

MISALIGNMENT WITH VALUES AND PRACTICES: A CONTENT ANALYSIS ON HOW ONE
SCHOOL DISTRICT IS IMPLEMENTING THE SCIENCE OF READING

by

Christina Jordan Fassbender

A professional paper submitted in partial fulfillment
of the requirements for the degree

of

Master of Arts

in

English Education

MONTANA STATE UNIVERSITY
Bozeman, Montana

May 2023

©COPYRIGHT

by

Christina Jordan Fassbender

2023

All Rights Reserved

TABLE OF CONTENTS

1. REVIEW OF LITERATURE4

 Science of Reading Defined.....4

 Reading Wars.....6

 Dyslexia and the Science of Reading.....7

 How SOR Impacts Students of Color.....8

 The Role of Teacher Preparation Programs10

 SOR and Inclusion.....11

2. THEORETICAL FRAMEWORK12

3. METHODS14

4. DATA COLLECTION PROCEDURES17

5. DATA ANALYSIS PROCEDURE.....21

6. FINDINGS24

 Websites24

 Curriculum Outsourcing24

 Professional Learning Outsourcing26

 Teacher Communication26

 Science of Reading Components.....28

 Teacher Interviews29

7. LIMITATIONS.....32

8. DISCUSSIONS.....33

9. IMPLICATIONS36

10. CONCLUSION.....38

REFERENCES CITED.....40

APPENDICES47

 APPENDIX A: District Newsletter48

 APPENDIX B: Teacher Interview Questions.....53

LIST OF TABLES

Table	Page
1. Timeline Table of Data Collection	17
2. Artifact Categories and Number of Codes	19
3. Codebook	24

ABSTRACT

The term “Science of Reading” (SOR) has gained increased awareness over the past couple of years and has garnered the attention of researchers, teachers, and other educational stakeholders. As a result, the definition and implementation of the Science of Reading has led to misunderstandings between research and practice. This project uses content analysis to examine how one school district defines and implements SOR using a scripted curriculum and other outsourced curricular materials despite the research behind SOR. Relying on curriculum theory as an analytic lens, this paper also examines the impacts of SOR within the studied school district to analyze whose interests are being served and silenced. By presenting first a historical account of the past reading wars, I focus on the arguments for and against SOR. Next, artifacts in the form of district and teacher communications, teacher worksheets, websites, and responses from teacher interviews are used to identify mis/alignment with the pedagogical foundations purported by leading SOR scholars. Finally, a discussion and implications are offered to detail the impact that conflicting curricular values may have on young readers as well as current and future teaching practice of reading teachers in the focal district.

Keywords: science of reading, reading instruction, reading wars, literacy, literacy teaching, scripted curriculum, content analysis, curriculum theory

MISALIGNMENT WITH VALUES AND PRACTICES: A CONTENT ANALYSIS ON HOW ONE SCHOOL DISTRICT IS IMPLEMENTING THE SCIENCE OF READING

For the past twenty years, the “reading wars” has ignited debates regarding the best way to teach reading—phonics versus whole language. For some teachers, balanced literacy resolved the reading wars because it combined both phonics and whole language (Goldberg & Goldenberg, 2022); however, after the release of the National Reading Panel’s (NICHD, 2000) review outlining five components of effective reading instruction: phonological awareness, phonics, fluency, vocabulary, and comprehension, many teachers found themselves back to explicit phonics instruction supported by “science” (Seidenberg, 2022). Despite the evolving research regarding literacy (Snowling, et. al, 2005; Seidenberg, 2017; Gabriel, 2020), especially with neuroscience, cognitive science, and curriculum development, many districts and educators find themselves once again caught in the crossfire of the latest debate within literacy education known as The Science of Reading (SOR). SOR is the latest educational buzzword to enter the “reading wars” that is becoming popularized across the media. Due to the increased attention on SOR brought forth by the NRP review and the media, the definition of SOR and the implementation of SOR is conflicting. The confusion surrounding SOR and implementation has perpetuated more distrust from teachers who continue to feel the negative effects of high-stakes testing and curriculum mandates. This has led to an unclear and undetermined definition of SOR that has districts and educators racing to find a solution to teaching students how to read (Seidenberg, 2022). For many researchers (Shanahan, 2021; Petscher et. al, 2020) the problem is not with the idea of SOR but with the implementation of SOR. Many schools have purchased scripted, one-size-fits-all curricula such as *Superkids* and *Wonders*, with the disclaimer of being

based on SOR. In fact, the widely popular and purchased curriculum *Units of Study* by Lucy Calkins, has been revised by its creator to include explicit phonics instruction. In the past, Calkins has been a leader in promoting balanced literacy. In her curriculum program *Units of Study*, Calkins focuses on the reader's interest and immersion in the act of reading rather than sounding out words. However, after recent criticism and change in some state's legislation, she has rewritten her curriculum to include daily structured phonics lessons (Goldstein, 2022).

Many educators and scholars have argued that the implementation of SOR is disconnected and misunderstood due to districts focusing on one component of SOR or deciding to purchase scripted curricula that is loosely based on SOR (Seidenberg, 2017; Shanahan 2021). Others argue that SOR deprofessionalizes teachers due to strict district and curriculum mandates and isolates students of color by dismissing their language and cultural background and experiences (Souto-Manning, 2016; Milner, 2020). The continuation of the "reading wars" and the controversy surrounding the definition and implementation of SOR has proven detrimental for researchers, practitioners, and students.

Purpose Statement

As an educator for ten years, I have worked with numerous prescribed reading curricula such as Lucy Calkins *Units of Study*, *Read 180*, and *Fusion*. I have previously served as a middle school English Language Arts teacher and AVID/Gifted coordinator and collaborator. I currently work with OCS (occupational course of study) students teaching high school English for a virtual school system in the southern US. I am also a parent of an elementary student who is using *Superkids* as their core resource for reading. I first became aware of the Science of Reading after

receiving a district newsletter outlining the implementation of SOR as part of my child's school literacy plan.

The purpose of this study is to use content analysis to study the discourses surrounding one school district's implementation of SOR. Findings will focus specifically on components of SOR that are included and excluded in promotional and parental material. A critical lens will be used to focus on which students are being served and silenced based on the pedagogical decisions made by district mandates and teacher approaches.

Research Questions

For this study, I will be focusing on the following research questions based on my research and artifacts collected.

1. How does one focal school district implement the Science of Reading?
2. Whose interests are being served and silenced within the focal school district's implementation of the Science of Reading?

REVIEW OF LITERATURE

The following section provides an overview of the research behind the Science of Reading. Using evidence and research from multiple literacy scholars, the literature review illustrates how districts and curriculum publishers misalign definition and implementation despite the research studied by researchers and practitioners.

Science of Reading Defined

The phrase the “Science of Reading” is represented as knowledge of reading and reading development, and best practices for reading instruction based on the scientific method (Snowling et al., 2005). “When you ask the experts what they mean by the Science of Reading, they describe a diverse set of research studies, including many lines of research into a wide range of topics (Heller, 2022, para 6). These topics include phonics, reading fluency, vocabulary, reading comprehension, language development (Shanahan, 2013; Seidenberg, 2017), motivation, dyslexia, digital texts, multilingual literacy (Souto-Manning, 2016), and literacies of Black students and other groups (Milner, 2013). The Science of Reading (SOR) has attracted many debates concerning the best way to teach students how to read. However, despite the amount of research dedicated to the impact of explicit phonics instruction (Dehaene, 2010; Foorman et al., 2016; Calkins, 2020) there is not a clear definition of what exactly constitutes SOR and its effectiveness. There is no agreed upon definition of SOR (Shanahan, 2021). Due to the debates between proponents of whole language versus proponents of explicit phonics, there is an unclear definition of SOR that has left many educators, districts, and parents confused (Goldberg & Goldenberg, 2022). There is a disconnect between SOR and educational practice (Seidenberg,

2017; Shanahan, 2021). One major concern due to the unclear definition of SOR is that schools reduce the actual research to a few digestible concepts which is not adequate and potentially harmful (Seidenberg, 2022). As a result, districts are leaping and purchasing at a fast rate different curriculums that are loosely aligned to SOR.

Part of the problem with the definition of SOR is the misconception of it through the media and other social and political outlets. Petscher et al., (2020) states, “The recent resurfacing of questions about what constitutes the Science of Reading is leading to misinformation in the public space that may be viewed by educational stakeholders as merely differences of opinion among scientists” (p. S267). At least 20 states have either passed or are in the process of passing government mandates related to SOR. In North Carolina, Governor Roy Cooper signed into law a bill that mandates schools in the state utilize a phonics-based approach to reading instruction (Pondiscio, 2021). Similar measures are being taken in other states that require curriculum materials grounded in SOR and require teacher preparation programs to teach SOR.

However, the issue seems not to be with the idea of SOR itself, but with school districts’ definition and implementation of SOR. For many scholars, they argue the importance of phonics instruction (Seidenberg, 2022; Shanahan, 2020). Unfortunately, researchers have found that many schools and districts that adopt SOR seem to only focus on certain components of SOR such as explicit phonics instruction (Bowers, 2021; Petscher et al., 2020). For example, one elementary school in Mississippi experienced significant growth in reading due to explicit phonics instruction. This school defined and utilized SOR with a simple formula: decoding ability x language comprehension = reading comprehension (SVR, Stroud, 2022,). Although this school in particular displayed growth in reading, it also shows how schools are choosing which

concepts to emphasize or purchasing school-wide prescribed curriculum programs to address SOR. The market is filled with curricula that is supposed to fill the academic gaps when it comes to literacy, but they vary in assumptions about what and when to teach which makes it ineffective (Seidenberg et al., 2020).

For the remainder of this paper, I will be using the definition of the Science of Reading as the components associated with SOR which are: phonics, phonemic awareness, vocabulary, fluency, and comprehension. These components are also aligned with the NRP's components issued in their review for effective reading instruction. My definition is based on how a focal school district and their use of curricular materials defines SOR. However, part of the definition is missing components specifically in terms of neurosciences, cognitive sciences, and dyslexia.

Reading Wars

The reading wars is a continued dispute over the best way to teach reading based on phonics or whole language approaches. The reading wars remain an initiative to align classroom instruction with reading research. "The reading wars of the late 20th century climaxed with the National Reading Panel's (NRP) review of reading research (NICHD, 2000) that outlined five components of effective reading instruction: phonological awareness, phonics, fluency, vocabulary, and comprehension. This led to federal legislation promoting instructional practices validated by scientific research (Goldberg & Goldenberg, 2022). The No Child Left Behind Act (2001) and Reading First (2001) were the federal government's attempts at ending the reading wars by promoting wide-spread use of instruction and curriculum that focused on "scientifically based reading research." The purpose of Reading First was to "bridge the divide between classroom instruction and reading research" (Goldberg & Goldenberg, 2022, p. 623). The

Reading First initiative gave states funds to help eliminate the reading deficit in exchange for increased reading scores. This caused teachers and districts to scramble to find a quick-fix solution to the nation's reading problem. However, this led to various criticisms and oppositions including the implementation of scripted curricula (Seidenberg, 2017; Thomas & Dyches, 2019).

Since the end of the No Child Left Behind Act in 2015, the reading wars have continued the debate between balanced literacy and phonics (Petscher et al., 2020; Yaden et al., 2021; Hanford, 2019). On one side, educators promoted balanced literacy because it pulled together teaching practices from both sides—phonics and whole language. Balanced literacy was a way to incorporate both phonics and whole language where students would be able to learn to read naturally if exposed to books (Barshay, 2020). Alternatively, other educators found that explicit phonics instruction seemed to be the way to go based on the findings released in the NRP (2001). The NRP received criticism due to the articles and findings to be grounded in theory and less in evidence and practice. As the reading wars have persisted, there has been progress in educational research and the study of reading regarding neuroscience, cognitive sciences, and curriculum development. For some districts, new state legislation has been enacted to mandate SOR into their school's curriculum (Seidenberg et al., 2020; Strauss, 2021). There have been more published authors and curricula based on SOR with an increase in investments from states to provide more funding for professional development in SOR (Goldberg & Goldenberg, 2022).

Dyslexia and the Science of Reading

According to Seidenberg (2017), science reveals that the methods commonly used to teach children how to read are inconsistent with basic facts about human cognition and development. Part of the conversation surrounding SOR is the reading impairment dyslexia: the

term refers to reading that is impaired due to the development of neural and genetic anomalies that affect this skill, a focus that excludes many other factors that can also lead to poor reading: personal characteristics, such as motivation and perseverance, and personal circumstances, such as the home, school, and community environments (Seidenberg, 2017, p. 153). The neuroscience involved and learning how the brain works, how the eyes take in written code, and the impacts of exposure to speech can tell us a great deal about how children read.

Due to the lack of teacher preparation with SOR in terms of teaching teachers the neuroscience and cognitive science involved with reading, educators are also underprepared to diagnose and provide appropriate instruction to students with dyslexia (Hoffman et al., 2020; Seidenberg, 2017). Consequently, this leads to either an over diagnosis or under diagnosis of dyslexia. In 2019, The Dyslexia Screening and Intervention Act passed the Montana Legislature. This act, in alignment with the Individuals with Disabilities Act (IDEA, 1990), establishes procedures that ensure all students with disabilities, including learning disabilities like dyslexia, are identified and evaluated for special education and appropriate services as early as possible. A screening instrument is used in identifying specific needs for students with dyslexia (Montana Dyslexia Screening and Intervention Act, 2019). With the increased attention to early intervention, districts are wanting to reach students in the early stages of reading in hopes to identify and diagnose those students to provide needed services and instruction.

How SOR impacts students of color

The Science of Reading has impacted the social and linguistic cultural aspect of students. One major impact criticizes SOR as being detrimental to bilingual, multilingual, Black, Indigenous, and other students of color (Rigess et al., 2022; Souto-Manning, 2021; Arya &

Maul, 2021; Milner, 2020; Paris, 2012). Scholars argue that SOR silences students of color and promotes the erasure of diverse language, culture, and experiences (Souto-Manning et al., 2021; Terry, 2021) as well as suggests levels of unconscious evidence of racism throughout curricula that is aligned with SOR. By concentrating on only certain concepts of SOR such as phonemic awareness, students are expected to read, write, and talk in a manner that depicts “white” English (Souto-Manning, 2021). Likewise, Share (2021) claims that SOR is just teaching students the reading of English. Other scholars have found that various curricula, particularly prescribed or scripted, display and encourage racist ideologies. These scholars emphasize the importance of a more robust and socially-just curriculum (Goldberg & Goldenberg, 2022; Share, 2021). For example, one study analyzing a scripted curriculum found evidence of white supremacist scripts that depicted erasure of people of color, promoted white authors, and course materials that used color-evasive language (Riggell et al., 2022). Similarly, another study analyzing a different scripted curriculum found evidence of various majoritarian narratives in the texts (Thomas & Dyches, 2019). These issues related to racial bias are made more precarious by the fact that scripted curricula are often mandated by school districts. As a result, teachers are confined to a strict and narrow curriculum that prohibits them from implementing a culturally just and relevant pedagogy. Milner (2013) argues that teachers who are mandated to work in the confines of scripted curricula often do not have the opportunity to plan lessons that highlight their students’ language and cultures despite the need to do so.

Programs and curricula that are under the “evidence-based” disclaimer of SOR are being published at fast rates and purchased by schools to quickly address the reading achievement issue. While many of these programs concentrate on important foundational concepts of teaching

and reading, there is evidence of inconsistent effectiveness when implemented (Brown et al., 2020; Jeffes, 2015). Hoffman et al., (2020) claims that SOR initiatives are unfounded, deprofessionalize teacher educators, and are costly. With this need to close the achievement gap, many schools and districts are opting for commercial curricula and programs. These programs are designed as teacher-proof and under the impression that, if done with fidelity, reading scores and abilities will increase. Many skeptics fear that the popularity of widely used and purchased one-size-fits-all approaches focus too narrowly on decoding (Thacker, 2010). Seidenberg (2017) also argues that “outsourcing phonics is a poor alternative to effective classroom instruction” (p. 275). These types of approaches can also interfere with teacher agency by deprofessionalizing teachers (Gabriel, 2020; Kinloch & Dixon, 2017). Hoffman et al., (2020) argues that SOR “is being used to silence the voices of literacy teacher educators and teachers rather than to invite the collective exploration of possibilities for reimagining teacher preparation, an essential part of the scientific process” (p. S255). Yet despite the need for more collaborative efforts in addressing literacy from many scholars (Seidenberg, 2022; Aukerman & Chamber Schuldt, 2021; Graham, 2020; Milner, 2020; Petscher et al., 2020; Shanahan, 2020; Bondie et al., 2019) there continues to be a clear disconnect between teachers and educational stakeholders and researchers.

The Role of Teacher Preparation Programs

Making changes to teacher preparation programs is one way to improve teaching literacy among students. Seidenberg (2013) comments that teacher preparation programs do not adequately prepare teachers in terms of understanding the actual science behind reading, but also these programs do not do enough in terms of training teachers for related development disorders such as dyslexia. He continues to say that responsibility for lack of teacher training in reading

rests with the educators who teach the teachers (Seidenberg, 2017). As a result, many teachers enter the field with little experience and knowledge in teaching reading. Along with improved teacher preparation programs (Seidenberg 2017; Shanahan 2020), it is important for teachers and researchers to collaborate with each other in terms of information and access. Teachers not only need more adequate training and tools, but they also should be given the space in literacy research to participate, examine, and analyze the information. In addition to more in-depth diagnostic work with students in terms of reading assessments, teachers need a deep understanding of reading processes and instruction (Valencia, 2004). Likewise, Terry (2021) states, “both researchers and educators should continue to become knowledgeable of the expansive research literature upon which the science of reading is founded” (p. 87). Meaning, it’s important for teachers to learn and study the research in neuroscience and cognitive science along with effective reading strategies. When teachers are given the support, tools, resources, and research, they are better able to make crucial educational decisions for their students that impact learning and instruction.

SOR and Inclusion

Another suggested change needed in terms of literacy education is inclusion of children’s’ cultural and language backgrounds as well as experiences. Advocates for culturally sustaining pedagogy call for SOR to be more inclusive of global diversity (Share, 2021; Yaden et al., 2021; Milner, 2020; Souto-Manning, 2016; Rahman, 2013; Ebe, 2012; Paris, 2012). By embracing students’ cultural and linguistic backgrounds, teachers can help provide students with instruction that supports different cultures and languages but also aids students with access to the dominant language to promote social change and reduce inequities in education.

THEORETICAL FRAMEWORK

I framed this project through the lens curriculum theory. Pinar (2004) explains that curriculum theory is the “interdisciplinary study of educational experience” (p.2) particularly looking at experience that is encoded in curriculum. As a significant component of school reform, curriculum theory examines the link between curriculum, teacher agency, student performance, and race and gender. According to Pinar (2004), “The school curriculum communicates what we choose to remember about our past, what we believe about the present, what we hope for in the future” (p. 20). Pinar argues that due to the high demands of examination-driven curricula, teachers are demoted from scholars and intellectuals to “technicians in service to the state” (p.2). Through the pressures of “accountability” imposed by political agendas and school administrators, Pinar (2004) expressed the unique concern that political socialization is replacing education. In other words, he argues that political agendas have taken over what is to be taught in schools.

Curriculum directly addresses the intersection of what is taught and its impact on certain populations, focusing specifically on the racialization of education. For Pinar (2004), understanding the current status of education calls for us to acknowledge that we are victims of displaced and deferred misogyny and racism and seeing how these two terms are still prevalent in our educational systems today. Whereas this project is less concerned with gender and misogyny, curriculum theory provides the conceptual framework necessary to investigate the ways in which SOR is communicated to teachers, students, and parents, as well as possible racial stratification inherent within the aims and structure of the curriculum.

Parts of this study examined the hidden curriculum that is prevalent in schools. Popularized by Philip Jackson (1968), the hidden curriculum deals with the ways in which knowledge and behavior are constructed through the use of course materials. In this view, the hidden curriculum shows how the process of schooling is influenced by bureaucratic and dominant ideologies. Exploring how the hidden curriculum reproduces social stratification (Giroux, 1997; Freire, 1970/2020; Pinar, 2004), we can analyze how certain curricula materials such as *Superkids*, *Wonders*, and other commercial programs integrates accessibility of knowledge and communication across class, race, and gender (Au, 2012).

METHODS

I employed a content analysis methodological approach. Specifically, I identified themes related to collected artifacts such as teacher worksheets, teacher communication, school and district newsletters, the district website, and public curriculum websites related to SOR (Hodder, 1994; Elo & Kyngäs, 2008). Using this qualitative approach allowed for opportunities to identify concepts, patterns, and inferences across different sources.

A content analysis is a method typically used for analyzing written, verbal, or visual communication messages (Cole, 1988; Krippendorff, 2004). According to Hodder (1994) the use of material culture is important for qualitative researchers who want to explore further the multiple and conflicting voices and differing and interacting interpretations between texts and meanings. In the case of my investigation, material culture was defined as teacher worksheets, teacher communication in the form of letters and emails, school district newsletters and websites, and public curriculum websites, and was used to critically examine different artifacts to understand how one focal school district implements and communicates literacy practices to students, teachers, and families. Using these artifacts, I studied how the artifacts' language, author, and context influenced accessibility and power within school systems which then influenced student learning and parent understanding of curriculum decisions.

My focal school district (K-8) began the implementation of the Science of Reading in the Fall of 2021. The district's eight elementary schools have participated in a three-year (2019-2022) professional development and curriculum and assessment plan. Part of this plan required the following: professional development using *The Reading Teacher's Top Ten Tools*, an online professional reading platform for teachers for training in reading instruction; site visits from an

outside literacy consultant; the purchase of curriculum materials *Superkids* and *Wonders*; and the *Acadience Reading Assessment*. According to a district newsletter (see Appendix B), the school district is moving toward engaging in consistent core materials (e.g., *Superkids* and *Wonders*) beginning of Fall 2021 and implementing comprehensive core literacy instruction using decodable readers, knowledge building, vocabulary, phonics and phonemic awareness, comprehension, and early intervention. As part of the implementation of SOR, the school district has decided to move away from the three-cueing system, the term “guided” reading, and leveled readers (see Appendix A).

At the beginning of Fall 2021, all K-2 elementary classrooms implemented *Superkids* as their core curriculum for reading. *Superkids* is a reading program that uses evidence-based literacy practices that provide explicit and systematic instruction through comprehension, handwriting and phonics, fluency and spelling, grammar, and study skills. Based on SOR, *Superkids* teaches the foundational skills of reading and writing. Depending on the grade level, students receive instruction that focuses on phonological and phonemic awareness, blending, decoding, and fluency. (“The Superkids Reading Program,” n.d.). The *Superkids* curriculum also provides extended learning opportunities using assessments and reports, online resources, as well as differentiation strategies for teachers.

The district launched *Wonders* in the Fall of 2022 for grades 3-5. Also aligned with SOR, *Wonders* focuses on foundational skills of reading such as phonemic awareness, phonics and decoding, and text reading fluency (“Wonders 2020,” n.d.). *Wonders* provides ready-made lessons and materials for instruction including research-based lessons in vocabulary and other language skills. This curriculum also includes leveled readers, digital tools (e.g., an online

writer's notebook) and a digital dashboard for teachers to help with planning and instruction. Ready-made lesson plans for differentiated instruction for both gifted and talented students and Tier 2 students are also included. Additionally, students can engage in social and emotional learning opportunities through a collaboration with Sesame Workshop, a nonprofit educational organization that provides an integrated approach to SEL skills within the *Wonders* curriculum. Both curricula are grounded in SOR and aim to provide teachers and students with evidence-based practices that systematically and explicitly teach literacy instruction.

DATA COLLECTION PROCEDURES

Data collected for this project began on October 29, 2021. Table 1 provides an overview of my timeline during my data collection.

Table 1. Timeline Table of Data Collection

Artifact Category	Total Number of Artifacts	Timeline of Data Collection
District Communication	2	10/29/21
Teacher Communication	8	08/25/22-1/18/23
Teacher Worksheets	14	08/25/22-1/27/23
Websites	4	08/25/22-1/27/23

Data collection began on this date because the district sent the first newsletter to families regarding literacy and curriculum implementation. I completed my data collection on January 27, 2023, with the ending date marking the end of the current mid-year grading report. My data collection process consisted of multiple artifacts that included teacher worksheets, parent communication letters and emails, district newsletters and websites, and curriculum websites. The teacher worksheets, handouts, and parent communication letters and emails were sent from a first-grade teacher. The district newsletters and websites were public documents sent from the focal school district. The curriculum websites and brochures were explicitly linked in district sent materials through newsletters and were related to the *Superkids* (Zaner-Bloser, Inc) and *Wonders* (McGraw-Hill) outlined by the school district as part of their implementation of SOR.

My data corpus contains 28 artifacts and were considered public access. These artifacts were organized into four categories: district communication, teacher communication, teacher worksheets, and websites.

District communications were all sent by the focal school district. These artifacts were a November newsletter (see Appendix A) that focused on literacy and curriculum implementation of *Superkids* and *Wonders* as core resources. Part of this newsletter provided more information and links to *Superkids* and *Wonders*, *Reading Teacher's Top Ten Tools*, and Five Literacy Accelerators for Older Students.

Teacher communication consisted of eight parent letters sent by two 1st grade teachers. These artifacts referenced weekly classroom newsletters, *Superkids*, the *Superkids* online portal, *Walk to Read* program, reading homework regarding book studies and packets to complete, and results from *Acadience Reading Assessment*.

Teacher worksheets were completed in-class or assigned for homework in 1st grade. These worksheets focused on different literacy components such as non-fiction reading passages, spelling, writing, and comprehension. Some worksheets were directly part of the *Superkids* curriculum. Other worksheets were printables from outside resources and creators (e.g., Read Naturally and Teachers Pay Teachers).

Websites were based on public access to links provided by the district that specifically referenced *Superkids* and *Wonders*. Some of the artifacts in this category also came directly from the school district website. The website identified core resources, the district's Long Range Strategic Plan, and information about the *Reading Teacher's Top 10 Tools*.

Table 2. Artifact Category and Number of Codes outlines total artifacts collected and the total number of codes associated with each artifact. These artifacts are organized into four categories: district communication, teacher communication, teacher worksheets, and websites.

Table 2. Artifact Categories and Number of Codes

Artifact Category	Total Number of Artifacts	Total Number of Codes ¹	Artifact Identification Number
District Communication	2	5-CO 5-PLO 3-PS 8-SORC	1, 2
Teacher Communication	8	8-CO 9-PS 18-SORC	3, 4, 5, 6, 7, 8, 9, 10
Teacher Worksheets	14	14- CO 3-PS 24- SORC	11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24
Websites	4	6- CO 4-PLO 1-PS	25, 26, 27, 28

Another crucial piece of data was a group interview (one session) with two teachers within the focal school district. I conducted the interview via Zoom on March 3, 2023. Both teachers currently teach English/Language Arts and have experience with using *Wonders* and/or knowledge of SOR. Teacher A is a current 8th grade teacher who teaches both Language Arts and Social Studies, but most of their teaching experience has been teaching 5th grade. Teacher A

¹ See Table 3 for code names, definitions, and examples.

holds a master's in education for grades K-8. They have been teaching for 34 years. Teacher B currently teaches 5th grade Language Arts. They also have former experience at the college level, having worked in the psychology department for 20 years. They have been working in the focal school district since 2011. For my interview, I focused on asking questions specific to their experience with training and implementation of SOR. I also asked questions that pertained to their knowledge of SOR, and their use of curricular materials aligned with SOR. I chose these two teachers due to their experience within the focal school district. Both teachers have been in the school district for more than 10 years and were able to provide experience describing the changes within the district over the years.

The last piece of data collection was keeping a personal journal for myself. This journal was used to keep track of conversations regarding SOR with other educators. I also used this journal to reflect on specific times I was notified as a parent that curriculum materials corresponding with SOR were being introduced and/or implemented. These journal entries detailed discussions surrounding *Superkids* and their online platform, parent-teacher conferences, and the introduction of the book study students would be participating in later during the semester. Although my personal journal was used as part of my data collection, by the time of my analysis, my journal became dormant as I found the journal not extensive or providing enough information for a thorough analysis.

DATA ANALYSIS PROCEDURE

To begin this content analysis, I used Braun and Clarke's (2006) six-phase framework for constructing a thematic analysis. The six-phase framework is as follows: (1) become familiar with the data, (2) generate codes, (3) construct themes, (4) review potential themes, (5) define and name themes, (6) produce a report. As addressed in this framework, the first phase was getting familiar with my data. This required me to first read all my artifacts and annotate them based on looking at the type of source. Once I annotated my data based on their source, I then organized each artifact into different categories such as teacher worksheets, teacher communication, district communication, and websites. I then went back and annotated based on content. Here I noted common themes specific to the purpose of the artifact. For teacher worksheets, I took notes based on the purpose of the worksheet. For example, one document was a teacher worksheet that focused on spelling. When analyzing district communication, I took notes on what other information was provided such as hyperlinks, definitions of terminology, statistics and other data provided, and parental resources such as school resources provided to families that pertain to SOR. The final part in completing step one required me to look at curriculum websites that provided resources such as brochures, articles, and available resources for both teachers and parents. While performing my analysis and annotation, I also took notes on how the focal school district is implementing these artifacts.

Once I became familiar with my data, I moved onto phase two which was to generate codes (Braun & Clarke, 2006). As I was analyzing my artifacts, I noted the types of artifacts I collected. For me to start generating codes, I determined where my artifacts had come from and considered the author and the source type of the artifacts. I generated codes based on curriculum

outsourcing, parental support, professional learning outsourcing, and Science of Reading components. I then created a codebook with accommodating definitions (see Table 3).

After completing and reviewing the codes, I then moved onto phase three. I reviewed my artifacts again, specifically analyzing repetitive themes and whether or not themes noticed were referenced in the school district's plan for SOR implementation or referenced in their Long-Range Strategic Plan. I compared themes found in artifacts to the district newsletter (see Appendix A) sent out to families that outlined literacy phases of implementation.

During phase four, I took notes on repetitive themes and how these themes were present in the collected artifacts. My notes documented what type of artifact, content material, dates of communication, and where and how artifacts were being released to the public.

In phase five, I took notes one last time on whether found themes coincided with the research I had reviewed about SOR. I took notes on which components of SOR were found in the artifacts and which of those were reflected in the research.

In the last phase I completed a report. This report included my initial thoughts and reflections on the type of document source and content, as well as how these documents aligned with the school district's plan for implementation. Also, my report analyzed how themes found in my research related to SOR and how the focal school district involved defines and communicates SOR to teachers, students, and families.

Table 3. Codebook

<u>Code</u>	<u>Code Name</u>	<u>Code Definition</u>	<u>Artifact Examples</u>
CO	Curriculum outsourcing	Curriculum outsourcing is any resource from an outside curriculum publisher, trademark creator/author, publishing company	Reference and context to Superkids, Wonders, printed worksheets from outside resources and/or creators, (TpT), Acadience Assessment, curriculum websites
PS	Parental support	Letters/emails from teachers, links in documents to read more information about, specific information for parents/families, resources for families/parents	Teacher letter/email, links to outside resources (articles, community events/info), parent involvement (reading/listening to student, outreach to teachers,) teacher worksheets that have family directions
PLO	Professional learning outsourcing	Any resource from an outside source specifically for teachers (PD), links/websites specifically designed for educators	Link to The Reading Teacher's Top Ten Tools, district PIR matrix (topic of professional learning, site visits from outside consultant, curriculum websites)
SORC	Science of Reading component	Resources that correspond with phonics, phonemic awareness, spelling, comprehension, grammar, fluency, writing	Spelling, phonics, phonemic awareness, comprehension, fluency, writing, grammar,

FINDINGS

The following section will respond to my first research question: How does 1 focal school district implement the Science of Reading? During this section, I will offer the district's structured implementation plan of SOR as well as the use of curricular and professional learning outsourcing.

Websites

Out of a total of 4 website artifacts collected, two were directly from the focal school district's website and two were direct links provided by the school district. One of the website artifacts was access to the district's long range strategic plan. This artifact outlined the district's measurable goals in terms of literacy. According to the district's long range strategic plan, "By 2025, 90% of all BSD7 3rd Grade Students will demonstrate grade-level reading skills by achieving a proficient score on the *Acadience* reading assessment at the end of the school year" ("BSD7 Long Range Strategic Plan," n.d.). Part of this plan also provided a table displaying each year's phase of implementation and training with the Science of Reading. The plan includes times for training and site visits from the literacy consultant (e.g., as seen in the district newsletter). Other website artifacts were explicitly linked from the district (e.g., *Reading Teacher's Top 10 Tools* and *Wonders* brochure).

Curriculum Outsourcing

Findings reveal that within the 28 total artifacts, there were 33 examples of curriculum outsourcing. I identified these artifacts as curriculum outsourcing because they were

reproducibles from another creator that were not a part of the *Superkids* curriculum. (see Appendix B). As illustrated in Table 2, teacher worksheets had the most examples of curriculum outsourcing. Teacher worksheets consisted of a total of 14 collected artifacts. Seven of the teacher worksheets were in direct correlation with the *Superkids* curriculum. Five of the teacher worksheets were printables from other online websites and/or creators while two teacher worksheets were directly from *Read Naturally*.

These worksheets were directly from the *Superkids* curriculum or were printed from another outside source from an online website and/or creator (e.g., Read Naturally and Teachers Pay Teachers). Notably, most teacher worksheets were reproducibles, focused on various components of literacy such as spelling and writing and were completed in class. Teacher worksheets that were considered homework and completed at-home also utilized curriculum outsourcing specifically from another outside reading intervention program, *Read Naturally*. These worksheets were all non-fiction reading passages and included five comprehension multiple-choice questions per passage.

Professional Learning Outsourcing

Other examples of curriculum outsourcing were evident in artifacts coded as professional-learning outsourcing for teachers. In total, there were nine examples of professional-learning outsourcing between artifacts under district communication and websites. In artifacts listed as district communication, I found five examples of professional learning outsourcing. In websites, there were four examples of professional learning outsourcing. According to the district newsletter (see Appendix A), part of the literacy implementation plan, involved training using the online professional learning program, *The Reading Teacher's Top*

Ten Tools. Another type of curricular outsourcing was the district-sponsored professional-learning via in-site visits and training from a literacy consultant. The district newsletter (see Appendix A) also mentioned the purchase of both *Superkids* and *Wonders* curriculum as well as adoption of the *Acadience Reading Assessment*.

This next section will respond to my second research question: Whose interests are being served and silenced within the focal school district's implementation of the Science of Reading? During this section, I offer my findings on teacher communication and parental involvement, the lack of diversity within the focal school district's use of SOR, how the focal school district utilizes outside resources, as well as responses from my teacher interviews.

Teacher Communication

In the artifact category of teacher communication, I collected eight artifacts. Four artifacts that were directly sent to parents via email from the teacher were collected. These artifacts introduced reading concepts and activities that students would be participating in such as the *Walk to Read* program, a book study, and focus areas in *Superkids*. Two of the four email communications specifically outlined expectations and directions for both parents and child. For example, one artifact stated, "Please listen to your child read nightly and congratulate your child on a job well done" (Artifact 4). Three out of the eight artifacts were printed letters sent home by the teacher. Again, these artifacts directly referenced literacy activities and strategies that students would be engaging with including more information about the *Walk to Read* program and the *Superkids* curriculum. For example, one email stated, "The print is read with ease with this group, and the focused reading skill is comprehension" (Artifact 6). These artifacts displayed a clear emphasis on parental involvement in terms of helping students with literacy skills.

Based on these artifacts, the publishers of *Superkids* and *Wonders* are financially benefiting due to the district spending an exorbitant amount of money on both programs. Another interest being served is that of the literacy consultant being used by the district. As another outside resource, the literacy consultant is financially benefiting for their services in terms of training and on-site visits according to the district's implementation plan. And while the purchase of *Superkids* and *Wonders* may be serving struggling readers, there is a percentage of students who are not academically benefiting from these programs due to lack of information provided by the district on how their implementation of SOR promotes enrichment and differentiation for those students who do not need a reading intervention program.

However, in terms of whose interests are being silenced, it is implied that these artifacts of teacher communication are assuming that all students have the same parental involvement. This is not the case, as teachers know that there are some students who are not getting practice with reading that research says they need (Seidenberg, 2017). In this instance, these students are being silenced when the district relies on parental support as indicated in teacher communication sent home. Teachers are also being silenced as part of the district's implementation of SOR. Based on the district newsletter (see Appendix A), it is unclear as to how the district and teachers engaged in the curriculum selection process. This was also reflected in my teacher interviews when Teacher A mentioned that they felt frustrated with the district's decision to use outside resources and an outside consultant rather than utilizing the knowledge, training, and experience of district teachers.

Science of Reading Components

Science of Reading components were evident in teacher worksheets with 24 coded instances of direct correlation with SOR. The 24 codes reflected the following SOR components: phonological awareness, phonics, fluency, vocabulary, and comprehension. Seven teacher worksheets focused on spelling, two on reading comprehension, two on writing activities, one on fluency, and one on phonics. One of the teacher worksheets was a *Superkids* workbook that covered: comprehension, handwriting, phonics, fluency, spelling, grammar, structural analysis, and drawing. These artifacts coincided with the NRP's review of the five components of effective reading strategies.

While analyzing these artifacts, I noticed the lack of diversity throughout the curricular materials. *Superkids* concentrated on phonemic awareness and phonics. The passages and worksheets assigned focused on phonemic awareness and phonics. The *Acadience* assessment is a phonics test. There was no evidence of fictional or other types of literacies such as poetry or digital texts. Also, there did not seem to be evidence of student choice or autonomy when completing the worksheets given the specific directions. When I coded certain components, I did not find other codes related to different components of SOR (e.g., critical reading or digital tools). The artifacts were mostly spelling, fluency, and comprehension. Just based on the artifacts collected, the district is focusing on phonics, fluency, and spelling. As a result, this school district is dismissing other components of reading success such as motivation, interest, and cultural literacies.

The district newsletter (see Appendix A) also contained eight examples of SOR components, describing what the focal district was moving away from and moving toward in

regard to SOR, including information again pertaining to training and site visits from an outside consultant. However, I noticed that information about the outside consultant (e.g., credentials, experience, or website) was missing despite the district saying she was a “national expert in the Science of Reading” (see Appendix A). According to the district newsletter the changes in the literacy plan were listed as points of research and important topics of clarification. The three specific literacy concepts that the district would be removing from their literacy practices included moving away from the three-cueing system, the term “guided reading,” and leveled readers. By the Fall of 2021, the school district will have moved toward the following: consistent core materials, comprehensive core literacy instruction for grades K-2, decodable readers, knowledge building and vocabulary, comprehension, assessments, and early intervention. The district newsletter stated, “The implementation of a consistent core resource will ensure all students receive high quality reading instruction grounded in the science of reading” (“BSD7 is Moving Toward,” Appendix A, p. 2)

Teacher Interviews

When asked about their definition of SOR, Teacher A defined SOR as an approach to reading that attempts to use quantitative measurements to determine student reading success; however, they noted that there is a sense of confusion about SOR among teachers. Teacher B defined SOR as a “catch-phrase.” According to Teacher B, SOR was an implementation that focuses on phonics, morphemes, etc. Teacher B emphasized that district teachers were teaching the components of SOR before, and the only difference was that now there was a name. Although Teacher B addressed that SOR contained important components, she found that calling it SOR is just repackaging from publishing companies. Teacher B specifically mentioned the use

of the term “science” was used to garner attention and respect. Yet, both teachers mentioned that they were not given any of the science or research behind SOR.

When asked how teachers were introduced and trained in SOR by their schools, Teacher A identified an “outside consultant” as their main source of introduction. Teacher A described their introduction as a whole-school teacher assembly in which an “outside consultant” was brought in to discuss SOR. They remembered being introduced to the “outside consultant” as someone who had performed magic in raising test scores for other districts, but the other districts were not named for the teachers. According to Teacher A, they felt manipulated and angry at the consultant’s approach. Teacher A mentioned that the consultant proceeded to tell the teachers that everything they learned and/or knew about teaching reading was wrong. Teacher A also noted that the consultant even criticized the university systems as not appropriately teaching new teachers how to teach reading. The consultant then had the teachers engage in various reading strategies and practices that in Teacher A’s mind was to make them feel inadequate about their knowledge of reading. Teacher B had a different experience regarding introduction and training with SOR. Teacher B did not mention a conversation with the “outside consultant;” rather, they were trained by another outside representative for utilizing the *Wonders* curriculum. During this training, Teacher B was shown pet brain scans to display the positive learning effects of SOR.

Teacher B is implementing the *Wonders* curriculum. According to Teacher B, they are expected to use this curriculum 90 minutes daily during their scheduled Language Arts time. However, Teacher B noted that there have been many times where they have had to use other outside resources because they felt *Wonders* did not provide enough instruction for students (e.g., during a lesson of finding theme, they felt that *Wonders* did a poor job of teaching students how

to find theme in a text. Instead of completing the workbook page, the teacher chose an outside text and showed their students how to find a theme). Teacher B also mentioned that although *Wonders* contains interesting topics, she felt that this curriculum lacked in incorporating culturally relevant and engaging literature texts.

The next set of questions I asked were about the teachers' own personal responses to SOR. Teacher B felt as though they were not being listened to as a professional and was frustrated with the district's decision to hire an outside consultant rather than utilizing teacher professionals who work in the school district. Teacher B argued that differentiation seemed to be a focus of implementing SOR. However, this differentiation is focused on supporting students who need more instruction in phonics. However, Teacher B noted that the district seemed to be focused on just those students who were not on reading level, which in their opinion was a small amount compared to other schools. However, they believe that it's not differentiation when all students and all schools are using the same curriculum. For Teacher B, individual schools have individual needs, so curriculum decisions and implementation should be based according to specific school needs. In Teacher B's case, *Wonders* does not meet her students' needs and they this program to be too easy.

LIMITATIONS

The present study only examined materials that were of public access from October 29, 2021, to January 27, 2023, which was the ending of the current mid-year grading report. This study did not involve classroom observations. Teacher communication and worksheets were collected from two 1st grade teachers and from 1 student. During September 2022- December 2022, teacher communication was limited because the student's core teacher was absent due to medical leave. Due to the timing of teacher schedules and the due date for this study, teacher interviews were also limited. I only interviewed 2 teachers one time.

DISCUSSIONS

Research (Seidenberg, 2016, Shanahan, 2021) indicates that SOR is not a boxed curriculum; yet this focal school district is using a boxed curriculum. According to the district newsletter (see Appendix A), it directly states, “The body of work referred to as ‘the science of reading’ is not an ideology, a philosophy, a political agenda, a one-size-fits-all approach, a program of instruction, or a specific component of instruction” (p. 1). This seems to contradict the current research of SOR and beliefs of many scholars who argue that SOR is not a curriculum that can or should be outsourced and that teaching reading requires various and all components of literacy (Shanahan, 2021; Seidenberg, 2016); not just certain components. Ironically, the focal school district notes that SOR is indeed not a “one-size-fits-all approach” however, all students in grades K-2 are using *Superkids* while all students in grades 3-5 will be utilizing *Wonders*. Again, this goes against what I’ve found in the research behind SOR which argues that SOR cannot be packaged and labeled as SOR; especially because most of the current pre-packaged curriculums are loosely based on SOR and have not been proven effective (Shanahan, 2021; Seidenberg, 2016).

In addition to utilizing a one-size-fits- all approach, the focal school district also seems to be concentrating on implementing certain components of SOR. This was evident in the focal school district’s use of a graphic illustrating the Simple View of Reading (SVR, Gough & Tunmer, 1986) in the district newsletter (see Appendix A). SVR is a formula that has two basic components: decoding x language comprehension = reading comprehension (see Appendix A, p. 4). According to this model, reading comprehension occurs only when students have both decoding and word recognition skills as well as language comprehension skills. Despite the

popularity of SVR shown to practitioners of reading, SVR narrows the concepts of reading into these two components and fails to consider updated research and progress in the understanding and teaching of reading (Duke & Cartwright, 2021). Although these components are in fact in direct correlation with SOR, many researchers claim that phonics is not sufficient and schools should work to also include other literacy practices such as implementing culturally relevant texts, language development, motivation, multilingual literacies, digital texts, and considering other social and emotional barriers that students face (Goldberg & Goldenberg, 2022; Aukerman & Chambers Schuldt, 2021; Graham, 2020; Milner, 2020; Valencia, 2004). By the focal school district narrowing reading down to just four components (e.g., phonics, fluency, comprehension, and spelling) the school district is not considering the whole child.

Through my analysis, it also appears that there is a level of deception and lack of transparency from the focal school district's definition and implementation of SOR. Even though the focal school district states they are using SOR, the district is only using some components of SOR that reflect part of the related research. As part of the implementation plan, the district failed to inform parents and community members of the financial information regarding the amount spent on curricular materials and the decision to hire an outside literacy consultant. And while the implementation plan did outline the consultant's role (e.g., training and site visits), they did not specify what type of training and site visits they would be conducting. The district's plan of SOR implementation is inconsistent with the research which again makes it questionable as to whether it constitutes as SOR. According to the research (Seidenberg, 2016; Shanahan, 2020), SOR is not a curriculum and specifically one that is not outsourced. While the district claims to

be implementing SOR, their means of using multiple outsourced materials goes against what research has argued about SOR.

It is evident that the focal school district is focused on the students who need additional support to be successful in reading by purchasing a reading intervention curriculum such as *Superkids* (e.g., to help those students, all students have to do the same work). This was also noted during my teacher interviews as Teacher B mentioned that the district seemed to only want to cater to the “lowest denominator” of students despite the district’s reading scores. According to the district newsletter, “annual data for 4th graders, as measured by the most recent four years of State Assessment data, shows that nearly 70% of our students are proficient in English Language Arts; however, this means 30% of our students don’t have the reading skills they need to be successful” (see Appendix A). The district is focusing on the 30% of students who need a reading intervention program, and yet, there is no evidence to indicate that they are providing enrichment opportunities or other materials appropriate to the 70% of proficient students. This is concerning because students who do not need *Superkids* and *Wonders* are forced to engage in rote skill and drills and may be losing opportunities for accommodations pursuant to their needs.

IMPLICATIONS

This focal school district's implementation of SOR through curricula outsourcing is perceived by teachers as negatively impacting students. By utilizing skill and drill approaches through rote memorization, explicit phonics instruction, and focus on certain components of reading, students are losing the motivation and passion for reading that research (Yaden et al., 2021; Ede, 2006) argues are important features of reading success. As noted during my teacher interviews, Teacher A found that SOR provided no depth or connection when it came to teaching reading for their students. Teacher A noted that because their students are so accustomed to a high-stake testing environment, their students are having difficulty developing purposeful reading habits that help lead to student reading success. According to research, reading comprehension demands complex cognitive skills and motivation to make meaning from text (Barber & Klaua, 2020). The systematic approach that is happening in this focal school district is causing apprehensiveness and hesitation with trying to engage and motivate students to read. The focus on curricular outsourcing also proved problematic for students learning how to read complex texts. Due to the scripted nature of *Superkids* and *Wonders*, students are not exposed to critical reading skills. Even during my teacher interview, Teacher B noted that *Wonders* did not offer complex and diverse texts. Teacher B has also noticed similar feelings with her students regarding reading. Teacher B said that her students disliked *Wonders* and found the curriculum boring. This has led to a decrease in student engagement and has also limited her ability to incorporate culturally relevant texts to support her students' interests.

Another implication suggests that this focal school's district implementation of SOR is deprofessionalizing teachers. During my teacher interview, Teacher A found that the

implementation of SOR had affected their school's culture. They argued that because of the confusion surrounding SOR, teachers were struggling with the decision to be creative and inspiring for their students or to just follow the assigned directions from the district. Both teachers throughout the interview emphasized the lack of agency they had in their classrooms with instruction and curriculum selection. According to Teacher A, they felt as though the district's implementation of SOR does not give them the ability to help students develop a love for reading. Teacher B felt similarly. Teacher B noted that SOR leaves no room for teacher autonomy and believed that the messaging given to her as a professional implied that she was not good enough despite her decent reading scores.

After analyzing this focal school's district implementation of SOR, it appears as though this school district is moving backwards in terms of teaching reading. While this school district has developed a plan for SOR implementation, the rationale and effectiveness for professional learning outsourcing and curricular outsourcing is unclear and troubling.

CONCLUSION

The history of the “reading wars” has shown us that the cycling of educational buzzwords (e.g., Science of Reading) will continue to interfere with research and practice. My study adds to this concern and illustrates the consequences of deprofessionalizing teachers and attempting to close the achievement gap by ignoring student differences. Silencing teacher and student voices is dangerous. Teacher stories of students losing motivation to read because of how narrowly reading is being defined within the curriculum reeks of a national trend to Align curriculum with standardized testing as the way to close the achievement gap. While using a prescribed, district-purchased curriculum such as *Superkids* and *Wonders*, experienced teachers felt restricted with course materials, wondering if they should follow directions or if there was space for them to be creative and attend to their students’ needs.

My study adds to the existing conversation that surrounds SOR by emphasizing how the media, public, and curriculum publishers continue to misalign the definition and research behind the Science of Reading and its application. As a result, schools continue to purchase expensive, one-size-fits-all curricula that have yet to be proven effective in hopes to close the achievement gap. Ironically, these same large purchases coexist with district deficits and teacher cuts (as indicated in my focal school district). More transparency and dialogue across school districts and communities is warranted. Future studies are needed to analyze reading assessments over time and observe classrooms during reading instruction, showing a fuller impact of prescribed curricular demands. Dialogue between educational researchers and outside literacy consultants could also help clarify rationale and the definition behind the Science of Reading. Interviews with teachers, students, and administrators could reveal disconnects and perhaps, find ways to

build collaborations across stakeholders. Additionally, the field needs more studies to examine how prescribed mechanisms to teach reading impact students, teachers, and communities.

REFERENCES CITED

REFERENCES CITED

- Arya, D., & Maul, A. (2021). Why sociocultural context matters in the Science of Reading and the reading of science: Revisiting the science discovery narrative. *Reading Research Quarterly*, 56(S1), S273-S286.
- Au, W. (2012). Epistemology and educational experience: Curriculum, the accessibility of knowledge, and complex environmental design. In Michael W. Apple (Ed.), *The Critical Social Thought Series* (p. 49). Routledge.
- Aukerman, & Chambers Schuldt, L. (2021). What matters most? Toward a robust and socially just Science of Reading. *Reading Research Quarterly*, 56(S1), S85–S103.
- Barber A. T, & Klauda, S. L. (2020). How reading motivation and engagement enable reading achievement: Policy implications. *Policy Insights from the Behavioral and Brain Sciences*, 7(1), 27–34.
- Barshay, J. (2020, March 30). *Four things you need to know about the new reading wars. The Hechinger Report*. <https://hechingerreport.org/four-things-you-need-to-know-about-the-new-reading-wars/>
- Bondie, Dahnke, C., & Zusho, A. (2019). How does changing “one-size-fits-all” to differentiated instruction affect teaching? *Review of Research in Education*, 43(1), 336–362.
- Bowers, J. (2021). Yes children need to learn their GPCs but there really is little or no evidence that systematic or explicit phonics is effective: A response to Fletcher, Savage, and Sharon (2020). *Educational Psychology Review*, 33, 1965-1979.
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101.
- Calkins, L. (2020, January 13). *No one gets to own the term “the science of reading*. Teachers College Reading and Writing Project. <https://readingandwritingproject.org/blog/no-one-gets-to-own-the-term-the-science-of-reading>
- Cassidy, J., Grote-Garcia, S., & Ortlieb, E. (2022). What’s hot in 2021: Beyond the Science of Reading. *Literacy Research and Instruction*, 61(1), 1–17.
- Cole, F.L. (1988). Content analysis: Process and application. *Clinical Nurse Specialist* 2(1), 53-57.
- Creswell, J.W & Creswell, D.J. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches*, 5th edition. Sage Publications.

- Dehaene, S. (2010). *Reading in the brain : The new science of how we read*. Penguin Books.
- Duke, N., & Cartwright, K. (2021). The Science of Reading progresses: Communicating advances beyond the simple view of reading. *Reading Research Quarterly*, 56(S1) S25-244.
- Duke, N., Ward, A. E., & Pearson, P. D. (2021). The Science of Reading comprehension instruction. *The Reading Teacher*, 74(6), 663–672.
- Dyches, J. (2018). Investigating curricular injustices to uncover the injustices of curricula: Curriculum evaluation as critical disciplinary literacy Practice. *The High School Journal*, 101(4), 236–250.
- Ede, A. (2006). Scripted curriculum: Is it a prescription for success? *Childhood Education*, 83(1), 29–32.
- Elliott, J. (2020). It's time to be scientific about dyslexia. *Reading Research Quarterly*, 55(S1), S61-S75.
- Elo, & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107–115.
- Fletcher, Savage, R., & Vaughn, S. (2021). A commentary on Bowers (2020) and the role of phonics instruction in reading. *Educational Psychology Review*, 33(3), 1249–1274.
- Foorman, B, Dombek, J., & Smith, K. (2016). Seven elements important to successful implementation of early literacy intervention. *New Directions for Child and Adolescent Development*, 2016(154), 49–65.
- Forzani, E., Afflerbach, P., Aguirre, S., Brynelson, N., Cervetti, G., Cho, B.-Y., Coiro, J., García, G. E., Greenleaf, C., Guthrie, J. T., Hain, B., Hinchman, K., Katz, M.-L., Lee, C. D., Pacheco, M., Pearson, P. D., Ross, A., Skerrett, A., & Uccelli, P. (2022). Advances and missed opportunities in the development of the 2026 NAEP reading framework. *Literacy Research*. 1-38.
- Freire, P. (2020). *Pedagogy of the oppressed*. (M.B. Ramos, Trans.) New York: Bloomsbury Academic (Original work published in 1970).
- Gabriel, R. (2020). The future of the Science of Reading. *The Reading Teacher*, 74(1), 11–18.
- Giroux, H. (1997). *Pedagogy and the politics of hope: Theory, culture, and schooling: A critical reader*. Westview Press.

- Giroux, H. (2011). *On critical pedagogy*. Continuum International Publishing Group.
- Goldberg, M. & Goldenberg, C. (2022) Lessons learned? Reading wars, Reading First, and a way forward. *The Reading Teacher*, 75(5), 621-630.
- Goldstein, D. (2022). In the fight over how to teach reading, This guru makes a major retreat. *The New York Times*.
- Goodwin, B. (2020). Cracking the reading code. *Educational Leadership*, 77(5), 84–85.
- Gough, P.B. & Tunmer, W.E. (1986). Decoding, reading and reading disability. *Remedial and Special Education*, 7, 6-10.
- Graham, S. (2020). The Sciences of Reading and writing must become more fully integrated. *Reading Research Quarterly*, 55(S1), S35–S44.
- Hanford, E. (2019, August 22). *At a loss for words: How a flawed idea is teaching millions of kids to be poor readers*. APM reports.
<https://www.apmreports.org/episode/2019/08/22/whats-wrong-how-schools-teach-reading>
- Heller, R. (2022). Taking stock of the science of reading: A conversation with Amanda Goodwin. *Phi Delta Kappan*, 103(8), 32–36.
- Hodder, I. (1994). The interpretation of documents and material culture. *Handbook of Qualitative Research*, (pp. 393-402). Sage Publications.
- Hoffman, Hikida, M., & Sailors, M. (2020). Contesting science that silences: Amplifying equity, agency, and design research in literacy teacher preparation. *Reading Research Quarterly*, 55(S1), S255–S266.
- Jaeger, E. (2019). The achievement ideology of Reading Wonders: A critical content analysis of success and failure in a core reading programme. *Journal of Curriculum Studies*, 51(1), 121–140.
- Jeffes, B. (2016). Raising the reading skills of secondary-age students with severe and persistent reading difficulties: Evaluation of the efficacy and implementation of a phonics-based intervention programme. *Educational Psychology in Practice*, 32(1), 73–84.
- Kinloch, V. & Dixon, K. (2017). Equity and justice for all. *English Teaching: Practice and Critique*, 16(3), 331–346.
- Krippendorff, K. (2004). *Content analysis: An introduction to its methodology*, 3rd edition. Sage Publications.

- McGraw Hill. (n.d.). *Wonders 2020*.
<https://www.mheducation.com/prek-12/program/MKTSP-BGA07M0.html?page=1&sortby=title&order=asc&bu=seg>
- Milner. (2013). Rethinking achievement gap: Talk in urban education. *Urban Education*, 48(1), 3–8.
- Milner, R. H. (2020). Disrupting racism and whiteness in researching a Science of Reading. *Reading Research Quarterly*, 55(S1), S249-S253).
- Montana Dyslexia Screening and Intervention Act, Publ. L. No. 20-7, Stat. 469 (2021).
https://leg.mt.gov/bills/mca/title_0200/chapter_0070/part_0040/section_0690/0200-0070-0040-0690.html
- No Child Left Behind (NCLB) Act of 2001, Pub. L. No. 107 § 101, Stat. 1425 (2002).
- Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. *Educational Researcher*, 41(3), 93-97.
- Petscher, Cabell, S. Q., Catts, H. W., Compton, D. L., Foorman, B. R., Hart, S. A., Lonigan, C. J., Phillips, B. M., Schatschneider, C., Steacy, L. M., Terry, N. P., & Wagner, R. K. (2020). How the Science of Reading Informs 21st-Century Education. *Reading Research Quarterly*, 55(Suppl 1), S267–S282.
- Pinar, W. (2004). *What is curriculum theory?* Lawrence Erlbaum.
- Pondiscio, R. (2021, April 16). *Can teaching be improved by law?* Education Next.
<https://www.educationnext.org/can-teaching-be-improved-by-law-twenty-states-measures-reading/>
- Report of the National Reading Panel: Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction.* (2000). National Institute of Child Health and Human Development, National Institutes of Health.
- Rigell, A, Banack, A., Maples, A., Laughter, J., Broemmel, A., Vines, N., & Jordan, J. (2022). Overwhelming whiteness: a critical analysis of race in a scripted reading curriculum. *Journal of Curriculum Studies*, ahead-of-print(ahead-of-print), 1–19.
- Roberts, T.A. (2021). Learning letters: Evidence and questions From a Science-of-Reading perspective. *Reading Research Quarterly*, 56(S1), S171–S192.
- Seidenberg. (2013). The Science of Reading and its educational implications. *Language Learning and Development*, 9(4), 331–360.

- Seidenberg, M. (2017). *Language At the Speed of Sight How We Read, Why So Many Can't, And What Can Be Done About It*. Basic Books.
- Seidenberg, Cooper Borkenhagen, M., & Kearns, D. M. (2020). Lost in translation? Challenges in connecting reading science and educational practice. *Reading Research Quarterly*, 55(S1), S119–S130.
- Seidenberg, M. (2022, March 17). *Efficacy, Efficiency, and Equity: The Goals of Early Reading Instruction*. [Presentation]. Montag Symposium, Atlanta Speech School, Atlanta, GA, United States.
- Shanahan, T. (2020) What constitutes a Science of Reading instruction? *Reading Research Quarterly*, 55(S1), S235-S247.
- Shanahan, T. (2021, October 28). *Science of Reading*. [Powerpoint slides].
- Shanahan, T. (2021, November 6). *What is the Science of Reading?* Shanahan on Literacy. <https://www.shanahanonliteracy.com/blog/what-is-the-science-of-reading-1#sthash.BEIIU8XK.ixpCrtat.dpbs>
- Share, D. (2021). Is the Science of Reading just the Science of Reading English? *Reading Research Quarterly*, 56(S1), S391–S402.
- Snowling, Hulme, C., & Hulme, C. J. (2005). *The Science of Reading : A Handbook*. (1st ed.). John Wiley & Sons, Incorporated.
- Souto-Manning, M. (2016). Honoring and building on the rich literacy practices of young bilingual and multilingual learners. *The Reading Teacher*, 70(3), 263–271.
- Souto-Manning, M. (2021). Righting the literacy teacher education debt: A matter of justice. *Journal of Literacy Research*, 53(4), 588–600.
- Souto-Manning, M., Martell, J., Pérez, A. Y., & Pión, P. (2021). Translanguaging as norm: Rejecting narrow and restrictive notions of reading. *The Reading Teacher*, 75(3), 339–350.
- Souto-Manning, M., Martinez, D., & Musser, A. (2022). ELA as English language abolition: Toward a pedagogy of communicative belonging. *Reading Research Quarterly*, 0(0), 1-18.
- Strauss, V. (2021, January 26). Is there really a ‘science of reading’ that tells us exactly how to teach kids to read? *The Washington Post*. <https://www.washingtonpost.com/education/2021/01/26/readingwars-scienceofreading-teaching/>

- Stroud, G. (2022, February 3). *Mississippi Shows How the Science of Reading Can Get Students Back on Track*. Rural Ed Voices Redefining Rural Education. <https://ruraledvoices.org/mississippi-shows-how-the-science-of-reading-can-get-students-back-on-track/>
- Terry, P. (2021). Delivering on the promise of the Science of Reading for all children. *The Reading Teacher*, 75(1), 83–90
- The Literacy View- Real Teachers Letting Loose. (2022, February 13). *Hear Ye, Hear Ye, Down and Dirty With Phonemic Awareness Do You Hear Me?* [Video]. Youtube. <https://www.youtube.com/watch?v=wotGDVja4og>
- The Reading First Program (n.d.). *National Center for Education Evaluation and Regional Assistance*. https://ies.ed.gov/ncee/pubs/20094038/summ_a.asp
- The Reading League. (2022). *Science of Reading: Defining Guide*. <http://www.thereadingleague.org/what-is-the-science-of-reading>
- Thomas, D., & Dyches, J. (2019). The hidden curriculum of reading intervention: A critical content analysis of Fountas & Pinnell’s leveled literacy intervention. *Journal of Curriculum Studies*, 51(5), 601-618.
- Waterford.org. (31 May 2022). *The simple view of reading: What you need to know*. Waterford.org <https://www.waterford.org/education/simple-view-of-reading/#:~:text=Simple%20View%20of%20Reading%20vs.&text=Scarborough's%20Reading%20Rope%20is%20another,language%20comprehension%20and%20word%20recognition>
- Yaden, D., Reinking, D., & Smagorinsky, P. (2021). The Trouble with binaries: A perspective on the Science of Reading. *Reading Research Quarterly*, 56(S1), S119–S129.
- Zaner-Bloser. (n.d.). *Every student a successful reader by grade 3*. <https://www.zaner-bloser.com/reading/superkids-reading-program/index.php>

APPENDICES

APPENDIX A

DISTRICT NEWSLETTER

Figure A.1 District Newsletter

How We Teach Reading In BSD7 **Artifact # 1**

Published using Google Docs 10/29/21 Learn More Report Abuse

How We Teach Reading In BSD7 November focus Updated automatically every 5 minutes

CO
curriculum outsourcing

PS
parental support

How We Teach Reading in Bozeman Public Schools



The core purpose of Bozeman Public Schools is to provide an outstanding education that inspires and ensures high achievement so every student can succeed and make a difference in a rapidly changing world community. Ensuring every student can read is an absolutely essential part of achieving our core purpose.

We are learning more about what research says about how children learn to read, how to make sure every student learns to read, and what to do when a child encounters difficulty in learning to read. The research that we're learning about and implementing is called **The Science of Reading.**

- Email from Super

↳ every week/ Friday

↳ link + attach (access)

↳ on website

- message

- updates

- board mtg

When We Know Better, We Do Better!

The reading scores of American children have remained stagnant for over 40 years! Each year, the data show only about 35% of 4th graders (measured on the NAEP) are proficient in reading. Bozeman Public Schools' annual data for 4th graders, as measured by the most recent four years of State Assessment data, shows that nearly 70% of our students are proficient in English Language Arts (Reading and Writing); however, this means 30% of our students don't have the reading skills they need to be successful. In 2019, we decided we want more for our BSD7 students!

Decades of research have concluded that reading doesn't occur

Rdy stat.

The Science of Reading

"The body of work referred to as "the science of reading" is not an ideology, a political agenda, a one-size-fits-all approach, a program of instruction, or a specific component of instruction. It is the emerging consensus from many related disciplines, based on literally thousands of studies, supported by hundreds of millions of research dollars, conducted across the world in many

> All stu. K-2 using Superkids

Guessing at words based on context clues does not aid in orthographic mapping, phonetic decoding does.

- Dr. Louisa Moats

To read more about the Science of Reading and why Bozeman Public Schools is retooling reading instruction [CLICK HERE](#).

PS sends to an apmreports.org episode "what's wrong how schools teach reading"

The Way Forward.....

The eight elementary schools in Bozeman engaged in a three-year professional development, curriculum, and assessment plan (2019-2022) that was designed to transform the teaching of reading in all elementary classrooms:

- Professional Development** - All elementary teachers engaged in a robust professional learning plan over three years (19/20, 20/21, 21/22) that involves [The Reading Teacher's Top Ten Tools](#) as well as training and site visits from a national expert in the Science of Reading, Dr. Danielle Thompson. Please note that the three-year professional learning plan began with our K-2 teachers. 3-5 teachers completed their second year of training during the 2021-2022 school year, thus the shifts noted later in the document will be more visible in our K-2 classrooms.

CO / PLO

who is Dr. Danielle Thompson?
- Curriculum** - BSD7 vetted and purchased [Superkids](#) as a common core reading curriculum based on the science of reading for all K-2 classrooms beginning in the fall of 2021. BSD7 vetted and purchased [Wonders](#) curriculum for grades 3-5. Wonders is aligned to the science of reading and will launch in the fall of 2022.

CO

> How much?

> mheducation.com
- Assessment** - BSD7 reviewed the benchmark and curriculum based assessments (CBM's) during the spring of 2021 to ensure teachers and students have access to the most efficient and effective assessments to measure and guide reading instruction. The [Acadience Reading Assessment](#) system was adopted K-5 in place of STAR Reading beginning in the 2021-2022 school year.

CO

> Is Acadience aligned w/ SOR?

If your family has been a part of BSD7 for some time you will notice some changes in how we teach reading. Listed below are some points of research and important topics to clarify as we strive to ensure high levels of literacy for all students in Bozeman Public Schools.

BSD7 Is Moving Toward.....

Consistent Core Materials: Beginning the fall of 2021 all K-2 elementary classrooms will utilize [Superkids](#) as a core curriculum resource. The implementation of a consistent core resource will ensure all students receive high quality reading instruction grounded in the science of reading.

CO

Comprehensive Core Literacy Instruction K-2: This means that grades K-2 will focus heavily on acquiring the skills to crack the code of the alphabet and associated speech sounds while building background knowledge, vocabulary, and overall language skills. In a comprehensive core curriculum, all the components of reading are taught and they are weighted based on what students need. Early literacy instruction usually takes a robust amount of time to 'crack the code.' This includes learning how the 44 speech sounds in English map to the common 80 ways to spell them. Once our students 'crack the code,' they'll take off and quickly grow their knowledge through reading, but this step cannot be forgotten and it cannot be taught in isolation of rich background knowledge, language and comprehension building.

continuum, of phonic skills, progressing from simple to complex, that will be followed throughout the K-2 years. Students will progress through the continuum as they master skills. Intermediate grades, 3-5, will continue with more advanced 'word study' that includes grammar and morphology that will ensure students can decode and understand the meaning of complex multisyllabic words.

SORC - Phonics

Decodable Readers: Early readers will be working with decodable readers. These are books or passages that include words that students can mostly 'decode' (sound-out) according to the skills they have been taught thus far. Students need practice with learning phonics skills and decodable readers are that important practice piece of the reading puzzle. Sometimes these are physical books and other times they are simply a sheet of paper with a decodable passage to practice.

SORC - VOC

Knowledge Building and Vocabulary: Research has indicated that reading comprehension is closely connected to the background knowledge we have on a topic we're reading about and by understanding the vocabulary contained in the text. BSD7 will be vetting knowledge-building language arts curriculums during the 2021-2022 school year for grade 3-5. Additionally, Superkids (K-2) has a strong knowledge and vocabulary component as a comprehensive core curriculum. Regardless of core curriculum program adoption or grade level, our students will have access to complex text, often read aloud by their teacher, and in the process and discussion of the text will gain more complex vocabulary skills. Research tells us that building knowledge and vocabulary contributes significantly to reading comprehension and should be taught beginning in the earliest grades.

CO

what's the research?

SORC - comp

Comprehension: The ultimate goal of all reading instruction is for students to understand what they read. The model of the Simple View of Reading demonstrates that reading comprehension occurs only when students have both Decoding/Word Recognition Skills and Language Comprehension Skills. Children need the essential skills to get the words off the page as well as knowledge, vocabulary, and a good understanding of how our language works in order to comprehend what they read. Targeted instruction must be provided to ensure students achieve those goals.

Simple view of Rdg vs. SOR?

what's the difference

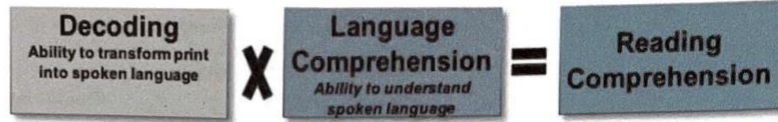
what type of assess will be used?

Assessments: All current assessments have been evaluated for their reliability and validity and if they are helping us find students early enough. In this analysis, Fountas and Pinnell reading level assessments did not meet the standards of science and as a consequence, the District is moving away from assigning a reading level, such as A, or M, or R (any level A-Z) as in the past. Students will be assessed on fine-tuned early literacy indicators that predict later reading success such as letter names, letters sounds, phoneme segmentation fluency, nonsense word reading, and oral reading fluency, depending on their grade level. The assessments are intended to measure specific skills and allow the school to target instruction specific to student needs.

SORC Phon. aware/ assess

Early Intervention: If children struggle to acquire foundational reading skills there will not be a 'wait and see' approach. This not only aligns with the science of reading and learning, it aligns with the Montana law for dyslexia. Schools will immediately implement systematic interventions and monitor student progress. The best solution to the problem of reading failure is early identification and intervention. In fact, most reading difficulties can be alleviated when found through early screenings and evidence based instructional protocols are followed.

- Parental source or link for Parents about MT Dyslexia Law?



BSD7 Is Moving Away From.....

Three-Cueing System: This is the practice of teaching kids to identify words by using a variety of strategies, and is not supported by the Science of Reading. In the three-cueing system students are taught to identify a word by deciding if it makes sense, if it would structurally/grammatically 'fit' in a sentence, or if it looks right rather than closely examining the phonics patterns in the word and sounding it out. Your child will **NOT** be taught to check the pictures to identify words or make guesses based on the first letter they see. We want students to look at every letter in the word, apply phonics knowledge, and sound words out. Everything a child needs to read a word is in the word itself!

↓
Simple
View of
Reading
(Gough + Tunmer,
1986)

The Term Guided Reading: School sites have effective intervention structures in place that allow for small reading groups for 20-45 minutes. Those have typically been referred to as guided reading groups. Guided reading will now be referred to as Walk to Reading or Go to Grow Reading. Although teachers are still 'guiding' students through reading lessons, BSD7 is choosing to distance itself from the term 'guided reading' as it is closely connected with the teaching of the three-cueing system which has been debunked by research. Students will be grouped according to a variety of factors: needs in phonemic awareness, phonics, fluency, writing projects or knowledge building.

SORC-
rdg

Leveled Readers: Your child will no longer be assigned a reading level that corresponds to a letter of the alphabet. They will work with a variety of text. Some text may address specific phonics needs (decodable readers), some may be grade level text to build knowledge that is pertinent to their grade level, some may be interest-based, some will be at a determined level for fluency practice, but they will not be 'confined' to a certain 'level.' Kindergarten and first grade students will not bring home books with patterned sentences that are easily memorized as we do not want to teach our students to be guessers.

How Can Parents Help Their Child Read ?

Below are great research-based ways to support your child/ren in learning to read. We appreciate the partnership with families in providing children with the gift of literacy!

- **Read, Read, Read** - Read to your child, Read with your child, Let your child read to you.
- **Talk With Your Child** - Building language and vocabulary is essential in developing literacy skills.
- **Teach Phonemic Awareness** - Young children don't hear the sounds within words. Thus, they hear "dog," but not the /d/-/ŏ/-/g/. To become readers, they have to learn to hear these sounds (or phonemes). Play language games with your child. For instance, say a word, perhaps a name, and then change it by one phoneme: Jen→Pen, Jen→Hen, Jen→Men. Or, just break a word apart: chair... ch-ch-air.
- **Teach Phonics (Letter Names and Their Sounds)** - You can't sound out words or write them without knowing the letter sounds.
- **Promote Writing** - Literacy involves reading and writing. Having books and magazines available for your child is a good idea, but it's also helpful to have pencils, crayons, markers, and paper. Encourage your

PS /
SORC-
rdg,
VOC,
Phon. Aware,
Phonics,
Writing

APPENDIX B

TEACHER INTERVIEW QUESTIONS

Figure B.1 Teacher Interview Questions

Demographics:

1. What is your job title/position?
2. What teaching licensures and certifications do you hold?
3. What grade do you teach?
4. How long have you been in education?

Definition:

5. In your own words, what is The Science of Reading (SOR)?
6. How does your district or school define SOR to you?

Curriculum Implementation and Training:

7. How is your school/district implementing SOR?
8. What types of curriculum materials were provided to you that align with SOR?
9. What is your school's/district policy and/or rules regarding curriculum implementation?
10. How does your school and/or district involve teachers when choosing curriculum materials and resources?
11. Explain the SOR training or information you received from your school/district. Have you heard or worked with SOR in previous teaching and/or experiences?
12. What is your response to the implementation and training of SOR?
13. With the implementation of SOR, how has reading amongst your students changed or progressed?

Student/Parent Communication:

14. How do you define SOR to your students and their families?
15. What types of communication materials do you use to inform students and parents about SOR?
16. What has been the general response from students and families about SOR?

Planning and Practice:

17. How has the implementation of SOR affected your teaching and planning?
18. In terms of your curriculum materials, which parts do you find effective components of SOR?

19. In terms of your curriculum materials, which parts do you find ineffective components of SOR?
20. How do you remain culturally relevant when choosing or utilizing curriculum materials that align with SOR?
21. What types of reading assessments do you use?
22. Do you have the agency to choose and/or develop these assessments or are they district-mandated?