, guided practice, and immediate feedback.
Recommended coaching response	Continue Tier 1 professional development and monitor through workshop participation, routine observation, and reflection.	Start a Tier 2 coaching cycle with shared goal setting, focused observation, reflective feedback, and action planning around a narrow instructional target.	Start a Tier 3 coaching cycle with concept clarification, explicit modeling, supported practice, immediate feedback, and repeated opportunities to use the practice within real classroom routines.

Movement Between Tiers

Movement between tiers should be fluid and supportive, not fixed or evaluative. Teachers may move into more or less support as their instructional needs change. Tier 2 and Tier 3 supports are coaching-only and are provided through individual or small-group support, not whole-group delivery.

Indicators for Movement Into Tier 2

- The teacher shows a foundational understanding of the targeted skill but applies it inconsistently.
- The teacher uses the practice accurately in one routine but not yet across contexts.
- The teacher will benefit from focused observation, reflection, and manageable next steps to strengthen implementation.

Indicators for Movement Into Tier 3

- The teacher shows ongoing conceptual gaps or misunderstandings that interfere with implementation.
- The teacher needs explicit modeling and guided practice to use the skill accurately.
- The teacher has not yet developed a stable implementation after less intensive support.

Indicators for Fading or Moving to Less Intensive Support

- Consistent and accurate use of the targeted practice across multiple opportunities
- Clear explanation of the instructional purpose of the practice
- Independent instructional adjustments based on child response
- Carryover of the practice across routines with less coach prompting

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When those indicators are present, Tier 3 may step down to Tier 2, and Tier 2 may fade back to Tier 1 with periodic check-ins, peer support, or leadership-aligned follow-up.

Phase 1: Foundation Building

Phase 1 establishes a shared base of teacher knowledge and beliefs, as identified by research, that is central to how evidence-based early literacy practices are interpreted and enacted in classroom instruction (Cunningham et al., 2009; Ottley et al., 2015). Research indicates that knowledge alone is insufficient to support sustained instructional change; teachers' belief patterns, openness to change, and self-efficacy can shape how they interpret and enact PD over time (Ottley et al., 2015). Teachers' beliefs about literacy frequently diverge from research-based practice, with many educators undervaluing code-related instruction, such as PA and early writing, and viewing early literacy as a readiness milestone rather than a teachable set of skills (Gerde et al., 2019; Hindman & Wasik, 2008). These misalignments can limit how teachers interpret, prioritize, and apply evidence-based practices, even when PD is provided (Schachter et al., 2016).

Phase 1 addresses the dual influence of teacher knowledge and beliefs by integrating introductory PD experiences, baseline measurement, and structured opportunities for reflection. Baseline data will be collected from the Teacher Early Literacy Knowledge Assessment (TELKA) and the Teacher Early Literacy Beliefs Survey (TELBS), two Capstone author-developed tools grounded in established research on early literacy teacher knowledge and beliefs (Hindman & Wasik, 2008; Neuman & Cunningham, 2009; Piasta et al., 2020; Schachter et al., 2016).

In this phase, the PD cycle establishes a shared foundation among teachers in the workshops by clarifying core early literacy concepts, addressing common misconceptions that

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influence instructional decision-making, and explaining how assessment results will guide ongoing PD and coaching supports. Emphasis is placed on strengthening conceptual clarity regarding early literacy development, including clarifying distinctions among early literacy, reading readiness, OL, and literacy instruction, as well as exposure and intentional teaching. Establishing these shared understandings creates a coherent foundation for differentiated coaching support that is responsive to instructional need and more likely to support sustained changes in classroom practice (Weber-Mayrer et al., 2018).

Before PD begins, teachers complete the TELKA to establish a baseline measure of their personal conceptual knowledge of early literacy development and instruction. Research demonstrates that variability in teachers' early literacy knowledge contributes to differences in instructional quality and, consequently, to children's opportunities to develop foundational literacy skills (Cash et al., 2015; Piasta et al., 2009). The TELKA targets teachers' understanding of evidence-based early literacy domains (PA, AK, OL, print concepts, and emergent writing), which are interrelated precursors to later reading achievement (NELP, 2008; Lonigan et al., 2010; Snow & Matthews, 2016). Establishing a baseline of knowledge enables the identification of conceptual strengths and gaps that may otherwise limit outcomes.

The TELKA results are used diagnostically to guide the design and differentiation of PD and coaching supports rather than for evaluation or accountability purposes. Prior research indicates that teachers may hold incomplete knowledge of early literacy concepts, even when instructional intentions are positive, and that such gaps can hinder implementation fidelity (Schachter et al., 2016).

Phase 1 also includes administering the TELBS to establish baseline data on teachers' beliefs about early language and literacy development and instruction. The TELBS is completed

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anonymously and interpreted at the group level to identify shared belief strengths, areas of uncertainty, and patterns that may influence how teachers engage with PD and coaching supports. TELBS results provide critical context for understanding how teachers interpret early literacy concepts and why variability in implementation may persist, thus reinforcing the need for PD models that address both conceptual understanding and belief alignment to support instructional change (Ottley et al., 2015; Snyder et al., 2015).

Phase 2: Instructional Practice Development

Once the cohort of teachers has established a shared conceptual understanding of early literacy development, Phase 2 shifts to strengthening teachers' ability to translate that understanding into consistent classroom practice. Instructional practice development centers on building early literacy pedagogical content knowledge: understanding the instructional purposes, developmental progressions, and critical features of practices aligned to PA, AK, OL, and concepts of print, vocabulary development, and emergent writing.

Research indicates that when teachers possess a strong understanding of these practices and implement them with fidelity, children demonstrate gains in vocabulary, PA, print knowledge, AK, and emergent writing skills that are predictive of later reading achievement (Besser-Biron et al., 2024; Justice et al., 2009, 2010; Piasta et al., 2019). However, research also suggests that many teachers may be uncertain about how to intentionally and consistently use evidence-based practices in classroom routines, resulting in uneven implementation despite positive instructional intentions (Connor et al., 2006; Hawken et al., 2005).

Phase 2 addresses this gap by pairing knowledge-building PD with PBC cycles that support teachers in translating instructional understanding into classroom practice. Through modeling, focused observation, feedback, and guided reflection, teachers refine their use of early

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literacy practices while strengthening their conceptual understanding of why these practices are effective (Gettinger & Stoiber, 2016; Snyder et al., 2015). Coaching during Phase 2 is differentiated by instructional need, with teachers receiving targeted or intensive support through Tier 2 and Tier 3 coaching cycles, as appropriate, to support the accurate and confident application of early literacy practices (Gettinger & Stoiber, 2016; Snyder et al., 2015). PD models that integrate explicit instruction with coaching, modeling, and feedback are more effective than stand-alone workshops in producing sustained changes in teacher practice (Gettinger & Stoiber, 2016; Snyder et al., 2015).

Phase 3: Sustained Implementation and Generalization

Phase 3 focuses on supporting teachers' sustained and accurate implementation of evidence-based early literacy practices while strengthening their ability to generalize these practices across instructional contexts. During this phase, the focus is on applying early literacy knowledge across the instructional day. Fidelity, defined as the accurate and consistent enactment of instructional practices, is central in this phase because evidence indicates that associations between teacher knowledge and children's literacy outcomes are mediated through classroom practice rather than knowledge alone (Piasta et al., 2020).

Building on the foundation established in Phases 1 and 2, teachers deepen their understanding of how early literacy domains function together. This phase emphasizes instructional contexts that integrate multiple domains of early literacy and require ongoing instructional decision-making. Practices such as shared and dialogic reading serve as a culminating application of early literacy instruction by drawing on OL, print concepts, and early writing while providing opportunities to integrate code- and meaning-based components coherently (Gerde et al., 2019; Justice et al., 2009; Wasik & Hindman, 2011).

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Ongoing PD and coaching remain essential to support fidelity and generalization. Research consistently demonstrates that short-term or one-size-fits-all PD is insufficient to sustain instructional change, particularly when teachers are expected to integrate multiple areas of early literacy knowledge (Cunningham et al., 2009; Weber-Mayrer et al., 2018). Continued coaching supports refinement of instructional language, monitoring of fidelity, and responsive adjustment based on children's engagement (Snyder et al., 2015). During Phase 3, Tier 2 and Tier 3 coaching supports are sustained or intensified as needed to reinforce fidelity, support instructional generalization, and prevent instructional drift as teachers integrate early literacy practices across contexts (Snyder et al., 2015).

Through iterative coaching cycles and structured reflection, teachers move from demonstrating discrete practices to consistently and responsively applying early literacy knowledge across instructional contexts. As teachers strengthen their ability to generalize evidence-based practices while maintaining conceptual integrity, instructional quality becomes more stable and intentional, contributing to improved child outcomes across language, print knowledge, and early writing domains (Cash et al., 2015; Piasta et al., 2020).

Phase 4: Reflection and Next Instructional Steps

Phase 4 of Before Reading Begins: An Early Literacy Professional Development and Coaching Framework focuses on reflection and planning for the next instructional steps following the PD cycle. At this stage of the PD cycle, teachers reflect on their understanding of evidence-based early literacy instruction and consider how their instructional approaches have evolved. Research indicates that structured reflection, particularly when supported by coaching and data, strengthens teachers' capacity to evaluate instructional effectiveness and make informed decisions about future practice (McCollum et al., 2011; Snyder et al., 2015).

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This phase includes a final PD session and a concluding individual coaching conversation. The focus is on reflective inquiry rather than formal sharing or demonstration. Teachers engage with the facilitator and coach in structured conversations about which early literacy practices feel most secure, where challenges remain, and which instructional approaches they want to strengthen next. Such reflective dialogue supports instructional coherence and helps teachers translate experience into purposeful instructional planning (Connor et al., 2006; Snyder et al., 2015).

As part of Phase 4, teachers complete the TELKA and TELBS at the end of the PD cycle. Comparing beginning-of-year and end-of-year results provides evidence of growth in teachers' conceptual knowledge and alignment of beliefs over the PD period (Ottley et al., 2015). Assessment results are used to support reflection and program evaluation and are not used for evaluation or accountability.

The final coaching conversation supports teachers in reviewing assessment results, reflecting on instructional growth, and clarifying priorities for continued PD. Coaches guide teachers in connecting changes in instructional practice to classroom observations and child learning experiences, thereby reinforcing the relationship between knowledge-driven instruction and improved literacy outcomes (Connor et al., 2006; Gettinger & Stoiber, 2016). This conversation also provides an opportunity to review the level of coaching support provided during the year and determine whether continued targeted or intensive coaching may be appropriate in future PD cycles based on instructional needs rather than evaluation or accountability (Snyder et al., 2015).

Phase 4 concludes with a brief review of teacher- and child-level benchmarks to assess the PD cycle's effectiveness. The TELKA and TELBS are author-developed, research-informed

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measures designed for formative, diagnostic use within this improvement initiative. They are not intended as standardized or validated instruments and are used solely to guide PD, reflection, and coaching differentiation. Child-level literacy data are examined to confirm progress in OL, print knowledge, and early writing associated with high-fidelity implementation (Cash et al., 2015; Piasta et al., 2020).

Conclusion

Improving early literacy outcomes for young children requires more than isolated interventions or business-as-usual PD. Research demonstrates that teachers' knowledge, beliefs, and instructional practices directly shape the quality of children's early literacy experiences (Cash et al., 2015; Schachter et al., 2016). However, knowledge and beliefs are frequently misaligned with research findings, contributing to the underuse of key evidence-based early literacy practices (Gerde et al., 2019; Hindman & Wasik, 2008). Addressing these challenges requires a systematic, sustained PD approach that extends beyond traditional one-time workshops.

The PD and coaching framework outlined in this plan offers a comprehensive improvement model by integrating evidence-based instructional practices, tiered coaching supports, and a year-long cycle of PD and reflection. The tiered coaching structure provides universal access to foundation-building PD while differentiating coaching intensity according to teachers' instructional needs (Snyder et al., 2015; Weber-Mayrer et al., 2018). The phased design intentionally scaffolds teacher learning—from conceptual knowledge building to instructional practice development, fidelity, and long-term sustainability—to reflect the importance of iterative, job-embedded PD (Gettinger & Stoiber, 2016; Shannon et al., 2021).

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Importantly, this comprehensive improvement plan directly links PD to measurable outcomes at multiple levels. With this framework of support, teachers are expected to demonstrate increased early literacy knowledge, stronger alignment of instructional beliefs with research-based practices, and improved fidelity when implementing core early literacy strategies. As a result, children are expected to experience improvements in vocabulary, PA, AK, OL, and early writing skills when in classrooms that implement high-fidelity, evidence-based practices. These outcomes are strongly and positively associated with later reading achievement (NELP, 2008; Snow & Matthews, 2016). At the program level, the framework is designed to promote instructional consistency across classrooms and support a culture of continuous improvement through sustained collaborative structures that extend beyond the formal coaching cycle (McCollum et al., 2011).

This improvement plan represents a research-based, practical approach to strengthening early literacy instruction in pre-k settings. The framework is adaptable for implementation across classrooms, schools, or districts and supports teachers in developing and sustaining evidence-based early literacy practices. By intentionally integrating foundation building with practice-based tiered coaching and long-term collaborative support, the plan addresses the dual challenge of teacher professional growth and child literacy development. The design is intended to support instructional quality and coherence by supporting teachers' consistent implementation of evidence-based early literacy practices and by improving the instructional conditions that support children's early literacy development as they enter school.

SECTION 4: SUMMARY

This Capstone is based on the fundamental idea that strengthening teachers' subject knowledge of early literacy, aligning their pedagogical beliefs with evidence-based practices, and providing coaching-based PD will improve classroom practice and strengthen children's literacy outcomes. Many pre-k children begin their formal education in kindergarten without the necessary early literacy skills, including PA, AK, and OL (Lonigan et al., 2011). Young children's early literacy experiences are influenced by variability in their teachers' subject-matter knowledge and by the uneven quality of instruction they provide (Hindman & Wasik, 2008; Justice et al., 2009; Schachter et al., 2016).

Cash et al. (2015) and Schachter et al. (2016) found that teachers with greater knowledge of language and literacy used more evidence-based practices and provided more frequent, intentional literacy instruction. However, both studies found that teachers' pedagogical beliefs did not always align with their classroom practices, suggesting that knowledge alone does not guarantee the consistent use of evidence-based practices (Hindman & Wasik, 2008; Piasta et al., 2020).

When teachers consistently use meaning-focused strategies, such as dialogic reading and vocabulary-rich conversations, children show measurable growth in comprehension and OL skills (Justice et al., 2009; Snow & Matthews, 2016). When teachers incorporate small-group, code-focused instruction into their classroom routine that targets PA, letter-name, letter-sound, and print referencing, children's PA, AK, and decoding skills are strengthened (Connor et al., 2006; Lonigan et al., 2011).

Coaching-based PD has been shown to improve teacher knowledge, support stronger alignment between beliefs and evidence-based practices, and increase the fidelity of instructional

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practice (Pianta et al., 2008; Snyder et al., 2015; Weber-Mayrer et al., 2018). When teachers receive sustained, coaching-supported PD opportunities that build their subject knowledge in early literacy, they are more likely to implement high-quality, evidence-based instruction with greater consistency. As a result, children are better positioned to develop the early literacy skills needed for later reading success. To this end, this Capstone explored three guiding RQs:

- RQ1: How does the literacy subject knowledge and beliefs about early literacy of pre-k teachers impact the early literacy practices that those teachers use in the classroom?
- RQ2: What instructional practices effectively support early literacy development in pre-k students?
- RQ3: What coaching-based professional development approach effectively prepares pre-k teachers to implement evidence-based early literacy instruction?

The findings across these questions suggest that improving teacher content knowledge (Connor et al., 2006; Cunningham et al., 2009; Piasta et al., 2020), balancing pedagogical beliefs with evidence-based strategies (Besser-Biron et al., 2024; Hindman & Wasik, 2008; Schachter et al., 2016), and providing ongoing PD and coaching (Hindman & Wasik, 2011; McCollum et al., 2011; Schachter et al., 2016; Snyder et al., 2015) can substantially enhance teachers' instructional quality and improve children's early literacy outcomes.

Teacher Knowledge and Beliefs (Findings from RQ1)

Teachers' knowledge of literacy development is a key determinant of instructional quality and children's literacy outcomes. Research shows that teachers with stronger disciplinary knowledge of early language and literacy concepts provide richer, more intentional instruction that supports young children's vocabulary, OL, and print knowledge (Cash et al., 2015; Schachter et al., 2016). When teachers possess deep conceptual knowledge, they can better

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provide purposeful literacy experiences by embedding OL modeling, dialogic reading, and explicit PA instruction into their daily routines. These practices enhance both the quantity and quality of literacy experiences in preschool classrooms, resulting in improved child outcomes in the early reading and writing domains (Cash et al., 2015; Justice et al., 2009; Piasta et al., 2018).

Despite these findings, significant gaps remain in teacher preparation and in their conceptual understanding of literacy development. Many educators view early literacy development as a typical developmental milestone achieved through growth or rote exposure, rather than being intentionally taught and scaffolded through instruction (Flynn & Schachter, 2017; Hindman & Wasik, 2008). Weadman and colleagues (2023) found that early-career teachers often feel unsure about how to support children's language needs, leading to fewer opportunities for language-rich interactions. These misconceptions impede the effectiveness of classroom practices and expose the need for PD that better informs both content knowledge and pedagogical reasoning (Flynn & Schachter, 2017; Hindman & Wasik, 2008; Ottley et al., 2015; Weadman et al., 2023).

Ongoing PD and coaching are essential for establishing the necessary connection between teachers' beliefs and effective literacy instruction. Studies show that when teachers engage in ongoing, reflective learning cycles, their instructional practices align more closely with evidence-based approaches and yield improved fidelity of practice and training outcomes (Cadime et al., 2024; Ottley et al., 2015). Reflective PD not only expands teachers' understanding of how children develop literacy but also ensures they internalize the evidence-based strategies that help them frame this learning into meaningful classroom practice. Ultimately, teachers' subject knowledge guides practice, and ongoing, reflective PD ensures that

teachers' knowledge is utilized, thus enabling every child to succeed in their early literacy journey (Cadime et al., 2024; Ottley et al., 2015; Piasta et al., 2020; Weber-Mayrer et al., 2018).

Instructional Practices Supporting Early Literacy (Findings from RQ2)

Research identifies evidence-based practices as effective in promoting early literacy for preschoolers. Phonological-awareness instruction helps children become familiar with the sound structures of language through activities such as rhyming, segmenting, and blending, which support decoding and spelling (Callaghan & Madelaine, 2012; Connor et al., 2006). Shared, instructional, and dialogic reading supports vocabulary, OL, and comprehension through discussing and predicting texts and making connections to children's experiences (Callaghan & Madelaine, 2012; Justice et al., 2009, 2010). Print referencing, which focuses on letters, words, and print directionality, enhances print awareness and AK (Justice et al., 2009, 2010). Finally, early writing activities allow children to share ideas through early forms of writing. Writing activities promote knowledge of print and symbolic communication but are still underutilized and often limited to handwriting practice rather than used as a meaning-making process (Besser-Biron et al., 2024; Gerde et al., 2019).

Teachers who merge code-focused and meaning-focused practices support balanced and effective early literacy development (Giles & Tunks, 2015). Code-focused practices help children connect sounds to letters and understand that print represents spoken language. Meaning-focused practices help children connect and understand text and spoken language (Justice et al., 2009; Snow & Matthews, 2016). When teachers blend both practices, it supports children's overall reading readiness (Lonigan et al., 2011).

Nevertheless, research continues to show that many EC educators lack sufficient training or confidence to reliably apply evidence-based practices in daily instruction (Callaghan &

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Madelaine, 2012; Justice et al., 2010). Without guided modeling, feedback, and sustained PD support, teachers tend to revert to less effective practices or isolated skills. Structured PD, featuring modeling, reflection, and coaching reinforcement, helps teachers bridge the gap between evidence-based practice and consistent, high-quality instruction (Callaghan & Madelaine, 2012; Justice et al., 2010; Ottley et al., 2015; Weber-Mayrer et al., 2018). For all children to develop the foundational literacy skills necessary for academic success, there needs to be consistency in knowledge, practice, and support for teachers to implement effective, evidence-based practices.

Coaching-Based Professional Development (Findings From RQ3)

Coaching-based PD produces more substantial and more sustainable changes in teaching practice than traditional PD workshop models. Coaching offers an individualized learning approach that integrates feedback and reflection to support teachers in their classroom environment. By embedding learning in the classroom, teachers can implement evidence-based practices with fidelity and confidence (Gettinger & Stoiber, 2016; Hsieh et al., 2009; McCollum et al., 2011; Snyder et al., 2015). Because coaching is a continuous collaborative cycle of observation, feedback, and goal setting, it is designed to reinforce the sustained implementation of effective practices. Teachers receiving individualized coaching with specific literacy goals demonstrate higher fidelity in their teaching practices and are more likely to maintain these improvements (Dennis et al., 2024; Snyder et al., 2015).

Research indicates three coaching models that are effective in improving early literacy instruction. Skill-focused coaching supports teachers in mastering one discrete evidence-based strategy at a time through observations and performance-based feedback (Hsieh et al., 2009; McCollum et al., 2011). PBC fosters collaborative partnerships through goal setting and action

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planning, observations, reflection, and feedback (Shannon et al., 2021; Snyder et al., 2015).

Instructional coaching is a collaborative, job-embedded coaching model that emphasizes co-teaching, modeling, and reflection (Gettinger & Stoiber, 2016). The three coaching models can provide the differentiation needed to address individual teacher strengths, needs, and levels of experience (McCollum et al., 2011; Snyder et al., 2015; Gettinger & Stoiber, 2016).

Differentiation enables coaches and teachers to develop early literacy knowledge, enhance instructional fidelity, and support children's early literacy development (Hsieh et al., 2009).

Research by Weber-Mayrer and colleagues (2018) found that the intensity of coaching (frequency, duration, and dosage) is impactful on teacher outcomes. Short, consistent cycles of coaching improved teachers' proximal knowledge better than longer or less frequent coaching sessions. Within a tiered model of PD and coaching, all teachers receive Tier 1 (universal) instruction. Teachers who receive Tier 2 (targeted coaching) or Tier 3 (intensive coaching) receive the necessary differentiation in their PD, which improves the fidelity of evidence-based practices and helps limit instructional variability in the classroom (Snyder et al., 2015; Weber-Mayrer et al., 2018). Taken together, the findings highlight that coaching, embedded in a job setting, effectively supports the transfer of evidence-based literacy practices into daily classroom instruction. This results in higher-quality teaching and improved literacy outcomes for children.

Expected Impact of Improvement Initiatives

This Capstone proposes an improvement initiative to enhance the quality and fidelity of early literacy instruction through an integrated approach of PD, tiered coaching support, and reflective collaboration (Cash et al., 2015; Schachter et al., 2016). This comprehensive initiative aims to strengthen teachers' confidence in implementing evidence-based strategies and ensure consistent implementation across instructional settings. By incorporating tiered coaching and

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reflection into a teacher's daily classroom practice, this initiative aims to generate long-term improvements in teacher performance and ongoing learning that promote young children's literacy outcomes (Gettinger & Stoiber, 2016; McCollum et al., 2011; Snyder et al., 2015; Weber-Mayrer et al., 2018).

Teacher-Level Outcomes

Teachers are expected to demonstrate measurable gains in their early literacy content knowledge, pedagogical beliefs, and confidence in implementing evidence-based instructional practices. Strengthening teachers' subject knowledge has been shown to directly improve the quality of language and literacy instruction for young children (Cash et al., 2015; Schachter et al., 2016). Teachers are expected to demonstrate high levels of implementation fidelity, as defined by project-specific fidelity criteria aligned to evidence-based instructional practices (Snyder et al., 2015).

Teacher knowledge and pedagogical belief assessments will be similar to the TKA for Early Language and Literacy Development (Neuman & Cunningham, 2009) and the TBQ (Hindman & Wasik, 2011). Observation and coaching data will document teachers' ability to apply evidence-based practices within the classroom using fidelity checklists to evaluate implementation accuracy and growth over time (McCollum et al., 2011; Snyder et al., 2015).

Measuring Children's Early Literacy Development

Measuring children's early literacy development is a key component of demonstrating the effectiveness of this improvement initiative. Children's early literacy development will be measured pre- and post-intervention using a combination of standardized early literacy assessments, observational data, and children's work samples. Standardized assessments will be administered to assess early literacy gains. These quantitative data will be complemented by

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classroom observations, coaching data, and samples of children’s early writing, which will all provide authentic evidence of skill development and engagement in literacy-rich activities (Besser-Biron et al., 2024; Gerde et al., 2019).

Children’s progress in early literacy skills will be compared to teachers’ measurements of fidelity and quality of implementation of evidence-based practices. Coaching data, fidelity checklists, and classroom observations will be considered alongside child-assessment results to identify correlations among teachers’ fidelity of implementation, instructional quality, and student progress. This process is supported by research demonstrating the effectiveness of PD and coaching in enhancing teacher knowledge and instructional fidelity, resulting in measurable improvements in children’s early literacy development (Schachter et al., 2016; Snyder et al., 2015).

School-Level Outcomes

Teacher learning is strongest when it is ongoing, collaborative, and reflective within a PD community that supports continuous growth and shared accountability (Cunningham et al., 2009; Snow et al., 1998). At the school level, integrating ongoing PD with tiered coaching and developing professional learning communities is expected to promote more substantial instructional alignment across classrooms, reduce variability in literacy quality, and establish an ongoing culture of professional collaboration and reflection (Snyder et al., 2015).

Research on coaching and PD suggests that teachers who engage in continuous cycles of goal setting, observation, and reflection tend to maintain higher levels of implementation fidelity and make more lasting changes to their long-term practice (Snyder et al., 2015; Weber-Mayrer et al., 2018). Embedding professional learning communities within this Capstone’s improvement initiative fosters a culture of professional reflection and ongoing improvement, ensuring

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sustained instructional quality and access to high-quality early literacy experiences for all children. School-level outcomes will be measured by examining the fidelity and use of evidence-based early literacy instruction across classrooms, the level of professional participation and collaboration among teachers, and the overall improvement in children's literacy performance.

Critical Analysis and Next Steps

Research supports the efficacy of PL integrated with coaching. However, the long-term sustainability of this model will depend on creating school-level supports, including leadership engagement, and ongoing data monitoring of implementation (Gettinger & Stoiber, 2016; Snyder et al., 2015). Transitioning to peer-led professional learning communities will support collaborative professional learning. Cunningham and colleagues (2009) defined *teacher study groups* as collaborative communities in which teachers increasingly assume responsibility for reflection and knowledge building to support ongoing professional growth when coaching ends. Neuman and Cunningham (2009) demonstrated that coaching fosters the collaborative reflection necessary to support PL and coaching within early literacy programs. The findings summarized in this Capstone should also be interpreted in light of the limitations of the reviewed literature. Across the literature base, studies varied in sample size, participant selection, setting, and outcome measures, and not all included direct or long-term child outcome data. As a result, although the findings offer a strong research-informed foundation for this work, they should not be treated as equally generalizable across all preschool contexts or populations.

Supporting improvements in early literacy instruction involves active school-level leadership (Snyder et al., 2015). Research indicates that administrators play a key role in maintaining coaching practices, monitoring fidelity, and ensuring that PD is incorporated into program and resource planning (Gettinger & Stoiber, 2016; Snyder et al., 2015; Weber-Mayrer et

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al., 2018). Training administrators in early literacy practices and coaching methods prepares them to support consistent, high-quality early literacy instruction across classrooms.

Future improvements should include longitudinal tracking of teacher knowledge, instructional fidelity, and child outcomes, as measured by standardized early literacy assessments, observational data, and assessment of teacher knowledge and beliefs. Linking teacher growth with child performance data will strengthen accountability and document the impact of the PD and coaching (Weber-Mayrer et al., 2018). Research should explore PL models that combine asynchronous learning with in-person coaching to enhance scalability and accessibility. Longitudinal and cross-context research is needed to examine how contextual variables (e.g., teacher experience, program type, and demographics) moderate the effects of PD and coaching on instructional fidelity and child outcomes.

Moving Forward

This Capstone establishes the groundwork for ongoing PL and data-informed inquiry by incorporating reflection and collaboration, enabling teachers to maintain and refine their use of evidence-based early literacy practices. When teachers and schools foster a culture of ongoing PD that supports both instructional quality and child outcomes, they create the conditions for sustained instructional improvement and literacy growth across classrooms (Gettinger & Stoiber, 2016; McCollum et al., 2011; Snyder et al., 2015; Weber-Mayrer et al., 2018).

This Capstone proposes several areas for early literacy support. The proposed next steps can support early literacy opportunities for young learners beyond preschool by focusing on strengthening family-school partnerships, integrating literacy across content areas, and developing vertical alignment across EC classrooms to support evidence-based instructional

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practices and expectations (Cash et al., 2015; Connor et al., 2006; Gettinger & Stoiber, 2016; Hindman & Wasik, 2008; Schachter et al., 2016).

Family-School Partnerships

Family-school partnerships are key to nurturing children's early literacy development. When teachers actively engage families by modeling shared reading, providing literacy materials for home use, and maintaining respectful, reciprocal communication, children demonstrate stronger vocabulary growth, greater print awareness, and motivation to read (Boone et al., 2021; Sukhram & Hsu, 2012). Family-centered literacy experiences, such as shared book reading, storytelling, and conversations about print, further reinforce classroom learning and strengthen children's PA and comprehension (Salley et al., 2022).

Teacher knowledge is essential to creating family-school connections. Research indicates that children's reading improves when teachers and families reinforce early literacy instruction (Crosnoe, 2012). Additional research reveals that even brief, teacher-parent coaching in dialogic reading helped parents feel more confident using evidence-based reading practices and led to measurable gains in children's language development (Salley et al., 2022). Teachers can foster greater engagement by welcoming families as active partners and aligning support with families' linguistic and cultural backgrounds (Boone et al., 2021). When teachers model early literacy practices and provide opportunities for parents to observe and practice, families gain confidence and sustain literacy routines that extend learning beyond the classroom (Sukhram & Hsu, 2012). Recommendations to strengthen family-school partnerships are as follows:

- Develop family literacy resource kits to provide storybooks, vocabulary cards, bilingual prompts aligned with classroom themes, and parent-friendly guidance for dialogic reading and linking print to daily routines.

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- Host interactive family workshops to model evidence-based reading and PA strategies using live demonstrations or video exemplars that allow families to practice techniques in supportive settings.
- Maintain consistent two-way communication by using accessible platforms such as newsletters, text messages, or digital portfolios to share progress, celebrate milestones, and invite feedback, thus ensuring a reciprocal flow of information between home and school.
- Integrate culturally responsive practices to incorporate families' languages, stories, and literacy traditions into classroom and home resources, thereby supporting children's identities and strengthening engagement.
- Provide targeted PD by providing training that equips teachers to build equitable, trust-based partnerships, use data to personalize home activities, and communicate effectively with ethnically and linguistically diverse families.

Vertical Alignment

Extending early literacy PD from kindergarten through second grade will help support early literacy gains by ensuring that, as children transition from pre-k through the early grades, the instructional practices, learning expectations, and literacy strategies they encounter remain consistent. This consistency will strengthen instructional continuity, support transitions between grades, and promote long-term literacy outcomes (Connor et al., 2006).

Likewise, PD that builds pre-k to second-grade teachers' knowledge of early literacy and reinforces fidelity to evidence-based practices enhances the quality of early literacy instruction (Piasta et al., 2019, 2020). Vertical PD helps teachers from pre-K through second grade develop a shared understanding of how early literacy skills emerge and how instructional practices

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develop over time. When educators participate in coordinated training and collaborate across grade levels, they can deliver more consistent, developmentally responsive instruction that supports children’s continued reading and writing growth (Connor et al., 2006; Gettinger & Stoiber, 2016; Schachter et al., 2016). To support vertical alignment, the following actions are recommended:

- Establish vertical PD to bring pre-k through second-grade teachers together for shared training on early literacy foundations, fostering a common understanding of evidence-based practices, strengthening instructional coherence across grade levels, and ensuring sustained literacy growth as children advance through the early grades.
- Develop a literacy alignment guide to help K–2 teachers use the same evidence-based routines as in pre-k, including shared reading, print referencing, PA games, and early writing scaffolds.
- Facilitate cross-grade collaboration meetings in which pre-k and K–2 teachers review child progress data and align vocabulary, phonics, and writing instruction.
- Create classroom transition guides to adapt pre-k literacy routines for K–2 settings and maintain consistency through the early elementary years.

Literacy Across Content Areas

The integration of literacy across mathematics, science, and SEL supports conceptual understanding, critical thinking, and communication—key components of school readiness and later academic achievement (NELP, 2008).

In mathematics, literacy practices will include vocabulary for quantitative and spatial terms, explanations of problem-solving methods, and writing that encourages children to describe patterns or compare quantities. Using math-related language and print in mathematics

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instruction helps children relate symbolic representations to real-world meaning (Frye et al., 2013).

Integrating literacy practices with SEL helps children use language to understand and express emotions, resolve conflicts, and engage in perspective-taking. Through shared reading of emotion-rich stories, discussions, and collaborative activities that promote empathy, self-regulation, and social communication skills, emotional understanding and language development are reinforced (Schapira & Grazzani, 2025).

Integrating literacy into science instruction enables children to use language as a tool for inquiry through reading, discussion, and writing. Reading informational texts, discussing scientific phenomena, and writing or drawing to record findings strengthen vocabulary, comprehension, and scientific reasoning while furthering conceptual understanding (Washburn & Cavagnetto, 2013).

Research indicates that children's literacy learning is strongest when teachers use their pedagogical knowledge to support early literacy and when teachers consistently provide instruction across content areas. When instructors apply evidence-based literacy instructional practices across content areas, children develop comprehension, vocabulary, and reasoning skills that extend across all learning environments (Connor et al., 2006). Sustained PD that strengthens teachers' ability to integrate language, vocabulary, and writing into math, science, and SEL supports later academic success (Piasta et al., 2020). Recommendations for content area literacy integration are as follows:

- Design interdisciplinary PD modules that extend early literacy practices into mathematics, science, and SEL. Modules should emphasize vocabulary development,

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OL, and comprehension strategies that help children apply academic language across subjects (Piasta et al., 2020).

- Develop observation and reflection tools to document how teachers embed literacy within daily instruction—such as using math- and science-related vocabulary, prompting children’s explanations, supporting emotion labeling, and incorporating print materials into play and inquiry.
- Create content area literacy resources that connect early literacy to content learning. Resources may include math storybooks, child-created science journals, visual word walls for quantitative and spatial terms, and charts that support emotion vocabulary and expression.
- Facilitate collaborative PD communities in which teachers co-plan, implement, and reflect on integrated literacy strategies across subjects. These learning communities should focus on the consistent use of academic language, questioning techniques, and shared reading and writing experiences that build comprehension and reasoning across contexts.
- Provide ongoing coaching and feedback cycles within interdisciplinary instruction to support fidelity and sustained implementation of integrated literacy practices, thus allowing coaches to model strategies and support reflection within classroom environments (Piasta et al., 2020).

Conclusion

This researcher contends that improving early literacy in pre-k settings requires a deliberate, evidence-based approach. PD should strengthen teachers’ knowledge, align their pedagogical beliefs with evidence-based practices, and integrate ongoing PD into daily

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instruction. Findings from the research addressing this Capstone's three RQs suggest that when teachers enhance their knowledge of early literacy concepts and participate in ongoing PD, they significantly improve the quality of teaching and children's literacy achievement (Cash et al., 2015; Piasta et al., 2019; Schachter et al., 2016). When teachers consistently employ evidence-based practices that intentionally support PA, AK, OL, print knowledge, and early writing, students are more likely to demonstrate growth in vocabulary, phonological skills, print knowledge, and emergent writing abilities. Together, these gains strengthen the foundational skills that support later reading development (Besser-Biron et al., 2024; Justice et al., 2009).

PD, integrated with tiered coaching, helps teachers bridge the gap between knowledge and practice. Research on three coaching models (skill-focused, practice-based, and instructional-focused) indicates that cycles of feedback, reflection, and action planning produce improved instructional fidelity and sustained shifts in classroom practices (Gettinger & Stoiber, 2016; Snyder et al., 2015; Weber-Mayrer et al., 2018). Including these coaching elements as part of a PD model ensures that teachers receive the support needed to meet their PD goals while supporting continued improvement in instructional fidelity across classrooms (Gettinger & Stoiber, 2016; Weber-Mayrer et al., 2018). Incorporating peer-led professional learning communities can sustain professional learning by establishing a culture of collaboration, reflection, and shared ownership of literacy outcomes (Cunningham et al., 2009).

The effectiveness of early literacy instruction depends on school leadership and the systematic use of data to monitor instructional fidelity and inform decision-making.

Administrators who are trained in early literacy pedagogy and the coaching process are well-positioned to establish structures for PD and provide access to high-quality instruction for all students (Gettinger & Stoiber, 2016). Future work will require longitudinal and cross-contextual

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designs to determine how teacher experience, programs, and demographics affect implementation and outcomes. This Capstone presents a comprehensive model for improving and evaluating the quality of early literacy instruction by integrating understanding of teachers' literacy knowledge and beliefs, implementing evidence-based early literacy instructional practices, and integrating ongoing PD with tiered coaching. Future work will incorporate data for accountability and continuous improvement and emphasize collaboration between teachers and administrators to ensure that every child enters kindergarten ready to read, write, and engage as a lifelong learner.

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SECTION 5: PRODUCT FOR PRACTITIONERS

The practitioner product developed for this Capstone project is *Before Reading Begins: An Early Literacy Professional Development and Coaching Framework*, designed for EC educators. The product is intended to translate the research base on early literacy development and teacher learning into a structured, practice-oriented PL system that can support more consistent and coherent early literacy instruction in preschool classrooms.

The product is a professional learning framework that articulates how educators develop foundational knowledge, implement evidence-based instructional practices, and sustain improvements in instruction over time. The framework is intentionally designed to function within existing EC structures and routines, thus enabling implementation without adopting a new curriculum or substantial restructuring of classroom schedules.

Rationale

The selection of a PL and coaching framework as the practitioner product is grounded in a documented problem of practice in ECE. Although the importance of early literacy development is well established in the research literature, preschool teachers often receive uneven preparation regarding how early literacy skills develop and how to implement evidence-based instruction in developmentally appropriate ways within classroom contexts.

Research consistently indicates substantial variability in preschool teachers' knowledge across key early literacy domains, as well as differences in how teachers conceptualize and prioritize early literacy instruction. Teachers' beliefs about literacy learning have been shown to influence instructional decision-making, shaping both the selection and enactment of classroom practices. In addition, PL models that rely primarily on isolated workshops or one-time training events are insufficient for supporting sustained instructional change, particularly in complex

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instructional areas such as early language and literacy (Cunningham et al., 2009; Hindman & Wasik, 2008; Neuman & Cunningham, 2009).

Within this context, a practitioner-focused formative framework for PD rather than a child-level curriculum or instruction was intentionally selected. Before Reading Begins is grounded in a logic model that posits teacher knowledge and self-reflection as primary mechanisms for improving instructional practice and, in turn, supporting children's early literacy development (Cunningham et al., 2009; Piasta et al., 2020). Research indicates that increases in teachers' conceptual understanding of early literacy development are associated with more intentional and effective classroom practices, particularly when PD includes job-embedded support such as coaching (Neuman & Cunningham, 2009; Wasik & Hindman, 2011).

Accordingly, the framework is designed first to strengthen educators' knowledge of early literacy domains and developmental progressions, and then to support the accurate and consistent implementation of evidence-based instructional practices through guided application and feedback (Hsieh et al., 2009; Snyder et al., 2015). Sustained instructional improvement is further reinforced through structured reflection and ongoing support, with the expectation that coherent, knowledge-informed practice will lead to more consistent, high-quality early literacy experiences for children (Connor et al., 2006; Justice et al., 2009).

Conceptual and Empirical Foundations of the Product

The design of Before Reading Begins is informed by conceptual and empirical research indicating that instructional improvement is associated with the interaction of teacher knowledge, teacher beliefs, and supported practice (Cunningham et al., 2009; Piasta et al., 2020; Schachter et al., 2016). The framework emphasizes early literacy domains consistently identified in the

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literature as predictive of later reading outcomes, including OL, PA, AK, print concepts, and early writing (NELP, 2008; Whitehurst & Lonigan, 1998).

In addition, the product reflects findings from the PD literature suggesting that instructional change is more likely to be sustained when PD establishes shared conceptual understanding, incorporates job-embedded coaching and feedback, and supports implementation over time rather than relying on one-time training events (Neuman & Cunningham, 2009; Snyder et al., 2015; Wasik & Hindman, 2011). By integrating these principles, the product is designed to move beyond activity-focused PD toward a model that prioritizes instructional coherence and fidelity.

Structure

The Before Reading Begins framework is organized into four phases that reflect a coherent progression from knowledge acquisition to sustained instructional implementation. The initial phase focuses on establishing shared conceptual understanding of early literacy development. Subsequent phases support the application of this knowledge through guided practice and coaching, followed by opportunities to strengthen fidelity, generalize practices across instructional contexts, and engage in structured reflection to inform next instructional steps.

Purpose and Use of Assessment Tools

The Teacher Early Literacy Knowledge Assessment (TELKA) and the Teacher Early Literacy Beliefs Survey (TELBS) are author-developed instruments designed for use within this Capstone project. Both tools are informed by research on early childhood educators' knowledge and beliefs regarding language and literacy instruction. Prior studies have documented associations between teachers' understanding of early literacy concepts, their instructional

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beliefs, and the quality of language and literacy experiences provided in preschool classrooms (Hindman & Wasik, 2008; Justice et al., 2009; Neuman & Cunningham, 2009; Piasta et al., 2019).

Consistent with this literature, the TELKA and TELBS align with constructs in the research literature on early literacy instruction, including teachers' conceptual knowledge of early literacy domains and their beliefs about how young children acquire language and literacy skills. Within the PD framework, these tools are used to inform PD planning and coaching decisions by providing structured information relevant to instructional focus areas, rather than serving as evaluative measures of teacher performance.

Summary

The Before Reading Begins product is intended for use by preschool teachers, instructional coaches, and EC administrators across a range of EC contexts, including public pre-k programs, Head Start, community-based EC settings, and kindergarten classrooms. Within the context of this Capstone project, the product serves as one example of how research-informed principles may be operationalized within a feasible PD framework to support instructional improvement.

The product represents the Capstone's applied outcome by synthesizing research on early literacy development, teacher knowledge, and PD into a coherent, implementable framework. It addresses a documented practice problem in ECE by supporting teachers in developing instructional understanding and coherence in early literacy instruction in preschool classrooms.

APPENDIX: CONTENT REVIEW MATRIX

Focus	Authors	Purpose	RQs	Participants	Design	IV	DV	Results
Teacher beliefs & writing support	Besser-Biron et al., 2024	Examine how beliefs shape evaluations and recommendations for children's writing	How do beliefs/classroom factors influence writing assessments?	110 Israeli preschool teachers	Survey & writing evaluation (Early Writing Know-ledge Assessment)	Teacher beliefs & back-ground factors	Writing evaluations & recommendations	Teachers stressed letters/phonology; stronger beliefs linked to orthography, writing system, joint exploration
EL intervention & equity	Callaghan & Madelaine, 2012	Review of PA and shared reading in preschool interventions	What role do PA and shared reading play in literacy readiness?	Literature review	Review	PA, shared reading interventions	Literacy outcomes	PA predicts later reading; dialogic reading improves expressive vocabulary
Teacher beliefs & practices	Cadime et al., 2024	Examine preschool teachers' EL beliefs/practices	How do training & beliefs shape practices?	266 Portuguese preschool teachers	Survey	Teacher training & beliefs	Reported literacy practices	Holistic beliefs > technicist; training strengthened PA practices
Teacher knowledge & child outcomes	Cash et al., 2015	Investigate whether teachers' knowledge/beliefs predict child literacy growth	Do beliefs/knowledge predict gains in vocabulary, print, PA?	262 pre-k teachers; 1,134 children	Multilevel quantitative	Teacher knowledge & beliefs	Child literacy outcomes	Know-ledge predicted vocabulary & print know-ledge; beliefs not predictive
Code- vs. meaning-focused instruction	Connor et al., 2006	Explore relationships between preschool activities and literacy growth	How do instruction types influence outcomes?	156 preschoolers, 25 teachers	Observational	Type of instruction	Child literacy growth	Code-focused = alphabet/-word skills; meaning-focused = vocabulary
PD: PBC + scripted supports	Dennis et al., 2024	Test PBC with scripted supports for shared book reading	Effects on teacher use of SBR strategies & child vocabulary?	3 teachers; 3 children w/ language delays	Single-case multiple baseline	PBC + scripts	Teacher fidelity; child vocabulary	Teachers improved use of strategies; children showed vocabulary gains

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Focus	Authors	Purpose	RQs	Participants	Design	IV	DV	Results
Teacher assumptions	Flynn & Schachter, 2017	Explore teacher assumptions about learning	What assumptions guide pedagogy?	8 pre-k teachers	Qualitative	Teacher assumptions	Observed practice	Teachers emphasized repetition/engagement; equated learning w/remembering
Teacher perceptions of literacy	Giles & Tunks, 2015	Explore PK–2 teachers' literacy beliefs	Do perceptions vary by experience & education?	76 PK–2 teachers	Survey	Teacher background	Beliefs on EL vs. readiness	Mid-career readiness; 20+ yrs EL
Writing instruction	Gerde et al., 2019	Examine teacher beliefs and writing practices	How do teachers enact writing?	32 preschool teachers	Mixed methods	Teacher beliefs	Observed writing practices	Focus on hand-writing, few supported composing
Coaching + demonstration	Gettinger & Stoiber, 2016	Compare coaching w/ vs. w/out modeling book reading	Does demo improve practices & environment?	22 Head Start teachers	Randomized Controlled Trial (RCT)	Coaching type	Teacher book reading practices	C+D > C-only in PA, alphabet, print practices
Literacy practices in Head Start	Hawken et al., 2005	National survey of literacy practices	What strategies do HS teachers use most?	273 HS teachers	Survey	Teacher strategies	Reported practices	Daily book reading; print awareness > PA instruction
Beliefs about early literacy	Hindman & Wasik, 2008	Explore HS teachers' literacy beliefs	What beliefs do teachers hold?	28 HS teachers	TBQ survey	Teacher background	Literacy beliefs	Strongest for OL, book reading; weaker for code-related, writing
Literacy coaching (EL strategies)	Hsieh et al., 2009	Test coaching to increase strategy use	Does in-class coaching improve EL practices?	5 preschool teachers	Single-subject	Coaching	Teacher literacy strategy use	Increased use across clusters (vocabulary, PA, print); gains maintained
Print referencing intervention	Justice et al., 2009	Test print referencing in storybook reading	Does referencing accelerate literacy?	106 preschoolers, 23 teachers	RCT	Print referencing	Print knowledge	Gains in print concepts, alphabet, name writing
Print-focused read-alouds	Justice et al., 2010	Evaluate print-referencing read-alouds	Do effects generalize across settings?	379 children, 59 teachers	RCT effectiveness	Print referencing	Print knowledge & language	Print knowledge ↑ (d=.21); no language effects

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Focus	Authors	Purpose	RQs	Participants	Design	IV	DV	Results
Vocabulary instruction	Lipsky & Adelman, 2022	Investigate vocabulary strategy use	How do teachers implement vocabulary in read-alouds?	19 preschool teachers	Observation	Teacher strategies	Vocabulary instruction	Explicit vocabulary teaching was limited
EL coaching (feedback)	McCollum et al., 2011	Test performance-based feedback coaching	Does coaching increase literacy skills?	13 pre-k teachers	Group RCT	Coaching vs. waitlist	Teacher strategy use: ELLCO	Teachers used more skills; ELLCO literacy environment improved
PD & teacher change	Ottley et al., 2015	Study changes in knowledge/beliefs during PD	How do ECEs change knowledge & beliefs?	87 EC educators	Longitudinal	PD participation	Teacher knowledge & beliefs	Gains in knowledge/beliefs; plateaued; self-efficacy mattered
Teacher knowledge & practice	Schachter et al., 2016	Explore link between teacher knowledge & literacy practice	How does teacher knowledge predict instruction?	59 preschool teachers	Observation	Teacher literacy knowledge	Instruction quality	Know-ledge predicted instruction quality
Coaching within PBC	Shannon et al., 2021	Examine coaching processes within PBC partnerships	How are coach verbal behaviors distributed across sessions?	7 preschool coach–teacher dyads	Observational	PBC framework	Conversation focus, initiation; coach verbal behaviors	Coaches implemented PBC processes with fidelity
PD & EL coaching	Snyder et al., 2015	Examine PBC to support EBPs	Does PBC support teacher fidelity of EBPs?	Multiple EC teachers	Conceptual + applied research	PBC	Teacher practice fidelity	PBC improved use of EBPs; reflection, feedback critical
Teacher role & confidence	Weadman et al., 2023	Explore ECTs' role, knowledge, and confidence	How do early-career ECTs perceive prepared-ness?	9 Australian ECTs	Qualitative interviews	Teacher training/prep	Reported practices/confidence	Valued role; lacked confidence, distinction b/w OL vs. literacy
Coaching intensity	Weber-Mayrer et al., 2018	Study coaching intensity in state PD	Does coaching intensity predict outcomes?	65 preschool teachers	Quantitative, regression	Coaching dose, duration, frequency	Teacher knowledge & practice	Duration & frequency predicted gains; variability in implementation

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Focus	Authors	Purpose	RQs	Participants	Design	IV	DV	Results
Coaching systematic review	Yang et al. (2022)	Examine the effects of coaching on teacher instruction and child outcomes in EC settings	What are the characteristics and effects of coaching in early childhood settings?	33 studies of EC teachers and children ages 3– 5	Systematic review of RCTs and quasi- experimental studies	Coaching: dosage, duration, frequency, fidelity	Teacher instruction/know- ledge; child outcomes	Coaching supported teacher practice; dosage and intensity varied.

GLOSSARY

Alphabet Knowledge. AK means that children can recognize letters, name them, and connect them to the sounds they represent, which helps them begin to read words.

Coaching Intensity. Coaching intensity describes how long coaching sessions last, how often they occur, and the total amount of coaching a teacher receives over time.

Code-Focused Instruction. Code-focused instruction refers to teaching practices that intentionally build children’s skills in PA, AK, and print concepts to help them learn how written language works.

Content Knowledge/Subject Knowledge. Content knowledge, or subject knowledge, is the understanding teachers have of early literacy skills, child development, and effective instructional methods that guide high-quality teaching.

Decoding. Decoding is the ability to look at printed letters or words and use letter–sound knowledge to read them accurately.

Dialogic Reading. Dialogic reading is a shared reading approach in which adults invite children to talk about the story, ask questions, and think aloud to deepen understanding.

Distal Knowledge. Distal knowledge includes broad background knowledge about children and literacy that is not directly tied to a specific instructional practice or training.

Early Literacy. Early literacy refers to the skills children begin developing, such as hearing sounds in words, recognizing letters, understanding print, and trying early forms of writing, that prepare them for formal reading and writing.

Early Writing. Early writing describes the marks, scribbles, letter-like shapes, and invented spellings children use to express ideas before they write in standard ways.

Embedded Instruction. Embedded instruction means weaving learning opportunities naturally into daily routines and play instead of teaching skills only in isolated lessons.

Emergent Literacy. EL describes how children naturally start exploring reading and writing on their own through play, conversation, and everyday experiences with books and print before any formal teaching begins.

Evidence-Based Practices. Evidence-based practices are instructional methods that research has shown to be effective for improving children’s learning outcomes.

Extratextual Language. Extratextual language is the talk that occurs during shared reading—such as questions, comments, or predictions—that goes beyond the words printed in the book.

Fidelity of Implementation. Fidelity of implementation means using an instructional practice as it was designed, with accuracy and consistency.

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High-Quality Instruction. High-quality instruction is intentional, well-organized teaching that uses clear routines, meaningful interactions, and responsive support to help children build skills and engage successfully in classroom activities.

High-Quality Literacy Instruction. High-quality literacy instruction refers to teaching that is systematic, explicit, and responsive to children's needs, providing clear, intentional lessons on the sound and print structure of written language while adapting support to each child's developmental level.

Holistic Beliefs. Holistic beliefs hold that literacy develops through meaningful social interactions, play, and communication, not just through isolated skill exercises.

Instructional Coaching. Instructional coaching is job-embedded professional support in which a coach models strategies, co-teaches, observes instruction, and engages teachers in reflective conversations.

Knowledge of Use. Knowledge of use is the teacher's ability to apply what they know about literacy in practical, effective ways during instruction.

Meaning-Focused Instruction. Meaning-focused instruction emphasizes building children's comprehension, vocabulary, and language understanding rather than focusing solely on decoding.

Oral Language. OL includes children's ability to understand and use spoken words, grammar, narratives, and social language to communicate.

Orthography. Orthography refers to the writing system of a language, including rules for spelling, letter patterns, and directionality.

Pedagogical Beliefs. Pedagogical beliefs describe what teachers think about how children learn and how literacy should be taught.

Pedagogical Reasoning. Pedagogical reasoning is the thinking process teachers use to plan, choose, and justify instructional decisions.

Phonemic Awareness. Phonemic awareness is the ability to hear, identify, and manipulate the smallest individual sounds (phonemes) in spoken words.

Phonological Awareness. PA is the broader ability to recognize and work with the sound structure of language, including rhymes, syllables, onsets and rimes, and phonemes.

Phonological Memory. Phonological memory is the capacity to retain spoken information for a short time, which supports word learning and reading.

Practice-Based Coaching Cycle. The PBC cycle involves setting goals, observing instruction, reflecting on what worked, and planning next steps to improve teaching practices.

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Print Awareness/Print Concepts. Print awareness means understanding how print works—such as knowing that print carries meaning, follows directionality, and uses spaces to separate words.

Print Referencing. Print referencing refers to verbal and nonverbal cues during read-alouds that draw children’s attention to letters, words, and print features.

Proximal Knowledge. Proximal knowledge is the specific knowledge teachers gain from a particular PD program or coaching focus.

Pyramid Model. The pyramid model is a framework of practices designed to support young children’s social, emotional, and behavioral development.

Randomized Controlled Trial. An experimental study design in which participants are randomly assigned to an experimental or a control group.

Reading Readiness. Reading Readiness is an older approach that assumes children must reach a certain level of maturity before they can learn to read.

Self-Efficacy. Self-efficacy refers to a teacher’s belief in their own ability to influence children’s learning and success.

Shared Book Reading. Shared book reading is an interactive experience in which adults and children read together, discuss the story, and explore ideas in the text.

Skill-Focused Coaching. Skill-focused coaching supports teachers in mastering one specific literacy skill or teaching strategy at a time.

Technicist Beliefs. Technicist beliefs hold that literacy develops through direct, sequential teaching of discrete skills such as phonics and letter recognition.

Vocabulary Development. Vocabulary development is the process through which children learn new words, understand their meanings, and use them to communicate and comprehend language.

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