

The Art and Science of Teaching Reading: Understanding Teacher Mindsets About Teaching Reading and Salient Influential Factors

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Abstract

During a period of heightened attention to the science of reading, shifting curricular landscapes, and growing public and political discourse about literacy, the purpose of this study was to investigate the mindsets of elementary teachers about their understanding of reading development and instruction. A mixed-methods approach was used to conduct this study. Quantitative data were collected through the *Literacy Acquisition Perception Profile* (LAPP) Survey, and qualitative data through open-ended questions from the LAPP Survey, pre- and post-study interviews, and teacher feedback obtained during professional development (PD) sessions and site visits. Responses from the open-ended questions and the interviews were coded and themed, using Corbin and Strauss's (1998) constant comparative method, which involved multiple steps (Saldaña, 2021), comparing incidents in the data to refine codes, categories, and thematic relationships. Through open, axial, and selective coding, we traced how teacher perceptions clustered around broader conceptual themes. Our data showed that teachers' mindsets about teaching reading were significantly impacted by two main factors: their knowledge of a skills-based approach that incorporates phonemic awareness and phonics as important to the development of early reading, *and* knowledge of a contextual-based approach that values sociocultural contexts, the role of writing, choice and quality of children's literature, and rich literacy environments. In this sense, their understanding of reading requires valuing both the science and the art of reading instruction. While our findings suggest that teacher knowledge from multiple domains may interact with perceptions of efficacy, the current study does not establish causal relationships between these constructs. Professional development played a central role in shaping teachers' sense of promise and efficacy. Teachers consistently identified sustained, collaborative PD—particularly that which connects theory with classroom application—as a key influence on their understanding of reading instruction. Understanding these realities is critical for policymakers, school leaders, and PD providers who seek to support teachers in improving student literacy achievement.

Keywords: teacher efficacy, effective practices, foundational literacy skills, professional development

EDUCATION

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Introduction

Learning to read is a cognitively complex task which requires the oral language regions of the brain to be co-opted to recognize, manipulate and create orthographic representations of sound and meaning (Dehaene, 2009). It does not occur naturally, as speech does, and requires direct, explicit and systematic teaching of reading (Adams, 1990; Ehri, 2022; Moats & Foorman, 2003). Although the home environment and parental influence can have a significant impact on a child's ability to learn to read, it is often the classroom teacher who has the greatest influence on children learning to read (Reutzel & Cooter, 2024; Right to Read, 2022). An effective classroom teacher has knowledge about reading development and how reading is acquired (Moats & Foorman, 2003), what some would identify as the *science* behind reading development, and is the teacher who has the ability to teach reading to a diverse group of students with a wide range of experiences, knowledge and capability (Reutzel & Cooter, 2024), or what some would call the *art* or *craft* of teaching reading.

Across North America, public and professional discourse about the 'science of reading' has intensified, often framing reading instruction in binary terms: either rooted in skills-based practice or grounded in contextual, meaning-oriented literacy work. This binary framing is problematic; it oversimplifies a large, multidisciplinary research base (Aukerman, 2024; Shanahan, 2024; Tierney & Pearson, 2024). Teachers must navigate this landscape while simultaneously responding to evolving curriculum mandates, diverse classroom needs, and pressures emerging from media narratives claiming that the science of reading is 'settled.'

Mindset—understood here as the beliefs, assumptions, and internal dialogue that shape teachers' instructional decisions—plays a critical role in how teachers interpret and enact reading instruction (Tay et al., 2023). Teacher mindsets shape confidence, perceived efficacy, and the degree to which teachers feel capable of influencing student learning (Donohoo, 2016). Understanding teacher mindsets about reading, therefore, provides an important avenue for examining how knowledge, experience, and PD intersect with daily instructional practice.

Research Focus

This study investigated elementary teachers' mindsets regarding reading development and instruction, focusing on how teachers understand reading, the factors influencing their beliefs, and the professional learning conditions that shape their confidence and practice. The study also examined these mindsets within a sociopolitical context in which reading debates have become tied to governance, policy agendas, and curriculum reform. Given the polarized discourse, this research sought to document the nuance and complexity of teachers' current thinking.

The research question guiding this study was:

Are teachers' mindsets influenced predominantly by a particular pedagogical or epistemological stance on reading instruction, as evidenced through an online survey and interviews? The two dominant approaches are: 1) a skills-based approach that incorporates phonemic awareness and phonics, as well as the ability to read phonetically irregular words, as important to the development of early reading, or by a 2) contextual-based approach that incorporates psychological factors such as motivation and engagement,

sociocultural context, writing, choice and quality of children’s literature, and rich literacy environments?

Literacy Acquisition Perception Profile (LAPP)

The Literacy Acquisition Perception Profile, originally developed by McMahon, Richmond, and Reeves-Kazelskis (1998/2001), contrasts early conceptions of ‘reading readiness’ with ‘emergent literacy’ philosophies. Previous studies (e.g., Giles & Tunks, 2015; Mardhani-Bayne & Shamchuk, 2022) have used the LAPP to examine whether teachers lean toward skills-based or contextual-based conceptions of early literacy. For the purposes of this study, ‘reading readiness’ aligns roughly with skills-based approaches (though not perfectly) and “emergent literacy” aligns roughly with contextual-based approaches (though not perfectly). We clarify that these constructs do not map identically onto contemporary reading debates, but they provide a useful lens for examining teacher instructional preferences. The survey includes Likert-scale items measuring teachers’ agreement with statements representing each approach.

This research also sought to understand the relationship between teachers’ mindsets and their years of experience, grade level, PD, curriculum, and self-efficacy in affecting students’ reading achievement (Beachy et al., 2023). Employing a mixed-methods structure, this study occurred over three phases. We used an iterative methodological design wherein we conducted a literature review, gathered quantitative data (surveys) and qualitative data (interviews), analyzed data using [thematic coding, open coding, etc.], and engaged in collaborative discussion of findings before the commencement of the writing phase. The first phase of this research began in Fall 2023 with the administration of the *Literacy Acquisition Perception Profile* (LAPP) (McMahon et al., 1998) survey and pre-study interviews.

Phase two continued into Spring and Summer 2024 with site visits, PD – described later - based on the results of the LAPP survey and interviews, and included gathering feedback from teachers about their experiences teaching reading. Phase Three included post-interviews, data analysis, and writing the research findings.

In the literature review, we detail the current understanding of reading science, the ways in which reading develops, and research-informed instructional practices. In addition, we discuss the role of teacher self- and collective efficacy in teaching reading, and the importance of professional development that is collaborative, context-specific, and sustainable in order to support teachers in their work in teaching reading.

Literature Review

A Research-Based Science of Reading

The teaching of reading has benefited from research from a variety of fields, including education, educational psychology, linguistics, neuroscience, and socio-cultural scholarship, contributing to a broad body of research pertinent to reading instruction. According to Shanahan (2024), a research-based science of reading “should [therefore] refer to all empirical studies of any aspect of learning to read, write, and spell in any language” (para. 7). Despite this breadth, media reporting and some advocacy groups have narrowed the term ‘science of reading’ to emphasize foundational skills, often portraying these as the only legitimate route to early literacy learning. This framing has contributed to teacher uncertainty, professional doubt, and, at times, demoralization (Aukerman, 2024; Reinking et al., 2023).

This has led to a misunderstanding of reading science as narrowly emphasizing skills-based approaches over other robust contextual-based approaches that include phonics, comprehension, writing, and other forms of literacy learning that motivate young learners. This is, according to Aukerman (2024), an error in sufficient understanding of the nuanced and expansive field of reading science and unfairly discredits contextual-based approaches such as ‘balanced literacy,’ which have predominated instruction over the past twenty years.

Researchers Tierney and Pearson note that “never have we witnessed anything like this current push for a return to foundational skills that flies under the banner of the ‘Science of Reading’ (SoR)” (Shanahan, 2024, para. 7). This perspective has been countered by many in the field of reading, indicating the current fragmentary dissemination of elements of the broad field of SoR and does not present a complete picture of how reading is taught (Aukerman, 2024; Bowers, 2020; Reinking et al., 2023); while contributing to the denigration of teachers’ professional knowledge and questioning decades of peer-reviewed research. Several researchers and educators have spoken recently about the ‘pendulum swinging’ in reading, having witnessed historical shifts in how teachers approach reading pedagogy (Gear, 2021; Tierney & Pearson, 2024). The ‘balanced literacy’ advocates have acknowledged the importance of phonemic awareness and phonics in early reading instruction but have also recognized a wide variety of other factors that affect reading achievement, such as oral language development, background knowledge and experience, motivation, and broader social factors such as poverty and hunger.

In addition, a recent Ontario Human Rights Commission report, *Right to Read* (February 2022), posits that some teachers may not be teaching reading satisfactorily in schools because they are not being shown how to teach reading properly (pp. 190-198). Other highly publicized reports, such as the one told through Emily Hanford’s podcast, *Sold a Story: How Teaching Kids to Read Went So Wrong* (beginning in late 2022) have circulated widely in the public discourse and in teacher circles and may be causing teachers to question what they know about teaching reading and doubt whether or not they have sufficient knowledge to help children to learn to read.

Furthermore, several Canadian provinces and US states have introduced new language and literacy curricula or the elementary grades. Ontario’s 2023 language curriculum foregrounds structured literacy and prescriptive phonics sequences, while New Brunswick’s 2023 revisions similarly emphasize decoding benchmarks and standardized early screening—illustrating how curriculum change has become intertwined with public pressure and political agendas surrounding reading achievement.

It appears the reading field is once again a site of debate and controversy—first appearing nearly 200 years ago (Tierney & Pearson, 2024)—and it is in this context that we examined what teachers know and believe about reading development and the teaching of reading and their role in enacting it. This research answers the call for more studies on teachers’ thinking and on teaching practices and what might be done in different contexts to enhance reading instruction (Seidenberg, 2023).

Models of Reading Development

There is little disagreement that reading is a complex, multidimensional process (Catts, 2018). A great deal is known about the nature of the reading process (Dehaene, 2009; Wolf, 2008), though less about how best to teach reading. While acknowledging the value of basic research, which “has been distinguished from applied science based on its apparent distance from practical problems” (p. 238), Shanahan (2022) warns against drawing pedagogical conclusions from non-instructional

studies. So, to explain how reading develops, we examined four main reading models (although there are others), from Gough and Tunmer's Simple View of Reading (1986) to Scarborough's Reading Rope (2001), to the Componential model (Joshi & Aaron, 2012), and finally to Duke and Cartwright's Active View of Reading model (2021). Each of these theories provides insight into how reading develops and leads to greater understanding of what the reader does in learning to read. However, these are theories of reading, not theories of reading instruction. These reading models undoubtedly inform teachers in deepening their understanding of reading, but they also need to be aware of the findings of instructional studies that help to identify efficient ways to teach a broad audience of learners. In other words, while helpful to educators on the level of understanding reading, these theories do not, in and of themselves, help teachers understand the best ways to teach reading to a diverse group of students. As Kirschner and Hendrick (2020) emphasize, epistemology (how learning occurs) is not pedagogy (how instruction should be enacted).

Teaching reading is complex work (Mausbach & Kazmierczak, 2023). Jeanne Chall (1979) declared that it is “the teacher that makes the difference” (p. 6), adding that skilled teachers understand what their learners need at a given point in time. Yet, the current dialogue on teaching reading has caused many teachers to lose confidence and feel like their needs to address students' learning are being ignored. Accordingly, we are interested in knowing: Do teachers understand how reading develops? If so, how does their understanding influence their mindset about the reading instruction they provide? If teachers are influenced by either a skills-based or a contextual-based view of reading development, how will that affect their instruction? It makes sense that teachers who hold a skills-based understanding of reading development may offer instruction that focuses on cognitive skills such as quick letter and sound knowledge, phonemic and phonics skills, as well as phonetically irregular words, and perhaps on syntactic comprehension and figurative language. Teachers who hold a contextual-based view of reading development might expand instruction to include psychological and sociocultural factors such as motivation, engagement, classroom and home environment, and semantics. We wondered, is it possible for teachers' reading instruction to be influenced by both approaches?

Balanced literacy approaches, while often criticized in recent public discourse, draw on robust evidence supporting the role of oral language development, background knowledge, motivation, engagement, and children's literature in the reading process. Aukerman (2024) argues that balanced literacy, when thoughtfully enacted, reflects a comprehensive, research-informed approach rather than a rejection of skills-based instruction. Nuance is therefore essential: the debate is not between skills and context, but perhaps about how to integrate both meaningfully.

Teacher buy-in, effort, and desire to teach reading in specific ways, as well as their beliefs about how successful they will be in teaching reading and reach the goals they have set for their students, determine their behaviours, or what we refer to as efficacy, will likely be influenced by how they view reading development. What is believed about how reading develops will likely guide decisions about which programs and resources to use and which instructional practices to embrace. Yet, it must be acknowledged that teachers may be compelled to adopt specific programs, attend PD, and implement resources that do not align with their instructional beliefs.

Teacher Self-Efficacy and Knowledge

Teachers' sense of self-efficacy, combined with their knowledge, positively correlates with the quality of the instructional activities they employ (Holzberger et al., 2013) as well as student

achievement (Ashton & Webb, 1986). Bandura coined the term “self-efficacy” when referring to a person’s belief in their capability to perform in certain situations (Ryan & Hendry, 2022). Using Bandura’s social cognitive theory, Ryan & Hendry (2022) studied teacher efficacy in teaching reading, concluding that high levels of teacher efficacy correlated with student achievement and teachers’ enhanced wellbeing and commitment to their profession. The relationship between teacher knowledge and effective instruction has been well established, and teacher knowledge contributes to feelings of confidence and self-efficacy in teaching reading (Ryan & Hendry, 2022). According to Cantrell and Hughes (2008):

preservice and in-service educators would do well to pay attention to personal efficacy as an important disposition that should be developed. Because middle and high school teachers often express lower levels of efficacy related to teaching literacy in the content areas, their sense of personal efficacy with literacy teaching should be considered and fostered to promote higher levels of content literacy implementation. (p. 123)

What does teacher knowledge about reading entail? According to Louise Moats (1999), it is the ability to understand areas such as linguistics, cognitive psychology, neuroscience, and education in order to teach reading effectively or what she calls the “linguistic foundations” of reading. It is being able to understand: the language structures of phonology, the study of the patterns of sounds in a language; semantics, the study of word meanings; syntax, the study of how words are ordered to convey meaning; morphology, the study of the structure of words; and pragmatics, the study of how language is used in specific situations. Other researchers have called upon teachers to have additional domains of knowledge when it comes to reading, including “usable” knowledge, meaning understanding how foundational knowledge about reading can be applied in instruction (Carlisle et al., 2011). Such knowledge encompasses motivation and engagement, as well as sociocultural influences, and might best be characterized as encompassing a contextual-based understanding of reading. In addition, teachers need to understand the “components of reading” (National Reading Panel, 2000). The NRP report linked these components to effective reading instruction: 1. Alphabetics (phonemic awareness instruction and phonics instruction), 2. Fluency, 3. Comprehension (vocabulary instruction, text comprehension, and teacher preparation and comprehension strategies instruction), 4. Teacher Education and Reading Instruction; and 5. Computer Technology and Reading Instruction.

According to Aukerman (2024), comprehensive, research-informed literacy instruction would not only include attention to the components of reading, but would necessarily include content literacy goals, child-centred approaches, attention to culture, context, and developmental appropriateness, social interaction and opportunities for rich student talk, and techniques to improve reading motivation and self-efficacy. This stance suggests that a comprehensive curriculum “orchestrates synergies among a range of necessary developmental facets.”

Classroom complexity further shapes teachers’ perceptions of efficacy. Classroom complexity refers to the simultaneous, layered demands of meeting linguistic diversity, learning needs, behavioural needs, curriculum requirements, and instructional pacing (Burns & Ysseldyke, 2009). High complexity can diminish teachers’ perceived influence and compromise instructional coherence, particularly in early literacy classrooms.

Professional Development

Teacher self-efficacy and professional development (PD) are often the “keys” to teachers developing foundational knowledge about reading and its effective instruction. Several influential

reviews and meta-reviews have converged on the position that teacher PD is more effective when it is “sustained, collaborative, subject specific, draws on external expertise, has buy-in from teachers, and is practice based” (Sims & Fletcher-Wood, 2020, p. 47). While teachers enter the profession with a variety of skills and strengths, it is important to know how to support those strengths in order to help them grow and feel rewarded in their work (Mausbach & Kazmierczak, 2023). In recent years, it has become apparent that PD opportunities need to fulfill certain requirements in order to be effective. These include leadership support that provides time for collaboration, the promotion of self- and collective efficacy, and teacher modelling for student success.

Leadership Support and Collaboration

There is a demonstrable relationship between instructional leadership and student success. As might be expected, school leaders’ sense of efficacy relates to teachers’ sense of self- and collective efficacy for teaching their students, resulting in greater student learning (Goddard, Bailes, & Kim, 2021). In a study exploring teachers’ self- and collective efficacy in teaching reading, teachers indicated that support from school leadership enhanced their confidence in their ability to teach reading. They identified a variety of forms of support, including listening to their requests for help in overcoming challenges, suggesting reading resources and strategies; though these can be subject to budgetary conditions and ministry directives, and showing trust in their abilities to be successful in their reading instruction (Ryan & Hendry, 2022). Leadership also has a role to play in the development of a school culture that supports a collaborative approach to teaching reading. Aspects of school culture that contributed to teachers’ confidence include: a safe environment in which to take risks and try new ideas, opportunities to engage in professional learning promoted by leadership, and encouragement to make instructional judgments and decisions in their reading programs (Cantrell & Hughes, 2008). Effective leadership strategies provide extended PD by helping connect teachers to experts, reading professional literature, offering school residencies for modelling and sharing teaching strategies, and overcoming barriers due to external factors such as lack of home support or decreased levels of motivation.

Self- and Collective Efficacy and Modelling

Teachers’ self-efficacy in this context is one’s personal belief in their capability to successfully perform and be effective in their reading instruction practice. Self-efficacy leads to higher levels of student achievement, motivation, and positive attitudes (Skaalvik & Skaalvik, 2007). Equally important is teachers’ collective efficacy, or the belief in their abilities to positively affect student learning when working as a team or members of a school staff (Cantrell & Hughes, 2008; Donohoo, Hattie, & Eels, 2018; Eels, 2011). Influences on collective efficacy are similar to those that enhance self-efficacy. For instance, support and trust from leadership matters, as do student achievement, access to professional learning with opportunities to view the modelling of practices and strategies, and collaboration among teachers.

Studies on the strengths of collective efficacy in teaching reading demonstrate the value of having an entire staff working together on reading achievement, or what we would call ‘everyone rowing in the same direction.’ It has been demonstrated that collective teacher efficacy may be more influential than individual teacher efficacy beliefs (Tschannen-Moran & Barr, 2004). When collective teacher efficacy is achieved, teachers credit PD in helping them develop a shared understanding of reading and what constitutes effective instruction. They also point to the importance of opportunities and time to collaborate to determine what effective reading strategies

would look like in the context of their own schools and classrooms. Mausbach and Morrison-Kazmierczak (2023) point out that teachers themselves are not all starting at the same place in their mindsets about reading development. Years of experience and grade levels taught could, according to these researchers, have a bearing on teachers' skill level, confidence, and knowledge.

Another way to achieve collective efficacy is through "layered learning," where opportunities are provided concurrently for professional development to occur in large groups, small groups and in one-on-one learning settings. Mausbach & Morrison-Kazmierczak (2023) call this "blanketing" teachers with support to learn and grow. It is a deliberate approach designed to start where teacher mindsets are and connect professional development to classroom practice. Teacher autonomy is an important aspect of this approach. Cochran-Smith and Lytle (2009) propose that teachers occupy what they call an 'inquiry stance' in order to align their work with others. Teachers refer to the practice of having one another "model" strategies or use team-teaching in order to share ideas, analyze evidence, and provide feedback in a supportive way as particularly valuable. This collaborative work uses teacher knowledge, analysis, and planning to empower teachers to determine not only how to improve their practice but also to increase student achievement.

Student Success

Several studies highlight a "clear and positive relationship between teachers' level of self-efficacy and the quality of students' learning" (Tschannen-Moran & Barr, 2004, as cited in Ryan & Hendry, 2023), highlighting the importance of teacher mindsets about their collective ability to teach reading. In these studies, teachers indicate that when they observe their students' success in reading as a result of their teaching, their confidence in their ability to teach reading increases. Hattie (2008) calls these 'quick wins' and suggests that they motivate teachers to do more and believe in themselves to affect student learning. Ryan and Hendry (2020) note that this was particularly true when teachers discussed working with students who were struggling with reading. These findings suggest the value of understanding teacher mindsets and providing support for them to improve their abilities to teach reading and foster student success. This is an important issue that needs resolution, given the tone of public discourse around teaching reading and the value of teachers' professional knowledge and PD.

Purpose/Objectives

The purpose of this research was to document teachers' mindsets about how reading develops and, as a result, how they believe they ought to teach reading. Based on previous research findings (Giles & Tunks, 2015; Mardhani-Bayne & Shamchuk, 2022), we hypothesized that there would be a dichotomy between teachers' preferences to hold either a mostly skills-based or mostly a contextual-based approach to teaching early literacy and that these preferences would likely be a result of teachers' years of experience, the grade levels they taught, curriculum changes and the accompanying politics associated with curricular reform, engagement in PD, and their sense of self-efficacy.

Methodology

This research drew upon a mixed methods approach to investigate teacher mindsets of reading development and reading instruction (Cresswell & Garrett, 2008). The survey employed quantitative and qualitative data-gathering techniques with open and closed questions to determine teachers' preferences for skills-based or contextual-based approaches to teaching reading. At the

end of the survey, respondents were asked if they were interested in participating in an interview at the beginning of the study and a follow-up interview six months later.

Mixed methods were also important because public and scholarly discourse around the ‘science of reading’ has become highly charged, with some research and commentary relying on emotional or polarized narratives (Reinking et al., 2023). By triangulating survey responses with interviews and open-ended comments, our approach mitigated the influence of anecdote or ideology and produced a more nuanced, credible understanding of teacher perspectives.

Researcher Positioning

The researchers in this project served dual roles as both investigators and professional development (PD) facilitators. While this dual role is common in practitioner-oriented educational research, it carries potential influence. We explicitly acknowledged this with participants, clarified voluntary participation, ensured anonymity in data handling, and emphasized that PD participation was not linked to research participation.

Our role as PD facilitators also provided unique insight into teachers’ evolving thinking over time; however, because the LAPP survey was administered only once, the quantitative portion of this study captures a ‘snapshot’ rather than a measured change in mindset. The pre- and post-interviews, along with PD field notes, helped elaborate on this snapshot, allowing us to understand teachers’ perspectives with greater contextual insight.

Ethical Considerations

Participation was voluntary. No identifying information was collected in the LAPP survey, and interview data were anonymized during transcription. The dual researcher–facilitator role was disclosed, and participants were reminded that comments from PD sessions would not be reported in ways that identified individuals or schools.

The three phases of research:

Phase 1: (September to December 2023)

Gathering Evidence Phase. During this phase, we examined teachers’ experience, grade level, and mindsets about reading and its instruction and about changes in the literacy curriculum. Between June 1st and December 4th, 2023, The *Literacy Acquisition Perception Profile* (LAPP; McMahon et al., 1998) survey was distributed to approximately 100 K–5 teachers across four school divisions (two in Alberta and two in British Columbia). This number is approximate because the survey was disseminated by school leaders, and it is not possible to confirm whether all principals forwarded the survey to their teachers. The LAPP survey was hosted through Qualtrics, a secure online platform commonly used in educational research. A link to the survey was distributed by school administrators, along with an explanation of confidentiality and voluntary participation. All individual responses were aggregated, and no school or teacher was identified in any reporting. Teachers were given one month to complete the online survey. A total of 38 teachers responded, yielding an estimated 38% response rate. This return rate is consistent with other online professional surveys reported in literacy research (e.g., Giles & Tunks, 2014). Of the 38 participants:

- 28 teachers taught in K–3 classrooms
- 10 teachers taught in grades 4–5

At the end of the survey, teachers could indicate interest in participating in two interviews (pre- and post). Eight teachers volunteered and completed both interviews.

Semi-structured interviews focused on teachers' experiences teaching reading, including the strategies and resources used. They were asked to describe their understanding of how reading develops, as well as the impact of possible curriculum changes. Teachers were asked to identify the challenges and successes they encountered in teaching reading, and their perspectives about the discourse around the science of reading. Insight from the surveys and pre-interviews helped to guide the PD provided in Phase two of the research.

Phase 2: (October 2023 to March 2024)

Professional Development Phase. Between October 2023 and March 2024, the research team provided PD through workshops, symposia, and school-site sessions. Two sessions were facilitated in BC school divisions and two in Alberta school divisions. These sessions addressed concepts of reading development, components of reading, and instructional strategies. Approximately 400 teachers participated in at least one PD session across the divisions involved. Feedback forms, collaborative group artifacts, and field notes served as data sources for this phase.

Phase 3: (March to June 2024)

Pedagogy Conversations and Reporting. In this phase, we conducted several school visits, held meetings with teachers and administrators to discuss the teaching of reading, and post-interviews were conducted with the eight volunteer teachers. Semi-structured questions invited teachers to describe their understanding of how reading develops, the challenges they faced, the influence of curriculum and public discourse, and the impact of PD. Although the interview sample was small, the open-ended format allowed for rich insight into teachers' perspectives. Linking survey and interview data was not always possible because teachers often focused on pressing contextual challenges. Allowing these discussions to emerge was necessary for understanding the lived reality of their literacy instruction.

Analysis

The LAPP survey provided descriptive statistical and qualitative results. The qualitative results were further examined through the use of *NVivo* software for initial analysis, followed by a collaborative process involving the researchers and a research assistant. Specifically, data were analyzed using Corbin and Strauss's (2015) constant comparative method, which involves iterative cycles of open, axial, and selective coding to identify relationships among concepts and refine emerging themes. This systematic, comparative approach aligns closely with Saldaña's (2021) multi-cycle coding framework, in which first-cycle descriptive and NVivo codes are synthesized into second-cycle pattern codes that consolidate analytic categories. Together, these approaches provided a rigorous, structured process for interpreting the qualitative data.

Based on previous *Literacy Acquisition Perception Profile* (LAPP) survey results (Giles & Tunks, 2015; Mardhani-Bayne & Shamchuk, 2022; McMahan et al., 1998/2001), our original hypothesis anticipated that teachers' understanding of teaching reading would be influenced by: 1) a skills-based approach, 2) a contextual-based approach, and 3) curriculum changes, compounded by years of teaching and grade level experience. We wanted to know to what extent teachers valued these approaches/influences in their own instruction, or if they attributed their knowledge to teaching experience, professional development, revisions to the curriculum, or a combination of all the above. We predicted that teachers with more years of teaching experience

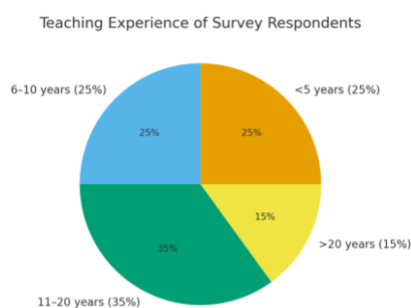
would demonstrate greater knowledge of reading and its instruction and understanding of curriculum changes, and value both a skills-based and a contextual-based approach.

Results and Discussion

In presenting the quantitative results, descriptive statistics were used to represent responses, which are helpful in providing general themes or agreement amongst survey respondents (Fisher & Marshall, 2009). Teachers with less than 5 years of teaching experience made up 25% of the respondents to the survey, and teachers with 6 to 10 years of experience made up 25% of the respondents; 35% had 11 to 20 years of experience, and 15% had more than 20 years of teaching experience.

Figure 1

Teaching experience distribution among survey respondents.

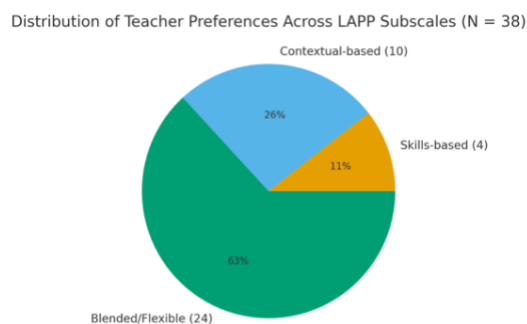


Overview of Quantitative Findings

Descriptive statistics from the LAPP survey revealed that teachers’ mindsets did not fall neatly into a dichotomy between skills-based and contextual-based approaches. Instead, most teachers endorsed elements of both, suggesting a more nuanced understanding of early reading instruction than contemporary polarized discourse implies. A one-way ANOVA explored relationships between teachers’ years of experience and their endorsement of skills-based and contextual-based subscales. No statistically significant differences were found. Similarly, no meaningful differences emerged between teachers of K–3 and teachers of grades 4–5. This finding contrasts with earlier U.S.-based studies using the LAPP (e.g., Giles & Tunks, 2015), which reported clearer divisions aligned with years of experience and initial teacher preparation.

Figure 2

Distribution of teachers’ responses across the two LAPP subscales.



This distribution—4 teachers primarily favoured skills-based approaches, 10 teachers primarily favoured contextual-based approaches, and 24 teachers endorsed both approaches, indicated a blended or flexible mindset and suggests that teachers in this sample resisted the polarized ‘choose a side’ framing prevalent in recent discourse about the science of reading. Instead, most appear to draw on a hybrid model that integrates skills instruction with contextual and motivational elements.

In addition, the LAPP results did not show statistical significance in terms of years of teaching experience or grade level. An analysis of variance was conducted using a one-way ANOVA to compare teachers’ mindsets on the accumulated skills-based and contextual-based literacy subscales with the length of their teaching experience. We found no statistical significance with either subscale of these two ways of understanding reading development and its instruction based on teachers’ years of experience. A one-way ANOVA was used to compare teachers’ experiences at various grade levels (respondents with experience in either Kindergarten-grade 4 or experiences in grades 5 and above), with similar results. Our statistical findings show there was less of a dichotomy than we might have anticipated based on current dialogue about reading in school. This finding is particularly salient given the present-day discourse prompted by reports and media pointing towards what they identify as the superiority of skill-based approaches and recent changes in curriculum that represent these approaches (Gear, 2021; Routman, 2023). It contrasts with Giles & Tunks’ study (2015), whereby teachers with similar years of experience favoured either skills-based or contextual-based approaches, which the researchers ascribed to the prevalent pedagogical views when they were first trained in their teacher educator programs.

The teachers in this study appeared to embrace aspects of both approaches in their pedagogy. This is important because it suggests that the teachers demonstrated a nuanced approach to teaching reading, one that recognizes that science is always evolving (Tierney & Pearson, 2024). Seidenberg (2013), as referenced in Alexander (2020), thoughtfully articulates this approach, indicating that reading does not begin or end with phonics or whole-word instruction, and that reading is viewed as broader and more complex than might be suggested by recent media depictions of reading science. Through an analysis of individual responses and across responses to three open-ended questions on the survey, we viewed further elaboration of teachers’ mindsets and identified key themes about what teachers are most confident and challenged about in teaching reading. We also gained insight into the role of PD in teacher mindsets about reading. The open-ended questions posed on the LAPP survey were:

- What are you most confident about in teaching reading?
- What are your challenges in teaching reading?
- What education, practices, resources, or professional development have been the most significant to you and your literacy instruction?

We found that teachers showed high levels of confidence in teaching the foundational areas of literacy—phonological awareness, phonics, vocabulary, and comprehension. They also relayed confidence in creating language-rich environments, supporting high expectations, and promoting student engagement in learning. Teachers identified the areas of student success and student engagement as providing them with high levels of self-efficacy and excitement.

Teachers identified their greatest challenges as meeting varied learner needs and classroom complexities, organizing for instruction, structuring effective intervention for struggling readers,

and finding sufficient time to support students most in need. Although our PD sessions emphasized foundational reading skills, teachers frequently used discussion periods to raise concerns about the increasingly politicized climate surrounding reading instruction—particularly mandates promoting specific programs or materials and the perception that certain skill-based approaches were being imposed. These concerns were openly addressed within PD, underscoring teachers’ desire for professional learning that not only strengthens instructional skill but also acknowledges the broader sociocultural and political contexts in which they work. This aligns with recent scholarship noting that teachers are navigating literacy debates shaped by public discourse, advocacy pressures, and policy agendas (Aukerman, 2022; Reinking et al., 2023), pointing to the need for PD that attends to both instructional practice and contextual realities.

Perceived self-efficacy and the perceived direction of literacy instruction—in their school divisions and their provinces, as well as media coverage about reading—all affected their confidence and challenges in teaching reading. Teachers with more experience (11 years or more) were less challenged with the varied learning needs of students and providing intervention strategies, which might be expected and suggests the value in pairing novice teachers with experienced teachers in schools for mentorship. With regards to the question about what has been most significant to teachers’ understanding of reading and its instruction, opportunities for PD provided by their school divisions were referenced as having the greatest impact on them and their practice.

Pre- and Post-Interview Results

The pre- and post-interviews with teachers were conducted and analyzed, and the results are consistent with those from the LAPP survey, with some notable exceptions. Eight teachers participated in the pre-interviews in the fall of 2023 and the post-interviews in the spring of 2024, ranging in teaching experience from three to twenty-two years. Our analysis identified four major themes in the interviews. We refer to these as the ‘4-Ps of Teaching Early Reading.’ These are: 1) passion, 2) purpose, 3) pain, and 4) promise.

The teachers spoke passionately about wanting to see each of their students become readers, and interestingly, they all spoke about being ardent readers themselves. Each of the teachers valued reading for the role it plays in their own lives and wanted the same for their students. The teachers’ attitudes towards teaching reading epitomized the phrase, ‘when I know more, I do better,’ and they shared that they found purpose in the work they did in teaching their students not only how to read, but also in developing the motivation for and love of reading. They appeared to be guided by this ‘purpose’ in seeking PD for themselves, through working collaboratively with colleagues, and by being intentional in their instruction. The interviews revealed the “pain” and challenges associated with teaching early reading. They mentioned the lack of clear instruction at the post-secondary level for reading instruction, but acknowledged that they themselves often ‘guarded’ their ELA teaching when supervising student teachers, contributing to the problem of helping new teachers learn to teach reading in their practicum experiences. They discussed the problems caused by teacher turnover; for instance, they mentioned losing colleagues due to cuts in funding, reassignments, relocations, attrition, and leaves (mental health and maternity were both mentioned). The three most important aspects the teachers said caused pain were lack of time, lack of resources, and class dynamics. These areas of concern were also observed in responses to the open-ended questions on the LAPP survey, pointing to the need for politicians to more fully address classroom complexity, time for teachers to plan instruction, and more support from paraprofessionals in the classroom. A common lament was, “I do need to

read more one-on-one with my students. I just need to find time.” These finding replicates those from Chambers Cantrell & Hughes (2008), who concluded “in this study, the greatest barrier to improved efficacy was time—time to teach, time to collaborate, and time to learn” (p. 122). The teachers also discussed the importance of accessing resources that meet students’ needs. One teacher commented, “I would love to have more money to buy books that I know my students would like to read.”

Seven of the eight teachers mentioned how classroom dynamics affected both the quantity and quality of their instruction: two factors identified by Shanahan (2023) as essential to impacting reading development. “The dynamic changes everything, because I have different students in attendance each day,” “more and more, I have children who don’t speak English,” and “it is only me in the classroom and I want to work with some students who are really stuck on a skill but others are ready for more challenging reading and that’s hard” are typical of the kinds of situations that the teachers discussed in their interviews.

Lastly, the theme of ‘promise’ emerged particularly from the post-interviews. By promise, teachers talked about the value of PD, collaboration with colleagues, receiving support from their school administration, and maintaining a positive outlook when teaching reading. Research tells us that ongoing PD and support are crucial to ensuring that all teachers know how to implement excellent literacy instruction (Snow, Griffin, Burns, and the NAE Subcommittee on Teaching Reading, 2005). Shanahan (2024) identifies key aspects of professional development that need to be addressed in order to be effective in impacting student learning. These include the following: 1) PD leads to teacher learning and improvements in practice, 2) PD leaders are knowledgeable about research-informed practices, 3) teachers are empowered and supported in their efforts to implement PD, and 4) PD in one area does not weaken strengths in other areas of literacy.

Though the interview sample was small, these themes align with prior research and illustrate the contextual factors shaping teacher mindsets. These comments did not always map directly onto the LAPP subscale categories because teachers focused on the practical and emotional realities of their work. Allowing this flexibility was important for documenting teachers’ authentic perspectives.

The most striking finding from this study is the lack of polarization in teachers’ responses. Unlike U.S.-based studies, where teachers often aligned with one philosophical stance, teachers in this Canadian sample showed blended orientations. This may reflect:

- less politicization around reading instruction in Canada (though signs of polarization are emerging)
- evolving provincial curricula that integrate both structured skills instruction and broader literacy practices
- longstanding Canadian commitments to balanced literacy frameworks

Teachers’ resistance to polarized categorization suggests that, in practice, they do not view reading instruction as a binary choice. Teachers may be drawing on varied knowledge sources to make instructional decisions in complex classrooms.

This mindset is similar to that articulated by the researcher, P. David Pearson, who considers himself in the ‘radical middle’ between the skills-based (what he terms phonics) and the contextual-based (what he terms whole language) reading camps. The binary nature of the current reading discourse does not appear to dominate these teachers’ mindsets about reading and its

instruction. Indeed, this discourse is not serving students, and teachers appear to know this and avoid it in their practice.

Hattie (2017) identified a list of factors related to student achievement, and ‘collective teacher efficacy’ is listed as the top influence on ‘what works best in education.’ The recent curriculum changes do not appear to be one of the factors that impacts teachers’ mindsets and efficacy as evidenced in their interviews, although it could be argued that teacher confidence in addressing the components of reading (phonemic awareness, phonics, fluency, vocabulary, and comprehension) could be affected by changes to the curriculum, particularly in Alberta, which identify these as ‘organizing ideas.’ Indeed, if teachers adopt either, but most likely both of these approaches, changes to curriculum do not account for predicting how well students will learn to read. Instead, teacher knowledge about how reading acquisition occurs in children (the science of reading acquisition), along with an understanding of what constitutes a comprehensive research-informed reading/literacy instruction program (the art of teaching reading), seems to account for teachers’ efficacy. Equally important, these mindsets—embracing both the science *and* art of reading—can be strengthened through high-quality PD and division support.

Conclusions

Our findings indicate that the impact of teacher mindsets in teaching reading in K to grade six classrooms cannot be overestimated. Our data suggest that teacher mindsets are influenced by knowledge of both skills-based and contextual-based approaches, and that this knowledge may relate to perceived efficacy. However, the study design does not allow us to establish direct causal links between knowledge levels and self- or collective efficacy. Further research is needed to explore this relationship more explicitly.

Teacher mindsets and their actual and perceived knowledge often mix to produce a teaching practice. If teachers' daily teaching practices are filtered through the belief that they can do very little to influence student achievement, then it is likely these beliefs will manifest in their practice (Donohoo, 2016). If a classroom teacher understands the science behind how a child acquires reading ability, and if that understanding culminates in teaching methods that are predictably known to be effective—even when challenges come to bear on the teaching process—classroom teachers can be confident that what they know and do will produce reading achievement in their students.

The role of resources was important to teachers in how they teach reading. On this front, teachers appeared to be open to using a variety of resources and indicated they used Heggerty, UFLI, Jolly Phonics, LETRS, and Secret Stories, to name a few. Teachers themselves indicated that they needed more support in the areas of meeting a variety of learner needs, addressing learning complexities, organizing for instruction, and having more time to support students most in need, and this is where school divisions can make a difference. Teachers overwhelmingly identified PD as the strongest influence on their developing understanding of reading instruction. With approximately 400 teachers attending PD across divisions in this study, this finding is consistent with research demonstrating that sustained, collaborative PD enhances teacher confidence and shared instructional vision.

This can be achieved by partnering with PD leaders and researchers, providing opportunities for teacher collaboration, and offering in-class coaching (Audisio et al., 2023). By understanding the differences among instructional studies, observational studies, and research that utilizes one approach and attempts to generalize results, we can “avoid overconfidence, selective memory, lack

of systematicity, lack of reliable evidence, incorrect causal attribution, and the narrowness of individual experience” (Shanahan, 2018, para. 6). Likewise, building confidence (and having confidence) in teachers—through knowledge acquisition or trust in their professional judgement—empowers them to try new ideas they’ve learned through effective and ongoing PD. This bolsters confidence, raises teacher self-efficacy, and creates a culture where solutions to difficult learning situations in teaching beginning reading can be found.

Limitations of this study, including the small interview sample, the one-time administration of the LAPP, and the dual researcher–facilitator role, suggest the need for cautious interpretation. Nonetheless, the study provides valuable insights into teachers’ strengths, challenges, and instructional reasoning. Teacher comments about areas such as classroom complexity, resource constraints, and contextual realities offer important contributions to understanding literacy instruction, even when not directly tied to LAPP constructs.

Future research should explore how teacher mindsets evolve over time, how PD influences changes in instructional practices, and how policy shifts affect teacher efficacy and beliefs. Comparative studies between Canadian and U.S. contexts may further illuminate the role of national literacy cultures in shaping teacher orientations. Additional research could also examine how mandated programs interact with teacher knowledge, particularly when district budgets or ministry directives constrain teacher autonomy.

It has to be acknowledged that when it comes to teaching reading, the research is clear about some things, but our knowledge continues to develop and evolve. It is imperative that we remain open to new understandings that will guide teachers in making the best instructional decisions for their students.

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