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Elementary Teachers' Perceptions of Challenges in Instructing Students with Dyslexia and Recommendations for Improvement

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This is to certify that the doctoral study by

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Abstract

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Lainie Shar Barbieri

MA, Holy Names University, 2007

BS, Chico State University, 1989

Project Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Education: Self-Design P-20

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Abstract

The problem investigated in this study was that, despite professional development (PD) training, elementary teachers at a school district in the western United States are challenged in instructing students with dyslexia. The purpose of this basic qualitative study was to investigate teachers' perceptions of the challenges of instructing students with dyslexia and recommendations to improve teacher training to work with students with dyslexia in the study school district. Guskey's model of the five critical levels of PD evaluation theory informed this study. The research questions explored elementary teachers' perceptions of the challenges of instructing students with dyslexia and recommendations for improved teacher training. Data were collected via semistructured interviews with seven general and special education teacher participants who met the criteria of (a) instructing students with dyslexia and (b) participating in dyslexia PD. Data analysis involved using open coding to identify codes, categories, and themes. The emergent themes were (a) the absence of a district process for identifying students with dyslexia; (b) instructional support, materials, and resources to meet the needs of students with dyslexia; and (c) systemic PD focusing on dyslexia and students' instructional needs for elementary teachers working with students with dyslexia. A white paper project was created to educate stakeholders on the study findings, provide recommendations, and propose actions for consideration to meet the needs of students with dyslexia. This study may have implications for positive social change by strengthening stakeholders' understanding of teacher needs related to teaching students with dyslexia, which could result in increased reading achievement for students with dyslexia.

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Dedication

With love, appreciation, and gratitude, I dedicate this EdD dissertation to my three boys, Alec, Seth, and Clay, and all my students from kindergarten to high school I have taught over the last 35 years. Lastly, to my parents, who recognized that I was struggling to learn to read and decided to provide me with support from the wonderful Miss Hansen.

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Section 1: The Problem

The Local Problem

The problem addressed in this study is that despite professional development (PD) training, elementary teachers at a school district in the western United States are challenged in instructing students with dyslexia. Dyslexia is defined as a neurodevelopmental disability characterized by a deficiency in phonological processing and expressed by an impairment in word reading and spelling skills (Duff et al., 2022). About 14% of elementary students with disabilities in a school district in the western United States are diagnosed with learning disabilities, of which dyslexia is one. The school district has provided numerous training sessions for elementary teachers who work with students with dyslexia (personal communication, district special education administrator, May 13, 2022). Implementing PD content with consistency remains difficult. Within special education in the school district, teachers often make errors that compromise the delivery of these services, such as failing to adhere to the prescribed number of weekly lessons as outlined in the curriculum protocol (personal communication, district special education administrator, May 13, 2022). Additionally, elementary teachers may group an excessive number of students together for small-group instruction, deviate from recommended methods when adapting or modifying the curriculum, selectively implement only certain portions of the curriculum, or neglect to maintain the necessary data required to evaluate and monitor student progress (personal communication, district special education administrator, May 13, 2022).

The reasons elementary teachers inconsistently implement the curriculum with fidelity for students with dyslexia, who are not meeting English language arts grade-level standards on state assessments, are not clear (district administrators, personal communication, May 13, 2022). Children with dyslexia who do not receive appropriate educational instruction in the earliest grades will experience literacy difficulties if they do not receive assistance (Wadlington & Wadlington, 2005). Elementary teachers' instructional efforts are a crucial component of instructional efficacy, which research has shown that students make limited gains when elementary teachers implement instruction with insufficient fidelity (Varghese et al., 2021). Children diagnosed with dyslexia who do not receive adequate educational instruction during their early academic years are likely to encounter significant challenges in developing proficient literacy skills, unless they receive timely and appropriate assistance (Wadlington & Wadlington, 2005). The instructional practices utilized by elementary teachers play a vital role in determining the effectiveness of educational interventions. Study findings may show that students make marginal progress when elementary teachers fail to implement instructional strategies with fidelity (Varghese et al., 2021).

The assistant special education director of the subject school district in this study stated that elementary teachers do not consistently implement PD with fidelity into the curriculum for students with learning disabilities, including those with dyslexia, to meet the English language arts grade-level standard (personal communication, assistant special education director, May 13, 2022). Not all elementary teachers use the training manuals, which remain untouched on the shelves in the classroom (personal communication,

assistant special education director, May 13, 2022). Additionally, no expectation is in

place for elementary teachers to consistently implement the curriculum when teaching

students with dyslexia (personal communication, assistant special education director,

May 13, 2022). As a result, there is a continued gap between PD regarding curriculum for

students with dyslexia and the implementation of the curriculum with fidelity.

The International Dyslexia Association (2020) reported that 50% of students who

are eligible for special education services have a disability. Among these students,

approximately 85% exhibit a primary learning disability specifically related to reading

and language processing. Although the exact number of dyslexic students is not specified,

it can be inferred that a sizable proportion falls within this category (International

Dyslexia Association, 2020).

The challenges of students with learning disabilities, including dyslexia, are

noteworthy due to their difficulty in completing tasks within a single instructional session

(Kalsoom et al., 2020). Particularly, students with dyslexia require more time compared

to their peers to comprehend and fulfill academic activities in a single setting (Kalsoom et

al., 2020). This issue holds substantial significance within the broader educational context

for several reasons. The extended time required by students with dyslexia to complete

tasks may disrupt the overall pace and structure of instruction, potentially impacting the

timeline of the curriculum (Kalsoom et al., 2020). Educators may find it challenging to

provide sufficient time and training to meet the individualized needs of dyslexic students,

considering the limited instructional time available. Additionally, the larger educational

system may not be equipped to accommodate the unique learning needs of students with

dyslexia, potentially resulting in elementary teachers providing insufficient interventions and support services. Addressing the challenges associated with students with dyslexia is crucial for promoting inclusive education and ensuring equitable educational opportunities for all learners.

Rationale

A disconnect in performance exists between students with learning disabilities who have dyslexia and students without learning disabilities in a school district in the western United States in terms of the services and supports used with this population of students (personal communication, district administrators, May 13, 2022). According to 2022 district data from the state department of education in the study state, testing of 15,727 students from 45 schools ranging from elementary to high school in 2019 showed students scored 5.9 points below state standards. Of those 15,727 students, 2,088, or 7.5%, were identified as students with learning disabilities who scored 94.7 points below standards, resulting in an 88.8-point discrepancy between students without disabilities and students with disabilities from the study school district . The discrepancy in performance between students with and without disabilities, and particularly those diagnosed with dyslexia, is substantial. The assistant special education director stated the gap continues to widen for students with learning disabilities, specifically those with undiagnosed dyslexia, to receive the instruction needed to meet grade-level standards on state assessments (personal communication, October 24, 2022). The underperformance of students with learning disabilities provides evidence of the challenges of instructing this population of students.

According to the state department of education in the study state, in 2017, the achievement of elementary students with disabilities was 100.3 points below meeting grade-level standards. In 2022, the English language arts performance of this population of students in the study school district was 121.2 points below meeting grade-level standards according to district data in the study state. This 20.9-point negative discrepancy was demonstrated over the past 5 years. In the study, the state Special education code was amended in 2015 to address students with dyslexia through according to Zirkel's overview of laws supporting students with dyslexia in public schools (2020). Although these recommendations support parents, regular education teachers, and special education instructors in recognizing, evaluating, and supporting students with dyslexia, it is not law, but rather a procedural guideline.

Researchers have shown that students with dyslexia are at an increased risk of falling behind their peers in reading proficiency and are less likely to reach grade-level reading benchmarks (Anderson et al., 2022). This study by Anderson et al. (2022) was designed to discover the approaches and methods to support children with dyslexia in their reading development. Different students may respond better to various approaches, and instructors and parents should collaborate to determine what works best for each student. In addition to determining what works best for each child, identify early warning signs is essential in students in kindergarten at risk for dyslexia (Balcı, 2020). Dyslexia significantly affects students' future academic success, and they must receive treatment (Mohamadzadeh et al., 2019). Early intervention for children with dyslexia is necessary to maximize their educational potential (Abdat et al., 2022). Students with learning

disabilities experiencing reading difficulties may or may not have dyslexia; therefore, service providers such as general education teachers, special education teachers, resource teachers, and speech pathologists must learn to distinguish between different learning difficulties when instructing students with dyslexia (Miciak & Fletcher, 2020). The purpose of this study was to investigate elementary teachers' perceptions of the challenges of instructing students with dyslexia and recommendations to improve teacher training to work with students with dyslexia in the study school district.

Definition of Terms

This section lists terms and definitions specific to this project study. The terms and definitions will guide reader understanding of the conceptual framework, literature review, and the research.

Dyslexia: A form of specific learning disability defined as a neurodevelopmental disability characterized by a deficiency in phonological processing and expressed by an impairment in word reading and spelling skills (Duff et al., 2022).

Individuals With Disabilities Education Act of 1990 (IDEA): A federal act that ensures people with disabilities are not excluded from education settings and resources provided to nondisabled people (IDEA, 1990).

Multisensory structured language: Teachers instruct students to master reading content by stimulating visual, auditory, kinesthetic, and tactile senses (Zulhendri & Warmansyah, 2020).

Pedagogy: The instructional strategies within the special education classroom, within the context of this research. Pedagogy includes the methodical strategies used by

special education teachers to present content to students with special needs (Johnson & Golombek, 2018)

Perception: A process during which an individual clarifies and constructs feeling to build a meaningful world (Boardman, 2020).

Professional development (PD): The planned and unplanned learning opportunities an expert provides teachers to broaden their knowledge and skills, allowing them to implement evidence-based programs and practices that improve student outcomes (Barrett & Pas, 2020).

Special education: "The information and resources to serve the unique needs of persons with disabilities so that each person will meet or exceed high standards of achievement in academic and nonacademic skills" (California Department of Education, 2024, para. 1).

Specific learning disability: Defined by the California Code of Regulations (as cited in California Department of Education, 2018) as a disorder in understanding or using language, verbal or written, affecting speech, aural understanding, spelling, and mathematics, including dyslexia.

Students with learning disabilities: Students with a neurological disorder that affects comprehending or using spoken or written language or having difficulties completing mathematical calculations (Boyle, 2021).

Teacher beliefs: An educator's individual references including their convictions, philosophies, or perspectives in association with instructing and learning (Anderson et al., 2022).

Significance of the Study

Positive social change involves recognizing or observing challenges within cities, communities, and educational institutions and engaging in dialogue to address and resolve these challenges. The ultimate, broad goal of this research is to help create a more inclusive and collaborative educational system, enriching the educational experiences and outcomes of students with dyslexia and educating elementary teachers who play a vital role in their education with effective PD training. The potential positive social change resulting from this study extends far beyond the classroom, contributing to a more inclusive society that values diversity and ensures that all individuals have equal access to quality education and opportunities for success.

Insights from this study should aid in designing and implementing the training with fidelity for elementary teachers to support students with learning disabilities such as dyslexia in meeting grade-level standards. The information obtained informs stakeholders regarding the design and delivery of PD to support elementary teachers' knowledge and skills to strengthen the performance of elementary teachers supporting students with learning disabilities. Guskey (2002, 2021) noted that teachers' PD affects students by helping teachers recognize the substantial influence their actions have on students and allowing them to be more receptive to new ideas to increase efficacy. Professional learning must be beneficial to educators for successful implementation to support and improve students' learning (Guskey, 2016). The results of this study provide much-needed insights to understand elementary teachers' perceived challenges instructing

students with dyslexia and recommendations to improve teacher training to work with students with dyslexia in the study school district.

Research Questions

The purpose of this study was to investigate elementary teachers' perceptions of the challenges of instructing students with dyslexia and recommendations to improve teacher training to work with students with dyslexia in the study school district. Two research questions (RQs) were used to guide the study and to inform the study purpose. Guskey's (2016) model of the five critical levels of PD evaluation was used as the conceptual framework for this study and informed the RQs.

RQ1: What are elementary teachers' perceptions of the challenges of instructing

students with dyslexia at the research site?

RQ2: What are elementary teachers' recommendations to improve teacher

training to work with students with dyslexia at the research site?

Review of the Literature

Dyslexia continues to be one of the most misunderstood reading disabilities by physicians, educators, and caregivers (Miciak & Fletcher, 2020). Shaywitz and Shaywitz (2020) defined dyslexia as a difficulty with language, specifically spelling, reading, writing, and speech. Understanding elementary teachers' perceptions of the challenges of instructing students with dyslexia is critical to providing PD. The literature search strategy in this study included investigating the historical context of dyslexia in relation to teacher awareness. In this literature review, I also review the Orton-Gillingham method in dyslexia remediation. Finally, I conclude Section 1 with a discussion of the scientific

and historical research relevant to the RQs, problem statement, and significance of this study. Next, I describe the conceptual framework that is based on one theory pertaining to meeting the PD needs of elementary teachers so that they may more effectively serve students with dyslexia, thereby possibly contributing to improved reading achievement for students with dyslexia.

Conceptual Framework

The concept that supports this study includes Guskey's (2016) model of the five critical levels of PD evaluation. In this next section, I describe how the conceptual framework supports meeting the needs of students with dyslexia. In addition, I describe how Guskey's (2016) model can be used to support increased reading achievement for students with dyslexia.

Guskey's (2016) model of the five critical levels is based on the Kirkpatrick model established in 1959 for judging the value of supervisory training programs in business and industry (Kirkpatrick & Kirkpatrick, 2015). Guskey (2016) stated that despite wide use in other fields, Kirkpatrick's model has only been used to a limited extent in education due to its weak explanatory ability. The model does not directly address student learning outcomes; it centers on the training participants and organizational results (Guskey, 2016). Guskey (2016) took Kirkpatrick's model and designed his own after he examined 13 lists of what constitutes a successful PD experience and found the criteria varied greatly. Improving instructors' content and pedagogical competence was the most mentioned of the 21 criteria noted in the lists.

Guskey's (2016) theory consists of five tiers: (a) Level 1, participants' reactions; (b) Level 2, participants' learning; (c) Level 3, organizational support and change; (d) Level 4, participants' use of new knowledge and skills; and (e) Level 5, students' learning outcomes. The hierarchy of these levels goes from the most fundamental to the most complex. Success at one level is typically required for higher levels because each level builds on the one before it. Collecting evaluation data is more time and resource intensive with each higher level (Guskey, 2016).

The logical connection between the framework presented and this study is that Guskey (2021) focused on PD that works for educators. Guskey (2021) stated that personal experience impacts attitudes and perceptions toward teacher efficacy. Elementary teachers who recognize how their activities significantly impact students feel more effective as educators but are also more receptive to new ideas that could advance their effectiveness (Guskey, 2021). Elementary teachers seek methods to improve their practice because they know the importance of what they do (Guskey, 2021). However, very few educators today know the precise definition of teacher efficacy, the evolution of concepts, how to measure it, or how to improve it (Guskey, 2021). A key component of efficient PD is assisting elementary teachers in developing a deeper understanding of the material they teach and how students learn it.

The framework also has a connection to the RQs because it allows researchers to collect information on teacher perceptions systematically, identify challenges, evaluate the effectiveness of training, and collect valuable recommendations for improving teacher training programs to better support elementary teachers in their work with students with

dyslexia. The framework was used in the study to guide the research and to analyze the study findings. Guskey's (2016) model of the five critical levels was used to understand how educators can be better served through PD opportunities to instruct elementary students with dyslexia in the areas of English language arts. Upon completion of the interviews, the information obtained from the educators was assessed through Guskey's (2016) model of the five critical levels to understand areas where PD must be addressed to meet the needs of both educators and elementary students with dyslexia. The findings provide recommendations for improved educational opportunities for educators who work with students with dyslexia. Guskey's (2016) framework aligns with this study because researchers can conduct a rigorous evaluation that captures elementary teachers' perceptions of challenges and recommendations for improved teacher training to support students with dyslexia in English language arts. The framework ensures a holistic examination of the topic, considering multiple dimensions of PD, and provides a structured approach to gathering and analyzing data. In the next sections, I describe the literature search strategy.

Literature Search Strategy

A literature review was completed using online databases available through the Walden University Library, such as EBSCO, ERIC, and SAGE Journals and Books. Google Scholar was also utilized to discover additional peer-reviewed journals. The literature search was conducted using the following keywords: *dyslexia, professional development, Orton-Gillham approach, multisensory instructing, pedagogy, special education, specific learning disability, teacher perception, students with learning*

disabilities, teacher training, Guskey, department of education school dashboard,

elementary teacher training, and *academic performance*.

Review of the Broader Problem

To investigate elementary teachers' perceptions of the challenges of instructing

students with dyslexia and recommendations to improve teacher training to work with

students with dyslexia, I conducted a literature review to determine current factors in

curriculum development, instructional strategies, and current PD for special education

teachers. Instructing children to read remains one of the primary goals of early childhood

and primary education worldwide. Dyslexia has attracted significant research from

various academic disciplines (Wyse & Bradbury, 2022). In the United States, the

question of how to teach reading has been a source of debate and contention for centuries

(Shaywitz & Shaywitz, 2020). Many in education have referred to this debate as the

reading wars (Goldenberg, 2020).

Children With Dyslexia

Dyslexia is a neurological condition that negatively impacts the ability to read and

is estimated to affect 15%–20% of the U.S. population (International Dyslexia

Association, 2020). Dyslexia is characterized by difficulties in phonemic awareness,

phonology, and decoding, which can lead to challenges in reading fluency,

comprehension, and accuracy (Shaywitz & Shaywitz, 2020). One of the significant

challenges faced by dyslexic elementary school students is difficulty in learning to read

(Mohamadzadeh et al., 2019). These difficulties can impede a student's ability to access

and understand grade-level material, leading to frustration and a lack of confidence in the classroom.

At least 42 states in the United States have advocated for developing and implementing procedures specifically designed to detect and assist students with dyslexia; these 42 states developed educational policies and plans, including those for identifying and treating students with dyslexia (Miciak & Fletcher, 2020; Sanfilippo et al., 2020). In comparison, some states lack legislation or regulations, particularly treating dyslexia (Miciak & Fletcher, 2020). However, the identification and treatment of children who are at risk for or have been diagnosed with dyslexia differ significantly among states because of state-specific processes (Miciak & Fletcher, 2020). This discrepancy in advocacy and practice frequently reflects erroneous beliefs about the fundamental characteristics of dyslexia.

At the local, state, and federal levels in the United States, as well as internationally, there is a renewed interest in dyslexia screening, assessment, identification, and treatment (Odegard et al., 2020). Governor Gavin Newsom of California approved a bill mandating the implementation of universal screening in kindergarten through second grade within schools. This screening will focus specifically on identifying reading delays and assessing the risk of dyslexia. Identifying and diagnosing dyslexia can be complex and typically involve multiple steps. The process to diagnose dyslexia consists of screening (Sanfilippo et al., 2020); initial screening can be done by teachers or education professionals who observe students struggling with reading and writing despite having average intelligence and adequate instructional opportunities.

A comprehensive evaluation consisting of a multidisciplinary team, which usually includes a psychologist, a speech and language therapist, and a teacher, can be done to determine if the student has dyslexia. This process typically involves a range of tests to assess the student's cognitive abilities, academic skills, and language abilities (Sanfilippo et al., 2020). Diagnostic testing is administered by a team and consists of standardized assessments, such as the Woodcock-Johnson Tests of Achievement or the Kaufman Assessment Battery for Children, to diagnose dyslexia. These tests measure reading and writing abilities, including phonemic awareness, decoding, and comprehension (Kent et al., 2019). Other factors considered are a student's medical history, developmental history, and classroom performance to rule out other conditions affecting the student's reading and writing abilities (Wilmot et al., 2022).

Dyslexia is not a single, easily defined condition, and identifying and diagnosing it can vary depending on the individual and the available training. An accurate diagnosis is necessary and can help ensure that students receive the appropriate support and interventions they need to succeed in school and life (Balcı, 2020). According to researchers, a dyslexia diagnosis may enhance a child's self-esteem by promoting self-understanding (Wilmot et al., 2022). A diagnosis can boost a child's confidence and self-esteem, and elementary teachers also must know how to teach literacy to all students, including those with dyslexia (Woods & Graham, 2020).

Pedagogical Interventions for Dyslexia

Children with learning disabilities have a physiological or biological condition in which their competence or achievement does not meet predetermined standard criteria;

dyslexia is the reading error form of a learning disability (Stevens et al., 2021). Children with special learning challenges, including dyslexia, are among those who frequently struggle mastering reading skills (Zairin & Nordin, 2023). Kuo (2023) stated that each student with dyslexia is unique due to the intricate interplay of genetic, neurological, cognitive, and environmental factors.

The skills, information, and conceptual/theoretical understanding required for diagnosing and assessing children and adolescents with dyslexia require the fundamental concepts of structured, sequential, and multisensory instruction (Boardman, 2020). In addition to dyslexia instruction, there is a broader scope for considering the possibilities of these approaches for whole-class instruction, given that effective teachers are reflective, sensitive, and accept responsibility for their learning (Boardman, 2020). When educators have a better understanding of dyslexia and appropriate training on addressing students with dyslexia challenges and strengths, they are more likely to use the necessary effort to support students with dyslexia (Kuo, 2023). Effective reading instruction in the early grades must involve explicit instruction in the five reading components—phonemic awareness, phonics, vocabulary, fluency, and comprehension—identified by the National Reading Panel (NRP, 2000; Woods & Graham, 2020). These best practices seek to enhance the reading skills of students with dyslexia (binti Abd Mutalib, 2022).

Principals who provide the most effective intervention for students with dyslexia in kindergarten through second grade are knowledgeable about dyslexia and the best practices for providing intervention for students with dyslexia (Schraeder et al., 2021). Kalsoom et al. (2020) stated that teachers are aware of the term *dyslexia* and the

accompanying learning challenges. However, teachers are limited to best practices to use in the classroom to support students with dyslexia. Kuo (2023) noted that dyslexia should be considered an instructional issue rather than a disability issue. Educators must take responsibility for improving their classrooms and educational systems, not the students. To encourage teachers to think expansively when implementing pedagogies, teachers must be educated in ideation skills that will generate new ideas (Chandra et al., 2021).

Reading Pedagogies for Dyslexic Students

Dyslexia falls under a specific learning disability, which originates from the Greek words /dys/, meaning difficulty, and /lexis/, meaning language; hence, dyslexia refers to reading, spelling, and writing difficulties that are not proportional to the individual's degree of intelligence (Supriatna & Ediyanto, 2021). The International Dyslexia Association (2014) stated that identifying and evaluating students with dyslexia is vital for academic achievement. Kalsoom et al. (2020) stated it is crucial to implement effective instructing methods for students with dyslexia. Under Every Student Succeeds Act (2015), approximately 13% of public-school students received special education services, with 34% identified with a specific learning disability (Stevens et al., 2021). Approximately 85% of students with specific learning disabilities have a primary reading disability (Stevens et al., 2021). The National Assessment of Educational Progress reading achievement data have shown students with disabilities consistently "perform far below their nondisabled peers in reading, with only 32% performing at a basic level and 30% performing above a basic level" (Stevens et al., 2021, p. 397). Stevens et al. (2021) noted that many students reading below grade level require remediation in work-level

decoding and reading fluency beyond early elementary school. Varghese et al. (2021) stated that during early elementary school, children with or at risk for reading-related disabilities frequently fall below grade level if supplementary instruction or intervention is not received. Implementing scientifically research-based educational pedagogy will benefit students who fall below grade-level standards (Sayeski & Zirkel, 2021).

One scientifically research-based educational pedagogy many schools have adopted is the Orton-Gillingham instruction. Dr. Samuel Orton, a child neurologist, theorized a century ago that strengthening students' phonological skills (i.e., their ability to hear and blend the sounds of language) to facilitate the mapping of those sounds to letters (i.e., making visual connections to graphic representations) could remediate the neurological deficits underlying reading disability (Gillingham & Stillman, 1997). Dr. Samuel Orton believed that directly addressing the auditory (phonological processing), visual (letter recognition), and kinesthetic (writing) elements of reading was essential for correcting reading challenges (Sayeski & Zirkel, 2021). Anna Gillingham, an educator and psychologist, created educational materials based on the theory of Samuel Orton (Gillingham & Stillman, 1997).

The principles of practice derived from Orton and Gillingham's work follow: (a) explicit instructing of sounds and symbols; (b) sequential movement through a set of skills that move from basic to more complex; (c) a diagnostic-prescriptive approach that requires the continual assessment of skills and frequent reinstructing of unmastered skills; (d) use of multisensory techniques to reinforce reading, writing, and spelling connections; and (e) a cognitive approach to decoding and spelling through the explicit application of

rules (Sayeski & Zirkel, 2021). Elementary teachers must be provided an effective

pedagogy of literacy instruction for instructing students that are diagnosed dyslexic

(Varghese et al., 2021). In addition to implementing an effective pedagogy, the method

used is crucial (Boardman, 2020).

Since the 1930s, the widely utilized Orton-Gillingham-Stillman approach to

supporting reading and spelling for children with literacy difficulties has been in use; the

published principles from the 1960s (Gillingham & Stillman, 1997) specifically promote

the use of a multisensory approach. The Orton-Gillingham approach indicated that

multisensory instructing pedagogy is the cornerstone of best practices for dyslexic

instruction (Boardman, 2020). Students with dyslexia encounter a significant learning

barrier (Boardman, 2020). Boardman (2020) stated that implementing multisensory

pedagogy is a well-established instructing modality for students with dyslexia.

Multisensory structured language is an instructional approach designed to instruct

students to master the initial reading content by stimulation of visual, auditory,

kinesthetic, and tactile senses (Zairin & Nordin, 2023; Zulhendri & Warmansyah, 2020).

The integrated approach particularly aids learners' memory by integrating sensory

activities (Indrarathne, 2022). The multisensory structured language approach is

commonly used when instructing students with dyslexia (Indrarathne, 2022).

Students with dyslexia who do not have a stimulating and interactive learning

environment are at a disadvantage because their learning difficulties can intensify in the

absence of such an environment (Kalsoom et al., 2020). Multisensory intervention is a

highly effective method for improving reading fluency in elementary students with

dyslexia (Indrarathne, 2022). Zairin and Nordin (2023) noted the multisensory approach

implements multiple senses through visual applications, such as pictures and videos,

which facilitates students' comprehension of abstract concepts by relating them to their

own experiences and auditory applications. For example, the use of sounds related to

verbal stimulation reasoning is made simple using multimedia materials. In addition,

tactile applications include strategies for improving students' fine motor skills, such as

tray sand and clay modeling. Lastly, kinesthetic application adjusts the fine and gross

movements of motor skills (Zairin & Nordin, 2023). When linked with language

instruction, each of these modalities reinforces learning and aids students in

comprehending and retaining information.

       Multisensory intervention addresses the needs of students with dyslexia and

provides them with the necessary classroom support to succeed. Many studies found that

at-risk groups who received multisensory instruction demonstrated comparable gains to

non-at-risk groups, demonstrating that the multisensory approach is effective in

instructing students with learning disabilities such as dyslexia (Stevens et al., 2021).

Teachers are responsible for effectively educating students with reading difficulties;

therefore, Woods and Graham (2020) recommend that educators become knowledgeable

about dyslexia and receive appropriate teacher preparation.

PD for Dyslexia

       The inadequacy of teacher preparation limits their sense of self-efficacy (Joshi &

Wijekumar, 2020). Kiel et al. (2019) discovered that the knowledge and self-efficacy of

teachers affect their success. Preservice teachers must be adequately prepared to teach,

and in-service teachers require continuing training (Snowling et al., 2019). Grigorenko et al. (2020) contended that given the high incidence of students with learning disabilities and the lifelong negative impact on functioning if disabilities are untreated, it is imperative to establish and maintain effective prevention and treatment systems involving multidisciplinary professionals trained to reduce the risk. Providing teachers with instructional support is vital to increase their self-efficacy for instructing practices (Kiel et al., 2019).

Hudson et al. (2016) stated that teacher preparation is necessary to enhance instructors' ability to teach to high standards. Metz (2021) explored the influence of role identity and intent on teachers' language use in the classroom. The researchers discovered that the relationship between teacher language use, teacher identity, and pedagogy is a crucial factor in how language is taught in the classroom. The quality of a teacher's instruction is crucial to developing essential literacy skills in their students (Goering & Gardner, 2020). White et al. (2020) reported a relationship between preservice teachers' perceived self-efficacy for literacy instruction and the knowledge acquired through their coursework. Piasta et al. (2023) discovered that exposure to content knowledge and knowledge for practice positively correlated with the development of students' phonological awareness in literacy instruction.

According to Butler and Nasser (2020), teachers in general education programs need to be trained to instruct students with special needs. General education instructors are typically unprepared to assist students with learning disabilities such as dyslexia. Butler and Nasser highlighted the need for more exposure to special education pedagogy

in teacher education programs. Little attention has been devoted to the identification of best practices for preservice teacher preparation to support students with learning disabilities (Moosbrugger et al., 2023).

The National Assessment of Educational Progress consistently has found that 35% of fourth graders in the United States read below the fundamental level (International Dyslexia Association, 2014). Research has demonstrated that most reading difficulties can be resolved or diminished when reading is taught by a highly knowledgeable and skilled teacher (International Dyslexia Association, 2014). The International Dyslexia Association Board of Directors designated *structured literacy* as an umbrella name for reading instructing approaches that adhere to the International Dyslexia Association's (2018) *Knowledge and Practice Standards for Teachers of Reading*. Although other approaches with different names fall under the structured literacy umbrella, such as Orton-Gillingham, simultaneous multisensory, and explicit phonics, they all share the same instructional content and pedagogical approaches (California Department of Education, 2018). Effective reading instruction in the early grades, according to the NRP (2000), must include explicit instruction in the five components of reading: phonemic awareness, phonics, vocabulary, fluency, and comprehension. Teachers must know and practice how to provide explicit, systematic instruction in all five fundamental components of early reading education based on these findings (NRP, 2000).

Training special education teachers to teach students with dyslexia necessitates a specialized approach that focuses on evidence-based practices and strategies for

supporting their needs. Many school districts in the western United States use a variety of approaches. The Orton-Gillingham approach is a structured literacy method to explicitly teach phonics, phonemic awareness, fluency, vocabulary, and comprehension (Sayeski & Zirkel, 2021). This multisensory technique uses visual, auditory, and kinesthetic learning strategies. Students with language-based learning disabilities, such as dyslexia, can benefit from the Wilson Reading System curriculum (Sayeski & Zirkel, 2021). The curriculum provides an organized and sequential strategy to teach phonemic awareness, phonics, fluency, vocabulary, and understanding. Lindamood-Bell programs also use a multisensory approach to teach reading, spelling, and comprehension to students with dyslexia. The focus is on developing cognitive skills such as phonemic awareness, memory, and processing speed. Lastly, the Slingerland approach is a multisensory approach for teaching reading, spelling, and writing to students with dyslexia. The approach utilizes visual, auditory, and kinesthetic learning modalities to facilitate the growth of reading and writing skills (Sayeski & Zirkel, 2021). The training of teachers needs to include the development of visual skills, auditory skills, tactile sense and motor skills, perception, attention, memory, sequential ability, speaking, listening, reading-writing, and conceptual and cognitive abilities (Kizilkaya & Sari, 2021).

Dyslexia training programs, developed based on teacher needs, are expected to meet the training needs of teachers instructing students with dyslexia. Meeting teachers' educational needs will improve teacher competencies and provide students with dyslexia an experience of a dyslexia-friendly classroom environment (Tosun et al., 2021). Many elementary school educators have limited access to dyslexia-related materials

(International Dyslexia Association, 2014). Another challenge is that teachers and

principals have reported they have not received instruction on instructing these skills

through preservice education or PD (Schraeder et al., 2021). As a result, many students

with dyslexia do not receive the phonetic, multisensory instruction needed to progress in

reading (Schraeder et al., 2021). Researchers, educators, and advocacy groups have

claimed that for teachers to identify dyslexic characteristics and provide appropriate and

timely intervention accurately, they must first gain a scientific understanding of dyslexia

(Peltier et al., 2022). In the United States, preservice and in-service teachers' awareness

of dyslexia should be further investigated. Peltier et al. (2022) noted such research could

provide a deeper understanding of teachers' misunderstanding and knowledge gaps

related to dyslexia. Classroom teachers cannot effectively support students with dyslexia

due to their limited knowledge about this most common learning difficulty (Kizilkaya &

Sari, 2021).

Teacher preparation must be improved to maintain self-efficacy (Joshi &

Wijekumar, 2020). Didion et al. (2019) stated that teachers in general education programs

do not receive training for educating students with disabilities. Moosbrugger et al. (2023)

highlighted the need for more exposure to special education pedagogy in teacher

education programs. Congress requested a study on literacy instruction, but little attention

has been paid to identifying best practices for preservice teacher preparation for working

with students with learning disabilities (Kizilkaya & Sari, 2021). Given the prevalence of

students with untreated learning disabilities, such as dyslexia, establishing and sustaining

a pedagogy with practical strategies for serving these students are crucial (Grigorenko et al., 2020).

PD for teachers is essential to improve student outcomes (Sancar et al., 2021). However, PD varies and has multifaceted structures that evolve throughout a teacher's career (Sancar et al., 2021). Education researchers have posited that teacher quality is the most influential school variable on student achievement and school improvement. (Sancar et al., 2021). Sancar et al. (2021) hypothesized that the primary barrier to teachers' PD was not a lack of programming or content for effective PD but rather a holistic strategy that identifies, evaluates, and analyzes all process components.

Teachers must meet the needs of students with reading difficulties, which is the most common reason for referrals for special education services (Peltier et al., 2022). Didion et al. (2019) studied the impact of teacher PD on reading outcomes for kindergarten through eighth-grade students. Results indicated that teacher PD had a moderately significant, averagely positive effect on reading achievement. However, moderator analyses failed to explain the discrepancies in PD's effects on student outcomes. Training teachers of students with and at risk for reading disabilities may require a different set of skills than training teachers of typically developing students. Rarely do teachers receive PD that focuses on meeting the requirements of students with disabilities (Didion et al., 2019).

For educational programs to be successful, teachers must have extensive, in-depth, and flexible knowledge of foundational skills such as phonics, phonological awareness, and spelling (Peltier et al., 2022). Peltier et al. (2022) conducted a study to

determine whether teacher preparation programs provide sufficient foundational skills and knowledge. Before the posttest, special education preservice teachers' knowledge of basic literacy skills, including dyslexia, was significantly greater than that of their general education counterparts (Peltier et al., 2022). Despite the study's limitations, the results suggested that explicit, direct instruction of content related to the instruction of foundational skills, coupled with weekly opportunities to apply skills in field-based tutoring, was associated with an increase in the knowledge of preservice special education teachers. Even though steps have been taken to increase preservice teachers' knowledge of dyslexia, teachers also need PD on best practices to support learners who struggle with reading (Didion et al., 2019).

Teachers must be able to deliver instruction effectively to improve students' academic performance (Didion et al., 2019). Teachers need adequate training to implement evidence-based practices to provide students with high-quality instruction across subject areas (Didion et al., 2019). When elementary teachers are provided with PD for reading instruction, the strategies teachers adopt for instructional strategies, motivation, and parental involvement positively influence student interest and growth in reading (Beach et al., 2020).

Implications

In this section, I reviewed the literature related to dyslexia PD and interventions for students with dyslexia. I also reviewed the literature related to teachers regarding the perceived challenges and improved training to support the instruction of students with dyslexia. The literature foundation combined with the study's results inform policies and

development of PD. Through use of Guskey's (2016) model of the five critical levels of PD evaluation, findings provide more insight into teachers' perceptions of the challenges of instructing students with dyslexia and recommendations to improve teacher training to work with students with dyslexia. Findings may have positive implications in the study school district, with teachers instructing students with dyslexia with fidelity. More information about the perceptions of the challenges of instructing students with dyslexia and recommendations for improving teacher training to work with students with dyslexia will provide a greater understanding regarding what is needed to increase achievement among students with dyslexia, potentially leading to meeting grade-level standards on English language arts assessments. I determined that a white paper would be the appropriate genre to make recommendations for the district stakeholders.

Summary

The problem addressed by this basic qualitative study was that despite PD training, elementary teachers at a school district in the western United States are challenged in instructing students with dyslexia. The study's RQs were structured to gain insight into teacher perceptions of the challenges of instructing students with dyslexia and teacher recommendations for improved teacher training to work with students with dyslexia at the site. This study was guided by the conceptual framework of Guskey's (2016) five critical levels of PD evaluation through experience, which influences attitudes and perceptions toward teacher efficacy.

The literature review emphasized how educators must take responsibility and accountability for improving their classrooms and educational systems, not the students.

To encourage teachers to think expansively when implementing pedagogies, pre- and in-service teachers need to learn ideation skills that will generate new ideas (Chandra et al., 2021). Teachers are responsible for effectively educating students with reading difficulties; therefore, Woods and Graham (2020) recommended that educators become knowledgeable about dyslexia and receive appropriate teacher preparation. Not only can a diagnosis enhance a child's confidence and self-esteem, but elementary teachers must also be able to effectively instruct literacy to students with reading disabilities (Woods & Graham, 2020). When elementary teachers are provided with PD for reading instruction, the strategies teachers adopt for instructional strategies, motivation, and parental involvement positively influence student interest and growth in reading (Beach et al., 2020). In summary, this study's literature review addressed significant themes and a wealth of data collected on teachers' perceptions, beliefs, training, pedagogy, and comfort level with instructing students with dyslexia. In the review of the literature, Grigorenko et al. (2020) argued that given the high prevalence of students with learning disabilities and their lifelong negative impact on functioning if left untreated, it is imperative to establish and maintain effective prevention and treatment systems involving multidisciplinary professionals trained to reduce the risk. In this section, I focused on the conceptual framework, the relationship of the conceptual framework to the phenomenon being studied, and the literature review.

In Section 2 of this basic qualitative study, I describe the methodology employed for the research. This section includes a description of the basic qualitative study research design used. The criteria for selecting participants for this study and the methods for

establishing the researcher-participant relationships are explained. The measures taken to

protect participants are outlined, and data collection, analysis, and study findings are

described.

Section 2: The Methodology

Research Design and Approach

This research was designed logically from the problem that despite PD training, elementary teachers at a school district in the western United States are challenged in instructing students with dyslexia. This suggested more information is needed on elementary teachers' perceptions of the challenges and recommendations for improved teacher training to work with students with dyslexia. The information would aid in understanding the discrepancy in reading assessment scores between students with learning disabilities and students without learning disabilities in the district. To gauge elementary teachers' perceptions of the challenges and recommendations of instructing students with dyslexia, conversational and anecdotal data were collected from elementary teachers. The narrative and interpretive nature of qualitative design allowed me to construct a dialogue with the participants to capture this form of data (see Lodico et al., 2010). The perspectives and recommendations obtained from the participant interviews resulted in recurring themes among the data, which formed the basis of the findings of this study.

The purpose of this study was to investigate elementary teachers' perceptions of the challenges of instructing students with dyslexia and recommendations to improve teacher training to work with students with dyslexia in the study school district. The RQs I used to guide this basic qualitative study were the following:

RQ1: What are elementary teachers' perceptions of the challenges of instructing students with dyslexia at the research site?

RQ2: What are elementary teachers' recommendations to improve teacher

training to work with students with dyslexia at the research site?

In this section, I present the qualitative research tradition, which is a standard in educational studies because it involves conducting research in naturalistic settings to provide participants with a voice for their feelings and perceptions (Yin, 2016). When using one of the essential naturalistic reach methods, in-depth qualitative interviews, researchers speak with participants with knowledge or experience with the problem of interest (Rubin & Rubin, 2011). In qualitative studies, researchers collect vast quantities of descriptive data. Qualitative research is a type of research that aims to explore and understand human behavior, attitudes, beliefs, and experiences through nonnumerical data such as words, images, and observations (Creswell & Poth, 2018). Qualitative researchers collect and analyze data using methods such as interviews, focus groups, case studies, and ethnography.

Given qualitative research's reputation for being more flexible and open ended (using participant voice) than quantitative research, novice researchers may presume that in-depth interviews and focus group questions do not require careful design (Bazen et al., 2021). However, qualitative researchers often rely on inductive reasoning to generate broad themes or general rules from which hypotheses about a phenomenon or behavior of interest are generated (Bazen et al., 2021). Tomaszewski et al. (2020) found that one of the greatest challenges for new researchers is the variety of qualitative research approaches as well as distinct data acquisition and analysis techniques. Qualitative researchers analyze and interpret data describing the study's social, cultural, and

historical context (Yin, 2016). The researcher is involved in the participants' day-to-day activities through observations or interviews to gain an in-depth understanding of the participants. Qualitative researchers include participants in the decision-making process regarding data selection, data organization, and report writing. Tomaszewski et al. characterized the qualitative researcher's relationship with participants as less formal, permitting participants to respond more elaborately and in greater depth. I used the qualitative method to answer the RQs in this study.

Qualitative methodology was used in this study to describe the similarities or differences between participants (see Creswell & Poth, 2018). In qualitative research, a researcher compiles the individual experiences of each participant to answer the RQs. In this study, the compilation of data involved interviewing individuals who have shared experiences. The qualitative descriptive study included the how, what, and why of the experiences of the participants (see Creswell & Poth, 2018).

In this section, I present the qualitative research design and approach and justify the choice of the basic qualitative design selected. I describe the setting, participants, inclusion criteria, sampling, procedures for access and establishing a researcher–participant relationship, and participants' rights and confidentiality. I also discuss the methods for data collection and analysis. The section concludes with a summary.

Research Design

For this study, I used a basic qualitative design that relied on one-to-one semistructured interviews to allow participants to describe perceptions of their challenges and recommendations for improved teacher training to work with students with dyslexia

at the study site. I explored the perceptions of general education teachers ($n = 6$) and a special education teacher ($n = 1$) of the challenges of instructing students with dyslexia. In addition, I asked the general and special education teachers a second question regarding their recommendations for implementing training to work with students with dyslexia at their sites. In this study, I interviewed participants in the study school district.

The reason for this design was to study and analyze a problem by asking a small group of participants what they thought and what they thought should be done (see Yin, 2016). The involvement of multiple participants allowed me to explore the differences between the perceptions and recommendations of the participants to replicate or find discrepancies in the findings. The RQs align with a basic qualitative study design. Throughout the one-to-one semistructured interviews, I obtained elementary teachers' perceptions of the challenges of instructing students with dyslexia and elementary teachers' recommendations for improved teacher training to work with students with dyslexia in the study school district.

A basic qualitative study typically involves exploring a particular phenomenon or experience in-depth through collecting and analyzing nonnumerical data such as interviews, observations, and documents. The goal of qualitative research is to understand a phenomenon from the perspectives of the individuals involved (Creswell & Poth, 2018). A basic case study is a form of qualitative research that focuses on the in-depth examination of one or more specific cases (Tomaszewski et al., 2020). Multiple data sources and methods, such as interviews, observations, and document analysis, may be utilized in a case study, but the primary focus is on the specific case being examined

(Tomaszewski et al., 2020). Various phenomena, such as a specific program or intervention, an organization, or an individual's experiences, can be investigated using case studies (Bazen et al., 2021). While there may be some overlap in the methods and data sources used in basic qualitative studies and case studies, the critical distinction is that a basic qualitative study explores a phenomenon or experience more broadly, whereas a case study focuses on the in-depth analysis of a specific case (Bazen et al., 2021). Thus, I used a basic qualitative study by exploring a central phenomenon from one population of participants in the study school district.

Justification for Research Design

Qualitative research encompasses various approaches that share the common goal of exploring and understanding phenomena from a subjective perspective (Tomaszewski et al., 2020). While most qualitative research approaches can be adapted for basic qualitative studies, some methodologies may not be the best fit due to their complexity, specialized nature, or resource-intensive requirements (Tomaszewski et al., 2020). These methodologies will not address the purpose of this study, which was to investigate elementary teachers' perceptions of the challenges of instructing students with dyslexia and recommendations to improve teacher training to work with students with dyslexia in the study school district. A grounded-theory approach, which is designed to systematically develop a theory of social phenomena, was not applicable to this study because the RQs did not call for such an investigation (see Khan, 2014). Ethnomethodology is a specialized approach that investigates how people construct and maintain social order through their routine interactions (Creswell & Poth, 2018).

Ethnomethodology can be quite complex and may necessitate a deeper comprehension of sociological concepts, which makes it unsuitable for a basic qualitative study (Creswell & Poth, 2018). Case studies are extensively used across various disciplines, including business, medicine, and social sciences (Creswell & Poth, 2018). Case studies offer a detailed examination of a single case, providing a rich and comprehensive understanding of specific phenomena, organizations, or individuals (see (Creswell & Poth, 2018). Even though a basic qualitative design and a case study design are similar, the basic qualitative design was better for this study because it focuses on the experiences of individuals and uses a single data collection source (see Creswell & Poth, 2018).

Phenomenology is another specific qualitative research approach that focuses on the lived experiences of individuals or groups and seeks to understand the essence or structure of those experiences (Bazen et al., 2021); however, it would not have been a good fit for this study. Phenomenology is concerned with the subjective interpretation of experiences and aims to uncover the underlying meanings that people attach to them (see Creswell & Poth, 2018). Phenomenology is a specific type of qualitative research that focuses on the essence of lived experiences, whereas basic qualitative research is a broader category of research that encompasses a variety of approaches, including phenomenology (Creswell & Poth, 2018). I chose a basic qualitative design for this study to understand and analyze, through semistructured interviews, transcriptions, coding, and themes, how participants perceive the challenges of instructing students with dyslexia and participants' recommendations for improved teacher training to work with students with dyslexia (see Parameswaran et al., 2020).

Participants

The study site targeted for this study was a suburban school district in the western United States. Participants self-selected from elementary schools in the study school district. Participants were recruited when I sent a letter of invitation to their district email addresses, which were obtained through open public records. Purposeful sampling was used to select educators to interview. The sample size was a total of seven elementary teachers, who self-selected into the study and agreed to a one-on-one, semistructured audio-only interview conducted via Zoom. Six participants were general education teachers, and one participant, Participant 4 (P4), was a special education teacher. All seven participants had experience instructing elementary students with dyslexia.

Setting

The study site for this basic qualitative study was a school district in the western United States. The district includes five high schools, nine junior high schools, and 31 elementary schools and serves nearly 30,740 students annually. The target site's combined enrollment was 1,778 students in kindergarten through Grade 5 during the 2022–2023 school year across five of the district's elementary schools. Of the 1,778 students attending the five elementary schools, 32% of the students had dyslexia with learning disabilities, and 68% of students did not have dyslexia and did not have a learning disability (administrator for nonpublic schools and agencies, personal communication, June 6, 2023). According to 2023 data in the study school district public school review, the number of potential participants in the recruitment pool was 71. These

potential participants included elementary teachers, general education teachers, special education teachers, and resource teachers employed at the five elementary schools.

Criterion-based selection was used to choose participants for this study on elementary teachers' perceptions and recommendations of the challenges of instructing students with dyslexia. Using criterion-based selection allows the selection of participants to be based on specific, predetermined criteria or requirements that correspond with the study's purpose (Li et al., 2019). Selecting participants was based on whether each participant met the inclusion criteria that permitted each teacher to contribute information based on the basic qualitative design topic (see Lodico et al., 2010).

For this study, the participants invited to participate included special education, general education, and resource teachers who taught at any of the five elementary schools from the study school district. Participants in the study self-identified as (a) elementary teachers who have experience instructing students with dyslexia, and (b) who have participated in PD related to dyslexia. Using purposeful sampling and a specified inclusion criteria supported the identification of participants who had information on the topic of dyslexia instruction in the study school district.

Sampling Size

Because qualitative research focuses on interpretation and meaning, I used purposeful sampling and specific inclusion criterion to support the recruitment of participants who were knowledgeable about the phenomenon being studied. A total sample of seven elementary teachers was obtained. Creswell and Poth (2018) cautioned against using an excessive number of participants in qualitative research, as a large

sample makes it difficult for a researcher to provide an in-depth picture. In qualitative

research, participant size and deeper inquiry are important considerations that can affect

the quality and richness of the findings and can support understanding the depth and

complexity of individual experiences, perspectives, and contexts (Creswell & Poth,

2018).

Sampling Procedure

In this investigation, I employed homogeneous purposeful sampling because the

participants share similar experiences and characteristics (see Creswell & Poth, 2018). To

answer RQs about a population, purposeful sampling includes selecting a subset of that

group's members to serve as a representative sample (see Creswell & Poth, 2018). I

conducted one-on-one, semistructured audio-only interviews via Zoom with seven

elementary teachers from five elementary schools in the study school district to explore

their perceptions of the challenges of instructing students with dyslexia and

recommendations for improved teacher training to work with students with dyslexia. I

used a first-come, first-served approach for identification of the participants who self-

selected into the study. The approach of accepting the first volunteers relies on self-

selection, as participants choose to participate voluntarily (Robinson, 2013). The result is

a sample of individuals who are particularly interested in the topic, potentially biasing the

results toward their perspectives (Robinson, 2013).

I selected participants ranging from general education, special education, and

resource teachers in the order that they expressed interest through email until I had seven

participants who met the criteria specified and who could provide a sample size that

could yield saturation. Saturation occurs when a judgment is made by the researcher that

further data analysis would not yield additional information to answer the RQs (Hennink

& Kaiser, 2022). Having seven participants, who met the participant inclusion criteria,

supported the likelihood of having enough participants to obtain enough data, reach

saturation, and to address the RQs (see Hennink & Kaiser, 2022).

Procedures for Gaining Access to Participants

Before seeking access to participants, I received permission from the Walden

University Institutional Review Board (IRB), which provided the option to streamline

IRB approval for my research study. Walden IRB granted approval for me to conduct the

study and sent a letter of approval with the approval number (#09-11-23-1069417). To

acquire a purposeful sample, I emailed through open public records the elementary

teachers in the study school district using Walden University's preapproved procedures

and documents for minimal-risk, work-related interviews of professionals. Walden

University's preapproved procedures and documents for minimal-risk, work-related

interviews of professionals were also utilized to interview seven participants. The

procedures and documents for the minimal-risk work-related interview include the

recruitment/interview procedures, site agreement, and consent form. Once seven

individuals expressed their willingness to participate by replying to my email, an

informed consent form for minimal-risk, work-related interview was issued to affirm

their decision to engage in the study. In an email, I provided a calendar of days and times

to select to schedule the interview. Once I received confirmation of the consent and a

response of the day and time the participant selected for the interview, I sent a

confirmation email stating I received their email and confirmed their selected interview time.

Researcher–Participant Working Relationship

In qualitative research studies, the method of establishing a researcher–participant working relationship involves various methods and strategies. Relationships are built through clear communication, respectful engagement, active listening, and empathy (Rubin & Rubin, 2011). The researcher builds rapport with participants, solicits participant feedback, and conducts routine follow-ups (Rubin & Rubin, 2011).

Building a relationship and getting to know the participants is a significant part of research studies (Creswell & Poth, 2018). Once I received confirmation through email from the seven participants, I sent each participant an email prior to conducting the interviews to inform the participants of the interview purpose and advise them of the confidentiality. I shared that no personally identifying information would be shared, including identities of participants or the study school district. I confirmed that no participants participating in the study felt pressured to participate. Ethical protection was a priority of the study. Therefore, I emphasized that participation was voluntary, and all participants had their right to withdraw at any time.

Protection of Participants

The measures that I took for the protection of participants' rights included explaining confidentiality that also included other aspects of informed consent. The identities of all participants in this study were safeguarded by removing all identifying data from the data set. A letter and a number were substituted for the names (e.g., P1,

P2). Due to the higher risk of privacy breaches with the video format and knowing that

Zoom has the option to record video feed when audio-recording, I ensured that the

software did not video record during the interview. Adaptation of methods to the research

context and ethical guidelines is essential for a successful qualitative study (Rubin &

Rubin, 2011).

<div align="center">**Data Collection**</div>

The data collected in a qualitative study should be rich, descriptive, and intended

to capture the complexity of the studied subject (Creswell & Poth, 2018). Qualitative data

collection methods are indispensable for gaining a thorough comprehension of the

experiences, attitudes, and social contexts surrounding a research topic (Creswell & Poth,

2018). A qualitative basic study design was employed to obtain insight into elementary

teachers' perceptions of the challenges of instructing students with dyslexia and

recommendations for improved training to work with students with dyslexia. The data

collection process for this qualitative basic study included procedures created to answer

the RQs and address the purpose of the research. The researcher assumes a pivotal role in

both data collection and data analysis when conducting a qualitative study (Onwuegbuzie

et al., 2009).

Data Collection Protocol

I used semistructured interviews with probes to collect information for this basic

qualitative study. I developed an interview protocol with input from my committee.

Rubin and Rubin (2011) stated that interviews provide an opportunity to discover

information that cannot be observed. Therefore, it is necessary to capture the raw data

and interpret it afterward. During the interviews, I noted other perceptions of the participants that provided information about their perspectives and interpretations that might not be immediately apparent to outside observers. For reliability and cross-checking, each interview was recorded through Zoom audio only. The interviews lasted approximately 45 minutes. When participants completed their interview, they were provided with a $20 gift card via email within 10 days of the interview as compensation for their time. To collect data, I used 10 open-ended interview questions as the data instrument developed from the literature review and conceptual framework to understand teacher perceptions of the challenges of instructing students with dyslexia and recommendations for improved teacher training to work with students with. Table 1 provides a crosswalk of the interview questions, alignment to the conceptual framework and literature, and probes used during the interview.

Table 1

Crosswalk of Interview Questions

Interview question	Rationale	Probes/follow-up question
1. What are the issues in identifying students with dyslexia?	LR: Identifying dyslexia	Can you explain what you mean?
2. What is the process for diagnosing students in your classroom with dyslexia?	LR: Diagnosing dyslexia	You mentioned _____, can you tell me more about that?
3. How do you teach students with dyslexia?	LR: Teaching dyslexia	I am really interested to hear more about _____.
4. What pedagogy is used to instruct students with dyslexia, such as the Orton-Gillingham-Stillman or multisensory structured language?	LR: Pedagogy	Can you share the benefits, advantages, or disadvantages?
5. How often do you need to create a specific lesson plan for the dyslexic students in your class?	LR: Teaching dyslexia	Can you please share an example of that?
6. How effective, credible, and useful is the PD provided by the district?	CF: Participant reactions	Can you explain what you mean?
7. How have you implemented teaching methods provided during PD to support students with dyslexia?	CF: Use of knowledge and skills	In what way?
8. What specific knowledge and skills have you gained from the PD sessions?	CF: Learning	How?
9. Can you provide examples of how the PD content has been applied in your classroom?	CF: Learning outcomes	Is there any additional information you want to share that you have not provided?
10. How does the school support teachers in accessing and participating in PD opportunities related to dyslexia?	CF: Needed organizational support	

Note. CF = conceptual framework; LR = literature review; PD = professional development.

Data Instrument

The interview instrument consisted of 10 open-ended interview questions. The intention behind using 10 open-ended interview questions was to facilitate data collection that analyzed to answer the RQs (Li et al., 2019). In qualitative research, probes are a valuable technique used during data collection, especially in interviews (Rubin & Rubin, 2011). The interview questions provide the overall structure of the interview, whereas probes serve to manage, interpret, and clarify the conversation (Rubin & Rubin, 2011). Probing questions were included with the instrument to elicit data from participants from five local elementary schools in one district in the western United States, who self-selected into this study and participated in one-on-one semistructured interviews through Zoom audio. I used the 10 open-ended interview questions to support the participants to comfortably express themselves regarding their perceptions of instructing students with dyslexia and recommendations for improved teacher training to work with students with dyslexia. The source of the first five interview questions came from the literature review, and the remaining five interview questions were derived from the conceptual framework using Guskey's (2016) theory of the five critical levels of PD evaluation.

I designed the interview instrument in collaboration with experts and committee members. First, the literature review had themes of the issues of identifying and diagnosing dyslexia and pedagogies most beneficial to instruct students with dyslexia. Guskey's (2016) five critical levels of PD evaluation focus on a backward planning approach. With the support of my committee members, the literature review, and Guskey's (2016) theory of the five critical levels of PD evaluation, the interview

questions were developed. The interview questions asked, the data collected, and the RQs aligned to provide data on the elementary teachers' perceptions of the challenges instructing students with dyslexia and recommendations to improve teacher training to work with students with dyslexia. The information obtained from the designed interview questions helped inform and identify the need for effective PD for instructing students with dyslexia.

Sufficiency of Data Collection

During the interviews, I inquired about participants' education, training, PD, and classroom experiences with students with dyslexia. The interview questions aimed to answer the RQs about elementary teachers' perceptions of the challenges of instructing students with dyslexia and recommendations for improved teacher training to work with students with dyslexia. Semistructured interviews consisted of preestablished questions that enabled me to ask more probing questions that yielded in-depth data and clarification (see Rubin & Rubin, 2011). The RQs for this study were developed on the premise that there were multiple perspectives to be uncovered (see Lodico et al., 2010). The questions created for the interviews allowed multiple perspectives and recommendations to be uncovered to answer the study's RQs. I used an interview protocol, which included the list of questions that were asked. The interview protocol consisted of a script, which included important components of the potential study.

Data Processes

The accumulation of field notes is widely regarded as more important than standardized research criteria (Phillippi & Lauderdale, 2017). Field notes are recorded by

the researcher during an observation (Creswell & Poth, 2018). In this study, field notes were taken during the interviews. I used a notebook to record information as a tool primarily used by qualitative researchers (see Rubin & Rubin, 2011). Using field notes and audio Zoom recordings while conducting each interview enabled me to record my feelings and reflections immediately after each interview while the answers were still fresh in my mind. The field notes and audio Zoom recordings supported the data analysis process employed to analyze the information collected. After completing the interviews and creating the transcriptions, I read each transcript multiple times to acquire a deeper comprehension of the provided information by each participant. I used a Microsoft Excel spreadsheet with pivot tables to transfer selected text excerpts into the spreadsheet and used an iterative process to conduct the content data analysis.

Systems for Keeping Track of Data

I stored the files using Microsoft Word to record participants' demographic information and interview responses. Each interview's recording and transcription were stored on my personal password-protected laptop. In addition, field notes from each interview were scanned and uploaded to my personal password-protected laptop computer. Ethical protection was a priority of the study. Participation was voluntary, and all participants were aware of their rights. No identifying information is included, to protect the identity of the participants.

Role of the Researcher

Qualitative researchers analyze and interpret data describing the study's social, cultural, and historical context (Yin, 2016). My role as the researcher in this basic

qualitative study was to investigate elementary teachers' perceptions about the challenges of instructing students with dyslexia and recommendations for improved training. My experiences in the field include 35 years of experience in the educational field, with 20 years as a kindergarten teacher at a small private traditional school. I provided 15 years of educational therapy services for local students in kindergarten through 12th grade and founded a private school that specializes in serving students with learning disabilities in Grades 3–8.

Reflexive bracketing as a researcher is essential in qualitative research. To bracket, one must be reflexive, and both activities require time to reflect, a supportive environment, and reflective skill; researchers are responsible for developing these resources (Ahern, 1999). To be reflexive, I put aside my own personal experiences, feelings, and thoughts while acknowledging my role as the researcher. As the head of the school, I am contracted with one local district as an alternative school for students with learning disabilities. I did not have any supervisory authority over any participant for this study. I clarified my role as a researcher as separate from the role as a contractor with the district. Although I am contracted with the district, I was not acquainted with any teachers in the district. The participants were given assurance of my prior experiences and my experiences with the topic did not limit the data analysis or compromise the data (see Creswell & Poth, 2018).

Data Analysis

In qualitative research, data analysis involves several key steps, including preparing and organizing the data, coding the data to identify patterns and themes, and

interpreting the findings (Yin, 2016). In classifying and categorizing qualitative data, the

constant comparative method resolves the study's issues and questions (Saldaña, 2015).

This constant comparative method enables a seamless transition between data collection

and analysis.

In this section, I describe the data analysis process and provide examples of the

coding and analysis process related to identifying coding, categories, and themes. I

employed qualitative content analysis to analyze the information collected. Content

analysis is a systematic approach to research that involves the examination of oral,

written, or audio content to extract significant insights, patterns, and information. There

are several types of approaches to content analysis, each with its own focus and purpose.

In this study, I used manifest and latent content analysis. Manifest analysis centers on the

frequency of explicit keywords or phrases, whereas latent content analysis uncovers

implicit themes, concepts, or emotions that may not be immediately evident in the text

(Graneheim et al., 2017). I used Yin's (2016) five phases of qualitative data analysis to

examine the information collected from participants. The five phases encompass the

process of (a) compiling, (b) disassembling, (c) reassembling, (d) interpreting, and (e)

concluding.

This study's data analysis took place after I completed all personal interviews

with the elementary teachers who agree to participate in this basic qualitative study. Data

analysis is understood to involve several structured processes for examining a data set to

identify and construct analytic themes and to transform these themes into what is widely

known as findings that help answer the RQs (Ravitch & Carl, 2015).

I transcribed the interview data after I concluded the interviews. All qualitative data were transcribed into a Microsoft Word document, and I used an Excel spreadsheet with pivot tables to assist me in analyzing descriptive data from the Zoom interviews. I used the Excel spreadsheet as a centralized location where I worked more efficiently by saving time, organizing, storing, and retrieving data, identifying connections that could be neglected by manual analysis, and thus systematically supported findings with evidence (see Prasetiyo et al., 2022). Once the interviews were transcribed, the next step was to analyze the data.

The interview data were analyzed to determine whether elementary teachers identified perceptions of the challenges of instructing students with dyslexia and their recommendations for improved teacher training to work with students with dyslexia. Field notes are detailed written or typed records made by a researcher during observations or data collection in qualitative research (Creswell & Poth, 2018). In this instance, I took notes in a notebook while conducting each one-to-one semistructured interview via Zoom; the notes were scanned and uploaded to my personal password-protected laptop. I documented information such as the participant's responses and the physical environment. The field notes were used to recollect key points from the interviews to analyze as part of the qualitative data.

Coding, Categories, and Themes

I maintained objectivity while coding, which may be challenging. According to Saldaña (2015), the process focuses less on objectivity and more on achieving comparable results between two or more individuals. Coding is typically a researcher-

generated word or short phrase that symbolically attributes a summative, salient essence-capture, or evocative attribute to language-based or visual data (Rubin & Rubin, 2011). Coding enables the researcher to group passages on the same topic, and systematic coding forces the researcher to consider not only what was recalled from the interviews but also passages that may modify or contradict the researcher's ideas (Rubin & Rubin, 2011). Coding requires the researcher to examine qualitative data collected through interviews or observations and translate the words, phrases, or sentences into codes or labels (Saldaña, 2015). Environments, situations, perceptions, recommendations, emotions, activities, strategies, approaches, and social codes are among the study's codes. These designations led to categories, which in turn led to themes. The data's physical organization was essential for comprehending the coding procedure.

For this study, open descriptive coding was used. The qualitative research technique of open descriptive coding is used to analyze and interpret narrative data (Saldaña, 2015). It entails systematically categorizing and classifying narrative data, such as interviews, personal experiences, and written accounts, to identify themes, patterns, or meanings within the data. Researchers can capture the richness and complexity of participants' experiences and perspectives using narrative-based coding (Saldaña, 2015). Open descriptive coding facilitates the discovery of nuanced insights, identifying common themes or patterns, and a deeper comprehension of the phenomenon being investigated (Saldaña, 2015). This method is useful in qualitative research, where the emphasis is on investigating subjective experiences, meanings, and social contexts (Parameswaran et al., 2020). Lincoln and Guba (1985) highlighted the significance of

coding as a crucial analytical tool for organizing and categorizing data. The number of codes used in qualitative research varies based on the study's scope, the data's complexity, and the degree of specificity necessary for comprehensive data analysis (Rubin & Rubin, 2011). I used as many codes as necessary to encapsulate the data's complexity and richness to answer the RQs.

Initial categorization involves segmenting the data into similar groups or categories that emerge from the diverse contexts of the various participants (Saldaña, 2015). Selective coding entails organizing the themes to articulate the problem or theory within the study. A theme can be the result of coding, categorization, or analytical reflection, but it cannot be coded in and of itself (Saldaña, 2015). The first coding cycle consisted of a degree in volume from a word to a whole paragraph to a page of text. For the second cycle of the coding process, I looked for words coded that were the same units, long passages of text, analytic notes about the data, or reconfiguration of the codes (see Saldaña, 2015). I also looked for codes or themes related to instructing students with dyslexia and elementary teachers' positive or negative experiences. I selected words or lines that could be used as codes. I reread the data to generate coding concepts. In addition, I created analytic memos containing diagrams and references to the relevant literature to structure and contextualize concepts (see Saldaña, 2015). Lastly, the memos included descriptions of the interview setting and the interviewee's circumstances. Once data were categorized, I organized concepts and codes into summarizing categories. I defined themes as recurring issues or concepts to support the RQs. Additional themes were created as needed to provide substantial data for the study.

Evidence of Data Quality

Ensuring credibility is the most critical factor in establishing trustworthiness of a study, Lincoln and Guba (1985) argued. Using reliability and validity determined the data's quality. Notes are potential sites for insightful analysis (Saldaña, 2015), so I documented field notes as close to the interviews as possible to reduce the likelihood of inaccurate recall, thereby increasing the accuracy of the data. Reliability and validity are crucial for determining qualitative research quality (Burkholder et al., 2019).

After completing the participant interviews, I stored the files securely. I used Microsoft Word to record participants' demographic information and interview responses. When conducting the interviews, I compared the interviewee's statement to my interpretation and determined where one ended and the other began (see Creswell & Poth, 2018). Member checking, also known as respondent validation, is a qualitative research approach and technique to enhance the credibility and trustworthiness of research findings (Creswell & Poth, 2018). Further, respondent validation involves seeking feedback from participants or individuals involved in the research study to verify the accuracy of the collected data. Member checking validates the findings by confirming their alignment with participants' experiences and viewpoints (Creswell & Poth, 2018).

Another way of checking validity is through triangulation. The process of varying data-gathering techniques and approaches is called triangulation (Lincoln & Guba, 1985). Triangulation is another primary strategy used to check the accuracy of qualitative findings. Triangulation increases the likelihood that conclusions and interpretations was

deemed credible (Lincoln & Guba, 1985). I used Zoom interviews, field notes, and transcripts to ensure accurate findings in this study.

Discrepant Cases

Discrepant cases in data collection refer to cases or observations that do not fit the expected pattern or behavior of most data points (Moffatt et al., 2006). Saldaña (2015) suggested that to promote trustworthiness of a study, the deductive approach should include a search for negative or discrepant cases. Dealing with qualitatively divergent cases requires meticulous analysis, critical thought, and an openness to alternative explanations and approaches (Moffatt et al., 2006). By adhering to these general procedures, researchers can identify and resolve instances where the results do not match the anticipated outcome and ensure their findings are reliable, accurate, and valid (Moffatt et al., 2006).

The identities of all participants in this study were safeguarded by removing all identifying data from the data set. Each participant was assigned a letter and a number to substitute for the names to protect their identity. As the researcher, I reviewed the recordings and transcriptions following the interviews to ensure the transcription displayed the correct wording and syntax for understanding. Through reviewing the recording and analyzing the themes, I determined whether a participant held beliefs, experiences, or practices that differed from those of most other participants.

Results

Central to determining the significance of coding is the interactive procedure of data analysis. Analyzing qualitative data entails the correlation, classification, and

description of phenomena with the conceptual framework of the researcher. According to

Yin (2016), data analysis in qualitative studies consists of five phases: (a) compiling, (b)

disassembling, (c) reassembling, (d) interpreting, and (e) concluding. Content analysis is

a systematic approach to research that involves the examination of oral, written, or audio

content to extract significant insights, patterns, and information. In this section, I describe

the data analysis process and provide examples of the coding and analysis process related

to identifying codes, categories, and themes. There are several types of approaches to

content analysis, each with its own focus and purpose. In this study, I used manifest and

latent content analysis. Manifest analysis centers on the frequency of explicit keywords

or phrases, and latent content analysis uncovers implicit themes, concepts, or emotions

that may not be immediately evident in the text (Graneheim et al., 2017). I selected my

content analysis based on my RQs and interview questions.

Coding

Compiling

In the process of compiling the data, I transcribed the one-on-one Zoom audio

recordings of the seven participants in the sequence of the interviews using the transcript

tool in Microsoft Word. I immersed myself in the data analyzing line-by-line by

highlighting words, phrases, and paragraphs. In addition, I sanitized the transcripts by

removing words and phrases that were unnecessary in context with the data analysis, such

as repeated words, "umms," and any identifiable information in the transcript that could

compromise confidentiality. After the transcripts were cleaned, I cut and pasted selected

text excerpts that addressed both RQs and the interview questions from all seven

participants and transferred them into a Microsoft Excel spreadsheet. The spreadsheet

allowed me to sort, organize, and compile the data. After gathering and becoming

familiar with the data, I proceeded to the second step of the data analysis procedure,

disassembling.

Disassembling

The disassembly process started with analyzing each participant's answers to the

RQs and interview questions. Yin's (2016) qualitative data analysis disassembles data as

the second stage. First, I conducted Round 1 of open descriptive coding investigating the

participants' transcripts for perceptions about instructing students with dyslexia and to

examine teacher recommendations to improve teacher training. I spent an extensive

amount of time combing through the Round 1 codes to interpret the meaning of the

participants' responses. Round 1 codes were analyzed for commonalities. I kept a field

journal of analytic notes throughout the data analysis to aid and guide the analysis

process. Analytic notes in qualitative research are written records that researchers create

to document their observations, thoughts, and interpretations as they analyze data. Yin

suggested that creating analytic memos throughout the analysis stage can help retain

important ideas and minimize confusion and frustration. I carefully examined each text

excerpt, pinpointing codes linked to Guskey's (2016) five critical levels of PD theory to

the study's conceptual framework. I used a pivot table to observe the frequency of the 39

descriptive open codes assigned. Table 2 exhibits a sampling of text excerpts of Round 1

codes by participant.

Table 2

Sample of Text Excerpts Using Round 1 Open Descriptive Coding

Interview text excerpt	Round 1 descriptive coding
One of the issues in identifying a student with dyslexia is that the school district cannot give a diagnosis of dyslexia. Actually, giving students the diagnosis or the label dyslexia is not something that can be done at the district level. (P1)	Challenge: Identification of students with dyslexia – district does not identify
It's hard. I feel like I'm not helping or supporting enough, and I feel like I'm not given the right tools to help these students who need my support. (P2)	Challenge: Instructions, services, material, lesson design, differentiation
We just keep doing the same thing over and over and over to these poor kiddos without ever changing our instruction. We just give it to them slower or give it to them 10 times instead of one time, and we expect there to be a difference. I don't think teachers think that dyslexia can be supported. (P3)	Professional development (PD): Content/limited
You can go to the special education department and say, hey, I want to use Orton-Gillingham, and they say, well, no, we have this other one we want you to use, but if you choose to pay for the Orton-Gillingham, you can use it in your classroom. (P4)	Challenge: Resources and finances
Your heart is in the right place, and you are doing everything you can, even if it sounds like you're not getting a ton of support from the district providing approaches and strategies and professional development days or anything. You are on your own, going out and figuring out how to help these kiddos, undiagnosed or diagnosed. That is amazing and just sad. (P5)	Challenge: District/support
In a perfect world, I would love more decodable readers for the low kids, but I've had to purchase my own. (P6)	Challenge: Teaching phonics
I taught them the best I could with the curriculum I had, and I was able to have resources and parents read with them. A great librarian who always pulled kids, so I tried to give them extra reading and extra support the best I could, but I don't think that they were necessarily getting what they needed. (P7)	Challenge: Continuing to make a difference in educating students with reading struggles every year

The following step in the data disassembly process included conducting two stages of open descriptive coding. The "open" aspect means the researcher is not confined to a preset list of codes; instead, the researcher develops these codes based on what emerges from the data (Rubin & Rubin, 2011). I continued to create analytic memos

about the codes to ensure a clear understanding of how the data were related to the

study's two RQs. The first coding round entailed assigning labels to words, phrases, or

paragraphs that captured the educators' viewpoints. Table 3 reflects the frequency count

of the 39 Round 1 codes related to the 442 pieces of coded text from the seven participant

interviews.

Table 3

Round 1 Open Codes

Round 1 codes	# of raw data excerpts
Challenge: Class size	9
Challenge: Collaboration	1
Challenge: Continuing to make a difference in educating students with reading struggles every year	14
Challenge: Design/decoding	2
Challenge: District/support	11
Challenge: Eligibility criteria	8
Challenge: Experienced teacher support	1
Challenge: Identification long process for 504/IEP in the district	17
Challenge: Identification of students falling through cracks	4
Challenge: Identification of students with dyslexia – school district does not identify	49
Challenge: Identification of students with dyslexia – rely on parents	7
Challenge: Identification rely on resource specialists or psychologists for dyslexia	14
Challenge: Instruction alphabet identification deficit	4
Challenge: Instruction support	7
Challenge: Instructions, services, material, lesson design, differentiation	66
Challenge: Intervention, resource and special education teacher shortage	26
Challenge: Lesson design/ differentiation Instruction	22
Challenge: Limited instruction teaching letters and sounds	4
Challenge: Parent provides outside support	1
Challenge: Providing accommodations in IEPs	1
Challenge: Resources and finances	9
Challenge: Resources, training	5
Challenge: Services 504/IEP process relies on families	1
Challenge: Specialized instruction	2
Challenge: Staff meetings/teacher input	2
Challenge: Strategy/SPIRE program	4
Challenge: Teacher input valuable/informative	14
Challenge: Teacher support	7
Challenge: Teaching phonics	13
Class: Size	2
Professional development (PD): Content/limited	26
PD: Content/limited, collaboration time, peer observations	16
PD: Content/multisensory training	11
PD: Content/none	8
PD: Design	38
PD: Financial district funded	1
PD: Orton-Gillingham training	5
PD: Peer collaboration	3
PD: Teaching students with disabilities	7
Grand total	442

Note. IEP = Individualized Education Program; SPIRE = Specialized Program Individualizing Reading Excellence.

I also created pivot tables to examine the coding patterns. Next, in the second round of open coding, I consolidated the codes established in the first round into similar patterns. These consolidated patterns were then aligned with the conceptual framework of the study. In the first round of open descriptive coding, I identified 442 distinct pieces of text that I coded. Using Excel as a centralized location to paste the identified text excerpts from the transcripts, I worked efficiently through time management, data organization, retrieval, and identification of connections overlooked during manual analysis, and I supported findings with evidence (Prasetiyo et al., 2022). When I analyzed the 39 Round 1 codes using a pivot table in an Excel spreadsheet, I gained an in-depth understanding of the Round 1 data. The frequency of text excerpts linked to each Round 1 open codes description is displayed in Table 2. After the disassembly, I examined the data to ensure all the data were coded and accounted for to move to the following data analysis and reassembling. The 39 Round 1 codes were collapsed into four Round 2 codes. I identified patterns in the Round 1 Codes that were similar to group codes that were similar into Round 2 codes. Table 4 reflects the frequency count of the Round 2 codes and Round 1 codes and reflects how Round 1 codes were collapsed into four Round 2 Codes. Table 5 exhibits a sampling of text excerpts of the four Round 2 codes by participant.

Table 4

Round 1 to Round 2 Open Codes and Frequency Count of Text Excerpts by Code

Round 2 to Round 1	# of raw data text excerpts
Challenge: Classroom and instructional support	183
Challenge: Class size	9
Challenge: Collaboration	1
Challenge: District/support	11
Challenge: experienced teacher support	1
Challenge: Instruction support	7
Challenge: Instructions, services, material, lesson design, differentiation	65
Challenge: Intervention, resource, and special education teacher shortage	26
Challenge: Lesson design/differentiation Instruction	22
Challenge: Parent provides outside support	1
Challenge: Resources and finances	9
Challenge: Resources, training	5
Challenge: Services 504/IEP process relies on families	1
Challenge: Staff meetings/teacher input	2
Challenge: Reacher input valuable/informative	14
Challenge: Reacher support	7
Class: size	2
Challenge: Identification of students with dyslexia	99
Challenge: Eligibility criteria	8
Challenge: Identification long process for 504/IEP in the district	17
Challenge: Identification of students falling through cracks	4
Challenge: Identification of students with dyslexia – district does not identify	49
Challenge: Identification of students with dyslexia – rely on parents	7
Challenge: Identification rely on resource specialists or psychologist for dyslexia	14
Challenge: Meeting reading needs of students with dyslexia	45
Challenge: Continuing to make a difference in educating students with reading struggles every year	14
Challenge: Design/decoding	2
Challenge: Instruction alphabet identification deficit	4
Challenge: Instructions, services, material, lesson design, differentiation	1
Challenge: Limited instruction teaching letters and sounds	4
Challenge: Providing accommodations in IEPs	1
Challenge: Specialized instruction	2
Challenge: Strategy/SPIRE program	4
Challenge: Teaching phonics	13
Professional development (PD) content and design limited	115
PD: Content/limited	26
PD: Content/limited, collaboration time, peer observations	16
PD: Content/multisensory training	11
PD: Content/none	8
PD: Design	38
PD: Financial district funded	1
PD: Orton-Gillingham training	5
PD: Peer collaboration	3
PD: Teaching students with disabilities	7

Note. IEP = Individualized Education Program; SPIRE = Specialized Program Individualizing Reading Excellence.

Table 5

Sampling of Text Excerpts by Participant for Round 2 Codes

Text	Round 2 code
This is a challenge because we rely on parents and families to go outside of the school, get the medical diagnosis, and then tell us. (P1)	Challenge: Absence of systemic district process to identify students with dyslexia
Teaching right now is really difficult and it's kind of not really what I expected it to be, and it's really hard. (P2)	Challenge: Instructional support/materials/resources
As my other colleague likes to say, we're on an island, we're on our own island on the campus. (P3)	Challenge: Instructional support/materials/resources
For special education, especially dyslexia, I wish there were a better understanding of it. I mean it, like I said, it's 2023, and I still get teachers or other staff members that think it's flipping their letters around or it's just a reading disability. (P4)	Professional development content and design limited
I have no support, and I have 31 students, so I try to work with my struggling students as often as possible, but in small reading groups, I can maybe meet with them in particularly maybe two times a week, because I have other reading groups too. (P5)	Challenge: Meeting reading needs of students with dyslexia
At the end of the day, nothing's perfect, and we're all just doing the best we can to challenge the high kids, work with the low kids, and help everyone get across their own educational bridge that they're on. (P6)	Challenge: Meeting reading needs of students with dyslexia
The district would say they're too young to diagnose at that age, which was usually what I came across, and we need to wait till they get older, which was usually what I heard in kindergarten and first. (P7)	Challenge: Absence of systemic district process to identify students with dyslexia

Reassembling

I proceeded with the data analysis by examining the Round 2 codes obtained during the disassembling phase and began the task of reorganizing the data into additional categories. While maintaining the study's RQs as a central focus, I searched

for recurring concepts mentioned by participants. I utilized pivot tables to organize and compare data sets in various configurations, which helped visualize and pinpoint potential patterns. The reassembling process refers to a method in qualitative research where the researcher compares and matches patterns found in the data with a conceptual framework (Yin, 2016). I examined the Round 2 codes for similar patterns and grouped them accordingly. The pivot tables supported observing the patterns in the Round 2 codes and moving them into similar categories. Table 6 depicts the reassembling process, adding categories to Round 2 codes, and a count of the frequency of coded text to each of the four categories and each Round 2 code.

Table 6

Round 2 Open Codes to Categories and Count of Text Excerpts by Code

Categories to Round 2 codes	# raw data text excerpts
Challenge: Absence of systemic district process to identify students with dyslexia	102
Challenge: Identification of students with dyslexia	99
Challenge: Instructional support/materials/resources	183
Challenge: Classroom and instructional support	183
Challenge: Meeting reading needs of students with dyslexia	45
Professional development content and design limited	115

Four distinct categories emerged from reassembling the data, as displayed in Figure 1. Figure 1 shows the categories and percentage of text coded to each category. The categories labeled as challenges were related to RQ1 and to the emerging themes for RQ1, whereas the category labeled as "PD Content and Design Limited" corresponded to RQ2 and supported the emerging theme for RQ2.

Figure 1

Categories and Percentage of Coded Text Excerpts by Category
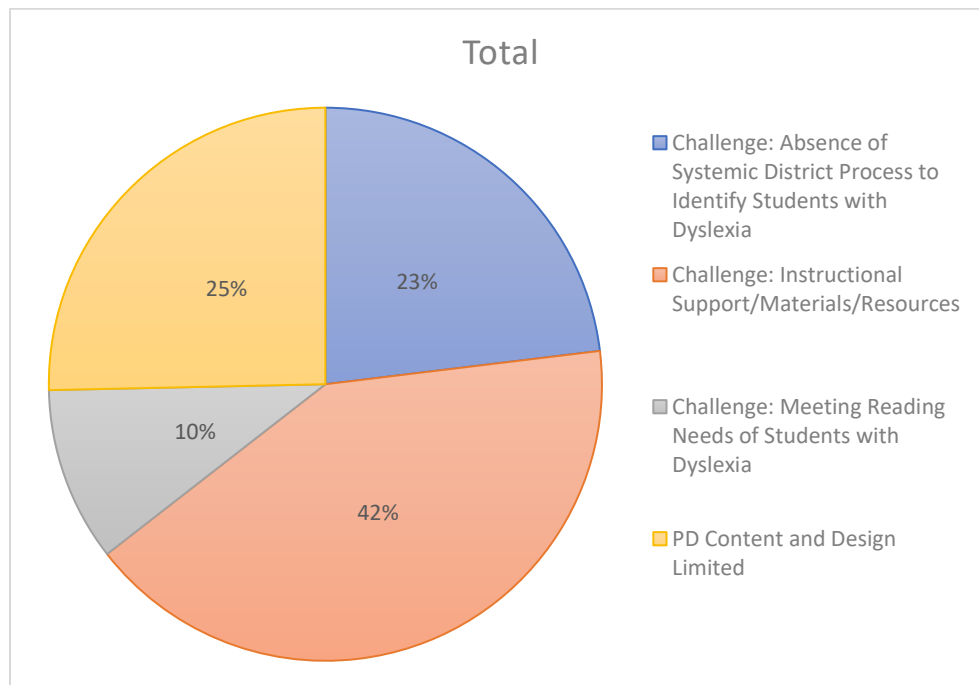
Note. PD = professional development.

 Categories in qualitative data analysis, as described by Yin (2016), are the result of successful inductive reasoning. Reassembling research involves refining extensive data into more specific and targeted details. This process addresses a study's central purpose and RQs. The categories were finalized with another analysis step and then interpreted into three main themes. Table 7 lists the final three themes. In Table 7, the counts of coded text are displayed by theme.

Table 7

Themes to Categories and Count of Text Excerpts

Theme	# raw data text excerpts
1. Elementary teachers perceive the absence of a district process for identifying students with dyslexia is a challenge of instructing students with dyslexia.	48
2. Elementary teachers describe the lack of instructional support, materials, and resources as a challenge to meeting the instructional needs of students with dyslexia.	157
3. Elementary teachers recommend systemic professional development focusing on dyslexia and students' instructional needs for teachers working with students with dyslexia and to improve training.	237
Grand total	442

Overall, three themes emerged. Two themes emerged for RQ1 related to the challenges of absence of systemic district process to identify students with dyslexia; lack of instructional support, materials, and resources; and meeting reading needs of students with dyslexia. One theme emerged for RQ2 pertaining to PD content and design limited for elementary teachers working students with dyslexia. Figure 2 depicts the themes that emerged and percentage of coded text excerpts by theme.

Figure 2

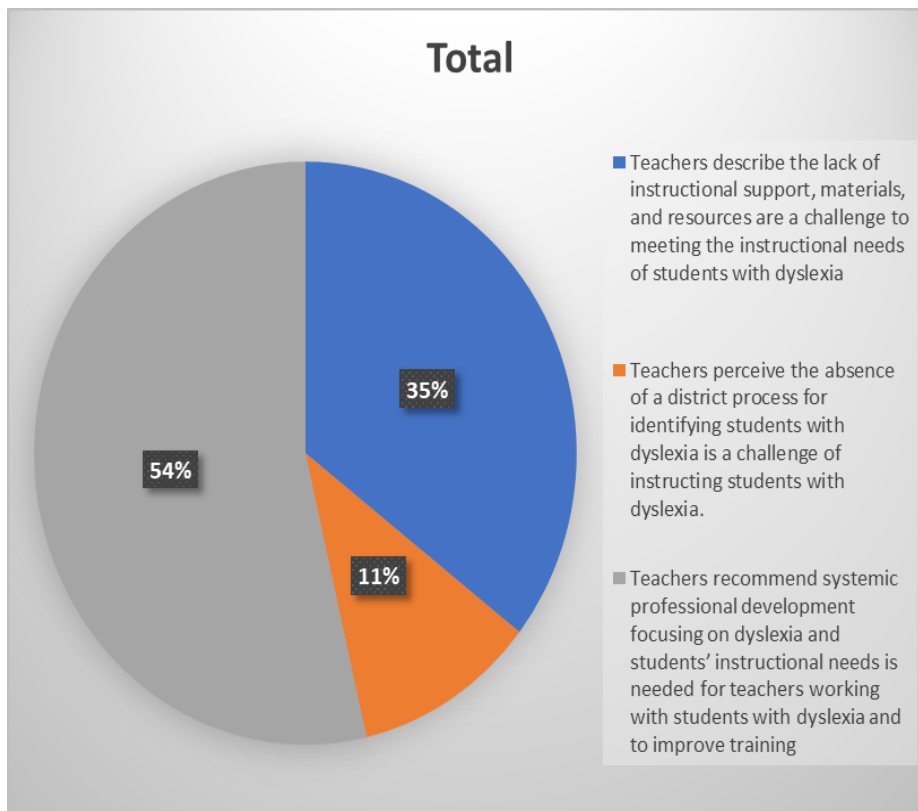*Themes and Percentage of Text Excerpts Coded by Theme*

Table 8 depicts the three themes that emerged by RQ1 and RQ2. Overall, 442 pieces of text were coded in two rounds of open descriptive codes by moving from codes to categories to themes. The percentage of coded text is equivalent in examining the number of pieces of coded text for RQ1 and comparing the number of pieces of coded text for RQ2.

Table 8

Themes by Research Question (RQ)

RQ	Themes
RQ1	1. Elementary teachers perceive the absence of a district process for identifying students with dyslexia is a challenge of instructing students with dyslexia.
RQ1	2. Elementary teachers describe the lack of instructional support, materials, and resources as a challenge to meeting the instructional needs of students with dyslexia.
RQ2	3. Elementary teachers recommend systemic professional development focusing on dyslexia and students' instructional needs for teachers working with students with dyslexia and to improve training.

Interpreting

The purpose of the interpreting phase was to formulate a detailed interpretation grounded in specific text evidence to respond to the RQs. Interpreting the data is a critical phase where researchers analyze the grouped data units to derive meaningful insights (Yin, 2016). This stage involved identifying and describing the themes, trends, or commonalities that emerge from the data. I explored the data's depth and context. I used a pivot table to focus closely on the categories. Then, I selected data matching these categories and looked over the list of text excerpts using the spreadsheets. By spending time immersed in the data, I gained a clear understanding of the patterns within the categories, which allowed me to accurately grasp the perspectives of the research participants. Three key themes emerged as representations of the data findings.

Concluding

The final stage of Yin's (2016) qualitative data analysis is the concluding phase. I previously discussed the study's purpose, RQs, data collection, and analysis interpretation. I examined every interview transcript to understand its context, conducting a content analysis that included two rounds of open descriptive coding. Reviewing the interview transcripts, I also used my field notes to record my reflections. Additionally, I wrote analytic memos during the disassembling and reassembling stages to ensure accurate and consistent coding of words and phrases. I utilized an Excel spreadsheet and pivot tables to identify emerging themes, visually represent frequently occurring codes, and investigate potential patterns between codes and categories. I analyzed coding to identify recurring patterns that I used to develop my themes. In addition, I analyzed the RQs' categories about emerging themes (see Yin, 2016). Using pivot tables validated the correlations among the codes, categories, and themes to address both RQs. All three of the themes emerged repeatedly during the interviews. Lastly, I carefully examined each text excerpt, pinpointing codes that were linked to Guskey's (2016) theory of the five critical levels of PD theory integral to the conceptual framework of the study where the responses of the participants that addressed the problem statement, the purpose of the study, and the interview questions.

Themes

I designed this basic qualitative study to investigate elementary teachers' perceptions of the challenges of instructing students with dyslexia and recommendations to improve teacher training to work with students with dyslexia in the study school

district. To attain insight from my data, I analyzed and interpreted the data to investigate teachers' perceptions about challenges instructing students with dyslexia and to learn teacher recommendations to improve teacher training. Upon careful examination of the data, three themes became apparent:

1. Elementary teachers perceive the absence of a district process for identifying students with dyslexia is a challenge of instructing students with dyslexia.

2. Elementary teachers describe the lack of instructional support, materials, and resources as a challenge to meeting the instructional needs of students with dyslexia.

3. Elementary teachers recommend systemic PD focusing on dyslexia and students' instructional needs for elementary teachers working with students with dyslexia and to improve training.

The purpose of this basic qualitative study was to investigate elementary teachers' perceptions of the challenges of instructing students with dyslexia and recommendations to improve teacher training to work with students with dyslexia in the study school district. Two RQs were investigated in this study:

RQ1: What are elementary teachers' perceptions of the challenges of instructing students with dyslexia at the research site?

RQ2: What are elementary teachers' recommendations to improve teacher training to work with students with dyslexia at the research site?

Theme 1: Elementary teachers Perceive the Absence of a District Process for Identifying Students With Dyslexia Is a Challenge of Instructing Students With Dyslexia.

Throughout the interviews, the participants provided a comprehensive account of how elementary teachers perceive the absence of a district process for identifying students with dyslexia as a challenge of instructing students with dyslexia. Each of the seven participants stated that the district does not diagnose dyslexia. P1 explained,

One of the issues in identifying a student with dyslexia is that the school district cannot give a diagnosis of dyslexia. Actually, giving students the diagnosis or the label "dyslexia" is not something that can be done at the district level.

P7 added, "The district would say they're too young to diagnose at that age, which was usually what I came across, and we need to wait till they get older, which was usually what I heard in kindergarten and first [grade]." In addition, P4 and P5 shared that they cannot even use the word *dyslexia*, and they will never see that as an eligibility criterion. P5 said, "Sometimes parents would say 'dyslexic,' and the district would say, oh, we don't have any tests for that. Now, reading disabilities, we do." P3 remarked,

The school won't diagnose until you do a full IEP and must do a full evaluation, and even then, in our school district, they do not call it dyslexia; they call it phonological processing disorder. So, we aren't even using the term *dyslexia* once they hit special education.

P5 expressed, "I think a student might have dyslexia, but the district will not actually use that word *dyslexia*, which a lot of times sometimes they would call it a reading disability."

All seven of the participants reported struggling to understand why the district continues not to diagnose students who may have dyslexia. Identification of dyslexia is a significant issue, according to the participants, because they must rely on parents to obtain a dyslexic diagnosis. P1 said, "This is a challenge because we rely on parents and families to go outside of the school, get the medical diagnosis, and then tell us." P5 said, "So if a family brings in proof, then the school district must also do their own testing, so the parents have to request it." P1 and P3 agreed that if a parent received a medical diagnosis of dyslexia from their doctor, the district would immediately begin a comprehensive battery of assessments to acquire an IEP. P1 commented, "It is parents seeking out support, not the school. I think that's how their daughter eventually got her diagnosis, knowing that the parents need to get it, and that's horrible to say, but that is how the system works." P3 said, "I've never had a parent come with a medical diagnosis to an IEP meeting."

All seven participants acknowledged that obtaining a diagnosis from parents is an essential hurdle. The district can initiate the 504 or IEP procedure once the diagnosis has been determined. The process of beginning and completing an IEP usually takes an entire school year, according to six of the participants (P1, P3, P4, P5, P6, and P7). P1 added, "I have had third and fourth [grade] children often who are falling through the cracks because it takes so long to complete an IEP." P3, P4, and P5 noted that with an IEP,

despite falling behind by 6 months to a year, students may not be eligible for basic accommodations beyond obtaining manipulatives, relocating to the front of the classroom, extended time on tests, and text-to-speech. P4 added, "The only thing that we would have in place is, as I said, it always falls back on their eligibility criteria in the IEP. What can we offer." P6 said, "Teachers are always raising the red flag and trying to get help, it seems like, and the help takes forever sometimes."

The challenge of instructing students with dyslexia, combined with the absence of a district process for identifying students with dyslexia, has caused continued frustrations among the seven participants at the district. P7 shared, "I do not know why the district waits; I wish I knew. I mean, it is a public school, and they don't want to have to do anything extra." P2 admitted, "Teaching right now is really difficult, and it's kind of not really what I expected it to be, and it's really hard."

Seven participants offered recommendations to the district to alleviate the difficulties and frustrations associated with teaching students with dyslexia. P6 said, "The district should have a list of 10 steps teachers need to know regarding dyslexia and the five things to look for in students with dyslexia." All seven participants agreed that in a perfect world the district would aid in the diagnosis of prospective students with dyslexia, thereby preventing students from falling through the cracks of our educational system. Furthermore, instructors not only perceive the lack of a systematic approach in identifying students with dyslexia, but also face ongoing challenges in delivering successful instruction to students with dyslexia.

Theme 2: Elementary teachers Describe the Lack of Instructional Support, Materials and Resources as a Challenge to Meeting the Instructional Needs of Students With Dyslexia.

Principals, as instructional leaders, must employ their leadership skills to guarantee the academic success of all students. The seven participants described the challenges of instructional support/materials/resources and reading needs of students with dyslexia. Effective reading instruction in the early grades must involve explicit instruction in the five reading components of phonemic awareness, phonics, vocabulary, fluency, and comprehension, according to the NRP (2000).

All seven of the participants discussed their challenges surrounding instructional support, services, materials, lesson design and differentiation instruction. P1 said, "It's a lot of individualized and personalized instruction and giving individual students with any kind of extra need special attention is exceedingly difficult." P2 admitted, "It's hard. I feel like I'm not helping or supporting enough, and I feel like I'm not given the right tools to help these students who need my support." P3 explained,

> We just keep doing the same thing over and over and over to these poor kiddos
> without ever changing our instruction, we just give it to them slower or we give it
> to them 10 times instead of one time, and we expect there to be a difference. I
> don't think teachers think that dyslexia can be supported.

P1, P2, P4, and P6 all expressed challenges in receiving instruction support for students with dyslexia. P1 said, "The teaching approach is on me or an intervention by the resource specialist." P2 said,

I do have an aide that comes in every day, so a lot of times, the students that are a

little bit lower that I feel need that support, the aide will help support them, but I

think a lot of times they probably rely on their peers. If I can't be there or the aide,

I can't be there to help them at all.

P3 said, "As my other colleague likes to say, we're on an island, we're on our

own island on the campus." As a result of elementary teachers stating they are on their

own island, P6 explained, "Teachers will sign up by choice to go to PD days to receive

instruction support." P1 said, "The biggest frustration I have as a teacher is the length of

time it takes to get the support. . . . The district needs to provide extra support, teachers,

and aides, but they don't." P6 said, "We have extra helpers in the classroom, like an aide

that comes in every now and then, a parent helper or a high school student will help." P2

noted, "The aide is not credentialed or trained for dyslexic kids." P1 said, "Resource

teachers are 100% a resource for classroom teachers for any type of learning disability."

P4 said, "People, even in special education, still think of dyslexia as, it's just a reading

disability." P2 said, "I try the best I can. My class is full. I have 30 students there." P5

shared,

I have no support, and I have 31 students, so I try to work with my struggling

students as often as possible, but in small reading groups, I can maybe meet with

them in particularly maybe two times a week, because I have other reading groups

too.

Instructors not only face ongoing challenges in delivering successful instruction to

students with dyslexia, but also encounter challenges in obtaining specialized materials,

resources, and instruction to support students with dyslexia. To educate students with dyslexia, educators require specialized instruction, materials, and resources. The absence of district support in supplying students with dyslexia with the needed curriculum, materials, and resources is a concern shared by all seven participants. Throughout the interviews, participants discussed the challenges they encountered when attempting to come up with their own strategies and methods for instructing students with dyslexia. P3 stated, "One of my passions is teaching students with reading disorders and dyslexia. So, I did a lot of research on my own on how to support students." P7 said, "I would seek out more those kinds of trainings on my own." P5 said,

> Your heart is in the right place, and you are doing everything you can. Even if it sounds like you're not getting a ton of support from the district providing approaches and strategies and PD days or anything. You are on your own going out and figuring out how to help these kiddos, undiagnosed or diagnosed. That is amazing and just sad.

Orton-Gillingham, SPIRE, and multisensory approaches were among the programs available to all seven participants. P5 explained, "We have a resource teacher that does pull them and was trained under a program called SPIRE, and SPIRE is supposed to help students that have reading disabilities along with dyslexia." P4 said,

> You can go to the special education department and say, hey, I want to use Orton-Gillingham, and they say, well, no, we have this other one we want you to use, but if you choose to pay for the Orton-Gillingham, you can use it in your classroom.

P5 said, "I have looked up SPIRE, and I've read a little bit about it, but I haven't had any training on it, and I know a little bit." P3 said,

> I had to ask to go to a PD, and I had to find it and present my case and write an email about how this was going to increase my teaching ability and what it was going to do for the students in my classroom, I had to basically, sell it to them, and yes, they paid for it.

> The need for instruction support, services, materials, lesson design, and differentiation instruction requires district funds. P1 stated,

> I would say, if I had to go to the district and say my top three [needs], it would be to give me aides in the classroom, give me relevant and better resources throughout, and better plan out PD and make it easier for me to go and do some expert observations.

P2 added,

> I think there are a lot of issues. I think that there are not enough resources, or support or training to say I am helping or finding dyslexia in a student in my classroom, it's something I struggled a lot with.

P6 said, "I would say an aid would be like having a good teacher or like a reading specialist. Those people kind of know what they're doing in the classroom."

> Participants cited a problem with funding. P1 said, "All these extra services cost money, and the districts often don't want to provide the money." P7 said, "I understand, due diligence, but it is such a lengthy process, and the teachers, we're the foot soldiers, we know what these kids need, but it's what is the district willing to put out in terms of

expenditure." P1 also said, "All these extra services cost money, and the districts often do not want to provide the money." P4 acknowledged, "I have to pay for that, and you have these courses you have to attend for a month and a half long, and at the end, you get a free book." P5 said, "One, it's a lot of money to go and time, money and time, both things I don't actually have a moment in my life." P6 said, "In a perfect world, I would love more decodable readers for the low kids, but I've had to purchase my own."

Furthermore, the task of meeting the needs of students with dyslexia remains an ongoing struggle. P2, P3, and P5 stated that there is a lack of sufficient support and resources for students with dyslexia. P5 acknowledged, "You know the supports are not there, and you know you're flying by the seat of your pants with these dyslexic kids, and you're doing a fantastic job." P3 explained,

> We tend to have a lack of intervention, and as much as our school says it's so important to have an intervention, the first teachers that they'll pull are the intervention teachers to go teach in the general education classes, which makes sense at a staffing level, but not at a supporting kid level.

P2, P4, and P7 acknowledged their dissatisfaction and doubts about implementing the curriculum provided and acknowledge feelings of inadequacy in meeting the needs of dyslexic students. P2 shared, "I'm not sure if I have any dyslexic students, so I'm not really using anything right now other than the small one-on-one support if I think they need it." P5 said,

I have no support, and I have 31 students, so I try to work with my struggling students as often as possible, but in small reading groups, I can maybe meet with them two times a week because I have other reading groups, too.

P7 said,

I taught them the best I could with the curriculum I had, and I was able to have resources and parents read with them. A great librarian who always pulled kids, so I tried to give them extra reading and extra support the best I could, but I don't think that they were necessarily getting what they needed.

P2 said,

It's really hard to have no support from the school, but then as well as no support from home and I feel like I am trying the best I can, and there's only so much I could do within the hours I'm with the student, so I feel like I failed them or I'm not doing enough for them, so I would say that's the hardest part.

P6 said, "At the end of the day, nothing's perfect, and we're all just doing the best we can to challenge the high [performing] kids, work with the low kids, and help everyone get across their own educational bridge that they're on."

Elementary teachers face ongoing challenges in delivering successful instruction, support, material, and resources to students with dyslexia. In addition, elementary teachers reported needing systemic PD that focuses on dyslexia and students' instructional needs. That finding is Theme 3.

Theme 3: Elementary teachers Recommend Systemic PD Focusing on Dyslexia and Students' Instructional Needs for Elementary teachers Working With Students With Dyslexia and to Improve Training

Upon the conclusion of their interviews, each of the seven participants was asked to answer the following question: "In a perfect world, what would be your greatest needs, suggestions, and wishes?" Overall, feedback from the participants included more tools and resources, smaller class sizes, increased awareness of dyslexia to meet the needs of dyslexic students, and improved PD focused on students with dyslexia.

The five participants P1, P2, P4, P5, and P6 wished for a future that includes aides, services, educational materials, and reduced class sizes. P1 said, "In a perfect world, every teacher would have an aide 100%." P2 said, "A perfect world would be having a lot more support, resources, books, and websites." P4 said, "In a perfect world, there would be sufficient staff." P5 said, "Class size 31 is a lot." P6 said, "In a perfect world, I would love a smaller class. I think that's the number one thing that would be really helpful. I just have too many kids."

Five participants, P3, P4, P5, P6, and P7, focused on PD specifically to understand and teach students with dyslexia, including training in curriculum and instructional strategies proven to work for dyslexic students. P3 said, "I think the top thing I would do is I would look for a curriculum that is proven to work for students who have dyslexia and then go from there." P4 said, "PD, in a perfect world, would be offered during the work day, and they would have some sort of schedule where they have roving substitute teachers that will walk in and cover class." P5 said, "In a perfect world, I feel

like I could do more if I had the training for struggling readers and also challenge my students who are flying through their work." P6 contributed, "I think they should even have more PDs about dyslexia because it's the reality in a perfect world." P7 said, "In a perfect world, we would have phonics training, and we would be able to help the dyslexic kids, but I tried to teach phonics and did not do it justice."

Participants P4 and P7 wanted better understanding about dyslexia among educators that dyslexia is a complex condition that goes beyond common misconceptions. P4 said,

> For special education, especially dyslexia, I wish there were a better understanding of it. I mean it, like I said, it's 2023, and I still get teachers or other staff members that think it's flipping their letters around or it's just a reading disability.

P7 said, "In a perfect world, I wish someone would have told me that sounds like dyslexia. I wish someone had raised the red flag."

Participants expressed a need for more specialized resources like decodable readers, specific training in phonics, and support in preparing and delivering effective lessons for students with dyslexia. P3 said, "I think the second thing would be to get as many people out there getting trained and getting exposure." P4 said,

> Dyslexia is so layered and so much more complex than people think. I just wish there was a better understanding, and then maybe that would push or lend itself towards people focusing on it and wanting to create a dyslexic-specific

curriculum or something like that, because it is a whole other ball game, how they

learn.

In summary, participants advocated for comprehensive systemic changes,

including consistent PD focused on dyslexia, better resources, smaller class sizes, and

methods to instruct students with dyslexia. Elementary teachers perceived these changes

as essential for effectively meeting the needs of students with dyslexia.

Discrepant Cases

Salient data allow researchers to focus on the essential aspects of the data,

ensuring they make informed decisions or draw meaningful conclusions (Eisenhardt,

1989). In addition, salient data represent the key points, findings, or elements that are

significant and noteworthy for a particular analysis (Moffatt et al., 2006). The identities

of all participants in this study were safeguarded by removing all identifying data from

the data set. Each participant was assigned a letter and a number to substitute for the

names to protect their identity. As the researcher, I reviewed the transcriptions and

followed each interview to ensure the transcription displayed the correct wording and

syntax for understanding. I conducted multiple rounds of coding, involving a thorough

review of the identified themes. This repetitive process aimed to ensure the accuracy and

reliability of my interpretations of the data. Through reviewing the recording and

analyzing the themes, I determined there were no discrepant cases among the

participants. However, if such a case had been discovered, the protocol would have been

to transparently disclose it in the study's findings (Eisenhardt, 1989).

Evidence of Quality

Creswell and Poth (2018) described that the primary aspect of ensuring quality in research is providing a narrative that offers insights into the experiences of the participants. Next, the researcher arranges the narratives in a sequential order, integrating key events into the story's framework. In addition, the researcher identifies and presents the main themes from the qualitative data. Lastly, the researcher engages the participants in reviewing the gathered data, allowing them to contribute to the narrative's final presentation in the research report (Creswell & Poth, 2018). In qualitative research, "evidence of quality" refers to indicators that the research is credible, reliable, and valid. This evidence involves several key aspects: credibility, transferability, dependability, and confirmability. The quality of this research project is evidenced by the effective alignment of the study's purpose, questions, methodology, and analyses. Poucher et al. (2019) defined methodological coherence as a fundamental principle that aids researchers in making choices that guarantee consistency among their RQ, philosophical stance, and the methods and strategies they use for analyzing and presenting qualitative research findings. The problem and objective of this research study were the basis for formulating interview questions, which were aligned with the conceptual framework. The study also adhered to procedures aimed at ensuring validity and reliability. Adhering to established research procedures is a recommended approach for qualitative researchers (Lincoln & Guba, 1985). Each interview began with a confidentiality agreement and a clear explanation of the research. The semistructured Zoom audio interviews were consistently guided by the same set of 10 questions.

To strengthen the credibility and validity of my research findings, I (a) followed a consistent and methodical process, (b) recorded journal notes during interviews, and (c) implemented member checking. The accuracy of the data was confirmed by using transcripts from recorded Zoom audio, member checking, and journal notes. I followed Yin's (2016) five stages of qualitative data analysis: compiling, disassembling, reassembling, interpreting, and concluding the data. The analysis of the data entailed arranging the interview questions in a Microsoft Excel spreadsheet, engaging in inductive reasoning, performing line-by-line open coding, repeatedly reviewing the transcripts, and forming thematic concepts using pivot tables. Documentation of the data collection methods, including the semistructured interview format, has been provided in tables in this section. Support for the qualitative data analysis process is provided in tables as well, which include details on open coding and text-based proof for thematic findings relevant to RQ1 and RQ2.

Systemic Process

Qualitative methods of gathering data were essential for understanding the experiences, beliefs, and social settings related to a research topic (see Creswell & Poth, 2018). Throughout the data collection phase, obtaining consent was a crucial step both before and after the interview protocol process. The process of recruiting participants, maintaining lines of communication, and employing a Zoom audio semistructured interview protocol was uniformly applied across all seven research participants (see Rubin & Rubin, 2011). The interviews were conducted over Zoom audio sessions at

times agreed upon by the participants. The interviews involved various probing questions related to the RQs and the purpose of the study.

Upon uploading the Zoom audio recordings to Microsoft Word's transcription tool, I carefully listened to each recording multiple times. Concurrently, I reviewed and sanitized the transcriptions to confirm the accuracy of the data (Creswell & Poth, 2018). Data for this study were kept on my personal computer, protected using a strong password.

Field Journal

During each interview, I recorded notes in my field journal. These notes were to underline important responses, write down related ideas and additional questions, and assist in staying conscious of any personal biases. Field notes play a crucial role in maintaining a detailed context that extends beyond the immediate research team, ensuring a rich and comprehensive understanding of the study (Phillippi & Lauderdale, 2017)

In my field notes, I captured my reflective thoughts and emotional responses to the unique perspectives and experiences conveyed by each of the seven participants, thus adding depth and personal understanding to the qualitative data gathered. In addition, regularly examining my field notes helped me stay conscious of any potential biases I might have held. Yin (2016) emphasized the importance of using field notes as a method to recognize and address any biases that might emerge during the research process. Lastly, keeping detailed field notes for all interviews helped maintain a deep understanding of the context. This approach strengthens the research and aligns with the standards of qualitative study methods (Phillippi & Lauderdale, 2017). The field notes

from my field journal were also kept on my personal computer, protected with a strong password.

Member Checking

I choose to use member checking as a strategy, allowing participants to review and confirm the accuracy of the transcriptions of their interview responses to ensure the fidelity of the data representation in the study. Member checking ensures that the final analysis accurately reflects the participants' perspectives (Creswell & Poth, 2018). Participants were informed they would receive a password-protected email of their interview transcript and instructed to read and make any required edits within 7 days of receipt. Every single participant shared a variety of emotions and feedback. Several participants shared how thankful they were for the opportunity to share the challenges they had surrounding educating students with undiagnosed or diagnosed dyslexia. Several participants were sad as they were reminded of the many challenges they face day after day trying to educate all the students in their classes, especially the elementary teachers with over 25 students. However, every participant was thankful to have the opportunity to share their challenges meeting the need of students with dyslexia. They all expressed hope that I was able to hear their challenges. Lastly, the participants were hopeful that the data provided would lead to creation of consistent PD throughout the school year and provision of students with unidentified or identified dyslexia the materials, resources, and support needed to increased reading achievement.

Discussion of the Results

The research problem addressed in this study was that despite PD training, elementary teachers at a school district in the western United States are challenged in instructing students with dyslexia. Guided by Guskey's (2016) model of five critical levels of PD evaluation, I investigated elementary teachers' perceptions of the challenges of instructing students with dyslexia and recommendations to improve teacher training to work with students with dyslexia in the study school district. The theory that supported the conceptual framework was Guskey's (2002, 2016, 2021) five critical levels of PD. Level 1 is participant reactions, Level 2 is participant learning, Level 3 is organizational support and change, Level 4 is participant use of new knowledge and skills, and Level 5 is student learning outcomes. Guskey's (2021) evidence-based framework showed how elementary teachers' PD affects students by recognizing the substantial influence elementary teachers' actions have on students. When elementary teachers understand how PD impacts students, they become more receptive to new ideas to increase efficacy (Guskey, 2002, 2021).

The purpose of this basic qualitative study was to investigate elementary teachers' perceptions of the challenges of instructing students with dyslexia and recommendations to improve teacher training to work with students with dyslexia in the study school district. To address the RQs and offer a deeper understanding of the phenomenon under investigation, I gathered data from seven participants by conducting semistructured interviews using an audio-only feature in the Zoom platform for participants in the district of study. The participant inclusion criteria were defined as (a) special education,

general education, and resource teachers who (b) had experience instructing students with dyslexia and (c) had participated in PD related to dyslexia. Participants self-selected into the study, and inclusion criteria were confirmed prior to the interview. In the next section, I provide a logical summary of the study findings related to the research problem and RQs. I also integrate the study findings with the conceptual framework and current literature.

RQ1

RQ1 for this study was the following: What are elementary teachers' perceptions of the challenges of instructing students with dyslexia at the research site? From the qualitative data gathered from the participants, two themes emerged for RQ1. Theme 1 focuses on the elementary teachers' perceived challenges related to the absence of a dyslexia identification process in the study school district.

Theme 1: Elementary teachers Perceive the Absence of a District Process for Identifying Students With Dyslexia Is a Challenge in Instructing Students with Dyslexia.

Theme 1 was that elementary teachers perceive the absence of a district process for identifying students with dyslexia is a challenge in instructing students with dyslexia. Participants highlighted the difficulty that elementary teachers experience with the absence of a district process for identifying students with dyslexia. All seven participants indicated that the district does not identify dyslexia or provide a dyslexia diagnostic process for students. Historically, public schools have not adequately recognized and treated students with dyslexia (Schelbe et al., 2021). Addressing reading challenges

requires a systematic approach that combines total screening; progress monitoring; teacher PD; and classroom-based prevention, intervention, and reading support programs (Kaye et al., 2022).

Early identification for students with dyslexia is critical to support students' reading progress. The absence of a referral process for students with dyslexia concerned participants. Contrary to the literature recommendations for early intervention, P7 shared that the district would encourage dyslexia screening or identification in the middle to upper elementary levels. In addition, participants reported that their principals advised them to delay screening or identification of students with dyslexia until they are older, typically in third grade. The delay in screening or identification of students with dyslexia until they are older is often based on the belief that students are too young at an early age to undergo screening or identification processes.

Similarly, researchers have suggested that delaying explicit core or remedial instruction until third grade could provide extra instructional time to bridge the achievement gap in reading skills (Miciak & Fletcher, 2020). Multiple factors may contribute to literacy difficulties in the upper elementary levels. Specific students continue to experience literacy difficulties as they are either not identified as at risk or do not receive intervention in the early grades (Kent et al., 2019). According to Miciak & Fletcher, (2020), literacy difficulties should be assessed in all kindergarten, Grade 1, and Grade 2 students Moreover, screening for dyslexia does not have to be excessively complex.

Participants were challenged with early identification for students with dyslexia and literacy difficulties. Due to the district's identification challenges, participants noted that they must rely on parents and guardians to obtain a dyslexic diagnosis for their students. Identifying literacy difficulties can be accomplished by assessing an individual's ability to read and spell words with and without time constraints (Miciak & Fletcher, 2020), which the school district could provide. Additionally, Guskey's (2016) Level 5 is student learning outcomes; data obtained from annual large-scale assessments and nationally standardized tests can be essential for accountability. In contrast, Guskey (2016) noted that classroom assessments deliver timely, focused, and instructionally relevant information. As educators constitute a significant stakeholder group, their input on how their students retain and retrieve concepts are valuable to support students with diagnosed or undiagnosed dyslexia.

An additional point of concern among the seven participants was that the district not only fails to identify dyslexia but also employs alternative terminology, such as a reading disability, phonologic processing disorder, or specific learning disabilities. In addition, participants emphasized that when a parent uses the word *dyslexia*, the district replies, "We do not have tests for that." The terminology used to identify or characterize reading difficulties is frequently ambiguous (Lindstrom, 2019). Similarly, the language researchers and clinicians use differs from that used in classrooms (Lindstrom, 2019). The challenge of instructing students with dyslexia, combined with the absence of a district process for identifying students with dyslexia, causes continued frustrations among the seven participants in the district. Timely detection of dyslexia is crucial to

ensure that the student develops reading skills and comprehends the underlying

challenges (Lindstrom, 2019). Miciak and Fletcher (2020) stated that a significant portion

of the disagreement and lack of clarity surrounding the identification and treatment of

dyslexia stems from a misconception regarding its fundamental characteristics. In

addition to the challenges of screening dyslexia, participants discussed the lack of

appropriate support and resources, the second theme.

Theme 2: Elementary teachers Describe the Lack of Instructional Support, Materials,
and Resources as a Challenge to Meeting the Instructional Needs of Students With
Dyslexia.

All seven participants stated they were overwhelmed with creating individualized

instruction, giving students extra special attention, and feeling like they are not helping or

supporting enough. Boyle (2021) noted the lack of academic support contributes to

academic achievement gaps. In addition, the participants stated they are not provided

with effective instructional tools to educate the students who need additional support. P2

said, "It's hard. I feel like I'm not helping or supporting enough, and I feel like I'm not

given the right tools to help these students who need my support." Elementary teachers in

other research studies have reported inadequate support, limited training, and lack of

sufficient time for collaborative planning that, if provided, would educate the students

who need support (Boyle, 2021). Similarly, the participants were expected to use the

same curriculum over and over without ever changing their instruction approaches, which

is a crucial step in improving student outcomes. Enhancing elementary teachers'

proficiency, knowledge, and qualifications is an essential step in improving learner performance (Karimupfumbi and Dwarika, 2022).

P1, P3, and P6 said, "We're on our own island on the campus," and the length of time it takes to get support is frustrating. In early education, the inconsistent quality of instructional methods, where effective instructional practice in classrooms is often lacking, can frustrate elementary teachers of students with dyslexia (Joshi & Wijekumar, 2020). Accordingly, a significant percentage of educators, up to 92%, have expressed a lack of knowledge regarding the specific characteristics of dyslexia, as well as the necessary training required to meet dyslexic students' needs (Schraeder et al., 2021). P1, P3, P4, P5, P6, and P7 noted that due to the length of time it takes to receive support from their principals, participants attend and fund PD by choice to receive instructional methods to support the needs of students with dyslexia. Principals who demonstrate knowledge of prioritizing the needs of students with dyslexia are well-versed in implementing intervention strategies for kindergarten through second-grade students (Schraeder et al., 2021). Given the shortage of instructional support and resources, elementary teachers often resort to personally purchasing the materials required for educating students with dyslexia.

Delivering successful reading education to dyslexic students requires specific instructional support, materials, and resources to meet their learning needs. The lack of district assistance in providing students with dyslexia with the necessary materials, curriculum, tools, and resources is a concern that all seven participants shared. Although schools and families play a role in students' reading achievements, elementary teachers

are responsible for implementing evidence-based and research-based reading programs (Beach et al., 2020). Rose and Zirkel discovered in 2020 that most complaints by parents of students with reading disabilities who sought Orton-Gillingham instruction in compliance with the IDEA's obligation for free appropriate public education were denied (Zirkel, 2020). Currently, districts still need to take responsibility for implementing instruction that aligns with the current knowledge on effective reading instruction for students with reading difficulties (Sayeski & Zirkel, 2021). P4, P5, and P7 emphasized the necessity of utilizing platforms such as Instagram and TikTok or conducting independent research to find strategies or approaches, such as Orton-Gillingham, SPIRE, or a multisensory curriculum to serve students who may have dyslexia. The Orton-Gillingham approach is a specialized educational strategy designed specifically for individuals with dyslexia and other similar learning difficulties (Mohamadzadeh et al., 2019).

Multisensory techniques are implemented with individuals who have dyslexia (Boardman, 2020). Boardman (2020) noted that teaching using a multisensory approach is of value for individual learners, learners with dyslexia, and whole-class teaching. SPIRE follows the best practices suggested by the research and the professional standards of the International Literacy Association and the International Dyslexia Association. All seven participants were introduced to Orton-Gillingham, SPIRE, and multisensory approaches that provide additional pathways for the learner to receive information. However, when a participant asked the school for the Orton-Gillingham approach, they were sent to the special education department and told to use a different program.

Elementary teachers confront challenges when instructing dyslexic students alongside their non-dyslexic classmates because dyslexic students cannot complete assignments in a single sitting (Kalsoom et al., 2020). Students with dyslexia should be perceived primarily as an educational issue rather than a disability (Kuo, 2023). Educators must remain focused on improving the curriculum and the educational system rather than placing the burden of responsibility solely on students (Kuo, 2023). In addition to elementary teachers having to personally fund essential materials, they need additional resources to support the effective teaching of students with dyslexia.

Many participants, particularly those with 30 or more students in their classrooms, expressed a need for classroom aides as a crucial resource. This need was identified by over half of the participants, highlighting the importance of additional support to effectively manage and educate students with dyslexia in more extensive class settings. Given that dyslexia affects 5%–10% of people worldwide, educators must thoroughly understand the condition and how it impacts students (Kizilkaya & Sari, 2021). Gerber et al. (2001) indicated that the specific tasks performed by aides did not correlate with their students' academic success. Participants acknowledged that the aides are needed to help groups that require limited support so the teacher can meet with the high-needs group of students who struggle to read. Five participants stated that in a perfect world, every teacher would have an aide 100% of the time, more resources, and increased awareness of dyslexia to meet the needs of undiagnosed and diagnosed dyslexic students. Students with dyslexia can read with the support of effective instruction and resources, which alleviates their anxiety (Kuo, 2023).

In addition, participants expressed frustration with the district's refusal to fund additional workshops or provide necessary resources, such as decoded readers, to support students with dyslexia. Whereas the district declined to cover these expenses, the participants had the option to pay for them personally. Lithari's (2021) study shared students' data on why they were unable to enjoy school due to substantial challenges in managing the academic requirements. The results stated that the students were exhausted and frustrated due to the difficulty and challenges of understanding the lesson. Engaging in PD opportunities focused on reading allows instructors to enhance their existing curricular content and pedagogical skills, which can significantly impact their teaching methods and, eventually, improve student learning outcomes (Beach et al., 2020). Guskey's (2016) Level 5, student learning outcomes, addresses education's bottom line. Guskey (2016) asked the question, what was the impact on students? The impact of PD opportunities to support the needs of diagnosed or undiagnosed dyslexia has been limited. The seven participants rarely had the opportunity to attend PDs to gain new knowledge and skills. The shortage of materials and resources causes challenges for elementary teachers to support and meet the needs of students with dyslexia.

This scarcity of instructional support, materials, and resources hinders elementary teachers' ability to provide the necessary support and accommodations, impacting the quality of education for students with dyslexia. A significant portion of the controversy and confusion related to dyslexia identification and treatment results from a misunderstanding of the fundamental needs and characteristics of dyslexia (Miciak & Fletcher, 2020). Educators must change their instruction and the educational system, not

the students (Kuo, 2023). P2, P4, and P7 emphasized that they need more training in special-needs education. This deficiency encompasses both ongoing PD and their experiences as elementary teachers. Dyslexic students are not receiving instruction from educators with the experience necessary to meet the students' needs (see Kuo, 2023).

Furthermore, all participants shared the lack of sufficient support and resources, lack of interventions, doubts when implementing the curriculum, and feelings of inadequacy in meeting the needs of dyslexic students. In addition, they wonder if there are dyslexic students in their classes. The participants have no support from the district regarding class sizes, have limited time availability to plan, have minimal parental engagement, use ineffective strategies, and have insufficient support resources. P2 and P6 stated they feel they are flying by the seat of their pants, educating dyslexic students and not meeting their needs. A comprehensive approach to addressing reading difficulties involves integrating classroom-based preventive measures, intervention programs, and reading support initiatives. This approach should be complemented by thorough screening, ongoing progress monitoring, and teacher PD (Barger et al., 2021). Dyslexic students' needs could be better met with effective instruction.

The participants shared their perspectives on challenges in instructing students with dyslexia at a school district in the western United States. Participants encounter challenges with the district's process for identifying students with dyslexia. This challenge can hinder timely support and interventions for students with dyslexia, impacting their educational progress. Participants face challenges due to a lack of instructional support, materials, and resources to address the instructional needs of

students with dyslexia effectively. This lack of resources can hinder the teacher's ability to provide appropriate support and accommodations, impacting the quality of education for these students.

Theme 1 focused on how elementary teachers perceive the absence of a district process for identifying students with dyslexia is a challenge in instructing students with dyslexia, and Theme 2 focused on how elementary teachers describe the lack of instructional support, materials, and resources as a challenge to meeting the instructional needs of students with dyslexia. In summary, based on the patterns in the analysis of the interview data, elementary teachers perceived the district's process for identifying students with dyslexia is a challenge in instructing students with dyslexia. Throughout the interview data analysis, the participants thoroughly described the challenges of identifying dyslexia and the lack of district procedures for identifying students with dyslexia—for example, participants' frustrations of needing parents to obtain a dyslexia diagnosis. However, even with a student diagnosis from the parents, receiving specialized instruction took months due to the district's IEP process. Based on the patterns in the analysis of the interview data from Theme 2, the seven participants described the many challenges of limited instructional support, materials, and resources to meet the needs of students with dyslexia. For example, the participants expressed frustration with the district's decision not to allocate funds for extra workshops or essential resources focused on dyslexia. A lack of materials and resources caused challenges for elementary teachers to support and meet the needs of students with dyslexia. Therefore, due to the limited instructional support and resources, elementary teachers frequently must personally

finance the materials necessary for educating students with dyslexia. A limitation of the study is that because the study was conducted with elementary school general and special education teachers, the study's findings cannot be applied to the perspectives of middle and high school general education, special education, and resource teachers.

RQ2

RQ2 was the following: What are elementary teachers' recommendations to improve teacher training to work with students with dyslexia at the research site? From the qualitative data gathered from the participants, one theme emerged for RQ2. Theme 3 was elementary teachers recommend systemic PD focusing on dyslexia and students' instructional needs for elementary teachers working with students with dyslexia and to improve training.

P3, P4, P5, P6, and P7 desired PD to specifically understand and teach students with dyslexia, including training in curriculum and instructional strategies that have been proven to work for dyslexic students. A study conducted by Karimupfumbi and Dwarika (2022) demonstrated elementary teachers' challenges in applying different strategies to support students with learning disabilities. In addition, the teacher's limited knowledge of related skills caused challenges for students to learn (Khasawneh, 2021). Teacher PD is crucial to improving student outcomes (Sancar et al., 2021).

P2 stated the first thing they would do if planning PD would be to find a curriculum proven to support students with dyslexia and then go from there. The best professional learning planning starts with a clear description of the learning outcomes that students need to succeed and the data sources that will best show those results

(Guskey, 2016). The importance of backward planning not only makes planning more efficient but also provides a framework for addressing the most important challenges (Guskey, 2016). As a result, evaluation becomes an instinctual part of the planning process and provides a foundation for accountability (Guskey, 2016).

A common theme shared among all the participants was the need for PD that focused on struggling readers, phonics training, understanding dyslexia, and the complex conditions that go beyond common misconceptions of dyslexia. Many of the participants begged for more specialized resources like decodable readers, specific training in phonics, and general support in preparing and delivering effective lessons for students with dyslexia. In addition, several other participants expressed having as many resources as possible, including special education and general education teachers and principals participating in the training and gaining experience. Literacy is one of the most important skills that students are expected to master (Lithari, 2021). Lithari (2021) investigated the range of emotions that dyslexic students experienced during their educational experiences. Significant challenges in managing academic rigor were noted by most participants not enjoying their time spent in school (Lithari, 2021). Dyslexic students are not receiving instruction from educators who lack the necessary training (Kizilkaya & Sari, 2021). Kuo (2023) noted students with dyslexia can benefit from effective reading instruction. Elementary teachers play a vital role for students with reading difficulties and their families (Claessen et al., 2020).

P4 and P7 wanted better understanding of dyslexia among educators, including the complexities that go beyond common misconceptions of dyslexia. Karimupfumbi and

Dwarika (2022) noted PD training should focus on the multisensory development of visual, auditory, and tactile skills; perception; attention; memory; sequential ability; motor skills; speaking, listening, and reading-writing skills; and conceptual thinking. An expert educator with training in learning difficulties should facilitate the instruction for managing learning challenges (Kizilkaya & Sari, 2021). All participants expressed frustration with the minimal training and tools specifically around meeting the needs of students with dyslexia. Elementary teachers have indicated that the PD provided to them after they start teaching is insufficient (Schraeder et al., 2021). Elementary teachers also have pointed out that training opportunities are often isolated events rather than ongoing programs that continue throughout the academic year (Schraeder et al., 2021).

P3 mentioned the desire to have many people (elementary teachers, administrators, and specialists) trained on educating students with dyslexia. PD proves successful when it leads to lasting improvements in the administration, teaching methods, and student educational outcomes (Guskey, 2021). When organizing PD, both the provider and the school must decide on the subject matter and format to create changes or improvements to teaching practices and student achievement (Barrett & Pas, 2020). P4 stated,

> Dyslexia is so layered and much more complex than people think. I just wish there was a better understanding, and then maybe that would push or lead itself towards people focusing on dyslexia and wanting to create dyslexic-specific curriculum, . . . because it is a whole other ballgame how [dyslexic students] learn.

Schools need to establish support networks for elementary teachers where they can exchange strategies for assisting students with dyslexia or those who have not yet been diagnosed (Karimupfumbi & Dwarika, 2022). The obligation to provide effective PD lies with the school administrators (Schraeder et al., 2021). Elementary teachers require time to fully grasp and implement new practices, yet without effective use of this time, the advantages will be limited (Guskey, 2014). High-quality PD is crucial, and researchers should design studies that concentrate on consistent programming and objectives aimed at enhancing teacher education (Didion et al., 2019). A comprehensive strategy is required to address reading issues, combining classroom-based preventive, intervention, and reading-support programs with complete screening, progress tracking, and teacher PD (Barger et al., 2021). By enhancing elementary teachers' understanding of dyslexia and equipping them with effective strategies, educators can comprehend the unique needs of students who have been diagnosed or undiagnosed with dyslexia (Kuo, 2023).

The participants shared their perspectives on challenges in instructing students with dyslexia at a school district in the western United States. Participants face challenges in accessing systemic PD tailored to dyslexia. They expressed a need for training that addresses how students with dyslexia construct knowledge and emphasizes appropriate instructional strategies. Dyslexic students experience increased challenges when they are not provided with an effective learning environment (Kalsoom et al., 2020). The lack of such targeted PD hinders educators' ability to effectively meet the needs of these students. Reading-related PD opportunities empower educators to enhance their

understanding of the curriculum and pedagogical theories, which can significantly impact instructional methods and, ultimately, student learning (Beach et al., 2020).

The participants also expressed challenges related to the need for instructional support when working with students with dyslexia. These challenges cause a lack of access to essential materials and resources, as well as insufficient training and PD opportunities. Elementary school principals play a pivotal role in directing instructional methods and shaping educators' teaching approaches, all of which affect the academic achievement of every student (Beach et al., 2020). All participants highlighted the importance of having the necessary support and resources to effectively address the needs of students with dyslexia in their classrooms. It would be advantageous to prioritize teacher PD by expanding their knowledge through in-service training programs, seminars, and conferences (Sümer Dodur & Altindağ Kumaş, 2020). Participants expressed the need for improved training to effectively work with students with dyslexia. Participants highlighted the importance of providing educators with the necessary knowledge and skills to address the specific needs of students with dyslexia in the classroom.

Teacher PD is essential to improve elementary teachers' utilization of evidence-based programs and practices, as well as improving student outcomes (Barrett & Pas, 2020). PD programs focused on dyslexia are important to enhance educators' ability to support undiagnosed or diagnosed dyslexic students. The objective of PD is to introduce or enhance strategies that improve the educational needs of students with dyslexia. Having a team of specialists present in-service training courses, seminars, and

conferences can significantly improve elementary teachers' understanding of dyslexia, which is why prioritizing PD is crucial (see Sümer Dodur & Altindağ Kumaş, 2020). PD is aimed to address how learners construct knowledge, how to use instructional strategies effectively, and the unique needs of students with dyslexia, ensuring a more inclusive and supportive learning environment (Sümer Dodur & Altindağ Kumaş, 2020). Guskey (2003) proclaimed, "To gain authentic evidence and make serious improvements, we need to push beyond this starting point and move toward PD's ultimate goal: improvements in student learning outcomes" (p. 750).

Theme 3 focused on elementary teachers' recommendations for systemic PD focusing on dyslexia and students' instructional needs, which are needed for elementary teachers working with students with dyslexia and to improve training. In summary, based on the patterns in the interview data analysis, the participants' feedback encompassed the need for additional tools and resources, reduced class sizes, and a heightened awareness of dyslexia to serve dyslexic students better. Also, participants recommended enhanced PD specifically tailored to students with dyslexia. Throughout the interview data analysis, the participants stated that to support and instruct students with dyslexia, PD is needed that includes instruction in curriculum and instructional strategies and is proven effective for students with dyslexia. For example, participants' academic concerns center around the need for further training to support students struggling with reading. Furthermore, the insufficient availability of phonics materials and decoding books results in an inability to instruct students, caused an overwhelming sense of inadequacy among elementary teachers and students.

Moreover, insufficient supplies, materials and resources presented difficulties for elementary teachers in providing enough support for students with dyslexia. Due to the limited PD provided, the participants expressed a desire to learn more about dyslexia, recognizing that it is complex and extends beyond common misconceptions. A limitation of the study is that the district does not seem to provide PD specific to dyslexia; the provided PD is usually based on general education. Without proper PD, educators struggle to know how to support students with dyslexia.

Summary

The problem addressed in this study is that despite PD training, elementary teachers at a school district in the western United States are challenged in instructing students with dyslexia. Therefore, the purpose of this basic qualitative study was to investigate elementary teachers' perceptions of the challenges of instructing students with dyslexia and recommendations to improve teacher training to work with students with dyslexia in the study school district. The study was guided by two RQs:

RQ1: What are elementary teachers' perceptions of the challenges of instructing students with dyslexia at a school district in the western United States?

RQ2: What are elementary teachers' recommendations to improve teacher training to work with students with dyslexia at a school district in the western United States?

Three themes emerged:

1. Elementary teachers perceive the absence of a district process for identifying students with dyslexia is a challenge of instructing students with dyslexia.

2. Elementary teachers describe the lack of instructional support, materials, and resources as a challenge to meeting the instructional needs of students with dyslexia.

3. Elementary teachers recommend systemic PD focusing on dyslexia and students' instructional needs for elementary teachers working with students with dyslexia and to improve training.

Barrett and Pas (2020) stated, in planning for teacher PD, school leaders should determine the content and structure that would result in the intended classroom instructional needs of student outcomes. The conceptual framework for data collection and analysis involved two RQs, three themes, aligning literature, and Guskey's (2016) model of five levels of PD. Guskey (2021) noted school staff must strive to create settings in which elementary teachers know that their activities have a significant, positive impact on students learning outcomes. In addition, the strategies prioritized in PD should be supported by research (Guskey, 2021). I collected data from seven participants who self-selected for the study. The findings suggest that due to limited PD, the absence of a dyslexia identification and assessment system, and limited materials and resources, elementary teachers are challenged in providing instructional support for students with dyslexia. Karimupfumbi and Dwarika (2022) noted that elementary teachers shared challenges that included many students needing screening and identification, limited time, ineffective strategies, limited materials and resources, and comorbidities with dyslexia. In addition, due to the inadequate resources and materials available, elementary teachers frequently need to personally finance the materials

necessary for the education of students with dyslexia. Sawyer et al. (2020) discussed the dynamic evolution of instructional materials in elementary education, characterized by an expanding array of available resources, particularly online, and a growing trend of educators sharing materials through platforms such as Pinterest and Teachers Pay Teachers. Furthermore, given the insufficient PD provided by the district, the participants in the current study expressed the urgency of gaining a deeper understanding of dyslexia. Acknowledging the academic needs of dyslexia is complex and goes beyond the traditional curriculum.

In Section 3, I describe a deliverable project I developed using research findings, Guskey's (2016) conceptual framework, and current literature. The project for this study is a white paper to inform stakeholders of elementary teachers' perspectives on the difficulties of instructing students with dyslexia and recommendations for enhanced training for instructing students with dyslexia. The white paper is intended for stakeholders in the study school district. Stakeholders include administrators, general education teachers, resource teachers, special education teachers, and parents. The participants recommended a systemic identification process, assessment tools, research-based intervention strategies, and PD specific for students with dyslexia. The deliverable of the project will consist of a white paper that synthesizes the findings and recommends solutions. The white paper will be presented to the school district board meeting and distributed to board members, administrators, teachers, and parents who attend the collaborative meeting. The recommendations are the following:

1. Provide clear and actionable suggestions that prioritize early identification,

    support, and accommodations to improve educational outcomes for students

    with dyslexia.

2. Provide elementary teachers with instructional support, materials, and resources

    to meet the instructional needs of students with dyslexia.

3. Provide systemic and ongoing PD focused on differentiated instruction to

    support and serve the academic needs of students with dyslexia.

I wrote a white paper and policy recommendation to inform and persuade district stakeholders regarding the need to identify and assess dyslexic students, provide a research-based curriculum through PD, and collaborate within the study school district to meet the needs of students with varying levels of dyslexia. My goal is to inform the district and stakeholders to consider adopting the three recommendations derived from the data gathered in this study. In the next section, I explain how the existing problem relates to the study's findings. I present evidence from both literature and research to support information proposed in the white paper. Furthermore, I outline recommendations connected to the evidence and the problem at the district in the western United States.

Section 3: The Project

The project is a white paper with policy recommendations to inform district

stakeholders regarding the need to identify and assess dyslexic students, provide

research-based curriculum through PD, and collaborate within the study school district to

meet the needs of all varying levels of dyslexia. My goal is to inform the district and

stakeholders to consider adopting the three recommendations derived from the data

gathered in this study. The recommendations based on the results of the study are that

first, the district should provide clear and actionable suggestions that prioritize early

identification, support, and accommodations to improve educational outcomes for

students with dyslexia. Additionally, the district should provide elementary teachers with

instructional support, materials, and resources to meet the instructional needs of students

with dyslexia. Finally, the district should provide systemic and ongoing PD focused on

differentiated instruction to support and serve the academic needs of students with

dyslexia.

Rationale

In this section, I discuss the findings and present the three themes that emerged

for the data as policy recommendation. Based on the findings of this study, a white paper

presenting the three themes that emerged from the data as policy recommendations for

the study school district may be beneficial to improve teacher training for dyslexia. The

white paper is based on results from the study: (a) Elementary teachers perceive the

absence of a district process for identifying dyslexia, (b) elementary teachers describe the

lack of instructional support and resources, and (c) elementary teachers recommend systemic PD focusing on dyslexia.

Recommendation 1 is to provide clear and actionable suggestions that prioritize early identification, support, and accommodations to improve educational outcomes for students with dyslexia. Recommendation 1 is based on Theme 1 from the study's findings, which stated that elementary teachers perceive the absence of a district process for identifying students with dyslexia is a challenge in instructing students with dyslexia. Although schools do not commonly use the term *dyslexia*, school personnel need to understand the specific areas that can be affected by dyslexia (Lindstrom, 2019). Children who are proficient in reading perform better in school, achieve higher levels of education, face lower disease rates, are less likely to be incarcerated or experience poverty, are more likely to find work, and earn higher average incomes as adults than children who are not proficient in reading (Sanfilippo et al., 2020).

Recommendation 2 is to provide elementary teachers with instructional support, materials, and resources to meet the instructional needs of students with dyslexia. Recommendation 2 is based on Theme 2 from the study's findings, which stated that elementary teachers describe the lack of instructional support, materials, and resources as a challenge to meeting the instructional needs of students with dyslexia. There is a general lack of dyslexia research by and about literacy education researchers (Stevens et al., 2021). Regarding the specific requirements of each student, the knowledge and practice of educators matter most (Stevens et al., 2021). In addition to having knowledge and practice teaching elementary students, the perspectives and academic needs of

students must be understood when making decisions on instructional support, resources, and materials (Meidl et al., 2023). Elementary teachers naturally have power in elementary schools because they grade students, but elementary teachers should think about how to utilize their power. When elementary teachers are aware of their power, they can use it to fight for instructional support, resources, and materials, thereby possibly contributing to improved reading achievement for students with dyslexia (Meidl et al., 2023).

Recommendation 3 is to provide systemic and ongoing PD focused on differentiated instruction to support and serve the academic needs of students with dyslexia. Recommendation 3 is based on Theme 3 from the study's findings, which stated that elementary teachers recommend systemic PD focusing on dyslexia and students' instructional needs for elementary teachers working with students with dyslexia and to improve training. To meet the expectations and requirements of mainstream schools regarding the delivery of specialized instruction for students with dyslexia, elementary teachers need training to meet these challenges (Beach et al., 2020).

The purpose of this white paper is to inform the academic community about the most recent literacy development requirements and findings from the present study and to inspire reform in public schools based on the recommendations derived from the study findings. The following academic organizations have released white papers supporting educational reform: the NRP; the International Literacy Association; the Collaboration for Effective Educator Development, Accountability, and Reform Center; and the National Center on Educational Outcomes. In the following review of literature, I

synthesize current and relevant literature that connects the theory, research, and content of the white paper project.

Review of the Literature

In this section, I describe the white paper project and an analysis of peer-reviewed resources highlighting the themes that emerged from the study's data findings. The purpose of this scholarly review of the literature was to show why a white paper with policy recommendations was appropriate to address the study's problem. Peer-reviewed articles from the previous 5 years on topics addressed in the white paper align with the study's themes and findings. The collection of current literature was used to synthesize relevant data to support a summary of my study's findings. The following search terms were used: *white papers, white papers in elementary education, white papers about dyslexia, K-12 dyslexia policy and legislation,* and *dyslexia interventions*. Walden Library and Google Scholar were the two databases used for the study. Additionally, I investigated cited works from the relevant literature to guide my research further. The review of literature is divided into sections on white papers, K-12 dyslexia policy and legislation, and dyslexia interventions.

White Papers

The U.S. government coined the phrase *white paper* to describe a document of significant importance, frequently classified in nature and containing comprehensive technical information (Willerton, 2012). White papers facilitate decision-making (Stelzner, 2010). A white paper is a comprehensive report or manual addressing the issues and concerns of a particular subject (Stelzner, 2006). The white paper imparts

knowledge and assists readers in comprehending problem-solving strategies (Stelzner, 2006). Both public and business sectors frequently use white papers to provide facts and information to convince the audience to act (Stelzner, 2006).

The prevalence of white papers in business and professional environments is on the rise (Willerton, 2012). White papers are utilized across numerous industries and contexts, serving a multitude of functions (Willerton, 2012). Pickert (2020) stated that a well-written white paper addresses a problem with data-driven solutions intended for a particular audience. By providing readers with something of value, readers will ultimately place their trust in and conduct business with the author or authoring organization (Stelzner, 2006). There is a fine line between an article and a white paper. The distinction is that the author of the white paper must balance educating and selling in an intricate manner (Bly, 2010). Ultimately white papers are used to convey beneficial information, rather than a sales pitch, about a problem or application (Bly, 2010).

White papers typically feature visual components, a length and tone appropriate for the audience, and no formal format requirements (Malone & Wright, 2017). The majority of white papers consist of text, with only a limited number of graphics (Stelzner, 2006). A white paper helps the marketer sell an item by educating prospects on a topic related to the product, one that helps consumers make an intelligent buying decision (Bly, 2010).

White papers introduce challenges faced by their readers and make a compelling argument as to why a particular approach to solving the problem is preferred, according to Stelzner (2006). Although white papers typically present proposed solutions to

problems, they also may introduce novel concepts or provide instructions on how to execute technical tasks (Bly, 2010). In addition, white papers function as a point of reference for other educational institutions of similar nature (Bly, 2010).

K-12 Dyslexia Policy and Legislation

Karimupfumbi and Dwarika (2022) explored the need for teacher training of effective support strategies to assist learners who present with characteristics of dyslexia. The researchers advocated for PD for the effective implementation of a dyslexia screening, identification, assessment, and support tool. Their white paper reported on the experiences of elementary teachers using the screening, identification, assessment, and support tool strategy to support students with characteristics of dyslexia at a primary school (Karimupfumbi & Dwarika, 2022). Despite several initiatives to support teaching instruction and materials needed to learn to read, the related challenges remain significantly high (Gotwalt, 2023). Difficulties in reading can result in a lack of motivation to participate in reading activities, thereby widening the gap between proficient and underachieving students (Jamshidifarsani et al., 2021). In addition, elementary teachers cited challenging experiences that included managing large numbers of students during screening and identification, insufficient time, lack of parental involvement, learned helplessness, ineffective strategies, inadequate support resources, and comorbidities with dyslexia (Aktan, 2020). Karimupfumbi and Dwarika noted PD was identified as vital to teacher effectiveness. Many elementary teachers understand little or nothing about the underlying challenges of dyslexia or current research on the subject (Saleh & Omari, 2023).

The Every Student succeeds Act of 2015 urged state education agencies, local education agencies, and school stakeholders to prioritize and incorporate evidence-based interventions, strategies, or approaches (Shaywitz & Shaywitz, 2020). However, evidence-based strategies have not been widely adopted in schools, as they are not required to be used (Ahmad et al., 2019). Currently, only 28 states have passed laws mandating intervention approaches. Specifically, as of April 2024, (a) 12 states require the use of multisensory approaches, (b) 20 states require the use of evidence-based approaches, and (c) 11 states require the use of explicit or direct instruction (National Center on Improving Literacy, n.d.). Based on data from the National Center for Improving Literacy (n.d.), numerous education stakeholders at the school, district, and state levels do not require the use of evidence-based practices and implement ineffective interventions or approaches that fail to support the needs of dyslexic students.

Dyslexia Interventions

Beach et al. (2020) presented an analysis of policy and practice of teacher education on dyslexia. Beach et al. synthesized information to explain why elementary teachers are at the forefront of supporting dyslexic students. In addition, elementary teachers are expected to identify students who are struggling with literacy and differentiate their teaching approaches based on the requirements of each student (Odegard et al., 2020). Lorusso et al. (2021) stated that teachers must understand how to support and meet the needs of students with dyslexia. Integrating students with dyslexic into general education classrooms through placement in special education has not proven effective (Shaywitz & Shaywitz, 2020).

Schools have informed parents for decades that dyslexia is not identified prior to the third grade (Shaywitz & Shaywitz, 2020). Students who are not keeping up with their peers in reading are not only less proficient in reading but also less proficient in writing, math, and other subjects (Alamargot et al., 2020). As early as the first grade, the achievement gap between students with dyslexia and typical readers is evident (Duff et al., 2022). The achievement gap may be closed through the implementation of effective reading programs. Orton-Gillingham is a research-based approach that uses techniques required to systematically teach struggling students to read (Sayeski et al., 2018). The need for early intervention is crucial when students struggle to read as early as kindergarten or preschool; early identification for students with dyslexia is critical to provide appropriate reading intervention and close reading gaps (Kaye et al., 2022). The Orton-Gillingham reading approach is a direct, explicit, multisensory, structured, sequential, diagnostic, and structured method to teach reading and spelling that is used for students diagnosed or at risk of dyslexia (Miller-Benson et al., 2023). Without dependable and reliable measures for early predictive screening, elementary teachers will continue to face challenges to identify and provide interventions for students with dyslexia (Fletcher et al., 2021) .

Early identification of dyslexia is crucial for reducing social and emotional challenges in the classroom as well as helping students learn why reading is challenging (Schelbe et al., 2021). Educators need to understand the relationship between dyslexia and the requirements for students with dyslexia eligibility, under IDEA, by gaining a deeper understanding of the law and the specific assessments used to identify dyslexia

(Zirkel, 2020). Screening, assessment, identification, and treatment for dyslexia have received renewed attention internationally and at the local, state, and federal levels. In the United States, over the past two decades, 47 states have passed laws about dyslexia (Kaye et al., 2022; Schelbe et al., 2021). A number of states mandate that all first graders and kindergarteners be screened for dyslexia (Kaye et al., 2022). Yet approximately 50% of the time, present dyslexia screening techniques are misleading (Kaye et al., 2022).

Effective interventions that provide differentiated instruction for readers who initially struggle learning to read are also essential (Bray et al., 2021). PD programs are needed because elementary teachers still have some prevailing misconceptions and are unprepared to deliver multisensory or differentiated education to students with dyslexia (Gonzalez, 2021). Student achievement is enhanced when elementary teachers receive PD training on how to utilize data to support methods for reading (Thoma, 2021). Gonzalez and Brown's (2019) findings indicated the difficulty in dispelling dyslexia stereotypes and that educators require specifically designed PD to properly meet the needs of students with dyslexia. Many professional learning experiences offered today are unsuccessful due to a lack of clarity regarding the targeted results, and leaders tend to follow the trends rather than reliable data (Guskey, 2021).

PD is essential to provide educators with the skills to implement differentiated instruction (Meutstege et al., 2023). PD opportunities empower educators to deepen their understanding of the current curriculum and pedagogical principles, yet many elementary teachers struggle with helping students who are not progressing at the expected rates (Jones et al., 2019). PD must be provided by a dyslexia specialist, as outlined by the

International Dyslexia Association's (2018) *Knowledge and Practice Standards for Teachers of Reading*. Thwala et al. (2020) found that elementary teachers faced difficulties educating students with dyslexia due to a lack of training. Hence, PD must be designed for educators that emphasizes ensuring that students with dyslexia receive appropriate structured techniques and strategies to foster successful learning (Rahul & Ponniah, 2021). Dyslexia PD for educators may serve as an opportunity for all teaching staff members to align their teaching practices, terminology, and vision for student achievement (Umansky et al., 2022) .

This review of literature included current and relevant scholarly writing to highlight the topics in this study's project genre, a white paper. Based on the study's qualitative data, three themes emerged and soon developed into three findings. These findings serve as recommendations and are outlined in the white paper. The review of the literature contains three recommendations aligned with the study's conceptual framework and purpose. The recommendations include K-12 dyslexia policy and dyslexia interventions.

Project Description

The problem addressed in this study is that despite PD training, elementary teachers at a school district in the western United States are challenged in instructing students with dyslexia. An analysis of the data from this project study suggested that elementary teachers (a) perceive the absence of a district process for identifying students with dyslexia is a challenge of instructing students with dyslexia, (b) describe the lack of instructional support, materials and resources as a challenge to meeting the instructional

needs of students with dyslexia, and (c) recommend systemic PD focusing on dyslexia and students' instructional needs for elementary teachers working with students with dyslexia and to improve training. Based on the data finding, I determined that a white paper would be the appropriate genre to make recommendations for the school's stakeholders. Three recommendations are proposed to the school in the white paper:

1. Provide clear and actionable suggestions that prioritize early identification, support, and accommodations to improve educational outcomes for students with dyslexia.

2. Provide elementary teachers with instructional support, materials, and resources to meet the instructional needs of students with dyslexia.

3. Provide systemic and ongoing PD focused on differentiated instruction to support and serve the academic needs of students with dyslexia.

Additionally, I recommend an evaluation of the proposed changes in policy, practices, and student performance. The evaluation's findings ought to be considered when determining what is effective and what needs to be changed. The evaluation may serve as a template for other schools with comparable student populations and related issues.

I will submit a white paper to Walden University for review. After receiving permission to share the findings and recommendations to the stakeholders, I will meet with the administrators, general education teachers, resource teachers, and special education teachers to formally present the study and share the findings of the study's recommendations of elementary teachers' perceptions of challenges in instructing

students with dyslexia and recommendations for improvement. I will address the need for educators to receive the education, support, and resources needed to meet the needs of students with dyslexia. I will explain the procedures required to effectively plan, implement, and maintain a newly identified district policy, along with the conceptual framework that underlies organizational changes. Stakeholders will be introduced to evidence-based research to meet the needs of students with dyslexia, as well as recommendations on how to structure the time and resources to support all educators working with students with dyslexia.

Needed Resources and Existing Supports

Resources and supports needed for the success of the project study include time to meet with the school's administrative team and other interested stakeholders such as general education teachers, resource teachers, and special education teachers. I intend to establish communication with school administrators by utilizing public records to access school emails. I will provide a brief synopsis of the project study and request a date and time for the presentation of the white paper. If I deliver the white paper at the staff meeting, I will be ready to use a PowerPoint to highlight the most important elements of the findings and recommendations, and I will have hard copies for everyone in the meeting. Each participant in the study will be provided with an electronic copy of the white paper as well.

Potential Barriers and Solutions

One potential obstacle is the ability to effectively distribute the white paper and its contents to all relevant stakeholders. Contingent on the school administration, I will

share the white paper with elementary teachers at an all-staff meeting and with parents at

a parent informational meeting, or I may distribute the white paper to selected

stakeholders. Scheduling obstacles and conflicts may make it difficult to decide on a time

and date for the formal presentation of the white paper to a large audience. I also have

considered a language barrier. If the white paper is approved for sharing with families, I

may need to create a Spanish translation. Additionally, the school administration may not

be interested in the white paper or may not approve its distribution to any school

stakeholder. To address the potential barriers, I will communicate to the school

administration about the problems that may arise with scheduling and successfully

sharing the white paper and its content through presentations. I can do this by using a

logical and convincing argument along with a survey to explain the white paper to

stakeholders.

Project Implementation and Timetable

Following the approval of the school administrators regarding the distribution of

the white paper, I will proceed with the distribution of both the executive summary and

the white paper to the district office. Approval and distribution are anticipated to occur

within a timeframe of 15 business days. If the district stakeholders ask me to provide a

presentation on the white paper recommendations, I will schedule the presentation as

requested. A summary of the white paper and an executive summary will be sent to the

district office. Should a task force be in place, I will deliver the white paper to the

leadership team along with its updated recommendations. A PowerPoint presentation of

the white paper will be incorporated into the presentation for the leadership team. I will

include a summary of the study, including the problem, purpose, conceptual frameworks, literature methodology, findings, and recommendations to address meeting the needs of students with dyslexia.

If the white paper recommendations are implemented, I will collaborate with the administrators to establish a task force or planning group. I recommend a task force consisting of administrators and general education, resource, and special education teachers. This task force or planning group will develop a PD curriculum for school-based instructors with synchronous and asynchronous training-support modules on dyslexia. Referring to the study's findings, the white paper recommendations will assist the task force or planning group with opportunities for educators to address the perceived needs of instructors and students. Once the planning is completed, the administrators will ensure that a scheduled PD time is established for the task force or planning group to implement plans. I recommend that this evaluation of meeting the needs of dyslexic students be implemented at the start of the school year and continued throughout the year to provide ample time for educators to develop and sustain mindsets and teaching habits to meet the needs of dyslexic students. Educators will benefit from synchronous and asynchronous modules, which encourage flexibility and autonomy while offering consistent information. Table 9 reflects a timeline for implementation of the proposed project.

Table 9

Timetable for Implementation of Project

Recommendation	Time frame
Deliver the evaluation of the proposed changes in policy, practices, and student performance and the white paper to the district superintendent.	1 week
Present white paper recommendation to the teachers and administration.	2 weeks
Incorporate administrator and teacher feedback and update the white paper recommendations as needed.	2 weeks
Develop a PowerPoint presentation.	3 weeks
Present white paper recommendations to the stakeholders.	
Modify the PowerPoint with any recommendations from the school's leadership team.	
Present the most updated presentation to reflect the white paper recommendations to the campus staff.	2 weeks
Facilitate the creation of a task force including administrator, general education, special education, and resource teachers.	3 weeks
Cocreate a professional development (PD) curriculum for educators.	4 weeks
The task force will create modules based on the PD curriculum and encourage educators to develop synchronous and asynchronous training modules for educators to meet the needs of dyslexic students.	6 weeks
Task force will either serve or assign teacher to serve as a training facilitator for synchronous of the meeting students with dyslexia evaluation modules.	4 weeks
Implement the curriculum based on the white paper recommendations by providing synchronous and asynchronous training on meeting needs of students with dyslexia; incorporate educator evaluation.	Ongoing
All educators will be encouraged to participate in ongoing reflections of trainings, supports, resources, and changes in student performance.	Every 6 weeks

The roles and responsibilities of key staff need to be clearly defined to successfully implement the recommendations. In Table 10, I have proposed the roles and responsibilities of the key stakeholders to implement the recommendations that emerged from the study findings.

Table 10

Roles and Responsibilities

Participant	Roles and responsibilities
Researcher	Present the white paper recommendations and the evaluation of the proposed changes in policy, practices, and student performance to the district superintendent and general education, special education, and resource teachers; make necessary adjustments suggested by the administrator, then present an updated white paper with recommendations to the task force; make necessary adjustments suggested by the task force, then present an updated white paper with recommendations to all educators involved with meeting the needs of students with dyslexia; develop and present a PowerPoint presentation to explain the white paper; facilitate the creation of a curriculum for implementing the white paper recommendations with a task force of district educators; facilitate the creation of synchronous and asynchronous professional development (PD) modules; facilitate the creation of an evaluation plan with the task force; and advocate for administrators to provide educators the designated time and opportunity to successful plan, implement, and reflect actions required to improve achievement among students with dyslexia, as expressed in the white paper recommendations.
Administrators	Provide recommendations to the white paper and develop a task force of educators including general education, special education, and resource teachers and an administrator.
Task force/ planning committee	Design and implement a curriculum to meet the needs of students with dyslexia; create an evaluation for the implementation of meeting the needs of students with dyslexia; design and teach PD modules; guide constructed goals and opportunities to reflect and refine them; provide designated time and structured opportunities for mentorships and planning; and review and evaluate the dyslexia curriculum, resources, and supports for student performances based on educators' feedback.
General education, special education, and resource teachers	Design PD modules: teach or coteach dyslexic components outlined in the curriculum via synchronous or asynchronous activities; and provide resources, mentorship opportunities, and support to educators after participating in the modules.
District administration	Share a summary of meeting the needs of dyslexic students to the school community.

Project Evaluation Plan

A white paper was created to educate stakeholders on the study findings, provide recommendations, and propose actions for consideration to meet the needs of students with dyslexia to inform elementary teachers at a school district in the western United States to act on the findings of the study. The white paper includes recommendations based on findings, a framework, and relevant scholarly literature.

A goal-based and outcomes-based evaluation with an emphasis on formative evaluation is suggested to continuously improve implementation. The district can set specific, measurable goals related to early dyslexia identification rates, support, and effectiveness of accommodations for students with dyslexia. These goals should include targets for the percentage of students identified early, the number of accommodations implemented, and improvements in academic outcomes. For outcomes-based evaluation, outcomes can be measured regarding improvements in reading proficiency, academic achievement, and overall well-being for students with dyslexia. These outcomes directly reflect the effectiveness of the study's recommendations in achieving the intended recommendations. Additionally, effectiveness of PD sessions can be assessed continually through formative evaluation techniques such as participant feedback, observations of instructional practices, and pre- and post-PD assessments of teacher knowledge and skills. This formative evaluation allows for adjustments to be made in real-time to improve the quality and impact of PD offerings. The district can collect feedback from elementary teachers via Google Forms regarding the effectiveness of collaboration opportunities and the instructional support, materials, and resources provided. The

feedback can be used to make improvements and adjustments to better meet the needs of students with dyslexia. By incorporating elements of both goal-based and outcomes-based evaluation, and prioritizing formative evaluation techniques, the evaluation plan can assess the implementation and impact of the study's recommendations with a focus on increased reading achievement for students with dyslexia.

Using a combination of goal-based, outcomes-based, and formative evaluation for the study's recommendations aimed at improving educational outcomes for students with dyslexia offers several justifications. By setting specific goals, measuring outcomes, and continuously evaluating implementation processes, the study's plan provides a multisensory approach to the initiative's effectiveness. The focus on meeting the needs of students with dyslexia requires an evaluation approach that directly assesses the impact on those students. Outcomes-based evaluation ensures that the goal of improving educational outcomes for students with dyslexia remains central to the evaluation process. Formative evaluation techniques, such as ongoing feedback and adjustments based on evaluation findings, support continuous improvement throughout the implementation process. This approach allows for timely modifications to strategies and interventions, ensuring that they remain responsive to the evolving needs of students and educators. By setting clear goals and regularly assessing progress toward those goals, the suggestions in the white paper enhance accountability and transparency in the implementation of the recommendations. Stakeholders can track progress, understand challenges, and contribute to decision-making processes based on evidence. Formative evaluation methods, like those focused on PD offerings and collaboration opportunities,

provide valuable insights into the effectiveness of professional learning experiences. This information can inform the design of future PD sessions and collaborative efforts, enhancing the capacity of educators to support students with dyslexia. Goal-based evaluation helps ensure that resources are allocated effectively to achieve desired outcomes. By regularly assessing progress toward goals, stakeholders can identify areas where resources may need to be adjusted or reallocated to maximize impact. In summary, the chosen evaluation approach is justified because it provides a comprehensive, student-centered assessment of the study's recommendations; supports continuous improvement; enhances accountability; and informs resource allocation and PD efforts.

The overall goal of this white paper project is to present three recommendations from the study's findings:

1. The district should provide clear and actionable suggestions that prioritize early identification, support, and accommodations to improve educational outcomes for students with dyslexia.

2. The district should provide elementary teachers with instructional support, materials, and resources to meet the instructional needs of students with dyslexia.

3. The district should provide systemic and ongoing PD focused on differentiated instruction to support and serve the academic needs of students with dyslexia.

The goal of the white paper is to inform and educate stakeholders on the study findings, provide recommendations, and propose actions for consideration of the program. More specifically, the goal of evaluating the learning needs of students with dyslexia, which

was developed from the white paper recommendations, is to obtain substantial information on what worked and what did not work. The district needs to know how to meet the learning needs of students with dyslexia. Key stakeholders involved with the project evaluation are educators who teach students with dyslexia and primarily make up the task force. Administrators play a key role in approving and communicating white paper recommendations to the school community. The administrators are then responsible for encouraging leadership opportunities, creating a progressive school atmosphere, and ensuring participation in PD. Once administrators have set the positive tone of implementing the meeting the needs of dyslexic students, educators will play a major role in the success of the meeting the needs of dyslexic students' evaluation goals. Elementary teachers also have a vital influence on the success of the program, for they provide knowledge, resources, and support. Administrators should consider providing a stipend for instructors who attend PD sessions outside of their contracted hours or compensate elementary teachers for PD fees. In the next section, I provide a brief overview of each stakeholder group or individual.

Key Stakeholders

Meeting the needs of dyslexic students by implementing recommendations at the study location could benefit multiple parties. Stakeholders include the administrative leadership team, the planning committee, all staff involved in the development and delivery of the PD and the synchronous and asynchronous modules, and all elementary teachers. The district executive team members are peripheral stakeholders. For the purposes of this description, I have organized the stakeholder groups into elementary

teachers and administrative leaders. Administrative leaders include the administrative leadership team and selected teacher facilitators. In the next section, I provide a brief overview of each stakeholder group or individual.

Elementary Teachers and Administration as Stakeholders

Elementary teachers and administrators can better understand the change process needed to transition from one pedagogical practice to another. Elementary teachers and administrators will help support parents to understand how to meet the needs of students with dyslexia. Elementary teachers also may benefit from developing a collaborative relationship with parents regarding meeting the needs of dyslexic students. Informal outcomes of the project will include elementary teachers and administration being informed about the educational system support required to meet the needs of students with dyslexia. Elementary teachers and administrators may become more aware of how to provide differentiated instruction. Understanding dyslexia is crucial for helping students achieve (Snowling et al., 2019). Therefore, elementary teachers have a crucial role in promoting the learning process in the classroom. Policymakers and administrators should use this knowledge to their advantage by ensuring that clear and actionable suggestions are provided that prioritize early identification, support, and accommodations to improve educational outcomes; instructional support, materials, and resources within the classroom; and systemic and ongoing PD focused on differentiated instruction to support and serve the academic needs of students with dyslexia.

Project Implications

Implications for Social Change

  This study may enhance social change by strengthening stakeholders'
understanding of teacher needs related to teaching students with dyslexia. The findings
may result in positive social change through increased reading achievement for students
with dyslexia. The purpose of this basic qualitative study was to investigate elementary
teachers' perceptions of the challenges of instructing students with dyslexia and
recommendations to improve teacher training to work with students with dyslexia in the
study school district. Guskey's (2016) model of the five critical levels of PD evaluation
theory informed this study. The RQs explored elementary teachers' perceptions of the
challenges of instructing students with dyslexia and recommendations for improved
teacher training. Data were collected via semistructured interviews with seven
participants who were general and special education teachers who met the criteria of (a)
instructing students with dyslexia and (b) participating in dyslexia PD. Data analysis
involved the use of open descriptive coding to identify codes, categories, and themes. The
emergent themes were (a) the absence of a district process for identifying students with
dyslexia, (b) instructional support, materials, and resources to meeting the needs of
students with dyslexia, and (c) systemic PD focusing on dyslexia and students'
instructional needs for elementary teachers working with students with dyslexia.

  A white paper project was developed to educate stakeholders about the study
findings, provide recommendations, and propose actions for consideration to meet the
needs of students with dyslexia. By improving stakeholders' understanding of the needs

of elementary teachers in relation to teaching dyslexic students, this study may contribute to social change. The findings contribute to positive social change by understanding how to meet the needs of students with dyslexia through solving the problem of this study, that despite PD training, elementary teachers at a school district in the western United States are challenged in instructing students with dyslexia.

Importance of the Project in the Larger Context

The implications of this white paper project could have a significant influence on student success and teacher development in practices and pedagogy beyond the end of the year. Research, including individual assessments for dyslexia, has shown that dyslexia is quite common, affecting approximately 20% of the population, or 10 million American children (Cassidy et al., 2021). Thus, these data serve to inform stakeholders of the needs for students with dyslexia as students with dyslexia are in every classroom in the country. If dyslexia affects 20% of the population, social changes are necessary to better accommodate and support students with dyslexia. In addition to the social changes implemented in the project, additional potential social changes could be considered to expand the instruction for this student population: (a) committing to increased awareness and understanding of this student population by district leaders for all educators serving students; (b) providing specifically designed and accessible learning materials and technologies for students with dyslexia to support differentiated, evidence-based practices; and (c) increasing understanding and use of universal design for learning. Academic achievement is also connected to self-esteem and a positive self-image. Beyond the student, dyslexia initiatives aim to advocate for change at the state and

federal levels to ensure that dyslexia interventions are implemented to support children with dyslexia academically (Shaywitz & Shaywitz, 2020).

Conclusion

In Section 3, I discussed the purpose of this white paper, provided scholarly literature to support the findings of the study, and described the white paper recommendations with a conceptual framework. I also provided a detailed explanation of how the white paper would be introduced and presented to various stakeholders and, if adopted, how it could be implemented. I shared a timeline for implementing the white paper and listed the roles and responsibilities to implement the white paper recommendations. The goal of the white paper is to inform and encourage educators to improve their understanding of meeting the needs of students with dyslexia. The white paper recommendations directly align with the purpose of my research project, which was to investigate elementary teachers' perceptions about meeting the needs of students with dyslexia and to examine teacher recommendations to improve teacher training at a school district in the western United States. Aligned with the research study's purpose, data findings, and recommendations, the overall goal of this white paper project is to present three recommendations from the study's findings:

1. The district should provide clear and actionable suggestions that prioritize early identification, support, and accommodations to improve educational outcomes for students with dyslexia.

2. The district should provide elementary teachers with instructional support, materials, and resources to meet the instructional needs of students with dyslexia.

3. The district should provide systemic and ongoing PD focused on differentiated instruction to support and serve the academic needs of students with dyslexia.

In Section 4, I share my project's strengths in attempting to address meeting the needs of students with dyslexia. I also discuss the weaknesses of the project as I reflect on the various stages of this doctoral study. My reflections include the significance of my doctoral study, my personal growth, and areas that I would develop.

Section 4: Reflections and Conclusions

In this section, I discuss the strengths and weaknesses of the project that I developed based on the findings from this basic qualitative study. The purpose of this basic qualitative study was to investigate elementary teachers' perceptions of the challenges of instructing students with dyslexia and recommendations to improve teacher training to work with students with dyslexia in the study school district. The three overarching themes that emerged from analysis of the data collected from the participating educators formed the basis of the white paper. I created a white paper to provide scholarly recommendations based on findings from the research study and to educate and motivate elementary teachers to improve their understanding of how to meet the needs of students with dyslexia to improve their teaching practices. The study findings may result in positive social change by supporting increased knowledge and understanding of educator stakeholders to meet the instructional needs of students with dyslexia, thereby increasing reading achievement for students with dyslexia. All themes, findings, and recommendations that originated from this project are supported by findings in the existing literature. In this study, the perspectives gathered from elementary teachers serving dyslexic students demonstrate professional opinions on how to best serve this student population at a school district located in the western United States.

In this section, I discuss the research project's strengths, limitations, and recommendations for alternative approaches. I discuss my scholarly experiences and consider how I have developed personally. I reflect on and discuss the significance of my

doctoral work. Finally, I describe the implications, applications, and directions for future research.

Project Strengths and Limitations

The project has several strengths and limitations. One of the strengths of this project is that it involved general education and special education teachers from kindergarten to fifth grade. The data represent teacher perspectives from various grade levels; elementary teachers collectively shared their perspectives on meeting the needs of students with dyslexia. Classroom teachers' roles in daily instruction, practice, and evaluation are essential (Thwala et al., 2020). Effective elementary teachers can significantly influence student accomplishment more than characteristics such as poverty, language background, and minority status (Fan, 2022); thus, elementary teachers' perspectives in this study were valuable. Another strength was compassion and desire to find a way to meet the needs of students with or without dyslexia who struggle to read. Researchers have indicated that early identification and intervention for children with reading difficulties can prevent long-term challenges for most children (Stevens et al., 2021).

One limitation of the project that was not addressed is that, given the shortage of instructional support and resources, elementary teachers often find themselves personally purchasing the materials required to effectively educate students with dyslexia. The second limitation not addressed is that elementary teachers use social media to learn different strategies and approaches to meet the needs of students with dyslexia rather than having evidence-based PD opportunities. The necessity for PD to provide curriculum,

materials, support, and resources to address the variety of needs of students presents demands on elementary teachers to educate students effectively and continues to be a challenge (Sokel, 2019).

Recommendations for Alternative Approaches

The problem investigated in this study is that, despite PD training, elementary teachers at a school district located in the western United States are challenged in instructing students with dyslexia. The study's findings were derived from data collected through interviews conducted via Zoom with seven elementary school teachers, which ensured adequate data saturation. However, as an alternative approach, I would be interested in observing elementary teachers in the classroom providing instruction to students with dyslexia. In addition, observations would enable me to observe students' reactions as they interact with the teacher's instruction and directions and to observe their understanding of instruction. The amount of information obtained solely through observing would be monumental. As an educator for 35 years specializing in supporting students with dyslexia, I could use observation data and create a dyslexia PD focused on meeting the needs of elementary teachers who support students with dyslexia. These alternative approaches would provide information that could generate additional recommendations to better serve the instructional needs of students with dyslexia.

Scholarship, Project Development and Evaluation, and Leadership and Change

This qualitative research study allowed me to collect information through semistructured interviews regarding elementary teachers' perceptions of how they serve students with dyslexia and the PD needed to meet the needs of students with dyslexia. My

intention was to make a positive social change by investigating a problem that needs a solution for meeting the needs of students with dyslexia. The focus of my investigation was determined by current scholarly literature and a conceptual framework. I followed safety procedures and research ethics under the guidance of professors and the IRB at Walden University. I acquired research skills such as identifying a problem, using current literature to inform the problem identified, designing a study to explore the purpose of the study, and analyzing information collected from semistructured interviews. Through this project study, I acquired knowledge about research, methodologies, and data analysis methods to identify educators' perceptions and needs in the study school district.

For this project, I conducted seven one-on-one interviews to gather data. Throughout the interview process, I consistently heard elementary teachers share their concerns about meeting the needs of their students with or without dyslexia. They spoke of frustrations with limited instructional support, materials, and resources to support not only students with dyslexia but all their students in the classroom. The elementary teachers' perspectives shared in the study may help district stakeholders realize the need for an action plan to meet the educators' needs, thereby enabling elementary teachers to effectively meet the needs of students with dyslexia. Furthermore, stakeholders would benefit from being aware of the study's results to promote transparency as the district seeks to increase reading achievement for students with dyslexia.

I intend to use my research experience as an educator and research practitioner. I am a state-certified educator with a credential as an educational therapist. I hold a master's degree in mild to moderate learning disabilities and founded a nonprofit school

for students in Grades 3–8 with learning disabilities to serve students who struggle in the

traditional public and private school sector. I began teaching at 22 years old, am currently

in my 35th year, and am creating a curriculum to meet the needs of students with

dyslexia. I plan to share the curriculum my staff and I created over the last 10 years to

provide solutions for meeting the needs of dyslexic students and to increase reading

achievement for students with dyslexia. I anticipate using this research project, my

acquired scholarly practices, and my passion to make a positive social change in meeting

the needs of students with dyslexia through sharing what I have observed and

experienced from these combined experiential opportunities. As a student with dyslexia, I

have an affinity for understanding students' needs and perspectives and family

expectations and needs.

Reflection on Importance of the Work

The process to complete a doctoral study is like climbing Mount Everest. For

example, climbing Mount Everest is an extraordinary and daunting adventure that

requires careful planning, physical and mental preparation, and significant determination.

As a dyslexic learner, this mountain to climb to complete a doctorate has been

exhilarating. Interviewing the seven participants and learning about their challenges in

meeting the needs of students with dyslexia was revealing. The honesty of their

frustrations and the suggestions and ideas they shared to meet the needs of students with

dyslexia are valuable. I needed to conduct this research project systematically with an

extensive literature review, requiring a carefully planned methodology that aligned the

research problem, purpose, RQs, and conceptual framework. The physical and mental

preparation to put together the data collection, analysis, and results was tedious and rewarding. Observing how the themes emerged for the coding and categories was eye opening. Solutions to the research problem began to arise. Through significant determination, the project study was created. A white paper project was created to educate stakeholders on the study findings, provide recommendations, and propose actions for consideration to meet the needs of students with dyslexia. As I descend the mountain, recapping the journey to receive a doctorate degree, I reach the bottom of the mountain, the findings. Nobel Peace Prize laureate Malala Yousafzai stated that there comes a moment when the choice is speaking up or remaining silent. At that moment, you commit that everything in the universe works to your advantage (Ashoka, 2017). I chose to stand up to provide answers on how to meet the needs of students with dyslexia. The findings of this study result in positive social change through increased reading achievement for students with dyslexia.

Implications, Applications, and Directions for Future Research

The findings of this research project imply that despite PD training, elementary teachers at a school district in the western United States continue to struggle with providing instruction to students with dyslexia. The participants collectively provided insight that stakeholders, from administration to teachers, can use to meet the learning needs of students with dyslexia. The conceptual framework of Guskey's (2016) model of the five critical levels of PD evaluation theory focused on PD that works for educators. Based on data, I recommend that educators' individual needs are met with targeted PD opportunities. Furthermore, I recommend that educators are given structured

opportunities for collaboration and planning. Future research projects may involve

quantitative data on student achievement before and after a reading intervention program,

PD, or collaborative opportunities with school district and university stakeholders in the

form of consortiums. Future research I would like to explore includes recent data and

findings that dyslexia is potentially not a disability, but rather a different way the brain

processes information.

Conclusion

The problem addressed in this study is that despite PD training, elementary

teachers at a school district in the western United States are challenged with instructing

students with dyslexia. Using a basic qualitative study, seven elementary teachers self-

selected into the study and agreed to a one-on-one, semistructured, Zoom, audio-only

interview. Participants who met the inclusion criteria were general education and special

education teachers with experience and some PD on instructing elementary students with

dyslexia. The conceptual framework of Guskey's (2016) model of the five critical levels

of PD evaluation theory focused on PD that works for educators. Data were analyzed

using open descriptive coding and concluded with three thematic concepts. The findings

from this study served as the basis for three recommendations that were presented in the

study's project, a white paper. The following recommendations for the study site were

provided using scholarly literature and a purposeful change conceptual framework: (a)

provide clear and actionable suggestions that prioritize early identification, support, and

accommodation to improve educational outcomes for students with dyslexia; (b) provide

elementary teachers with instructional support, materials, and resources to meet the

instructional needs of students with dyslexia; and (c) provide systemic and ongoing PD focused on differentiated instruction to support and serve the academic needs of students with dyslexia. The goal of the white paper is to inform and encourage educators to improve their understanding of meeting the needs of students with dyslexia.

In conclusion, understanding educators' perspectives about meeting the needs of students with dyslexia at elementary schools in a district in the western United States is crucial to best understand how to address the struggles with providing instruction to students with dyslexia. The educators provided insight and beneficial information that can be used by the local site stakeholders. The findings showed a necessity for addressing and meeting the needs of students with dyslexia. Educators need access to meet the instructional and academic needs of students with dyslexia to improve educational outcomes. Themes suggest absence of a district process for identifying students with dyslexia; the lack of instructional support, materials, and resources; and a need for systemic PD focusing on dyslexia and students' instructional needs.

According to the National Association for Educational Progress, in U.S. public schools, 63% of fourth graders and 64% of eighth graders are not proficient readers, yet reading is an essential skill to function in the world (Odegard et al., 2020). The need for further research is becoming an epidemic. A study conducted by researchers involved 145 incarcerated individuals who underwent individual assessments for reading proficiency and IQ in two maximum-security prisons located in Louisiana. The findings indicate that approximately 47% of the participants were identified as having dyslexia,

36% demonstrated proficient reading skills, and 17% displayed signs of cognitive impairment (Cassidy et al., 2021).

Researchers and educators must ask why, in 2024, dyslexic students are still struggling to read, write, and comprehend in traditional and private school classrooms across the United States. The education dyslexic students receive is not effective. If districts throughout the western United States continue to struggle not providing adequate support, resources, and materials and bimonthly regular PD to meet the needs of students with dyslexia, students with dyslexia increasingly will not have their needs met. It is time to prioritize the needs of all learners, fostering a culture of understanding, empathy, and empowerment. Together, researchers and educators can transform the narrative surrounding dyslexia and pave the way for a brighter, more inclusive future in education.

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Appendix A: The Project

Elementary Teachers' Perceptions of Challenges in Instructing Students with Dyslexia

and Recommendations for Improvement

A White Paper

by

Lainie Shar Barbieri

Policy Recommendation

This white paper is the result of a qualitative study conducted with educators who teach at an elementary school in the western United States. The purpose of this basic qualitative study was to investigate elementary teachers' perceptions of the challenges of instructing students with dyslexia and recommendations to improve teacher training to work with students with dyslexia in the study school district. Based on the findings, three recommendations are suggested to facilitate a school-wide change of meeting the needs of students with dyslexia. In this white paper, I outline the current problem, strengthen stakeholders' understanding of teacher needs related to teaching students with dyslexia, and provide three recommendations resulting in positive social change through increased educator effectiveness and thus reading achievement for students with dyslexia.

Background of the Study

The No Child Left Behind Act of 2001 stated that all students in the United States must read at grade level or above by the conclusion of third grade, a goal that has not been met (Ortiz et al., 2021). In a district located in the western United States,

approximately 14% of elementary students with disabilities, including dyslexia, are diagnosed with learning disabilities. As addressed by the district administrator in May 2022, the school district has conducted numerous training sessions for elementary teachers who work with dyslexic students. However, maintaining consistency in implementing the content covered in these professional development (PD) sessions has proven challenging. Elementary teachers within the special education department of this western United States school district often make mistakes that hinder the delivery of services. These problems include not adhering to the recommended number of weekly lessons outlined in the curriculum protocol, grouping too many students together for small-group instruction, deviating from recommended methods when adapting or modifying the curriculum, selectively implementing only certain portions of the curriculum, and failing to keep the necessary data required to assess and monitor student progress.

It is crucial to address the perceptions of elementary teachers regarding the difficulties of teaching students with dyslexia in an elementary school in the western United States for three key reasons: (a) the absence of a district process for identifying students with dyslexia; (b) lack of instructional support, materials, and resources; and (c) lack of systemic PD focusing on dyslexia instructional needs. Despite the district's efforts to provide numerous training sessions, maintaining consistency in implementing the content covered in these PD sessions remains a challenge, as noted by a district administrator in May 2022. The problem investigated in this study is that, despite PD training, elementary teachers at a school district in the western United States are

challenged in instructing students with dyslexia. The purpose of this basic qualitative

study was to investigate elementary teachers' perceptions of the challenges of instructing

students with dyslexia and recommendations to improve teacher training to work with

students with dyslexia in the study school district. The research questions explored

elementary teachers' perceptions of the challenges of instructing students with dyslexia

and recommendations for improved teacher training. The framework of Guskey's (2016)

theory consists of five tiers: Level 1: participants' reactions; Level 2: participants'

learning; Level 3: organizational support and change; Level 4: participants' use of new

knowledge and skills; and Level 5: students learning outcomes guided the study. Data

were collected via Zoom, audio-only, semistructured interviews with seven participants

who were general and special education teachers who met the additional criteria of (a)

having experience instructing students with dyslexia and (b) having participated in PD

related to dyslexia. Participants self-selected into the study, and inclusion criteria were

confirmed prior to the interview. To address meeting the needs of students with dyslexia,

seven educators were interviewed, and their answers were analyzed for thematic ideas.

Results

The findings suggest that due to limited PD; the absence of a dyslexia

identification and assessment system; and limited materials, support, and resources,

elementary teachers are challenged in providing instructional support for students with

dyslexia. Data analysis involved the use of open coding to identify codes, categories, and

themes. There were 442 codes identified from the data, which then were collapsed to four

categories and three final themes:

1. Elementary teachers perceive the absence of a district process for identifying students with dyslexia is a challenge of instructing students with dyslexia.

2. Elementary teachers describe the lack of instructional support, materials, and resources as a challenge to meeting the instructional needs of students with dyslexia.

3. Elementary teachers recommend systemic PD focusing on dyslexia and students' instructional needs for elementary teachers working with students with dyslexia and to improve training.

The findings from the study indicated three common challenges perceived by educators: (a) the absence of a district process for identifying students with dyslexia; (b) lack of instructional support, materials and resources; and (c) lack of systemic PD. The study's findings and current scholarly literature led to three recommendations for the district in the western United States, described next.

Recommendations for the Research Site

This white paper was drafted to address elementary teachers' perceptions of challenges in instructing students with dyslexia and recommendations for improvement. The recommendations from the study include evidence-based practices and strategies for district administrators and general education, special education, and resource teachers. The following are the three recommendations:

1. Provide clear and actionable suggestions that prioritize early identification, support, and accommodation to improve educational outcomes for students with dyslexia.

2. Provide elementary teachers with instructional support, materials, and resources to meet the instructional needs of students with dyslexia.

3. Provide systemic and ongoing PD focused on differentiated instruction to support and serve the academic needs of students with dyslexia.

Recommendation 1: Absence of Identifying Dyslexia

The first recommendation is to provide clear and actionable suggestions that prioritize early identification, support, and accommodation to improve educational outcomes for students with dyslexia. It is advantageous for all elementary schools to identify disabilities such as dyslexia, particularly among students who exhibit academic difficulties between kindergarten and second grade. Based on the findings and current scholarly literature, the absence of a district process for identifying students with dyslexia is detrimental to the learning outcomes of these students. Early intervention positively influences the long-term educational outcomes of children with learning disabilities (Barger et al., 2021). As general education teachers spend most of the school day with their students, they would observe students demonstrating indicators and risk factors that are linked to dyslexia. Early dyslexia diagnosis and intervention services are recommended to reduce the risk of reading problems (Aldakhil et al., 2023). Table A1

displays common indicators of dyslexia teachers can implement in their classroom to

identify dyslexia.

Table A1

Indicators of Dyslexia

Indicator of dyslexia	What to watch
Phonological awareness difficulty	May have difficulty rhyming, segmenting words, individual sounds Difficulty blending sounds to form words
Decoding and word recognition difficulty	Difficulty decoding words, particularly unfamiliar or multisyllabic words May rely heavily on context clues or guesswork when reading and struggle to recognize familiar sight words
Poor spelling	Difficulty remembering letter-sound correspondences Struggle with spelling patterns and rules
Slow or labored reading	May read slowly and with effort, often pausing frequently to decode words May exhibit hesitations, substitutions, or omissions while reading aloud
Inconsistent reading comprehension	May struggle to make meaning from text, particularly when faced with complex or lengthy passages
Difficulty with writing and expressive language	May have trouble organizing their thoughts coherently, forming grammatically correct sentences
Avoidance of reading and writing activities	May express frustration or anxiety when asked to read aloud, participate in spelling tests, or complete written assignments
Persistent academic struggles despite intervention	Despite receiving targeted instruction and interventions, may continue to struggle academically May show limited progress in reading and writing skills compared to their peers, despite consistent effort and support
Family history of dyslexia	Often runs in the family Family history of reading difficulties Child also experiences challenges with reading and writing

Dyslexia can present differently in everyone, so a comprehensive assessment conducted by qualified professionals is needed to confirm a diagnosis of dyslexia (Snowling et al., 2020). However, recognizing these indicators can prompt early intervention and support for students who may be struggling with reading in elementary classrooms (Karimupfumbi & Dwarika, 2022). By providing elementary teachers with indicators to identify dyslexia, they will be able to identify needs and provide the supports dyslexic students need for reading achievement.

Recommendation 2: Instructional Support, Materials, and Resources

The second recommendation is to provide elementary teachers with instructional support, materials, and resources to meet the instructional needs of students with dyslexia. Based on the study's findings and current scholarly literature, a lack of instructional support, materials, and resources creates a challenge in meeting the instructional needs of students with dyslexia. Ensuring that elementary teachers have access to a wide range of resources and support services will be effective for several reasons. The first reason is tailored instructional materials. Providing specialized instructional materials designed for dyslexic students, such as multisensory structured language programs, is a popular method of instruction for students with dyslexia. Based on this theory, instruction that engages a child's language system and sensory modalities—such as visual, auditory, and tactile—may improve memory (encoding, storge, retrieval) of concepts being taught (Schlesinger & Gray, 2017). This method integrates the three modalities and guarantees that language structure training is explicit, systematic, cumulative, direct, and sequential (Magpuri-Lavell et al., 2014). Reading

methods that are explicit, systematic, cumulative, direct, and sequential are grounded in evidence-based practices and have been shown to be highly effective in promoting literacy development, particularly for students who may struggle with reading or have dyslexia. These methods provide clear, structured instruction that addresses the diverse learning needs of all students and fosters strong foundational skills essential for reading success.

Note that the terms *explicit, systematic, cumulative, direct*, and *sequential* are often used to describe elements of effective reading instruction methods, particularly in the context of structured literacy approaches. Table A2 defines these terms.

Reading methods that are explicit, systematic, cumulative, direct, and sequential are grounded in evidence-based practices and have been shown to be highly effective in promoting literacy development, particularly for students with dyslexia (Karimupfumbi & Dwarika, 2022). These methods provide clear, structured instruction that addresses the diverse learning needs of dyslexics and develops strong foundational skills essential for reading achievement.

Table A2

Elements of Effective Literacy Approaches

Term	Evidence-based practices
Explicit	Explicit instruction involves clearly and directly teaching specific skills or concepts, leaving little room for ambiguity or inference.
	Explicit teaching means directly teaching phonemic awareness, phonics, decoding, vocabulary, comprehension strategies, and other literacy skills in a clear and straightforward manner.
	Teachers explicitly model and explain each skill, provide guided practice, and offer ample opportunities for students to apply the skill independently.
Systematic	Systematic instruction follows a logical and organized sequence, with skills taught in a planned progression from simple to complex.
	Each skill builds upon previously taught skills, with a clear rationale for the instructional sequence.
	Systematic teaching in reading ensures that students learn foundational skills before moving on to more advanced ones, thereby laying a solid foundation for literacy development.
Cumulative	Cumulative instruction ensures that previously learned skills are reviewed, reinforced, and integrated into subsequent lessons.
	Students continuously revisit and practice previously taught concepts to deepen their understanding and retention over time.
	Cumulative teaching involves regular review of phonics patterns, vocabulary words, and comprehension strategies to ensure mastery and prevent skill regression.
Direct	Direct instruction involves teacher-led, interactive lessons where the teacher explicitly guides students through the learning process.
	Teachers provide clear explanations, modeling, and scaffolding and actively engage students in the learning process through questioning, discussion, and feedback.
	Direct instruction ensures that students receive explicit guidance and support as they acquire new skills and knowledge.
Sequential	Sequential instruction involves teaching skills in a logical and sequential order, with each skill building upon the ones that came before it.
	In reading instruction, skills such as phonemic awareness, phonics, fluency, vocabulary, and comprehension are taught in a systematic sequence that aligns with the typical developmental progression of literacy skills.
	Sequencing ensures that students develop a solid understanding of foundational skills before advancing to more complex tasks.

Recommendation 3: Systemic and Ongoing PD

The third and final recommendation is to provide systemic and ongoing PD focused on differentiated instruction to support and serve the academic needs of students with dyslexia. Based on the study's findings and current scholarly literature, there is a lack of systemic and ongoing PD focused on differentiated instruction to support and serve the academic needs of students with dyslexia. Effective teachers can have a greater impact on student achievement than poverty, languages background, and minority status (Fan, 2022). The district is responsible for ensuring that elementary teachers receive support in addressing the needs of students with dyslexia. This support is essential for enhancing overall academic achievement and ensuring that all students have access to high-quality and equitable educational opportunities. Elementary teachers are now being held accountable for students' learning outcomes, which affects how their efficacy is evaluated (Fan, 2022).

The district must assist elementary teachers in meeting the needs of students with dyslexia. This support is crucial for improving academic success and ensuring equal educational opportunities. The ultimate objective of PD is improvements in student learning outcomes, based on real evidence and significant progress (Guskey, 2002). Through evidence-based PD identifying successful instructional strategies, materials, and support, elementary teachers can further their knowledge and expertise in effectively meeting the needs of students with dyslexia. PD including collaborative teams is a cost-effective and sustainable approach to increasing ability to instill knowledge and skills in content-based teaching and learning to meet the needs of students with dyslexia

(Mendoza & Wu, 2022). Educators open to learning different strategies and approaches and working together are more likely to problem-solve, be accountable, and consistently implement effective instruction for sustainable learning.

The framework used in this study focused on Guskey's (2016) five-tier model. These five levels provide a comprehensive framework for evaluating the effectiveness and impact of PD initiatives on both educators and students. The model is based on the importance of assessing outcomes at multiple levels to ensure that professional learning experiences lead to meaningful improvements in teaching and learning. Figure A1 provides an illustration of Guskey's (2016) five stages of evaluation.

Figure A1

Illustration of Guskey's Five Stages of Evaluation

PD that enhances effectiveness and outcomes for all students utilizes a range of data from various sources, including student, educator, and system data, to design, assess, and review PD activities. (Guskey, 2016). Table A3 shares the definition of Guskey's (2016) five levels of PD.

Table A3

Guskey's Five Levels of Professional Development (PD)

Level	Examples
Level 1: Participants' reactions	Focus on participants' immediate reactions and perceptions of the PD experience. Assess factors such as satisfaction, engagement, and perceived usefulness of the training.
Level 2: Participants' learning	Evaluate the extent to which participants have acquired new knowledge, skills, or attitudes because of the PD activities. Measure changes in understanding, competence, and confidence related to the targeted learning objectives.
Level 3: Organizational support and change	Examine the impact of PD on organizational practices, policies, and culture. Assess whether the training has influenced school or district policies, instructional practices, leadership behaviors, or other organizational factors.
Level 4: Participants' use of new knowledge and skills	Assess the extent to which participants apply the knowledge and skills gained from PD in their practice. Examine changes in instructional strategies, classroom practices, or other behaviors because of the training.
Level 5: Students learning outcomes	Focus on the ultimate impact of PD on student learning and achievement. Measure changes in student performance, attitudes, and behaviors that can be attributed to PD activities.

Note. Based on "Gauge Impact With 5 Levels of Data," by T. R. Guskey, 2016, *Journal of Staff Development, 37*(1), 32–37.

Guskey's (2016) levels of PD evaluation are important for both elementary students and teachers for several reasons. First, they provide a structured framework for assessing the effectiveness of PD initiatives. By systematically evaluating various aspects such as participant reactions, learning outcomes, and organizational impact, educators can ensure that their PD efforts are meaningful and impactful. Second, these levels help educators understand the link between PD and student learning outcomes. By assessing

the ultimate impact of PD on student performance, attitudes, and behaviors, elementary

teachers can tailor their PD activities to better meet the needs of their students.

Furthermore, Guskey's (2016) levels emphasize the importance of ongoing reflection and

improvement. By evaluating not only participants' reactions but also their application of

new knowledge and skills in practice, educators can identify areas for growth and adjust

as needed to enhance their teaching practices. Overall, Guskey's (2016) levels of PD

evaluation serve as a valuable tool for promoting continuous improvement and ensuring

that PD efforts benefit both educators and students.

Summary

Instructing students with dyslexia presents unique challenges for elementary

teachers. Despite PD training, elementary teachers still struggle to provide effective

instructional support, materials, and resources to students with dyslexia. In addition,

elementary teachers' perceptions of the challenges of instructing students with dyslexia

and their recommendations to improve teacher training to effectively work with students

with dyslexia were the focus of this white paper. The data gathered through Zoom

interviews was valuable on both ends of the spectrum, from suggestions to improve

educating students with dyslexia to feelings of overwhelm and failure. The results of the

findings provide recommendations to meet the needs of students with dyslexia.

The recommendations from this white paper are based on research findings from a

qualitative study. Data were nalyzed, and three themes emerged that guided the three

recommendations to (a) provide clear and actionable suggestions that prioritize early

identification, support, and accommodation to improve educational outcomes for students

with dyslexia; (b) provide elementary teachers with instructional support, materials, and

resources to meet the instructional needs of students with dyslexia; and (c) provide

systemic and ongoing PD focused on differentiated instruction to support and serve the

academic needs of students with dyslexia. The project objective is to aid in closing the

achievement gap between students with dyslexia and students without dyslexia. By

addressing the challenges and implementing the recommendations outlined in this white

paper, schools can enhance instructional practices and better support the academic

success of students with dyslexia in elementary classrooms. This study's findings

highlighted the absence of PD focused on dyslexia; limited access to supplies, materials,

and resources; and overall support to meet the needs of students with dyslexia. By

acknowledging dyslexia as a social justice issue and implementing systemic reforms that

prioritize the needs of dyslexic students, educational leaders can achieve meaningful

change within school systems, thereby advancing the culture of inclusivity and equity in

education.

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