



Curriculum, Professional Development, and Leadership: The “Pillars” in Action at a Rural Elementary School Working to Improve Reading Instruction

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Abstract: This study explores a school-based professional development (PD) partnership between elementary educators at a rural school in eastern Colorado and literacy researchers from a large flagship university. The partnership emerged during a distinctive moment in elementary reading policy, characterized by statewide top-down policy mandates connected to a body of research known as the Science of Reading (SOR). This study examines the research question: How do administrators, researchers, and teachers partner in revising instruction to implement SOR-inspired, state-mandated practices for teaching reading? Drawing on a range of theoretical traditions, including critical perspectives on policy and practitioner inquiry, I engaged in qualitative data collection and analysis across several data sources. Findings demonstrate how directing analytic attention toward organizational factors can resist deficit narratives about teachers and illuminate possibilities for more agentic positioning of teachers. This study has implications for future inquiry into the implementation of SOR policy, elucidating how a systems-level view of efforts to improve instruction can honor teachers’ agency, knowledge, and desire to grow their practice.

Keywords: Science of Reading; professional development; literacy; education policy

Currículo, desarrollo profesional y liderazgo: Los “pilares” en acción en una escuela primaria rural que trabaja para mejorar la enseñanza de la lectura

Resumen: Este estudio explora una alianza de desarrollo profesional (DP) basada en la escuela entre educadores de educación primaria de una escuela rural del este de Colorado e investigadores en alfabetización de una importante universidad pública de referencia. La alianza surgió en un momento particular de las políticas de lectura en la educación primaria, caracterizado por mandatos estatales de implementación vertical vinculados a un cuerpo de investigación conocido como la *Science of Reading*. Este estudio examina la siguiente pregunta de investigación: ¿Cómo colaboran administradores, investigadores y docentes para revisar la enseñanza e implementar prácticas de enseñanza de la lectura inspiradas en la *Science of Reading* y exigidas por las políticas estatales? Basándome en diversas tradiciones teóricas, incluidas perspectivas críticas sobre las políticas educativas y la investigación de la práctica profesional, llevé a cabo la recopilación y el análisis cualitativo de datos procedentes de múltiples fuentes. Los hallazgos muestran que dirigir la atención analítica hacia factores organizacionales permite resistir narrativas deficitarias sobre el profesorado y poner de relieve posibilidades para posicionar a los docentes de manera más autónoma y protagónica. Este estudio tiene implicaciones para futuras investigaciones sobre la implementación de políticas relacionadas con la *Science of Reading*, al esclarecer cómo una perspectiva sistémica de los esfuerzos por mejorar la enseñanza puede reconocer y valorar la agencia, los conocimientos y el deseo de desarrollo profesional del profesorado.

Palabras clave: *Science of Reading*; desarrollo profesional; alfabetización; política educativa

Currículo, desenvolvimento profissional e liderança: Os “pilares” em ação em uma escola rural de ensino fundamental que busca melhorar o ensino da leitura

Resumo: Este estudo explora uma parceria de desenvolvimento profissional (DP) baseada na escola entre educadores dos anos iniciais de uma escola rural no leste do Colorado e pesquisadores da área de alfabetização de uma grande universidade pública de referência. A parceria surgiu em um momento particular das políticas de leitura para os anos iniciais, caracterizado por mandatos estaduais de implementação de cima para baixo associados a um corpo de pesquisas conhecido como *Science of Reading*. Este estudo examina a seguinte questão de pesquisa: Como gestores, pesquisadores e professores colaboram na revisão das práticas de ensino para implementar abordagens de ensino da leitura inspiradas na *Science of Reading* e exigidas por políticas estaduais? Com base em diferentes tradições teóricas, incluindo perspectivas críticas sobre políticas educacionais e investigação da prática profissional, realizei coleta e análise qualitativa de dados a partir de múltiplas fontes. Os resultados demonstram que direcionar a atenção analítica para fatores organizacionais pode resistir a narrativas deficitárias sobre os professores e evidenciar possibilidades para um posicionamento mais autônomo e agente dos docentes. Este estudo traz implicações para futuras investigações sobre a implementação de políticas relacionadas à *Science of Reading*, ao esclarecer como uma perspectiva sistêmica dos esforços para melhorar o ensino pode reconhecer e valorizar a agência, os conhecimentos e o desejo dos professores de desenvolver sua prática.

Palavras-chave: *Science of Reading*; desenvolvimento profissional; alfabetização; política educacional

Curriculum, Professional Development, and Leadership: The “Pillars” in Action at a Rural Elementary School Working to Improve Reading Instruction

The Science of Reading (SOR) is an ever-expanding “multidisciplinary body of scientifically based research about reading” (The Reading League, 2021) that has inspired reform across the United States (Peak, 2024). In addition to informing state policy, the SOR has been the focus of media reports (Hanford, 2022) and public discussions that often evoke a sense of crisis in reading education (MacPhee et al., 2021) and can problematize educators’ knowledge and practice (Hoffman et al., 2020; Wetzel et al., 2020). The SOR can thus be understood as a body of research whose impact extends into reform and rhetoric. SOR research, reform, and rhetoric shape the experience of teachers and administrators in schools seeking to improve instruction.

This study explores one such school, an elementary school in rural Colorado, and its journey toward implementing SOR-aligned, state-mandated practices for teaching reading. Research has long attested to the centrality of factors like PD, curriculum, and leadership in school reform efforts (Carlisle et al., 2011; Penuel et al., 2007), with Woulfin and Gabriel (2020) aptly describing such factors as pillars in an infrastructure for improving reading instruction. In this qualitative study, I explore how administrators, researchers, and teachers sought to implement SOR-aligned instruction in their building, with an eye toward PD, curriculum, and leadership, rather than teachers’ personal levels of content knowledge. By conceptually framing this study around system-level considerations rather than individual teachers, I aim to interrupt the critiques of teachers that often accompany SOR rhetoric and position teachers as to blame for supposed failures in reading education (Wetzel et al., 2020). Toward that goal, I examine the following research question: How do administrators, researchers, and teachers partner in revising instruction to implement SOR-inspired, state-mandated practices for teaching reading?

The school in this study, East Bridge Elementary (EBE, a pseudonym), is the site of a multi-year PD partnership between university-based researchers and elementary educators and administrators. To situate EBE’s instructional improvement efforts within the SOR policy landscape, I begin with a review of the literature before summarizing guiding theories. I also provide context about the school, the ongoing PD partnership, and participants. I then overview methods for data collection and analysis. Next, I describe findings related to each pillar in the infrastructure for improving instruction: PD, curriculum, and leadership. The discussion presents implications in terms of how findings from this school relate to larger, unique features of the SOR policy context. Finally, I offer some concluding thoughts about the affordances of attending to PD, curriculum, and leadership in future studies of instructional change. At the heart of this study is the imperative to more intimately understand practitioners’ experience with the SOR. Doing so is significant because (a) it represents an opportunity to learn about SOR policy from those who are most proximal to the policy itself and (b) it can illuminate possibilities for resisting deficit framings of teachers and students.

Review of the Literature

In this section, I situate my analysis within two main areas of the literature, both of which inform my inquiry regarding how PD, curriculum, and leadership figured into EBE’s process of enacting SOR-inspired, state literacy policy. First, I define the SOR and provide an overview of its role in elementary reading policy, including Colorado’s SOR law. Then, I synthesize voices in the field that have examined how the SOR, media representations of the SOR, and SOR-inspired policy

have produced distinct narratives about teachers, which form the backdrop of EBE's attempts to improve reading instruction.

Elementary Reading Policy and the SOR: A Brief Overview

SOR studies extend back multiple decades (e.g., Ehri, 1987) and often use scientific methods to identify which cognitive skills are relevant to reading, without always explaining how or when to teach them (Jensen, 2021; Seidenberg et al., 2020). The International Literacy Association (ILA, 2025) defines the SOR as “a convergence of accumulated and evolving findings from research regarding reading processes and reading instruction (pedagogy) and how the two are implemented across contexts that interactively bridge cultural, social, biological, psychological, linguistic, and historical bases of learning.” This definition, along with that of The Reading League (2021) mentioned previously, established that the SOR is neither a curriculum, an educational product or program, nor an instructional approach, but a corpus of scientific studies about reading development and reading instruction that has informed and inspired state elementary reading policy.

Colorado's SOR-inspired legislation, the Reading to Ensure Academic Development (READ) Act, was first passed in 2012 and updated in 2019. The READ Act updates issued two main requirements: first, that Colorado school districts adopt their reading curricula from an advisory list of state-approved programs found to be sufficiently aligned to the SOR; and second, that all K-3 public school teachers complete 45 hours of training in evidence-based techniques for teaching reading (Colorado Department of Education [CDE], 2019). With these mandates, the READ Act draws on the SOR evidence base to catalyze significant pedagogical change in Colorado classrooms. That change, according to the policy, will be observable through outcomes on assessment data such as state standardized tests or interim assessments identifying students who have a significant reading deficiency (CDE, 2023). However, the core actions mandated for schools and districts leave room for nuanced and varied application of asset-based pedagogies and humanization of teachers themselves amid the call for change.

The SOR, Policy, and Resulting Narratives about Reading and Teachers

To explore EBE's efforts to revise instruction, it is key to recognize the narratives about reading and the teaching of reading that have accompanied SOR reform in Colorado and beyond. In terms of reading itself, researchers like Jensen (2021) and Yaden et al. (2021) note that SOR studies most often operate from a positivist paradigm, erring on the side of empiricist research, which is restricted only to observable and measurable phenomena. Similarly, Vaughn et al. (2020) outline the ways in which the SOR and related policies frame learning to read as an enterprise that involves simply acquiring a set of decontextualized skills. Such a view of reading positions learners as having problems that teachers need to fix (Hoffman et al., 2021), reducing the student's role to a passive receiver of skills and the teacher's role to a rote executor of prescribed curriculum, rather than an expert in adaptive teaching. With its positivistic affiliations and skills focus, SOR reform risks painting a narrow picture of what it means to read, omitting issues like equitable, culturally meaningful, or adaptive teaching.

These assumptions about reading layer onto narratives about those who teach reading. One such narrative, circulated in the media through reports like Emily Hanford's (2018), suggests a linear, roughly causal relationship in which gaps in teacher educators' knowledge about the SOR create weaknesses in teachers' quality of instruction, which creates poor scores on standardized reading assessments (Wetzel et al., 2020). Relatedly, findings from MacPhee et al.'s (2021) study showed that media portrayals of the SOR mapped salient characteristics of a metaphorical source (war) onto a target (reading) to create the conceptual metaphor that reading is war, with the implication that educators who do not subscribe to science-based practices are enemy combatants. As these studies

illustrate, interactions between the SOR, reading policy, and media coverage can cultivate a pointed narrative about teachers, including the idea that teachers who are not knowledgeable enough about the SOR are part of the problem with reading achievement in U.S. public schools. These messages about teachers and their SOR knowledge (or lack thereof) are intertwined with, and cannot be separated from, EBE's efforts to improve reading instruction in their building. Appreciating the depth and sway of such deficit framings of teachers is therefore paramount in studying this school's journey toward instructional improvement.

Guiding Theories

To guide my study, I draw on three conceptual lenses. First, I ground this study in a question about PD, curriculum, and leadership because they are the system-level conditions that meaningfully relate to far-reaching instructional change in schools and districts (Woulfin & Gabriel, 2020). Woulfin and Gabriel (2020) called PD, curriculum, and leadership pillars in “an interconnected infrastructure for instructional improvement” (p. 109), explaining that attention to these pillars can resist the tendency in SOR debates to myopically focus on individual teachers. The first pillar, PD, contributes to system-wide improvements in reading instruction because it can build teachers' capacity to change their practice and impact student outcomes (Penuel et al., 2007). The second pillar, curriculum, is aimed toward shaping how teachers think about what they teach and how they teach through elements such as the scope and sequence of topics to be covered, how those topics will be assessed, whether and how materials represent diverse identities and communities, and more (Brown & Brown, 2015; Rasinski et al., 2009; Valencia et al., 2014). Leadership is the final pillar: school and district leaders' decisions in setting a vision for reading instruction, offering PD opportunities, and selecting curriculum shape how teachers go about their work and engage in reform efforts, including SOR reform (Coburn, 2006; Woulfin, 2015).

The second conceptual lens for this study is drawn from critical perspectives on policy, which clarify that policymaking, including the passage of SOR-inspired legislation in Colorado, is a political, and not a rational, activity (Allington, 1999). Further, these critical perspectives on policy establish the complexity of translating state policy into action at the local level. Spillane (2004) described this process as interactive policymaking, wherein local officials build their own understanding of policy in order to “decide whether to ignore, alter, or adopt policy makers' recommendations” (p. 6). To appreciate how a policy leads to change, I consider what those most connected to policy implementation (i.e., school leaders and teachers) think the policy means and requires (Hikida & Taylor, 2023; Spillane, 2002). My methodological choices reflect this priority, aiming to capture teacher and administrator perspectives on how PD, curriculum, and leadership work to support their efforts to improve reading instruction and implement SOR-aligned practices.

Finally, I draw on theories of teacher learning from practitioner inquiry. These theories complement my other conceptual lenses, illustrating that any endeavor to reform reading education, change teacher practice, and grow teacher knowledge is complex and multilayered. In their studies, researchers like Stillman & Anderson, (2015) and Zoch (2015) used practitioner inquiry to conceptualize change in schools as complex and not simply dependent on specific practices, such as test taking strategies. With practitioner inquiry as a guiding theory, I can direct my attention to practitioners' ever-evolving understanding of teaching and learning in their contexts, which includes but is not limited to the strategies used by teachers in classrooms (Cochran-Smith & Lytle, 2009). Practitioner inquiry contributes to this study a key conceptual insight, namely the recognition that changing teacher practice, improving instruction, and reforming U.S. reading education is not as simple as ensuring that a certain set of practices is employed universally in classrooms.

Instead, any reform effort, including EBE's journey toward improving reading instruction, implicitly contains a set of assumptions about what teachers know and what they do. Spurred by the tradition of practitioner inquiry, as well as critical perspectives on policy, this study seeks to interrogate such assumptions. Excavating assumptions in this way is especially important in a reform movement like the SOR, which is oriented around the core goal of making U.S. reading education better. This goal can appear to be neutral, common-sense, and "good." Yet, amid the felt "goodness" or "righteousness," pressing questions remain: How are teachers positioned in, by, and through legislation that includes mandates about teacher training and curriculum selection, and how can critical analysis ensure that SOR policies are implemented in service of equity?

To help address those questions, I turn to Cochran-Smith and Lytle's (1999) three conceptualizations of teacher learning, which hold particular salience for this study and the SOR policy landscape. Each concept is distinguishable not necessarily in terms of the methods it uses to elicit teacher learning, but in terms of the picture it paints about what it means for teachers to "know more" (i.e., knowledge) and "teach better" (i.e., practice; Cochran-Smith & Lytle, 1999, p. 249). The first conceptualization, called *knowledge-for-practice*, assumes that there is a formal knowledge base about how to teach well that is produced through traditional scientific methods and must be made accessible to teachers through pre-service teacher education and in-service PD (Cochran-Smith & Lytle, 1999). In contrast, the second conceptualization of teacher learning, *knowledge in practice*, assumes that what teachers need to know to teach well can be located within exemplary teaching practice, and that teachers learn by studying the actions and decisions of expert educators and then applying those approaches to their own practice. The third conceptualization, *knowledge-of-practice* suggests that the knowledge needed to teach well comes from teachers themselves when they conduct collective, systematic inquiries not just into the everyday work of teaching but also into larger social and political structures that shape what it means to teach and learn.

Despite its age, Cochran-Smith and Lytle's (1999) framework can be used to illustrate that there are consequences to how we conceptualize what teachers need to know to teach well. The differences between each conceptualization of teacher learning represent important and distinct answers to theoretical questions about what knowledge is, how it is acquired, and how it relates to practice. In my analysis, Cochran-Smith and Lytle's (1999) three conceptualizations served as useful heuristics for exploring EBE teachers' talk about their own learning and about how PD, curriculum, and leadership might facilitate holistic and equitable instructional improvement in their school.

Context for the Study, Participants, and Researcher Positionality

This study was conducted during the third year of a three-year PD partnership between a university-based team of literacy researchers and EBE, a rural elementary school in Colorado. The research team consisted of two teacher educators and literacy researchers who work at a large flagship research university in a metro area of the state. I am a white, cis-gender, straight teacher educator with seven years of experience in elementary classrooms, as a K-1 teacher and an instructional coach. The other member of the research team is a white, cis-gender, straight professor and former elementary teacher with more than 20 years' experience as a university teacher educator partnering with classroom teachers and students. After focusing on building relationships during the first two years of the PD partnership, our team spent the third year, 2023-2024, sustaining a twice-weekly presence at the school, working intensively with the second-grade teaching team, participating in professional learning communities and other meetings, and occasionally facilitating whole-staff PD sessions on topics identified by administrators. Throughout all phases of the partnership, from its inception to the present, the goal has been to collaborate with our teacher and

administrator colleagues at EBE to create school-embedded professional learning opportunities that support enactment of SOR-aligned instructional practices.

EBE is in a rural town of 3,013 residents about 60 miles east of our university campus (U.S. Census Bureau, 2019). The town and surrounding community experienced rapid population growth in the past five years. This growth has included more school-age children who are first- and second-generation immigrants, primarily from Mexico and Central American countries, creating a need for EBE to rapidly expand support for English Language Learners (ELLs). According to publicly available student demographic data from the 2024-2025 school year, 544 students attended EBE in the latest year of reporting (CDE, 2025), with 15.1% of those students identified as ELLs and 39% qualifying for free or reduced-price lunch. According to CDE, of the 544 total students, 312 are White, 197 are Latino, 7 are Black or African American, 4 are Asian, and 24 are Two or More Races (CDE, 2025).

The principal and four teachers who volunteered to participate in this study are women, and the assistant principal is a man (all names are pseudonyms). All participants are white, and three of the teachers—April, Theresa, and Sophie—came to teaching as a second career. All four teachers taught second grade and worked together closely on lesson planning, family communication, and other shared teaching tasks. 2023-2024 was Theresa's first year in the classroom, Sophie's fourth, April's 11th, and Kay's 20th. It was the principal's (Kristy) second year in her role and the first year for the assistant principal, Carter. The second-grade team of teachers opted in to a research component of the PD partnership, agreeing to serve as participants in this study.

A final piece of context about EBE involves how much change the school has seen since I began visiting in 2021. First, there were personnel changes each school year, including turnover in administrator roles. The school's literacy curriculum and assessment framework also changed since the inception of the partnership. Regarding curriculum, the school's literacy curriculum for whole group reading remained Houghton Mifflin Harcourt's *Into Reading*. This curriculum includes semi-scripted lesson plans for shared reading, writing, and more, but teachers' use of the curriculum varied, with some teachers following it very closely and others supplementing it. There were shifts to small group literacy curriculum when the school discontinued use of its small group guided reading curriculum but did not provide teachers with a replacement. Instead, it was up to individual teachers to plan their own lessons for a small group block the administrators called the "What I Need," or WIN Block. According to this approach to small group instruction, an entire grade level would analyze assessment data together, create skills-based groupings, and then students would visit a teacher other than their classroom teacher for 70 minutes per day, based on their needs. The goal, on the part of administrators, was for the WIN block to facilitate more intentional differentiation of reading instruction and for groupings of students to be fluid and based on children's skill profiles rather than on reading levels, an instructional tool associated with balanced literacy that they hoped to phase out. In this way, the WIN block was a new approach to small group instruction at EBE that was explicitly connected to the school's journey toward implementing SOR-aligned approaches.

Finally, the school updated its system for assessing literacy learning by adopting an assessment package called Acadience, which markets itself as aligned with the SOR evidence base. Acadience replaced EBE's former literacy assessment program. It includes a suite of subtests teachers administer to individual students and groups to track student progress on foundational literacy skills like naming letter sounds, decoding and encoding, and reading fluency. Teachers had to learn scoring rules, procedures for administering the assessment, and other nuances of Acadience at the beginning of the year.

These shifts in literacy curriculum and assessment were all connected to state SOR mandates about curriculum selection and assessment use. They also informed the focus of the PD offered through the partnership. As a research team, we partnered with our administrator and teacher

colleagues to determine PD topics by participating in meetings and having informal conversations about topics of professional learning that administrators and teachers believed would be most impactful as they sought to improve instruction and implement SOR-aligned practices in their building. Specific PD topics included: evidence-based practices for teaching high frequency words, components of a structured literacy lesson to include in the WIN block and using assessment data to create skills-based small groups.

That final PD topic, using assessment data to create skills-based groups, offers a helpful illustration of how the focus of the PD offered arose from a confluence of factors: the system-level reality that the school was piloting a new, SOR-aligned assessment, the administrators' desire for the assessment to inform a school-wide approach to creating small groups, and the teachers' eagerness for support in interpreting assessment data to make instructional decisions. Our role as researchers in shaping the PD involved being responsive to these factors and appreciating the throughline that existed between SOR state mandates, schoolwide changes that were top-of-mind for administrators, and questions of instructional decision-making that were of interest to teachers.

Methods

I drew on tools from the tradition of ethnography to capture participants' views, perspectives, and meaning making (LeCompte & Schensul, 2010). Following the ethnographic recommendation for "immersion in the field situation" (Spindler, 1997), I spent two days per week at EBE during the 2023-2024 school year, the year of the partnership during which this study was conducted. Data collection occurred consistently as I led and participated in formal and informal professional learning through the larger PD partnership, including collaborating with second grade colleagues as they enacted SOR-aligned practices, immersing myself in the everyday life of four second grade classrooms, and sitting in on committee meetings that reviewed prospective literacy curricula for the upcoming school year.

The dataset for this analysis includes three times yearly interviews with participating teachers and administrators, PD and curriculum artifacts, field notes, and audio recordings of school-embedded PD, second-grade planning meetings, lessons I co-taught with teachers, and teacher reflections on a local literacy conference. I captured field notes in the moment on a computer and used a recording device to record weekly planning meetings, school-embedded PD, co-taught lessons, teacher reflections on the literacy conference, and interviews. PD artifacts included handouts I created for whole-school PD sessions and instructional resources the participants and I developed together, such as a list of components of a SOR-aligned lesson that some teachers taped to their small group reading table for reference. I collected hard copies of these artifacts or took photos of them to store. Curriculum artifacts included CDE's publicly advisory list of state-approved reading curricula and excerpts from the teacher's manual of EBE's current reading curriculum, which I accessed digitally using the school's license. I used transcription software to transcribe all video and audio recordings.

Data Analysis

My analysis involved cyclical deductive and inductive coding processes. To discern how PD, curriculum, and leadership functioned in teacher and administrators' talk about improving instruction in their building, an initial round of deductive coding identified all moments in which participants explicitly invoked one of the system-level pillars. In other words, I first coded excerpts of transcripts, field notes, and artifacts with the purpose of categorizing textual data according to what Saldana (2015) called "descriptive codes," one for each pillar: PD, curriculum, and leadership. Toward analysis of nuances within each pillar, subsequent rounds of inductive coding resulted in

substantive categories (Maxwell, 2012), which more deeply described what participants said and did to capture their own meanings about PD, curriculum, and leadership. The following sections overview the coding scheme, first by pillar and then for substantive categories within each pillar.

Initial Coding by Pillar

In the initial round of coding, I used the general descriptive code, *PD* to tag moments where teachers spoke about professional learning experiences they had previously or desired in the future, any topics about which they wanted to learn, and/or formal trainings to which they hoped to have access. I assigned the descriptive code *curriculum* to any excerpt of textual data in which teachers or administrators discussed curriculum in general (i.e., what any literacy curriculum should do or make possible), the school's current curriculum, Houghton Mifflin's *Into Reading* (abbreviated HMH), or prospective literacy curricula to be adopted in future school years. Finally, I applied the descriptive code, *leadership*, to catalogue any moments in which teachers or administrators talked about school leaders (principal, assistant principal, grade level leads) in the EBE building. As Woulfin & Gabriel (2020) point out when enumerating leadership as one of the pillars in an interconnected infrastructure for instructional improvement, "leaders use their power, position, and agency to motivate changes in the nature and quality of reading instruction" (p. 113). Therefore, in the first round of coding, as well as the following rounds, I attended carefully to how teachers described school leaders' vision for reading instruction at EBE.

Coding within Pillars

To move from a general labeling of moments when participants invoked PD, curriculum, or leadership to more closely capturing the complexities within each pillar, I engaged two additional rounds of coding. In these subsequent rounds, I drew on Cochran-Smith & Lytle (1999)'s conceptualizations of teacher learning to generate the following codes related to PD: *knowledge*, *seeing it in action*, and *learning from each other*. I also decomposed the general *curriculum* code into the subcategories: *supplementing the curriculum*, *grade level expectations*, *differentiation*, *norming and cohesion*, and *vertical alignment*. Within the leadership pillar, I created the codes: *accountability and follow through* and *the freedom versus consistency paradox*. Table 1 defines each of these inductive codes by pillar.

Table 1

Inductive codes within PD, Curriculum, and Leadership Pillars

Pillar	Code	Explanation
PD	Knowledge	Learning by gaining access to some kind of formalized knowledge base
	"Seeing it in action" (in vivo)	Learning how to teach by watching someone else teach or by seeing certain teaching practices be applied in a real classroom setting
	Learning from each other	Learning by pooling collective knowledge and expertise OR by co-teaching
Curriculum	Supplementing the curriculum	Drawing on instructional resources external to the school's official curriculum (e.g., the popular website Teachers Pay Teachers)
	Grade level/high expectations	Maintaining high academic expectations for students and not losing sight of what "grade level" is
	Differentiation	Adjusting content to fit the needs of individual or groups of students

Pillar	Code	Explanation
Leadership	Norming and cohesion	Getting certain things to be the same across classrooms, grade levels, and the entire school
	Vertical alignment (in vivo)	Ensuring that what is covered in one grade maps well onto what is expected in the next
	“Accountability” (in vivo) and follow through	The need for leaders to ensure that teachers are doing the things asked of them.
	Freedom versus consistency paradox	The tension between on the one hand, allowing teachers freedom to do what they think is best and on the other, ensuring some practices are consistent whole-school.

Data analysis across the 2023-2024 school year revealed one set of findings related to the pillar of PD and another set of findings related to curriculum and leadership. In next sections, I overview PD findings, curriculum findings, and leadership findings in turn.

PD Findings: Knowledge and Practice in an SOR Era

In interviews, informal conversations, and other interactions documented in my data sources, a trend emerged in how teachers spoke about what they wanted from PD. Specifically, their responses consistently fell along the lines of the three conceptualizations of teacher learning introduced by Cochran-Smith & Lytle (1999): knowledge-for-practice, knowledge-in-practice, and knowledge-of-practice. I found that when EBE teachers reflected on PD and how it might improve reading instruction at their school, their responses either evoked knowledge-for-practice, with its assumption that teacher learning involves accessing a formal knowledge base, or knowledge-in-practice, with its assumption that teachers learn when they observe exemplary teaching practice. The third conceptualization, knowledge-of-practice, was much rarer, with teachers seldom discussing the need to learn through collective inquiry.

The knowledge-for-practice conceptualization of teacher learning assumes that what teachers need to know to teach well is located within a formal knowledge base, produced by traditional scientific methods, that teachers must access through teacher education or in-service PD. This way of conceptualizing teacher learning arose consistently in interviews with EBE teachers when I asked them about PD in general, what their “dream PD” might entail, and what they most wanted to learn about. For example, in the mid-year interview, when asked what would be covered in her “dream PD,” Kay said, “just best practices. Like, solid ways to do things.” This response indexed her belief in the existence of a corpus of teaching practices to which she needed be introduced via PD. Similarly, Theresa described her “dream PD” as involving, “Just more... training. I just think the more we *know*, the better than we can *do*.” With both statements, these teachers expressed a view of PD as something that could transmit to them formal, scientific findings about reading from the SOR, decontextualized from their specific classroom or students.

The second conceptualization of teacher learning that consistently emerged in teachers’ reflections on PD was knowledge-in-practice, which assumes that the knowledge teachers need to teach well resides in exemplary teaching practice, which should be observed and analyzed. The codes associated with the knowledge-in-practice conceptualization were *PL: Seeing it in action* and *PL: Learning from each other*. The “seeing it in action” phrase is drawn from Theresa’s beginning of year interview when she responded to a question about what kind of PD is most supportive. She described herself as a “hands-on person” who needs “the visual piece” of “watching a teacher in action, putting those strategies into play, sharing any knowledge that you know to be effective and

updated.” The phrase, “effective and updated” also evokes a binary that can appear in SOR policy and media coverage. Media narratives have framed the SOR as scientific, uncontestable, and righteous (MacPhee et al., 2019), while casting other methods for teaching reading as unscientific and debunked (Cox & Johns-O’Leary, 2024; Hanford, 2022; Yaden et al., 2021).

The EBE teachers suggested they could access SOR-informed methods for teaching reading by seeing them executed in real time. For example, April replied to the “dream PD” question by saying, “I want to *see* the SOR, taught. I want to *see* what it looks like from the beginning to the end” (emphasis added). With this desire for seeing “the SOR, taught,” April seemed to recognize that there was something she did not yet know or understand (the SOR) and that the way for her to know and understand it was to watch exemplary classroom practice, in real time. The teachers consistently expressed interest in “seeing it in action,” inviting me to co-teach with them or lead a lesson that showcased SOR-aligned instructional practices, such as phonemic awareness and word mapping. The teachers felt they could execute such practices by witnessing another teacher apply them in authentic classroom situations.

Seeing SOR methods in action was not the only way teachers suggested they might learn; they also recognized that teachers themselves can generate knowledge by learning from each other. For instance, in her beginning of year interview, Sophie talked about the benefits of sharing ideas and thus creating new knowledge by jig-sawing teachers’ individual strengths together: “I think learning from each other is so beneficial, everybody has their own thing. But if we all share our ideas, we’re all growing, we’re all learning.” Sophie was indexing that knowledge exists *in* practice, not just because teachers can gain practical knowledge by watching exemplary teaching, but also because they can work together to “share ideas,” engaging in deliberate inquiry into classroom practice in ways that help them learn what it means to teach well.

Curriculum and Leadership Findings: Complexities and Paradoxes

The second set of findings relate most to the other pillars in an interconnected infrastructure for instructional improvement: curriculum and leadership. Analyzing data from interview transcripts, school meeting transcripts, and field notes allowed me to identify details, complexities, and paradoxes within these pillars. Specifically, I found that when teachers and administrators reflected on the role of curriculum and leadership in improving their school’s reading instruction, their responses echoed three main themes: norming and cohesion, within-building accountability, and individual freedom versus schoolwide consistency.

Norming and Cohesion

Norming and cohesion was a code I applied to text excerpts in which EBE teachers spoke about curriculum in terms of how it could or should make some things the same across classrooms, grade levels, and the entire school. There were two areas that teachers continually emphasized as needing to be the same across the school: (a) assessment administration and scoring, and (b) tangible, concrete guidance for what to do during a literacy block, in terms of replicable instructional routines. When explaining this need for sameness, teachers used words like “cohesive,” “on the same page,” and “unified” to point to the need for schoolwide norms that would strengthen teachers’ individual and collective pedagogy.

In one example from their beginning of year interviews, Sophie and April were reflecting on schoolwide use of Acadience, an assessment package that was new to the school and was external to the school’s literacy curriculum. April lamented how under-prepared she felt to administer the assessment. Sophie echoed this concern, explicitly identifying the need for cohesion by saying, “Because we have all kinds of different grades for those [Acadience subtests] ... Because it’s going

to be graded differently, it's not going to be cohesive across [grades]." For Sophie and April, the consequence of the EBE staff not "being taught" about Acadience was inconsistency in how closely teachers followed the assessment's rules for scoring student responses. The teachers thus identified one example of what an assessment (and, by extension, a curriculum) should accomplish but was not accomplishing in their school: the creation of stable testing procedures that are replicated in the same way across grade levels to ensure that assessment outcomes are reliable, trustworthy, and comparable.

An additional area in which teachers seemed to welcome norming and cohesion involved the plan for literacy instructional blocks, in terms of replicable instructional routines that remained the same each day in an individual teacher's classroom and were the same across classrooms in a grade level. While the second-grade teachers welcomed the stated goals of the WIN-style of small group reading instruction at the beginning of the year, they began, over time, to point out what they saw as a lack of norms around what should be happening during the 70-minute block. For example, during the end of year interview, Sophie remarked,

They (administrators) gave us WIN, but they didn't say specifically, what do you do during your WIN time? You give them what they need. Okay, but that differs per each teacher's interpretation.

Similarly, in her mid-year interview, Theresa wished for an opportunity to gather with her colleagues to "focus on literacy together" to "try to piece [the WIN block] together so that it's cohesive. And then when you have kids rotating out of one group and into another, it feels like they're moving on into the next step and it feels fluid." Theresa then elaborated on the issue of alignment across WIN groups, saying, "I feel like everyone's doing their own thing, and everyone's doing great things, but it'd be good to figure out how to sync up a little better." The WIN literacy block was one initiative for improving instruction that EBE administrators hoped would push teachers toward implementing SOR-aligned teaching methods. Yet, with comments like these about how the WIN block procedure unfolded in practice, Theresa and Sophie both emphasized the variability in what was actually happening in each teacher's classroom. They appeared to view the variability as a roadblock to schoolwide instructional improvement.

Kay and April reflected on that same variability, voicing their frustrations with it. In our end of year interview, Kay lamented, "But think how little training we've had [this year]. Hugely lacking. And I feel like we're so disjointed as staff because of that too. We've not sat in a room and had a training together all year this year." In a similar exchange, Sophie described some routines and adjustments she made for her WIN block. Hearing these details about how her colleague structured this instructional time, April interjected, saying, "It's scattered! We don't even know what each other's doing." All four teachers described feeling "disjointed" and "scattered" when it came to this instructional block for which there was no curriculum and no scope and sequence, only a desire for differentiation and a vaguely expressed vision for teaching according to the SOR.

This may reflect an unintended consequence of the new WIN block structure for small group instruction. The administrators added this block to the schedule and left it up to teachers to decide what and how to teach, without providing a curriculum or norms on how instructional routines should occur across all classrooms. Although this decision communicated trust in teachers and their ability to plan and structure their own small group reading instruction, it also created a sense of lack of cohesion and a desire among teachers to create it somehow. Underpinning these concerns that may seem logistical in nature was also a sense that achieving the goal of the WIN block—providing SOR-aligned small group instruction—required things related to PD and curriculum that were not yet in place.

Within-Building Accountability and the Freedom-Consistency Paradox

Related to leadership decisions like the provision of the WIN block, I also found two themes connected to leadership: a desire for within-building accountability and the freedom-consistency paradox. To appreciate these two themes, it is important to first recognize that professional trust was a deeply held value at this school. One way school leaders expressed professional trust was affording teachers a great deal of freedom; for example, the principal and assistant principal consistently communicated that they trusted teachers to select supplementary instructional materials, adjust pacing guides, depart from the daily schedule at times, and more. At the same time, administrators experienced pressure to ensure that some practices were the same across the school, demonstrated by the desire for within-building accountability and a paradox between providing freedom and creating consistency.

When I refer to the theme of within-building accountability, I mean moments from interviews, meetings, and informal conversations in which teachers expressed the need for someone, presumably school leaders, to ensure that teachers at EBE were doing the things that they were “supposed” to do to make reading instruction better. Kay spoke to this theme somewhat directly. When I asked her to reflect on the instructional leadership at EBE, she brought up a former colleague who had moved to a nearby district and was struggling with a very involved instructional coach who sometimes shamed teachers for departing from the curriculum. “I don’t want [that] life,” Kay remarked. “I don’t want to be told what I have to teach every day and follow the script.” At the same time, though, she thought about the consistent presence of someone overseeing instruction and said, “I feel like there could be... somebody a little more involved with that.” When I asked what she meant by more involved, Kay said, “I’m talking about, just more accountability. Like how are you teaching from this [curriculum or other resource]? How are you doing this? What does this look like? We never get asked that. And I’m not afraid to share.” With this statement, Kay described one part for leadership to play in improving reading instruction at EBE: holding teachers accountable to explain their rationale for various instructional decisions.

In a similar exchange, Kay brought up another tension within leadership, explaining, “I love that Kristy (the principal) really doesn’t micromanage, she doesn’t tell us how to do things... and it’s a fine line to tow. But then, ...there are just certain teachers who have a really solid, strong mindset. But there needs to be room for flexibility. Like, there’s some people who are so rigid and stuck.” In this reflection, Kay celebrated the fact that the principal, Kristy, did not “micromanage” EBE teachers, while also pointing to a potential cost of not micromanaging, namely that the teachers with “rigid” approaches and methods who were “stuck” in their “strong mindsets” would stay that way, with no one to spur them into changing or updating their practice.

Another way of labeling this desire for within-building accountability is a freedom-consistency paradox, a code I applied to text excerpts that evoked the tensions between allowing teachers freedom to do what they think is best and ensuring some practices are consistent whole-school. Speaking directly to this tension, the assistant principal, Carter, reflected on a message he hoped to send to teachers that, “we’re going to put some structures in place. It’s going to feel uncomfortable; we’re not taking everything away. But if we’re going to be aligned, these are things that we’re going to have to do.” With this statement, Carter described the need to “put some structures in place” to ensure sameness, or cohesion, across classrooms and grade levels while also protecting the freedom and trust extended to teachers by administrators by “not taking everything away.”

The principal, Kristy, provided an additional example, elaborating,

If it’s going to benefit students, then yeah, we’re going to put systems and structures and alignment in place. Like for example, we use decodable readers, we

don't use leveled readers. Because whichever room [students] are in, we all have to agree to that because we want the experience to be equitable.

This excerpt from my conversation with Kristy encapsulates the freedom-consistency paradox. As a leader in the school, it was important to Kristy to preserve the school's core value of granting teachers the freedom to change and adjust instruction as they see fit, regardless of what others were doing. However, as she explains with the example of decodable readers, Kristy does not see that prerogative of freedom as applying universally, no matter what. Ensuring the ubiquity of certain instructional practices, such as the use of decodable text instead of leveled readers in all literacy classrooms schoolwide, is more important "because we want the experience to be equitable." The use of decodable texts and a shift away from leveled texts is also associated with larger efforts to implement SOR-aligned approaches (e.g., CDE's website on the READ Act recommends that teachers select decodable texts rather than texts that encourage guessing of words). In bringing up decodable and leveled texts, Kristy was speaking to the role played by leadership in EBE's path toward implementing SOR-aligned instruction, namely that leaders would facilitate the kinds of instructional changes necessitated by state SOR mandates while also preserving values like professional trust and freedom that were integral to the school's culture.

Discussion and Implications

The first set of findings related to PD demonstrated how EBE teachers viewed PD in terms of acquiring formal knowledge (knowledge for practice) and/or watching experts teach (knowledge-in-practice). I contend that teachers' gravitation toward these ways of understanding professional learning is deeply connected to the SOR policy landscape. Specifically, I argue that EBE teachers' perspectives on PD are indicative of and intertwined with two larger tendencies of the SOR, as a reform movement: (a) a reverence for formal, scientific knowledge, that can reproduce binaries and claims of scientific certainty; and (b) an overall restriction of what it means to be a teacher of reading. These are unique features of the SOR policy context that manifested on the ground in a partnership between administrators, researchers, and teachers working to implement SOR-aligned, state mandated practices for teaching reading.

PD: The Formal Knowledge Base, Binaries, and Claims of Certainty

As a movement, the SOR has emphasized the existence of a formal knowledge base about reading, composed of studies that use traditional scientific methods and can tend to be viewed as more "rigorous" than other methodologies (Vaughn et al., 2020; Yaden et al., 2021). My inquiry at EBE can elucidate what it looks like and sounds like when teachers and administrators have internalized this kind of reverence for formal, scientific knowledge and what such an internalization might mean for the integration of the SOR with asset-based pedagogies. Further, I argue that we, as a field and as stakeholders in U.S. reading education, must be aware of what can happen when reform and policy movements like the SOR valorize a formal knowledge base and de-emphasize other types of knowledge (constructivist, sociocultural views of knowledge, for example). Those consequences, especially in the case of this small rural school in Colorado, include the creation and maintenance of monolithic, binary categories such as effective/ineffective or scientific/unscientific.

When teachers like those at EBE conceive of professional learning or PD in terms of knowledge-for-practice, assuming that knowledge from a formal knowledge base must be transmitted to them, they are being implicated in a phenomenon associated with the SOR and the movement it has inspired (Yaden et al., 2021). In that phenomenon, contributors to the SOR, as well as the policymakers drawing upon it, tend to remain rooted in a positivistic paradigm, one that seeks

to uncover standardized, generalizable patterns about how children learn to read, using traditional scientific methods designed to ensure internal validity and facilitate causal inference (Jensen, 2021). Knowledge produced this way, via these methods and according to a positivistic tradition, is the knowledge that EBE teachers craved in their PD experiences. In my view, the issue that deserves attention is not so much that the teachers were eager for such knowledge; it makes sense that they would be, given policy mandates in Colorado and across the country that require them to acquaint themselves with the SOR evidence base and incorporate it into their teaching practice. Rather, what I want to explore is what happens when such knowledge is valorized, at what expense, and with what stakes.

As some researchers have already described, the valorization of formal knowledge, like what has occurred in the SOR movement, produces, reproduces, and maintains binary categories about scientific versus unscientific teaching practices, effective versus ineffective curriculum, and knowledgeable versus unknowledgeable teachers and teacher educators. Not only do these binaries shape how the media and the public come to frame or understand reading achievement (Cox & Johns-O'Leary, 2024), they also run counter to what science, as a discipline, is all about: being wary of certainty or absolute knowledge and reluctant to accept anything as unequivocally settled science (Yaden et al., 2021). Researchers like Yaden et al. (2021) have been exploring the SOR's epistemological affiliations and resulting penchant for projecting certainty about how children should be taught to read.

My inquiry at EBE joins this conversation, painting a picture of how this penchant for certainty comes to life in an actual school building, shaping teachers' understanding of what they need to know and how they need to teach. Thus, I argue that EBE teachers' discussion of PD and professional learning must be considered in light of this contemporary, SOR-focused moment in reading education. Teachers' discussion of PD consistently indexed the need to access formalized, scientifically produced knowledge, despite the emphasis of the larger PD partnership that framed them as key holders of expertise. I suggest that this trend in teachers' perspectives on PD is significant because it is inextricably linked to the SOR's epistemological tendencies toward binaries and implicit assumptions about the ability to establish some kind of final truth about reading instruction. To move toward a centering of equitable and asset-based instruction in reading science, we must first understand the nuanced ways in which SOR rhetoric shows up in schools like EBE and how it contributes to teachers' sense of what it means to teach reading.

Restricting What It Means to Teach Reading

Examining how PD functioned in EBE's path toward improving reading instruction made it possible to discern how another rhetorical proclivity of the SOR policy landscape manifests in a local context: the tendency to restrict what it means to teach reading. For example, when EBE teachers answered an interview question about what their dream PD would entail, many of them described being given an entry point to the formal, scientific knowledge about the "best" ways to teach reading, not learning about, for example, the multiple literacies and language practices employed by their students. What is significant about this response is both what it includes and what it leaves out. What it included, in many cases, was teachers explicitly indexing the need to learn "the science" of the SOR: the practices that have been granted the moniker "evidence-based" from this formal body of research on reading and writing development. Their responses about dream PD notably omitted other literacy topics that a reading teacher might need or want to learn about, such as biliteracy, social emotional learning and literacy, culturally responsive literacy teaching, and more, despite some teachers expressing interest in these topics in more informal interactions over time.

Reading researchers have critically examined how the SOR narrows the reading children do at school to only the kind of reading that is assessed for proficiency (Aukerman & Chambers

Schuldt, 2021). Driven by the trends and patterns that emerged through this inquiry at EBE, I suggest that the SOR might be catalyzing a similar kind of narrowing in teacher learning, positioning the reading teacher as vessel of and vehicle for evidence-based practices. Scholars in the field of literacy and reading education have flagged this same narrowing tendency and offered strategies for interrogating and resisting it. Hoffman et al. (2021), for instance, urged that literacy researchers and practitioners should expand our collective lens on the SOR to account for its impact and consequences. One such consequence, the authors advised, is the risk of “taking from teachers their ethical and moral responsibility to be knowledgeable and adaptive in their teaching of literacy” (Hoffman et al., 2021, p. 95). Regarding that responsibility, Vaughn et al. (2020) called for the movement toward SOR pedagogy to weave in principles of adaptive teaching in order to: (a) resist “homogenizing classroom practices” designed to impart a discrete set of skills to students; (b) frame reading as a sociocultural rather than a technical act; and (c) make it possible for teachers to be seen and treated as decision-makers who “capitalize on students’ strengths and resources as a means to teach reading” (p. 302).

These examples highlight a scholarly conversation that critically examines the SOR. As such, they provide valuable lenses through which to consider what happened at EBE when I invited teachers to reflect on PD and its potential to improve reading instruction in their building. In some ways, the teachers’ repeated evoking of a formal knowledge base reflects the kind of narrowing and restriction that concerned researchers like Hoffman et al. (2021) and Vaughn et al. (2020). In other ways, especially once the pillars of curriculum and leadership were folded into the analysis, the EBE teachers’ responses begin to shed light on how implementing the SOR does not always necessarily involve undermining teachers or casting them according to a deficit lens.

Curriculum and Leadership: Surveillance or Support?

In interviews, meetings, and across other data sources, when teachers talked about PD, they spoke about wanting to learn the knowledge and practices that comprise the SOR evidence base. When they talked about curriculum, they spoke about wanting norming and cohesion, sameness across the building in terms of assessment, instructional goals, and the basic schedule of a literacy block. When they talked about leadership, they spoke about wanting more within-building accountability from school leaders who might ask how and why teachers were doing certain things in literacy classrooms.

At first glance, these trends—gravitating toward formal knowledge, norming and cohesion, and accountability—resonate with the concerns raised by Hoffman et al. (2021), Vaughan et al. (2020), and Wetzel et al. (2020) about the SOR’s penchant to restrict what it means to teach reading and promote deficit narratives about teachers. The trends may also seem reminiscent of other top-down policy mandates that narrow curriculum to test-taking strategies (Zoch, 2015), impose pedagogical constraints related to high-stakes testing (Hikida & Taylor, 2023), or contradict educators’ commitments, identity, and philosophy (Stillman & Anderson, 2015). However, I suggest that EBE teachers’ reflections on PD, curriculum, and leadership reveal a distinctive local interpretation of Colorado’s SOR legislation, one in which teachers themselves see the content of the READ Act not as something to be resisted or reappropriated but embraced. Examining PD, curriculum, and leadership as pillars in an interconnected infrastructure for reading improvement revealed that when EBE teachers considered improving reading instruction in their building, (a) they had more agency regarding their practice than critics of the SOR might imagine and (b) they accepted the need to learn from the SOR evidence base without internalizing blame for students’ supposed reading failure. Together, these perspectives indicate that what happened around SOR policy implementation at this particular school was more complicated than teachers feeling surveilled by school leaders to change their instruction in ways that complied with READ Act requirements.

Rather, teachers consistently expressed enthusiastic interest in the SOR and a desire for their individual interest to be reciprocated on a school-wide, organizational level, through curriculum and leadership.

Regarding Practice: Teacher Agency and the SOR

My purpose in grounding this inquiry in Cochran-Smith & Lytle's (1999) three conceptions of teacher learning was to elevate explicit and implicit assumptions about the relationship between what teachers know (knowledge) and what teachers do (practice); these assumptions are particularly salient for considering teachers' agency in EBE's path toward improving reading instruction in their building. Regarding practice, or what teachers do with children when teaching them reading, the most notable thing about the EBE teachers in my study is that they expressed a genuine desire to understand and apply the instructional methods endorsed by the SOR evidence base and saw curriculum as a key lever for doing so. This was not a case where teachers were being duped, manipulated, or pressured into employing teaching practices with which they disagreed or believed were detrimental to children. Not only did Theresa communicate her eagerness to learn "the science" in the SOR when she evoked the knowledge for practice paradigm, she also demonstrated personal investment by saying, "I really see the value in the SOR and...even with my own kids, I can see where my youngest needs help in that area, ... and I'm excited to put it all into practice because I do think it's extremely valuable."

As a teacher and a parent, Theresa viewed the SOR's instructional foci, such as building phonological awareness skills, as essential and good for children, including her own child. She thus issued a resounding endorsement of what the SOR calls teachers to do with children in classrooms, expressing enthusiasm to "put it all into practice." I see this as an important perspective to fold into critical conversations about the SOR. Those conversations often point to the urgent and concerning risk that the SOR might encourage framing teachers, their knowledge, and their practice through a deficit lens (MacPhee et al., 2021; Wetzel et al., 2020). However, at EBE, teachers' relationship with the SOR, including their sense of its role in improving reading instruction in their building, did not entirely match the uneasy circumspection of SOR critics or critical policy analysts who warn that policies like the READ Act can disenfranchise teachers and undermine their agency in their own practice. Instead, the teachers at EBE seemed to regard the instructional methods required by state policy with a general curiosity and enthusiasm. They expressed interest in applying those methods school-wide, with the help of a curriculum that might norm the entire staff on things like assessment, instructional goals, and a shared schedule, as well as school leaders who would hold teachers accountable on norms.

Regarding Knowledge: Craving "the Science" without Accepting Blame

In addition to this enthusiasm for SOR-aligned instructional practices, I suggest that EBE teachers' perspectives on knowledge is significant because the teachers showed an eagerness for learning key insights from the SOR evidence base. Notably, this eagerness did not include any deficit framing of teachers through the suggestion that they should already know or appreciate content from the SOR. To be clear, I stand by my interpretation from the first half of this discussion about how EBE teachers' reflections on PD are intertwined with the rhetorical tendencies of the SOR movement to valorize knowledge produced through scientific methods, uphold binaries and claims of certainty, and restrict what it means to teach reading. What I am contending here is that there is something else that characterizes how teachers themselves conceptualize the knowledge they need to possess or acquire to teach reading well. Even though teachers repeatedly evoked the existence of a formal knowledge base in keeping with a knowledge-for-practice paradigm, they did not seem to

have internalized the narrative that researchers like Wetzal et al. (2020) have examined, one that maligns teachers and teacher educators for not knowing enough about the SOR.

Like their position on teaching practices and the SOR, EBE teachers' reflections on PD, curriculum, and leadership consistently illustrated a desire to learn the principles and practices that comprise the SOR that have been produced through decades of interdisciplinary research on the science of learning to read. This desire may be expected given the momentum of the SOR as a reform movement, including its prominence in media (e.g., Hanford, 2022). Significantly, though, when EBE teachers described their interest in learning more about the SOR, they recognized and spoke openly about what they saw as a gap in their professional knowledge and referenced things they did not know, without positioning themselves as struggling or failing.

When April said, "I want to learn how to do the science of reading compared to guided reading" or when another teacher asked for a handy list of what she simply called "the spelling rules," neither teacher indicated that there was something deficient about them, their practice, or their knowledge, nor were they implicating themselves in any version of the Reading Wars by coming down on the side of balanced literacy or structured literacy. Instead, they were acknowledging that there were things about teaching children to read that they did not know or understand (i.e., how to shift away from a guided reading approach and how certain rules and patterns govern English spelling) and expressing a desire to learn those things. I found that the teachers spoke of principles from the SOR evidence base with a kind of clear-eyed eagerness, one that centered not on the idea that teachers were somehow "failing" children because of what they did not yet know, but an acceptance that there was knowledge they still needed to acquire in order to grow their practice.

Like Hoffman et al. (2021), MacPhee et al. (2021), Vaughn et al. (2020), Wetzal et al. (2020) and others, I have endeavored to retain a critical lens on the kinds of impacts the SOR movement has engendered, including the circulation of a narrative that teachers do not know enough or teach well enough. When I first visited EBE during the first year of the PD partnership, I expected to find some version of this narrative alive and well at the school, perhaps manifesting as teachers' loyalty to balanced literacy or a vehement objection to any implication that teachers had somehow been teaching reading "wrong" before the passage of the READ Act. Instead, my years-long inquiry at EBE has shown me that there is more to the story. Rather than feeling constrained or maligned by the SOR and its accompanying rhetoric, teachers viewed the evidence base as something they wanted to learn so that it could animate their teaching practice, galvanized by PD, curriculum, and leadership. By examining how PD, curriculum, and leadership functioned in one school's path toward improving reading education in their building, I was able to discern complexities within teachers' relationship to the SOR and SOR policy, including nuances around teacher agency regarding their knowledge and practice.

Concluding Thoughts

Acknowledging that no school or community context is the same, this study endeavored to answer the call by Woulfin and Gabriel (2020) to foreground the systems-level factors of PD, curriculum, and leadership when studying reading instructional improvement. As described by those authors and others who have examined the SOR policy landscape (Hoffman et al., 2020; MacPhee et al., 2021; Yaden et al., 2021), adopting such a lens in scholarly work opens possibilities for adding nuance to the rhetoric often associated with SOR reform in states across the US, including Colorado. Such rhetoric can imply, for instance, that there are inherent problems with how teachers and schools teach children to read and that practitioners must be held accountable to learn and apply evidence-based methods for reading instruction (Cox & Johns-O'Leary, 2024). By examining

how the infrastructural pillars of PD, curriculum, and leadership functioned in EBE's path toward instructional improvement, this study adds complexity to such logic and offers a more asset-based, agentic view of elementary teachers of reading. Rather than being restricted or surveilled by SOR policy mandates and messages, the group of elementary teachers at EBE were drawn to the SOR, as a body of research and reform movement. They were eager for PD that would help them access the formal knowledge base at the heart of the SOR and enthusiastic about SOR-aligned curriculum and accountability-focused leadership.

This work found that teachers and administrators pursued instructional improvement in their building in ways that did not always reproduce the deficit framings of teachers that can often accompany SOR-inspired policy like the Colorado READ Act. However, the degree to which a single study can speak about how the rhetorical tendencies of the SOR unfold on the ground with local practitioners is limited. As such, a natural extension of this work is the continued investigation of PD, curriculum, and leadership in other organizational systems of various sizes: individual schools like EBE, as well as larger school communities that include tutoring or after-school services and whole school districts.

Teachers and administrators at EBE and in schools across Colorado continue to teach children to read, surrounded by media messages about their work and the pressure to comply top-down policy mandates regarding curriculum selection and teacher training. This work suggests that being situated in such a policy landscape, one that has been shown to be rife with deficit narratives about teachers (Hoffman et al., 2020; MacPhee et al., 2021; Wetzels et al., 2020), does not necessarily mean that teachers themselves feel maligned by SOR accountability measures. Rather, a systems-level view that includes PD, curriculum, and leadership can elucidate possibilities for researchers and practitioners alike to integrate the SOR, as a body of research and inspiration for reading education policy, into efforts to improve reading instruction in schools while honoring teachers' agency, knowledge, and desire to grow their practice.

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