PROFESSOR READING ORIENTATIONS IN TEACHER PREPARATION: THE TEACHERS WHO TEACH TEACHERS TO TEACH READING

A Dissertation By

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Abstract:
Almost 30% of American high school seniors graduate virtually unable to read, disproportionately from low-income homes or students of color. These students face higher rates of unemployment, depression, incarceration, and suicide. In American schools, three methods of reading instruction vie for dominance: structured literacy, balanced literacy, and whole language. Science-based reading research indicates that beginning readers, English language learners, and struggling readers require structured literacy to read. This qualitative study investigated the gap between science-based reading research and university preparation for general education and special education teacher candidates and teachers seeking a Master's of Literacy. Areas of focus were reading differences, dyslexia, and factors influencing teacher preparation curricula. Semistructured interviews with 13 professors from six state universities provided data, augmented by syllabi and university websites. Analysis was conducted using deductive and inductive coding. Findings revealed that intervention for reading differences related to professors' reading orientation, dyslexia was not mentioned in most programs, professors claimed autonomy in creating curricula, and the impetus for change in reading instruction originated from parents, then teachers, but not from universities. Universities lag in the execution of science-based research to the detriment of students who require structured literacy to read. Universities must hire professors knowledgeable about structured literacy and their own reading biases, and the topic of dyslexia must be embedded in teacher preparation curricula. Future studies could compare these findings with teacher preparation in research-based universities and private colleges.

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Thank you to my students and their parents for teaching me more than I ever expected. You are the best.

CHAPTER 1

INTRODUCTION

Few experiences are as exciting as witnessing a child learn to read and conquer increasingly complex academic tasks. Few experiences are as heartbreaking as watching an intelligent, motivated student struggle with reading into adulthood, unsure of even simple words. Reading is the foundational skill upon which academic learning rests; a limited ability to read diminishes future success. In the United States, 30% of 12th-grade students read at a below basic level; below basic rates have steadily increased since 2002 (National Assessment of Educational Progress [NAEP], 2019). What happens to these students' futures?

Dyslexia is an inherited condition found in approximately 15% of the population. Differences in phonological processing, the use of sounds to process spoken and written language, cause persistent, mild-to-severe reading difficulties (Hettleman, 2019; Mayo Clinic, 2017; Shaywitz & Shaywitz, 2020). Structured literacy, a systematic, explicit, multisensory, phonics-based reading instruction, addresses the needs of students with dyslexia (Hettleman, 2019; Moats, 2017; Wolf, 2018).

But not only students with dyslexia!

The National Reading Panel (NRP, 2000) recommended structured literacy for all students but deemed it essential for beginning readers, students with reading disorders, and English learners. The National Research Council (1998) suggested it for all readers; Torgesen predicted this type of instruction would result in 90% of students' reading at an average level and reduce special education enrollment by 50-70% (Hettleman, 2019; National Research Council, 1998). Structured literacy helps all students.

Unfortunately, most general education or special education teachers cannot identify dyslexia nor provide structured literacy instruction (Gonzalez & Brown, 2018; Moats, 2020; Spear-Swerling, 2019b; Shaywitz & Shaywitz, 2021; Washburn et al., 2016; Will, 2019; Wolf, 2018). Moats (2017) described the slowness in teacher training programs to incorporate reading research as the most

daunting obstacle to effective reading instruction. A chasm exists between what is known about reading and what is taught to teachers (Moats, 2017). How do we bridge that chasm?

Background of the Problem

Centuries of reading instruction influence what is taught in American classrooms (Appendix A). In the 1600s and 1700s, children learned phonetically, repeating letter sounds (Dodds,1967). Public school champion Horace Mann promoted the “look-say” method in the 1800s, recognizing entire words instead of sounds (Graves & Dykstra,1997). Look-say dominated for almost 100 years, with rumbling from phonics proponents (Kim, 2008; Schreiner & Tanner, 1976). In the 1960s, "reading wars" erupted (Chall, 1967) that continue today. Currently, three methods vie for the most effective way to teach the pleasure and utility of reading: whole language, structured literacy, and balanced literacy (Moats, 2020; Spear-Swerling, 2019a; Will, 2019).

Whole Language

Whole language proponents want kids to love reading. They assume reading evolves naturally, similar to language and physical skills, through social interactions, cultural practices, and relationships with others (R. Howard, 2016; Huang, 2014). Within "a rich, literate environment with a teacher who knows when to push and when to stay on the sidelines …kids will find ways to come to literacy" (Ryan & Goodman, 2016, p. 65). Students learn a three-cueing strategy for unfamiliar words: syntax (does it sound right?), semantics (does it make sense?), or illustrations to discover meaning (Noguerón-Liu, 2020). Meaning is paramount in whole language.

Supporters of whole language fear phonics causes children to dislike reading and therefore eschew a systematic presentation of skills. Using the authentic context of developmentally appropriate literature, teachers capitalize on children’s insights to discover and explore spelling or grammatical concepts (Will, 2019). Marie Carbo, of the National Reading Styles Institute, believes skills should be taught through high-interest stories, otherwise children won’t maintain attention. Carbo credits whole language with reversing a trend of children who hated reading (Carbo, 2013).

Structured Literacy

Structured literacy ensures no skill or student will be overlooked, rejecting the assumption that all necessary skills can be covered in context (Moats, 2019). Skill groups receive explicit, sequenced instruction. For example, the letter *c* makes a /k/ sound (cat) unless followed by an *e, i*, or *y*, when it is pronounced /s/ (cell). Students decode unfamiliar words with learned letter-sound knowledge and word analysis, not by guessing: "Concepts are taught directly by the teacher, students are not expected to infer them simply by exposure or incidental learning" (Spear-Swerling, 2019b, p. 202). Deborah Reed, director of the Iowa Reading Research Center, warns against assuming reading is a naturally evolving process: "When teachers focus on the love of reading and comprehension, children fall through the cracks" (Will, 2019, p. 24). Structured literacy's multisensory emphasis encourages students to sing, move, dramatize, play games, create, and read stories on their unique phonic paths. Phonics isn't boring.

Students' mastery of foundational language concepts increases their reading skills and confidence in their ability to enjoy literature. In structured literacy, literature deliberately remains apart from skill instruction. Instead of static reading groups, temporary skill groups may be regularly rearranged. This supports all students' reading needs and abilities and removes stigmatization that only low-scoring students need skill instruction (Reed, 2016). In place of leveled reading groups, all students share engaging, grade-level literature through accommodations, such as audiobooks and text-to-speech applications, to create truly equal educational opportunities.

Balanced Literacy

Balanced literacy was a compromise to end reading wars, incorporating the best of whole language and structured literacy: It was immediately rejected. Whole language advocate Goodman decried, "One cannot reconcile direct instruction with natural learning; authentic texts are incompatible with decontextualized phonics" (Ryan & Goodman, 2016). It was whole language or nothing. Patrilli (2020) and Moats (2017) described balanced literacy as nominally balanced: a bit of phonics mixed into whole language while ignoring the needs of students who require structure to

learn to read. As Patrilli put it, “a whole language wolf in balanced literacy clothing” (p. 86). Whole language, structured literacy, and balanced literacy proponents agree they disagree about teaching reading.

Dyslexia

Rudolph Berlin, a German ophthalmologist, coined the term *dyslexia* (difficulty with words) in 1877. A decade later, case studies of British children humanized dyslexia by describing dyslexic children as “bright and intelligent, in no way inferior … with an inability to read so pronounced … [despite being] every other aspect intelligent” (Kirby, 2020, p. 56). In 1925, American Samuel Orton first recommended the phonics-based intervention still used today.

Myths About Dyslexia

Like ADHD or depression, dyslexia is an invisible difference (Hettleman, 2019). In the nineteenth century, as reading became more widespread, parents who could afford doctors sought help for children unable to read. Similarly, today’s affluent families who can pay for private tutoring perpetuate the idea that dyslexia is an invention of anxious middle- and upper-class parents with unintellectual children. Conversely, the British children’s studies launched an opposite myth associating dyslexia with high intelligence (Kirby, 2020). Special education’s discrepancy qualification model maintains this belief as since students with higher I.Q.s qualify before students with lower I.Q.s though sharing the same underlying difficulty (Hettleman, 2019). In 2014, Julian G. Elliott and Elena L. Grigorenko, authors of *The Dyslexia Debate*, claimed dyslexia was no different from any other reading difficulty, ignoring the phonological processing etiology of dyslexia (Hettleman, 2019).

Impact of Dyslexia

People with dyslexia learn to compensate for their limited reading ability. Not all experiences are negative; entrepreneurs and scientists, particularly black hole physicists, are overrepresented among dyslexics (Logan, 2009; Schneps et al., 2011). More often, adults with dyslexia recall feelings of inferiority and anxiety, not understanding why they couldn't read like their peers (Doikou-Avlidou, 2015). Untreated dyslexia is associated with unemployment, depression, suicide, and incarceration

(Brunner, 1993; Moody et al., 2000; Shaywitz & Shaywitz, 2020). Moody et al. found 80% of Texas prison inmates to be functionally illiterate, 48% with dyslexia. The U.S. Justice Department concurs: "The link between academic failure and delinquency, violence, and crime is welded in reading failure" (Brunner, 1993, p. 4). The Bureau of Federal Prisons recognizes dyslexia as the leading cause of illiteracy; inmates are screened for dyslexia and provided structured literacy instruction leading toward a GED (First Step Act, 2018).

Awareness of Dyslexia

Historically, it has been parents, "exhausted from trying to get appropriate services for their children with dyslexia" (Rae, 2015, p. 1) who create awareness of dyslexia, along with educational and political pressure. In 2011, frustrated parents in New Jersey formed an advocacy group they called Decoding Dyslexia (https://decodingdyslexiaca.org/). With chapters in 50 states, Decoding Dyslexia increasingly influences dyslexia legislation. Currently, most states have laws relating to dyslexia (Gearin et al., 2018).

In 2015, Decoding Dyslexia's activism spurred Assistant Secretary of Special Education Michael Yudin to remind American school districts that parents and educators may use the word dyslexia in school discussions and individualized education programs (IEPs). Secretary Yudin emphasized that dyslexia is a specific learning disability under IDEA (U.S. Department of Education, 2015). Yet, National Public Radio's series *The Disability That Must Not Be Named* reported administrators who continue prohibiting parents and teachers from using the word dyslexia in meetings and documents (Emanuel, 2016). California Governor Newsom, who has dyslexia, proposed the 2020 *California Dyslexia Initiative.* Awareness of dyslexia is one of its initial goals (California Department of Education, 2020a).

Equity and Structured Literacy

Students who score lowest in reading benefit most from structured literacy (Hettleman, 2019; NRP, 2000; Wolf, 2018). In the United States, low-scoring students are likely to be children of color or from low-income homes (Hernandez, 2011; McGown & Slate, 2019). NAEP utilizes free/reduced

lunch eligibility in describing students' income levels. Families at 185% or below the poverty line qualify for free or reduced lunch. As shown in Figure 1, 47% of fourth-grade students receiving free/reduced lunch scored Below Basic in reading, compared to 19% of students not receiving free/reduced lunch (NAEP, 2019). Twenty-three percent of White students scored Below Basic, compared to 52% of African American students and 45% of Hispanic students (NAEP). These are the students who would benefit most from structured reading instruction (Creamer, 2020; McGown & Slate; Moats, 2020).

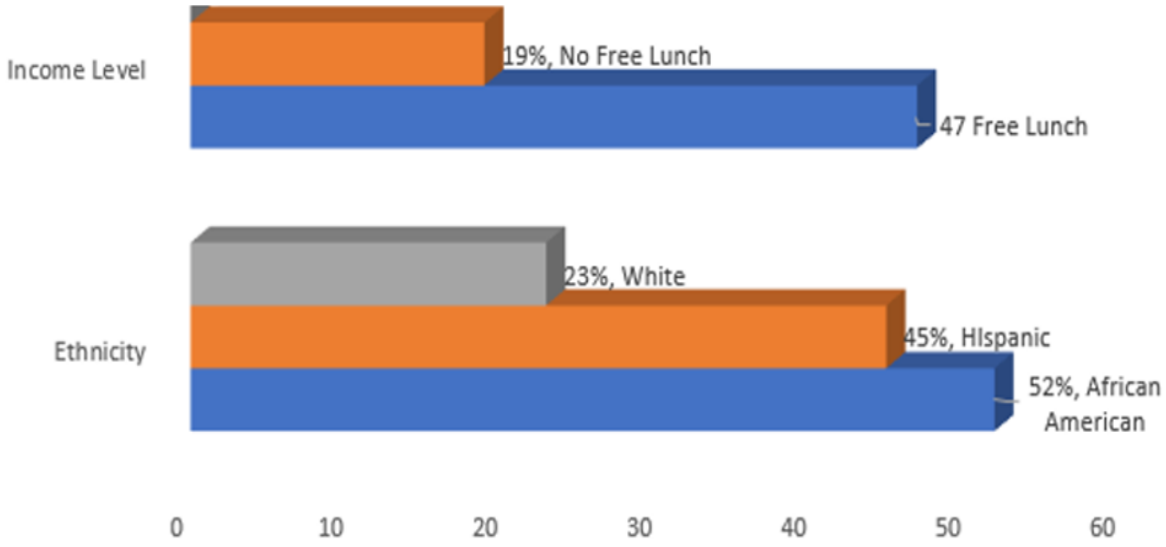


Figure 1. 2019 4th grade below basic reading scores by income and ethnicity (NAEP, 2019).

Unfortunately, parents seeking structured literacy intervention for a struggling child are not likely to find it in their local public school (Hettleman, 2019; Moats, 2020; Shaywitz & Shaywitz, 2020; Wolf, 2018). In Orange County, California, private tutoring costs average more than $100 per week. Local private schools for dyslexia cost up to $28,000 per year (The Reading Well, 2018). With a median income of $68,703, most American families cannot afford the help needed for their children (U.S. Census Bureau, 2020).

Problem Statement

Structured literacy instruction is recommended for all students but essential for students who have reading differences, beginning readers, and English learners (Hettleman, 2019; Moats, 2019;

NRP, 2000; Spear-Swerling, 2019a). The 30% of American students who cannot read at a basic level, and most in need of structured literacy, are likely to be children of color or from a low-income home. Families with an awareness of dyslexia, a willingness to step outside of our educational system, and resources to pay for tutoring can provide real educational opportunities for their children. Most families cannot.

Most preservice and graduate teacher preparation programs do not address dyslexia or structured literacy. This omission guarantees that ongoing generations of teachers remain unaware of dyslexia and the structured literacy needed by their most vulnerable reading students. Will (2019) described the majority of teacher education programs as supporting the compromise of balanced literacy, though in reality, presenting “whole language with a sprinkling of phonics” (p. 23). Some researchers suggest most university professors uphold a traditional, whole language orientation (Moats, 2020; Wolf, 2018). Others indicate that, even though dyslexia affects around 15% of students, teacher educators are simply unaware of dyslexia or structured literacy, leaving them unable to teach what they themselves do not know (Hettleman, 2019; Moats, 2020; Shaywitz & Shaywitz, 2020). Moats and Wolf describe professors who do not believe dyslexia exists, who view reading as a natural process, and who consider the explicitness of structured literacy unnecessary and even harmful.

Purpose Statement

The purpose of this qualitative study was to examine the chasm between science-based reading research and what is taught in preservice and graduate teaching programs. This was accomplished by interviewing university preservice and graduate program professors about their own reading experiences, their institution’s reading instruction orientation, how they addressed reading differences, and dyslexia inclusion, identification, and intervention. The study’s first intent was to ascertain if a chasm existed between research and teacher preparation programs. Next, an exploration of preservice and graduate reading instruction sought to deepen an understanding of how

and why candidates are prepared to teach reading. Finally, the study examined factors that determine what curriculum is offered to university teacher candidates.

Research Questions

The following research questions guided this study:

1. How do current teacher preparation programs address reading differences?
2. Is dyslexia addressed in teacher preparation programs? If so, to what extent?
3. What factors determined the curriculum presented to teacher candidates?

Significance

As American astronomer and science writer Carl Sagan reminded us, “You have to know the past to understand the present.” This study sought to more completely understand the present to more ably proceed into the future.

Preservice and graduate teacher instruction locks or unlocks the door for stakeholders affected by students’ inability to read: students, teachers, and parents. Taxpayers benefit when reading issues are addressed early and supported with accommodations instead of years in special education without significant gains in reading (Hernandez, 2011; Moats, 2017). This research makes a significant contribution to educational leadership because, although many opinions have been offered to explain the lack of structured literacy and dyslexia information in preservice programs, this study asked the professors themselves. Understanding the rationale for including or not including dyslexia awareness in preservice and graduate programs provides an opportunity to understand the present. We may then choose to maintain the status quo or move forward in new directions.

CHAPTER 2

EXISTING RESEARCH AND THEORETICAL FOUNDATIONS

American preservice and graduate teachers are not taught to identify students with dyslexia nor how to provide structured literacy reading instruction. This results in classroom teachers' being unprepared to appropriately teach their most vulnerable students (Colenbrander et al., 2018; Gonzalez & Brown, 2018; Hanford, 2018; Shaywitz & Shaywitz, 2020, Washburn et al., 2016). This study explored the gap between what is taught to preservice and graduate teachers and what is needed by struggling students. At the beginning of this chapter, I review the epistemological and theoretical foundations of this study. Next, I provide an extensive review of the empirical research related to the dissertation topic. I conclude with a conceptual framework and chapter summary.

Epistemological Foundations

Liberal philosophy undergirds education orientation in the United States. This philosophy further advances an educational philosophy that espouses the concept of equal educational opportunities for all members. In this section, I present a brief description of liberalism, liberal educational philosophy, and equal educational opportunities. I discuss how educational opportunities posed as equal may, in reality, perpetuate inequality. Finally, I examine the consequences of unequal educational opportunities for students who struggle in reading, particularly students with dyslexia.

Liberalism

Liberalism, a term derived from the Latin root *liber* (free), developed in the 16th century, when society moved toward the recognition of individuals' rights and freedoms. History labeled this shift toward liberty, equality, and rationality as liberalism (Damiri et al., 2015). John Locke's 1690 treatise *Civil Government* described an optimistic view of humankind: When endowed with equality and freedom, humans will flourish, using rationality to effect improvements in a progressive, gradual manner with government purposefully apart from religion and authoritarianism (as cited in Thompson, 2017).

Liberty is the first pillar of liberal values. Locke argues that every member of society is entitled to "natural rights of life, liberty, and property." Eighteenth-century liberal philosopher Jean-Jacques Rousseau stepped away from Christianity's concept of original sin in favor of the natural goodness of humanity. Rousseau believed when people are freed from governmental tyranny, their state of liberty would encourage the establishment of a natural, self-governing social order (as cited in Damiri et al., 2015).

Equality, liberalism's second pillar, expects all citizens to be treated equally under the law and provided equal opportunities, with no favor for any particular group. It does not assume that all members equally share abilities or resources. Equality does not remove obstacles such as poverty, but alongside liberty, allows members the opportunity to gradually overcome hardships and improve their social, educational, and economic standing. Opportunity is equal for all.

Rationality supports liberalism's belief that humans are thinking beings. Provided autonomy and equal opportunity, human intellectual powers can create government and social order. Emphasis on rationality intentionally excludes religion from seats of power in favor of human intellect. Religion is not prohibited but not prescribed for citizens. Liberty, equality, and rationality, not theology, undergird liberalism.

Liberal Educational Philosophy and Equal Educational Opportunities

America depends on public schools to produce informed citizens, prepared for life and membership in a liberal society (Damiri et al., 2015). John Adams included public schools in the 1780 Massachusetts Constitution:

> Wisdom and knowledge … diffused generally among the body of the people [are] necessary for the preservation of their rights and liberties…. It shall be the duty of the legislatures and magistrates, in all future periods of this commonwealth, to cherish the … public schools (as cited in Ravitch, 2012).

American public education was established to perpetuate liberal values of freedom, equality, and rationality.

Liberal scholars proclaim equal educational opportunity as the crown jewel of education (Damiri et al., 2015). Locke charged schools to develop citizens' usefulness, rationality, and

experience. Social philosopher and political economist Adam Smith (1723–1790) believed creative, educated, and committed students would guarantee a thriving economy. Fellow Scot and philosopher David Hume (1711–1776) emphasized that education must nurture rationality derived from experience and logic. In a Kantian (Immanuel Kant, 1724–1804) school, students learn that joyful freedom leads to happiness when respecting the rights of others and the value of order, such as prioritizing work before play. Liberal philosophers may differ on methods and conveyance of liberalism to children, but they agree that education provides equal opportunity for liberal societies (Gee, 2012).

However, America's history of slavery, Jim Crow laws, restriction of female freedoms, 1970s implementation of Special Education, and lawsuits centered around the rights of students whose native language is not English demonstrate that the goal of equal educational opportunities for all has not been reached.

Types of Equal Educational Opportunities

The ideological goal of providing equal educational opportunities for all society members is vaguely defined and often debated. Apple (2014) reminds us to employ liberalism’s rationality as a prod to constantly and consciously question society’s inequalities. As pointed out by Andrea Smith (2020), generations of educational inequity for African American males drive many parents toward charter schools, hoping for a more caring environment and a higher quality of educational experience. Equity has not yet been achieved.

Howe (1997) proposed three interpretations of equal educational opportunity in *Radical Liberal Framework*: formal, compensatory, and participatory. From the classic work, Understanding Equal Educational Opportunity, Howe illustrated how an educational opportunity might fulfill the requirements of liberalism yet fail to deliver a true equal educational opportunity.

Formal Opportunities. Formal situations require only a basic opportunity. For example, schools teach all children to read; therefore, they have provided an equal formal educational opportunity. Schools may agree that dyslexia exists, but they are not compelled to offer additional

assistance as they have already provided reading instruction. Parents are free to exercise their liberty by seeking other methods of education outside of school.

This formal interpretation of equal educational opportunity most impacts students with mild dyslexia, whose reading gap will not qualify them for special education. Students whose families are without the resources to obtain private school or tutoring remain to struggle in their classrooms. They have no options beyond that which school offers, even though the reading instruction does not match their needs.

Compensatory Opportunities. Compensatory opportunities extend further than formal opportunities by assisting in overcoming deficiencies, particularly those that hinder full participation in society. This deficit approach assumes that an aberration from what is considered normal should be corrected or improved by offering a compensatory opportunity. English language classes and special education are examples of compensatory opportunities.

Specific learning disabilities (SLD) comprise 40% of students in special education classes (U.S. Department of Education, 2017); approximately 80% of those students have dyslexia or would benefit from structured language reading instruction (Shaywitz & Shaywitz, 2020). Unfortunately, since most preservice or graduate special education programs do not address dyslexia, such students are unlikely to find a teacher who can identify or successfully work with their reading needs (Moats, 2017, 2020; Shaywitz & Shaywitz, 2020). Parents may understandably and erroneously assume dyslexia will be addressed in special education. This compensatory opportunity usually does not match the needs of the students. It also labels students as deficient and needing to be fixed, instead of recognizing that the instructional system is in need of repair.

Participatory Opportunities. Student needs, not educational standards, drive participatory equal educational opportunities. Participatory opportunities first recognize and then attempt to resolve interference around equal educational opportunities, allowing all members to participate more successfully (Harry & Klingner, 2014). LeBron James', I Promise School (https://ipromise.school/) in Akron, Ohio, exemplifies participatory opportunities by addressing families' social, physical, and

economic barriers along with children's formal education. The I Promise School echoes Brighouse et al.'s (2015) argument that liberalism best addresses educational inequality by acknowledging unequal distribution of resources and creating a framework to balance their negative effects. Similarly, Finland's educational system, which prioritizes children's well-being from birth to graduation, provides participatory opportunities for students (Organization of Economic Cooperation and Development, 2015).

For students with dyslexia, a participatory opportunity most likely occurs outside of public schools. Private schools or tutoring offer appropriate methods for students with dyslexia. These settings provide a genuine reading opportunity and access to future academic success and social acceptance, but only for those students whose families can afford to pay. This scenario contradicts espoused liberal claims of equal educational opportunities. Participatory opportunities should be present within public school systems; indeed, Howe (1997) states liberalism is a sham without them.

Bare and Real Opportunities

When an opportunity exists but remains unknown, as when a prisoner is unaware the cell door is unlocked, Dennett labeled it a bare opportunity (as cited in Howe, 1997). Thousands of American students, teachers, and parents remain imprisoned in beliefs that students who struggle with reading are incapable, "lazy," or "just need more time." Approximately 15% of American students have dyslexia, while approximately one third of all students read at a below basic level. In 2019, reading scores declined in 49 out of 50 states (NAEP, 2019). Yet, most general and special education teachers remain unaware of dyslexia, how to identify it, and the structured literacy that specifically targets beginning students, students who struggle with reading, and English learners (Moats, 2020; Shaywitz & Shaywitz, 2020, Will, 2019).

When universities' preservice and graduate programs do not provide information about dyslexia, they create bare opportunities for students, teachers, and parents. How can teachers identify what they do not know? How can an unaware teacher accurately advise parents who rely on their expertise? How can parents and teachers make informed decisions in student study teams or

IEP meetings when the most powerful tool for struggling readers is not available? A structured literacy key exists, but when that key is unknown to teachers and parents, students remain locked in reading prisons.

Dennett described a true equal educational opportunity as requiring choice, deliberation, and power (as cited in Howe, 1997). Choice does not exist when a public-school reading curriculum ignores the structured literacy needs of students with dyslexia, English learners, beginning readers, or other struggling readers. Only parents who already understand dyslexia and structured literacy and are willing to step outside of public schools can effectively deliberate on their children's future. When those informed parents then choose to spend family time and money on tutoring, their children have access to a real equal educational opportunity. In the United States, these students are likely to be White or Asian and affluent (Hettleman, 2019).

Figure 2 illustrates Howe's (1997) tree metaphor applied to reading, illustrating the consequences of inequitable educational opportunities for reading-limited society members. An inability to fluently read and write increasingly slashes branches leading toward future life skills and options in adulthood. Beyond the expected consequences of decreased employment and financial instabilities, individuals with limited reading abilities lose familiarity with common cultural literature. Not only does this set them apart, but it blocks the information, joy, and growth that literature provides. Limited reading threatens understanding medicine labels, perusing a menu, scrutinizing a business contract, or confidently sending an email. Reading anxiety diminishes family pleasures, such as reading nighttime stories to a child or even playing board games because of the embarrassment of not being able to read instructions or game cards. A lack of skilled reading rips apart branches of self-assurance and confidence. Unsurprisingly, untreated dyslexia has links to depression, suicide, and incarceration (Hernandez, 2011; Moody et al., 2000; Shaywitz & Shaywitz, 2020).

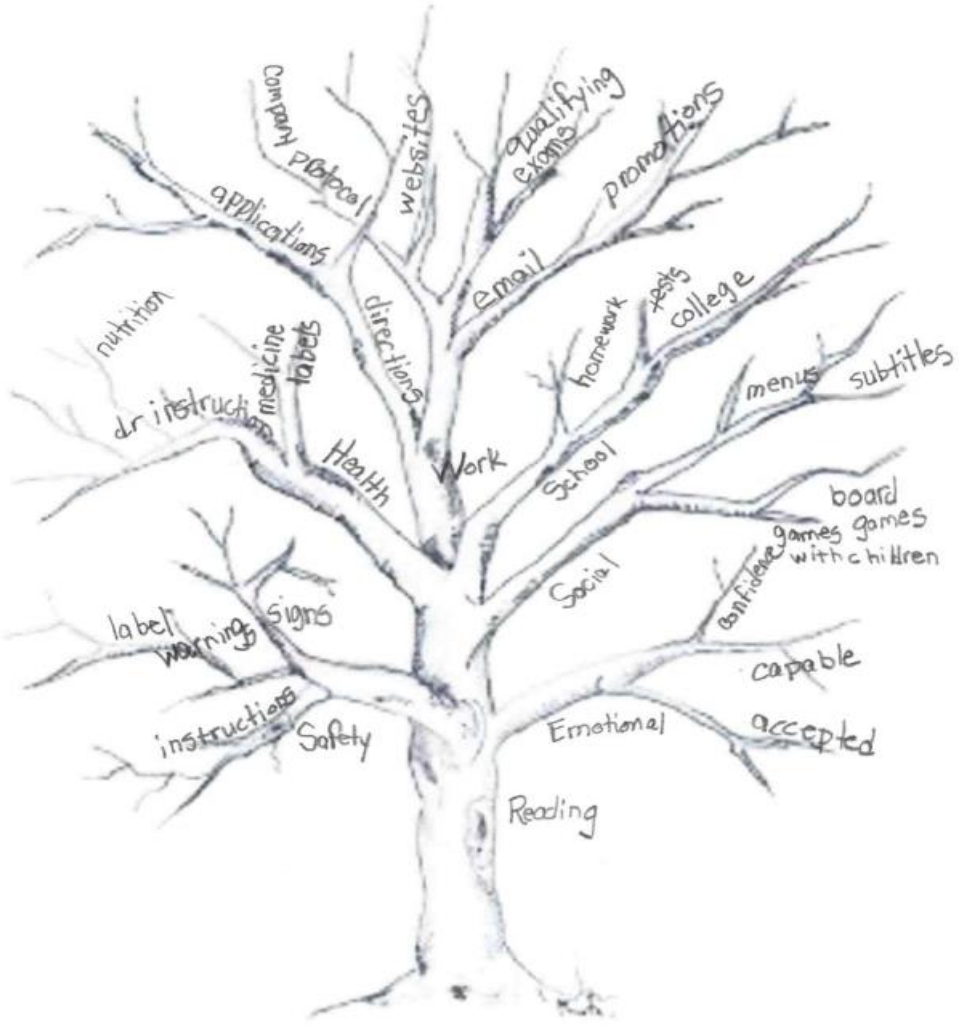


Figure 2. Tree of reading; (“Four is enough,” 2012)

Theoretical Foundations

In this section, I describe deficit orientations in equal educational opportunity, critical race theory (CRT), and Richard Ruíz's language orientations (1984). I draw on CRT and language orientations as theories that illustrate deficit orientations and highlight inequities masquerading as equal educational opportunities within American schools.

Deficit Orientations in Equal Educational Opportunity

Deficit orientations in education assume that students who differ from the norm are “deficient” and require intervention to return to a “normal” status. This perspective often blames students for their educational difficulties without acknowledging contributing social forces. Additionally, normal may be ascribed to a particular group, intentionally or unintentionally, favoring that group over others. For

example, the 2015 SAT removed an analogy question where the correct answer assumed knowledge of “regatta,” a word familiar mostly to affluent, White Americans (Soares, 2015). Blaming students for issues beyond their control and incorporating subjective bias veers from the liberal ideals of equality for all (Damiri et al., 2015; T. C. Howard, 2013).

Critical Race Theory

Critical race theory descends from critical legal studies (CLS) and radical feminism. When the civil rights movement of the 1950s and ’60s failed to yield an equitable America, CLS challenged liberalism's ideals. CLS points out court decisions that simultaneously professed laws were equally applied while marginalizing people of color. Political activist Cornel West saw the ideals of liberty as “inconsistent, incoherent, silent, and blind” (as cited in Ladson-Billings, 1998, p. 12). Around the same time, in the mid-1970s, radical feminism rejected liberalism's process of incremental change in favor of immediately uprooting inequalities. CLS and radical feminism converged in CRT.

CRT grew beyond its legal origins into subgroups, including Latino critical, Asian American jurisprudence, and queer-crit, as well as education (Delgado & Stefanic, 2017). I will describe the five tenets of CRT and how they apply to students with dyslexia and structured literacy.

Racism Is the Norm. CRT contends that racism is "normal, not aberrant in American society" (Delgado & Stefanic, 2017). Concepts such as color-blindness and meritocracy mask racism and obscure responsibility for unjust consequences toward people of color. For example, tests constructed with a bias toward White students naturally result in lower scores for students of color, who are then labeled deficient. The test does not match the student.

Similarly, students taught to read in a system that does not acknowledge or address their unique needs will fail. Normal becomes the 40% of students who succeed with whole language; students with dyslexia and other struggling readers are considered deficient. It is as though we hand left-handed students right-handed scissors and blame them for their inability to cut. The test doesn't match the student.

Interest Convergence. Interest convergence, CRT's second tenet, proposes that groups in power protect the status quo, permitting change only when change benefits the group in power. For example, Derrick Bell, an original proposant of CRT, cited the example of *Brown v. Board of Education* not as a civil rights victory but useful to promote economic growth and advance Cold War objectives (as cited in Delgado & Stefancic, 2017). Whole language is reading instruction's status quo. Balanced literacy was grudgingly launched, not to improve reading instruction but to maintain whole language dominance while appearing to incorporate structured literacy. Collateral damage to students with dyslexia and other struggling readers took a back seat to protecting whole language.

Social Construction of Race. The social construction of race reminds us that in the United States the concept of race was created and utilized by the dominant group in power, resulting in Jim Crow laws, redlining, and housing programs for White Americans only. As a comparison, left-handed students were once ostracized and punished for their normal, human variation. Today, students with dyslexia are labeled disabled, lazy, or slow, implying a defect instead of recognizing their normal human variation (Shaywitz & Shaywitz, 2020). Students with dyslexia can read with appropriate instruction. They have a reading difference, not a reading disability. All human appearances are normal. Left and right-handed are normal. Students with and without dyslexia are normal; none are disabled.

Storytelling and Counter-storytelling. Storytelling and counter-storytelling push against liberalism's insistence that society is neutral and just. Countering the dominant versions of literature and history, CRT gives voice to people of color, females, and marginalized society members. Within dyslexia, students struggle academically and emotionally. California Governor Newsom’s tales of suffering from hives as a child, stemming from worry that someone would discover he couldn't read, humanizes dyslexia. When she was six years old, Olivia Spencer, a future Oscar-winning actor, discovered that when she opened books, “the letters jumbled up and I learned the word ‘dyslexia’” (Eide, 2019). Even though Princeton paleontologist Jack Horner’s teachers “thought I was dumb, I knew I wasn't." Young Steven Spielberg’s daily school humiliation was relieved by making films in his

garage after school. Erin Brockovich memorized everything because reading and writing were too tricky (Foss, 2013). Stories personalize the anguish and possible success for the students with dyslexia who are in every classroom.

Whites Are Beneficiaries of Civil Rights Legislation. CRT proposes that Whites are the primary beneficiaries of civil rights legislation, particularly White women. Similarly, legislation around dyslexia generally assists the status quo of whole language instruction by not requiring real change. For example, with one exception, the 2017 California Dyslexia Guidelines provided suggestions, not requirements. Arkansas's legislation to screen every student for dyslexia identified zero students in Grades 7-12 (Phillips & Odegard, 2017). Dyslexia legislation often ignores its intended beneficiaries to benefit whole language instruction.

CRT describes a deficit model where students of color "need to be fixed" to fit within a curriculum designed to maintain the White supremacy status quo. Analogously, balanced literacy and whole language approaches perpetuate a model where children with dyslexia are either left to struggle in class, labeled disabled, or moved to special education "to be fixed" (R. Howard, 2013; Ladson-Billings & Tate, 1995). Students are blamed, not the reading instruction.

Orientations in Language Planning

Instruction for students with dyslexia mirrors the questions in Ruíz's (1984) Orientations in Language Planning: Is language a problem, a right, or a resource? American attitudes toward languages other than English and the identification of dyslexia may also be considered a problem, a right, or a resource.

Language/Dyslexia as a Problem. Historically, the goal of English language instruction was for non-English-speaking students to shed their native language as quickly as possible and enter English-only instruction. Fluent speakers of languages other than English were a problem to be fixed, implying a lower status than students with English fluency. Students with dyslexia who do not learn to read remain to struggle in the classroom or attend special education to be fixed and made like other

students. Their dyslexia is a problem to be erased instead of deliberately incorporating support and accommodations within a classroom routine.

Language/Dyslexia as a Right. Language rights organizations, such as the Mexican American Legal Defense Fund (MALDEF), confronted English-only mandates with lawsuits resulting in safeguards for non-native-English speakers (Ruíz, 1984). Bilingual ballots and court translators are examples of language as a right. In 2011, parents of children with dyslexia formed Decoding Dyslexia (https://dyslexiaida.org/decoding-dyslexia/) to raise awareness of dyslexia, empower students, and improve educational resources for students with dyslexia. Decoding Dyslexia maintains students with dyslexia have a right to accommodations without labels of disability or deficiency. Several states have passed laws as a result of Decoding Dyslexia's influence.

Language as a Resource. "The irony is that language communities have become valuable precisely for the skill that schools have worked so hard to eradicate!" (Ruíz, 1984, p. 26). Incorporating non-English languages in a classroom creates opportunities for all students, bolsters ethnic communities' status, and opens cultural awareness in nondominant groups. Similarly, an inclusive classroom can address the needs of dyslexia while showcasing its experiences, strengths, and unique perspectives (Foss, 2013; Schneps et al., 2011). Typical students have the opportunity to learn dyslexia is unrelated to intelligence and talent; sometimes, it may even be advantageous (Schneps et al., 2011; Shaywitz & Shaywitz, 2021).

Deficit orientation contradicts liberalism's expectation of equal educational opportunity. Using tenets from CRT and Ruíz's orientations in language planning, I have shown that struggling readers are incorrectly labeled deficient or disabled. Too often, our educational system expects non-White students to conform to White norms, non-English-speaking children to progress educationally without their native language, and students with dyslexia to read without structured literacy. We squash ethnicity, language, and dyslexia instead of embracing what students bring to school.

Review of the Scholarly Empirical Literature

The State of Reading in America: NAEP

Each year the National Assessment of Educational Progress (NAEP) releases a "report card" for American schools, ranking students as Advanced, Proficient, Basic, or Below Basic. A Basic level “denotes partial mastery of the knowledge and skills that are fundamental for proficient work at a given grade.” NAEP describes the Below Basic category as “non-literacy to abilities no more than the most simple literary task.” (NAEP, 2019). In 2019, 34% of American fourth graders scored Below Basic in reading. May we assume those students will eventually become successful readers? Since 30% of 12th graders in 2019 scored Below Basic and Below Basic rates have increased since 2002, we can assume the odds of reading success for those fourth graders are virtually nonexistent. Nearly one third of graduating American seniors cannot read, and their ranks increase every year (NAEP, 2019).

Criticism of NAEP

Some educators claim NAEP expectations are higher than those set in most classrooms; therefore, it is unreasonable that all students achieve a Proficient or Advanced level (Loveless, 2015). Whole language advocate Debra Goodman spurned all standardized tests as invalid measures of language abilities (Ryan & Goodman, 2016). Hanford (2017) suggested Proficient, and Advanced scores in affluent areas reflect an inaccurate measure of school performance since students’ families can afford outside tutoring. Their higher test scores are a result of socioeconomics, not school efficacy.

Support of NAEP

Smith and Paige (2019) compared NAEP scores with the Multi-Dimensional Fluency Scale, an assessment tool to identify reading difficulties. Both instruments found parallel results in reading performance, supporting NAEP validity. Even accepting criticism of NAEP grade level nonequivalence, the NAEP assesses almost all American students and compares them to each other. Since 2002, the number of students in the Below Basic reading level has steadily, alarmingly,

increased. Eleven years ago, 20% of 12th graders scored Below Basic; each year, this category accrued more and more students, to reach 30% of seniors who could not read in 2019 (NAEP, 2019). Over a third of our graduating high school students read at a Below Basic level, with their numbers growing every year.

Do we accept that out of 100 American children, 30 will not read well? Which 30 out of 100 students deserve to leave school without the ability to read?

Research Implications for Reading Scores

What Do Students Need to Learn to Read?

The NRP (2000) established five reading pillars for reading competency: phonemic awareness, phonics, fluency, vocabulary, and comprehension (Figure 3). Although all of the pillars support each other, the first four generally uphold the ultimate goal of reading comprehension. Pillars are not sequential but interact in increasing complexity as students progress.

Only structured literacy encompasses all five pillars in an explicit, systematic framework (Hall & Burns, 2018; Moats, 2019; Torgesen, 2004). A variety of commercial curricula offer structured literacy programs that can be utilized by school districts, classrooms, homeschooling, and tutoring programs (Spear-Swerling, 2019b). These programs may vary in the type of intended audience (e.g., individuals or classrooms) and sequence of skill presentation, but all maintain an adherence to the National Reading Panel’s five pillars of reading instruction (Torgeson, 2004).

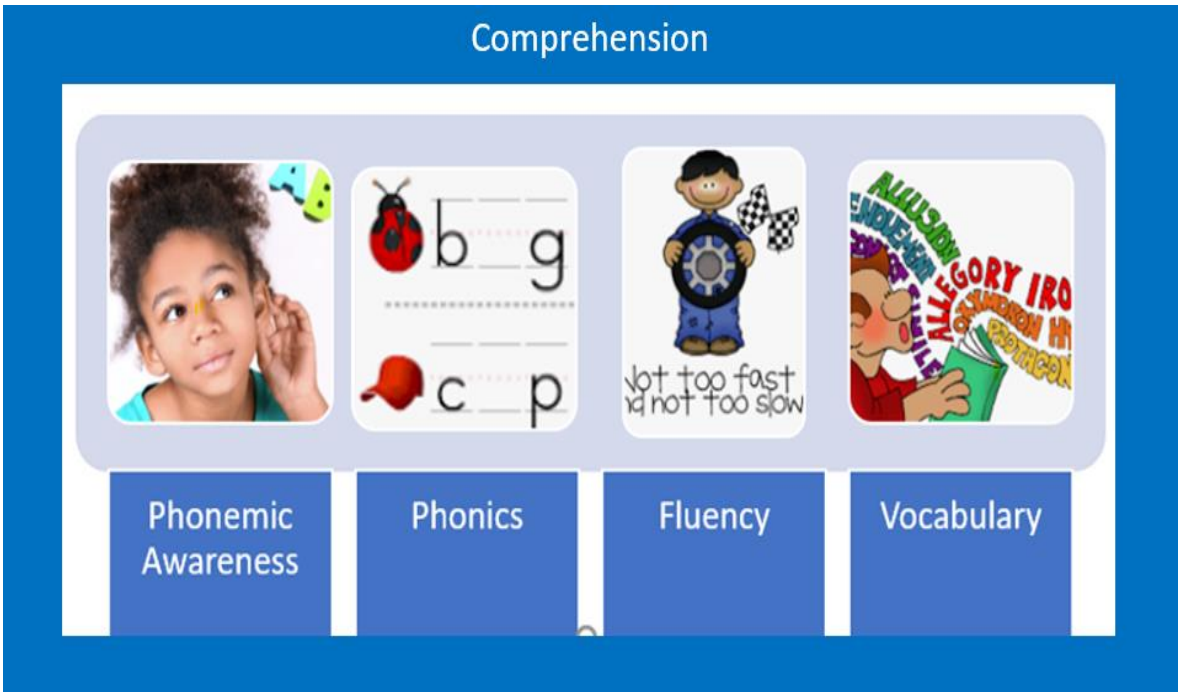


Figure 3. National Reading Panel – pillars of instruction

Who Needs Structured Literacy?

The 1998 National Research Council Report, *Preventing Reading Difficulties in Young Children,* recommended structured literacy for all students, regardless of dyslexia diagnosis. The NRP (2000) viewed phonics-based instruction as beneficial for all readers, but essential for beginning readers, English learners, and students who struggle with reading. Common Core standards agree, citing the foundational skills of phonological awareness, phonics, fluency, and language structures as "highest priority" in reading instruction (California Department of Education, 2020a). Similarly, Hall and Burns (2018) claim all K-1 students need foundational skills with a strong emphasis on phonological awareness. Declining NAEP scores and increasing special education statistics under the dominant whole language/balanced literacy orientation further supports universal structured literacy (Moats, 2009; Spear-Swerling, 2019b; Will, 2019; Wolf, 2018). All students benefit from structured literacy, even students in the Advanced and Proficient levels.

Isn't Structured Literacy for Students Who Can't Read? Will it Hurt Strong Readers?

A common misperception, leftover from whole language ideology, assumes only struggling students benefit from structured literacy and that code-based instruction is unnecessary for typically

developing students. The International Dyslexia Model of Student Instructional Needs (Figure 4) clarifies this concept. Currently, around 5% percent of fourth-grade students read at an advanced level. These students thrive in whole language, balanced literacy, or structured literacy. Similarly, approximately 35% of students read at a proficient level. They are also able to learn with whole language, balanced literacy, or structured literacy. However, Hanford (2018) and Redford (2019) believe structured literacy would heighten Advanced and Proficient students' reading skills.

Students scoring at a Basic level achieve "partial mastery" in the predominant whole language/balanced literacy curricula (NAEP, 2019). However, students at Basic and Below Basic learn best in a structured, code-based system, an approach not offered in most public schools (Spear-Swerling, 2019b; Will, 2019; Wolf, 2018). Furthermore, students with dyslexia, approximately 15% of all students, require not only structured literacy but frequent, intense intervention for reading success.

As evidenced by NAEP scores, students in the Below Basic bracket fail without this specific, structured type of reading instruction. While all students benefit from structured literacy students scoring at a Basic or Below Basic levels will not learn to read without it. Structured literacy benefits Advanced and Proficient readers by offering a deeper understanding of language structure and orthography. Even though all students benefit from structured literacy (NRP, 2000), they are unlikely to encounter it in a public school.

The NRP mentioned structured literacy as essential for the 22% of students who do not speak English at home (Statistica, 2019). Sitthitikul (2014) explains the importance of phonics for English learners:

> Learning to read is a complex task for beginners of English. They must coordinate many cognitive processes to read accurately and fluently … recognizing words, constructing meanings of sentences and text, while retaining information in memory. An essential part of the process … involves the alphabetic system.… Phonics instruction designed for [native English] beginners … and children having difficulty learning to read, can be applied to [English learners] to make use of sound-symbol, vocabulary, and meaning to decode and comprehend texts. (p.122)

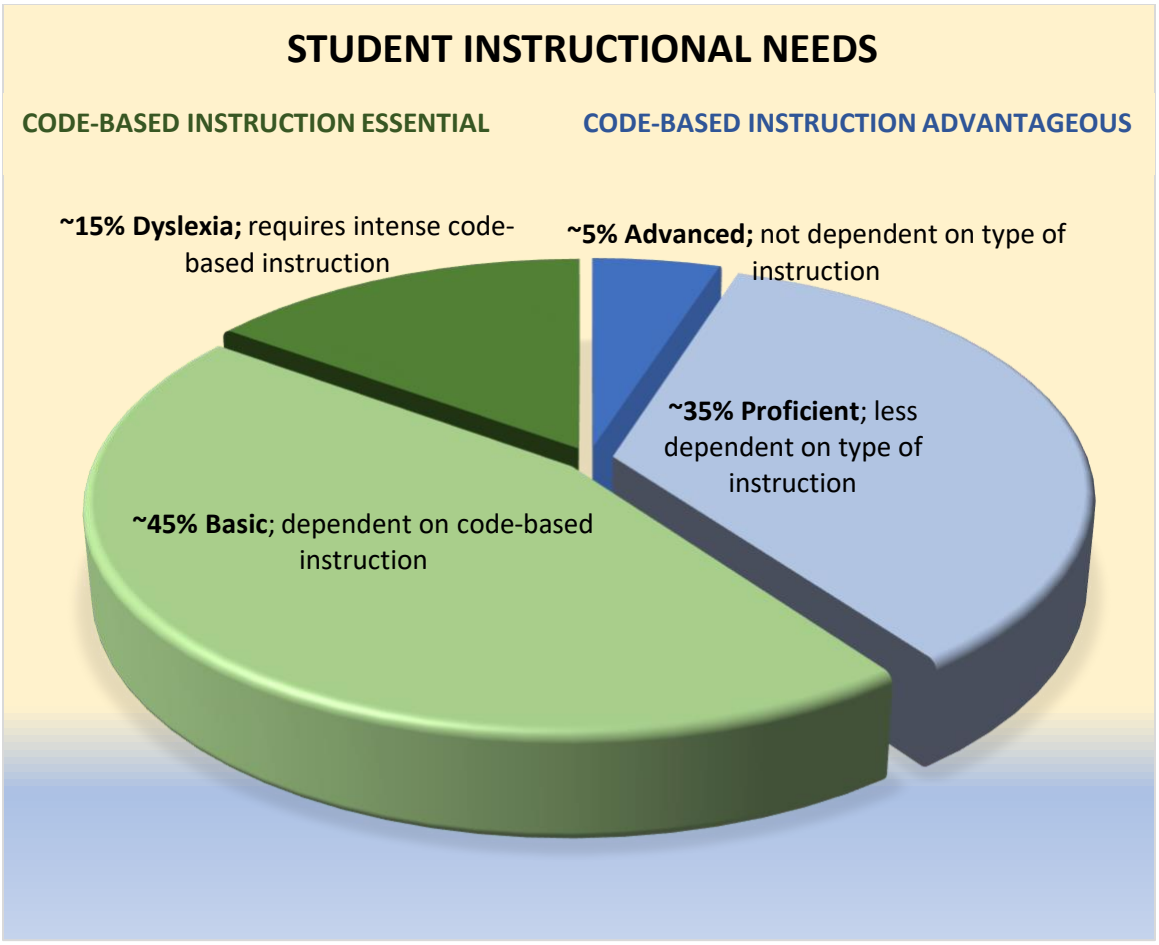


Figure 4. Student instructional needs (International Dyslexia Association, 2018)

Similar to Moats (2017), Sitthitikul reminds teachers to include the joy of reading with phonics and to also share "texts, pictures, and videos, that show students people from their identity group reflected in a positive manner" (p. 123).

How Does Structured Literacy Work?

Structured literacy throws a lifeline to drowning students (Moats, 2020) by explicitly teaching what may not be implicitly understood through context. Where whole language assumes students naturally acquire skills in a language-rich environment, structured literacy explicitly teaches skills to each student. For example, students learn syllable rules to identify vowel sounds. In the word "she," nothing comes after the vowel (it is open); *e* says its long sound "ee." In “shed” the vowel is closed by a consonant; *e* makes a its short "ĕ"sound. Students practice this skill in words, sentences, and stories through multisensory lessons with built-in review of previously learned skills. They do not need to guess or stress when reading. They know what the letters say and why.

Torgesen (2004) describes five premises of structured reading:

1. Reading is an acquired skill, not a natural process.
2. Instruction must be systematic and sequential. This is particularly important for beginning readers, English Learners, and struggling readers.
3. Reading comprehension requires both decoding and language comprehension.
4. Reading begins with the auditory skill of phonological awareness, particularly important for beginning readers, English Learners, and struggling readers.
5. Orthographic mapping, a visual and auditory process, creates automatic word retrieval. The 3-cueing system interferes with orthographic mapping.

Raising All Reading Boats

Naturally, it cannot be stated that reading scores result entirely from a particular method of instruction. Health, poverty, language status, and computer connections in a COVID 19 pandemic (Sullivan et al., 2020) all impact reading success. The NRP and the Council on Preventing Reading Difficulties in Young Children, mandate structured literacy for all students, especially beginning readers, English learners, and struggling students (Foss, 2013; Spear-Swerling, 2109; Will, 2019).

Torgesen (2004) followed structured literacy programs for at-risk primary students and found the most explicit programs showed the most growth. The same study showed that, although varied types of structured literacy programs were used, with different sequence of skills and types of activities, each program brought at risk-students to an average reading level. Torgesen predicts early, intensive, structured literacy would decrease special education enrollment by 50-70% and increase successful reading to 95% of the student population (Hettleman, 2019).

The Simple View of Reading

Gough and Tumner (1986) proposed the simple view of reading (SVR): *Decoding x Language Comprehension = Reading Comprehension.* SVR aligns with the five NRP pillars (phonemic awareness, phonics, fluency, and vocabulary, comprehension) as illustrated in Scarborough's reading rope (Figure 5).

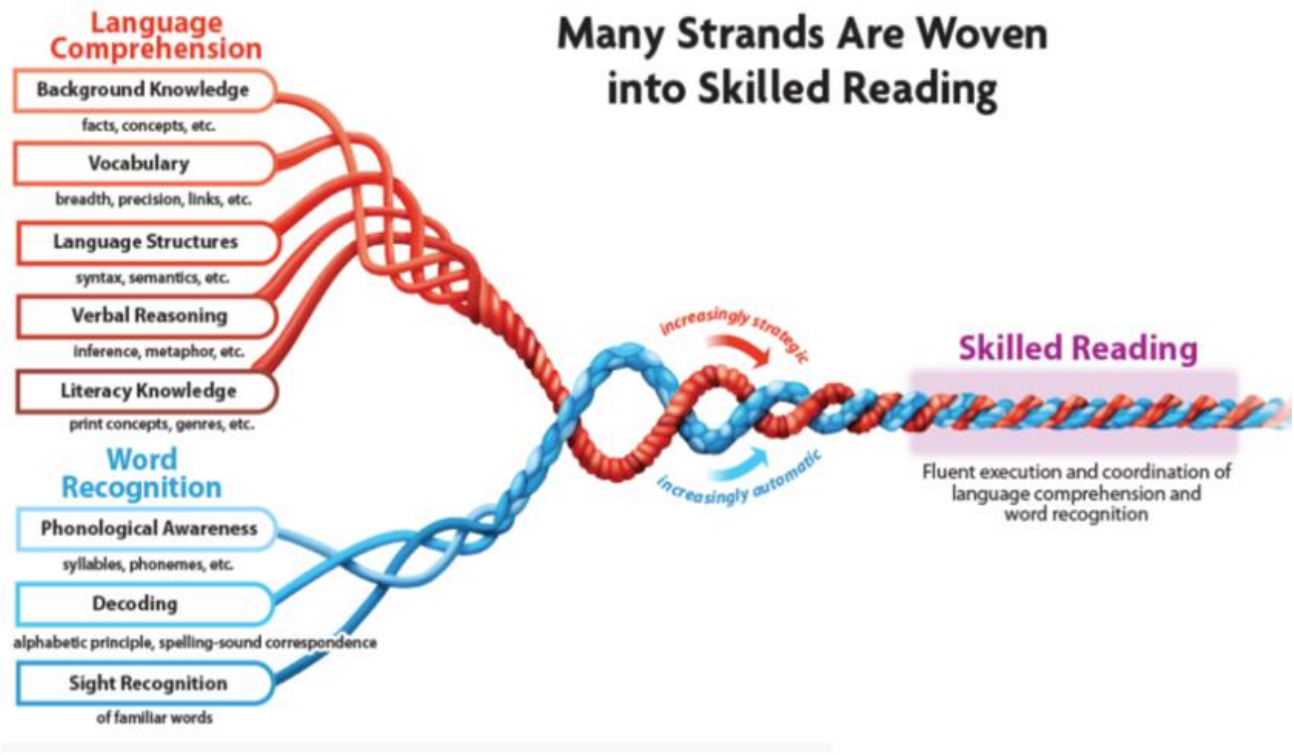


Figure 5. Scarborough's reading rope (International Dyslexia Association, 2012)

Word Recognition

Lower rope sections labeled *Word Recognition* represent decoding: words deconstructed through phonemic awareness, phonics, morphology, affixes, roots, and word bases (Park et al., 2020). Decoding challenges are most likely influenced by heredity and individual neurology (Anderson, 2021) and are spread evenly across student populations independent of socioeconomic status, ethnicity, or gender. Issues with decoding often persist throughout adulthood; they are not "cured" but managed through explicit instruction and accommodations (Foss, 2013; Shaywitz & Shaywitz, 2020).

Decoding difficulties vary within native languages. In "transparent" languages (Finnish, Spanish), phonemes (sounds) and graphemes (written representation of sounds) have a consistent relationship: *s* always says /s/. "Opaque" languages (French, English, Mandarin) do not present this consistency. In English*, s* may be /s/, /sh/, or /z/ (sea, tension, fuse). In *Pacific Ocean*, the *c* has three different pronunciations! Decoding issues arise more frequently in opaque languages (Mather & Wendling, 2011).

Language Comprehension

Upper rope sections represent *Language Comprehension,* the linguistic processes required to comprehend oral language. Language comprehension includes background knowledge, grammar, vocabulary, language structure, verbal reasoning, and literary knowledge. Although heredity and individual neurology can influence these processes, language comprehension is most significantly impacted by environment and experience. For example, babies exposed to frequent speech and conversation develop stronger language processing proficiency than babies with less language exposure. (Weisleder & Fernald, 2013). Socioeconomic status, race, access to technology, health, childhood experiences, and environmental factors affect language comprehension, with poverty and race as the most damaging (NAEP, 2019). Experience and deliberate instruction improve language comprehension (Harry & Klingner, 2014).

Implications From the Simple View of Reading

Children who enter school with weaknesses in phonological skills (decoding) will not easily read words accurately and fluently (Torgesen, 2004). Children entering with weak vocabularies, limited syntax experience, and low background knowledge will struggle with language comprehension. Students with low language comprehension are more likely to be from low socioeconomic levels and minority groups (Harry & Klingner, 2007; McGown & Slate, 2019; Torgesen, 2004). Children entering school with both decoding and language comprehension deficits will be the most unsuccessful in learning to read.

Academic Implications. Torgesen (2004), Shaywitz & Shaywitz (2020), and Moats (2020) claim poor readers in first through third grades are unlikely ever to attain average reading skills. Effective intervention exists for vulnerable students "when we intervene early, intensively" (Torgesen, 2004). Moats agrees at-risk students require early, explicit, and intensive instruction. Yet, students with ticking clocks struggle in classrooms where reading “naturally unfolds” (Catts et al., 2017; Shaywitz & Shaywitz, 2020). Further hindering early intervention is special education’s “wait to fail” qualification. A 2-year academic discrepancy model effectively removes early, intense intervention

from students who need it most (Harry & Klingner, 2011). Response to Intervention (RTI), designed for early intervention, often lacks educators knowledgeable about structured literacy, negating its utility (Moats, 2017; Spear-Swerling, 2019b).

Emotional Implications. Students with dyslexia who begin kindergarten excited about school often develop headaches and stomachaches as they watch peers learn to read. They develop coping mechanisms such as memorizing words, pretending they need glasses, feigning illness, or acting out to distract from the humiliation of not being able to read (Foss, 2013; Shaywitz & Shaywitz, 2020). As illustrated in Howe's tree of opportunities, untreated dyslexia increases the likelihood of dropping out of school, adulthood anxiety, under employment, depression, suicide, and incarceration (Hernandez, 2011; Glazzard, 2010; Livingston et al., 2018; Nalavany et al., 2011; Shaywitz & Shaywitz, 2020).

Equity

Students of color and students from low-income homes face greater risk of reading difficulties (Figure 6). As poverty increases, reading scores decline (Harry & Klingner, 2014; McGown & Slate, 2019); the 2020 U.S. Census showed African American and Hispanic students overrepresented in poverty rates. Children in poverty are more likely to enter school with low language comprehension (Torgesen, 2004); instruction needed by these students likely will not be found in their neighborhood public schools (Decoding Dyslexia, 2014). Students entering kindergarten with limited language comprehension, statistically likely to be students of color or from low-income homes, who also have dyslexia face a school career of humiliation with no one to help.

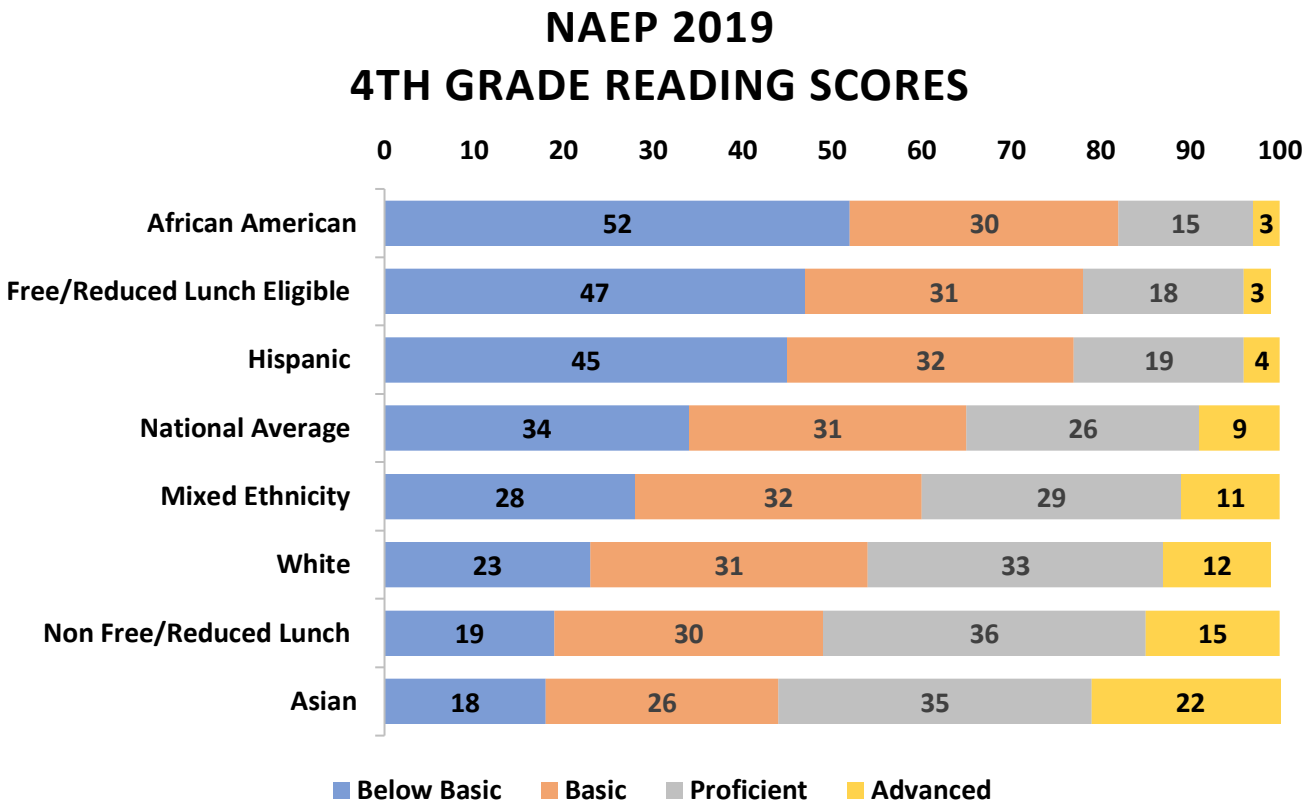


Figure 6. 2019 NAEP 4th grade reading scores by income and ethnicity

The effect of reading inabilities extends beyond standardized tests. Figure 7 illustrates an NAEP study of native English-speaking young adults, 21-24 years old. Ninety-five percent successfully accomplished simple literacy tasks, such as filling out a job application (Gee, 2012). In more complex tasks, such as finding an error in a bill or interpreting employee benefits, the rate dropped to 72%. Disconcerting, only 40% of African-American participants and 23% of participants who did not graduate from high school were able to complete these more difficult tasks crucial to daily life and employment. NAEP concluded there is not a literacy problem but a school problem: “failure was most prominent among those most poorly served by schools” (Gee, 2012, p. 28).

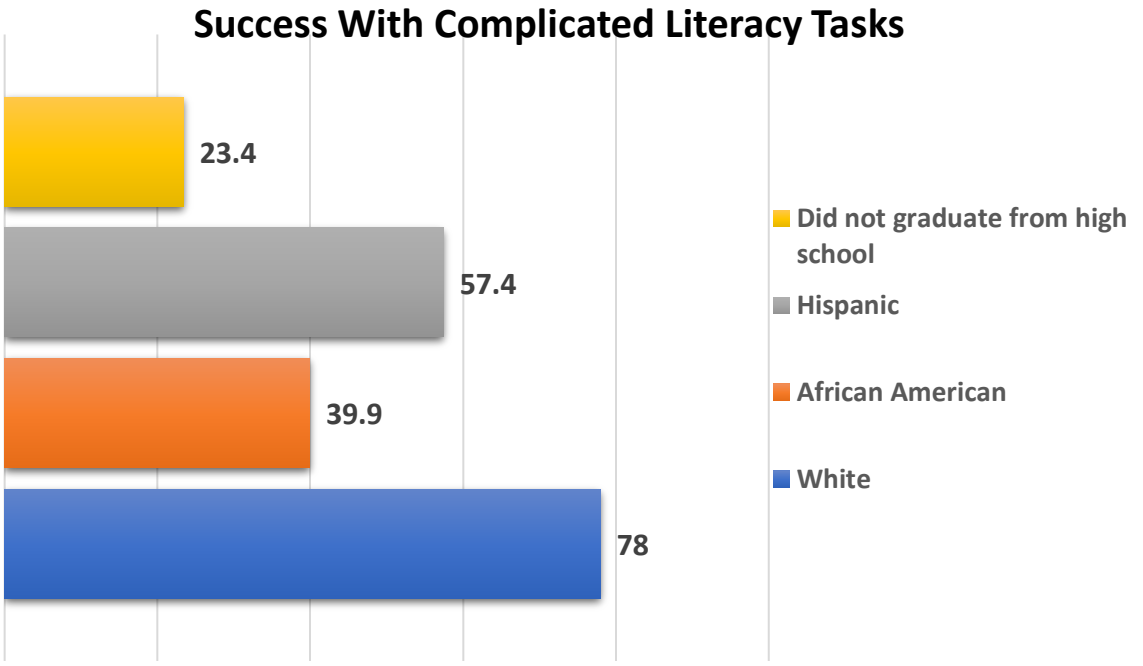


Figure 7. Success with complicated literacy tasks

Since most public schools do not offer structured literacy, successful management of reading differences requires resources outside of school. These resources then mandate families' time and money. As stated by Hanford (2017), "Reading is a rich person's game. If your child isn't reading, you hire a tutor or a lawyer." In "What is White Privilege, Really?", Collins explains how wealth translates into academic success and that wealth is frequently tied to ethnicity in the United States (2018). The National Council on Teacher Quality reported, "Every year, over a million children, most of them Black and Hispanic, enter the fourth grade unable to read" (2020, p.1). Decoding Dyslexia points out "profound inequalities of children in impacted communities":

> Dyslexia places additional burdens on families and children in communities already impacted by systemic racism. Children with dyslexia who are unidentified or do not have access to Structured Literacy instruction are at higher risk of school failure, damaged self-esteem, and the school-to-prison pipeline. Access to evidence-based literacy instruction is a civil right. (Decoding Dyslexia CA, n.d.).

Equity for Typical Students

Typical students also lose when schools are unable to identify and appropriately intervene for students with dyslexia. Schneps et al. (2011) points out dyslexia is "linked to neurological advantages useful in astronomical careers," exemplified by multiple Nobel prizewinners with dyslexia. More often,

typical students witness students with dyslexia struggling in class or leaving for special education. When children with dyslexia are appropriately supported, typically developing children have the opportunity to understand beyond the word "disabled," where a reading challenge can also encompass success and unique strengths.

Dyslexia Laws

Almost every state has laws about dyslexia. Some focus on identification, teacher training, or appropriate instruction, but as Hanford (2018) reports, very few have made an impact. Legislatures may recommend curriculum and teacher training, but it remains the responsibility of individual school districts to fund and enforce legislation, which may appear as a law or a recommendation. For example, in the 2017 California Dyslexia Guidelines, except for adding phonological processing to special education assessments, all recommendations were suggestions, not mandated policy.

Phillips and Odegard (2017) evaluated the impact of laws in Texas and Arkansas, where every school was required to screen for dyslexia and report statistics to the state. The laws did not provide screening instruments, training, or funding. Not surprisingly, neither state showed higher rates of dyslexia than in previous years or than in other states. Arkansas reported that zero students in Grades 7-12 had dyslexia. Passing a law does not necessarily translate into helping a child.

Early Intervention

Early intervention creates the most substantial results for struggling students (Moats, 2007, Shaywitz & Shaywitz, 2005; Torgesen, 2004). When young students receive intervention before realizing they have a reading challenge, it bolsters academic success and prevents tangled lifetime complications from an inability to read combined with plummeting self-confidence. Of course, a person at any age can benefit from appropriate reading instruction, but preschool through primary grade intervention provides the most potent buffer against future educational, economic, and emotional ramifications (Torgesen, 2004). Accomplishing this goal requires universal screening for young children in phonological awareness and language comprehension followed by immediate,

explicit intervention and structured literacy instruction for all students identified with reading differences (Moats, 2019; Torgesen, 2004).

American schools do the opposite. Our first mechanism for early intervention, RTI, is provided by teachers who are likely unaware of structured literacy, delaying real reading opportunities for vulnerable students (Moats, 2017; Will, 2019). The special education discrepancy model also ignores the early intervention that maximizes future success. Instead of universal preschool through primary grades assessment to identify potential reading differences, we wait for students to fail in their classrooms before intervening. This delay ignores vulnerable students' need for early, frequent, intense instruction while academic and emotional complications ferment (Gonzalez & Brown, 2018; Shaywitz & Shaywitz, 2020).

A whole language/balanced literacy perspective encourages children with dyslexia and English language learners who require explicit, repetitive instructions to "figure it out for themselves." An example of this is the whole language three-cueing method for unknown words that encourages children to look at the first letter and guess the word, use pictures and context clues, or infer the word from syntax. This may not damage all children, but it is not how skilled readers read (Kim, 2008) and is the exact opposite of what beginning readers, English learners, and struggling readers need to learn to read.

Lack of Teacher Preparation

But, how can we ask teachers to teach what they do not know? General and special education programs for teacher candidates and programs at the graduate level generally do not address early warning signs of weak phonological awareness or language comprehension (Binks-Cantrell et al., 2012; Washburn et al., 2016).

Effect of Teacher Preparation on Students, Teachers, and Parents

Students. This knowledge gap between struggling students and reading research results in vulnerable students' being mislabeled as developing, disabled, or lazy. Instead of early identification accompanied by the immediate, intense intervention with the structured literacy that benefits all

pupils, struggling students are labeled deficient. They face a more complicated and less successful academic future. Students in this category are most likely to be students of color and low income.

Teachers. American universities do not prepare general or special education teachers to identify or instruct students who struggle with reading (Gonzalez & Brown, 2018, Moats, 2020; Shaywitz & Shaywitz, 2020; Washburn et al., 2016; Will, 2019). Veteran teachers report feeling cheated after learning about structured literacy: “Why didn’t I learn this in undergrad?” (Will, 2109, p. 24). Even if able to identify reading interferences, most teachers are unaware of the structured literacy recommended by the 2000 NRP or lack resources to implement them (Moats, 2020).

Parents. Lack of teacher preparation can unwittingly provide false confidence for parents who rely on teachers’ advice. Poor readers in first grade are statistically unlikely ever to attain grade-level reading skills (Moats, 2020; Shaywitz & Shaywitz, 2020; Torgesen, 2004). Unless parents have independent knowledge, they may not realize the danger in a well-intentioned teacher’s advice to "give it time" for children who are “late bloomers” (Foss, 2013). Parents who persist in asking for help risk being labeled "that parent" or even prohibited from mentioning dyslexia at school (Foss, 2013; Shaywitz & Shaywitz, 2020; U.S. Department of Education, 2015). Parents who are not fluent in English may face intimidation when disagreeing with a teacher's opinion (Burke et al., 2021). Prepared teachers save children’s futures (Wolf, 2018).

Conceptual Framework

This study's conceptual framework is grounded in assumptions that preservice teacher programs incorporate liberalism’s assumption of equal educational opportunities, deficit orientation, and bias toward whole language reading instruction with little impetus to change. Liberal ideals, but not necessarily the practice of those ideals, pervade American education. Equal educational opportunities have not materialized for the 30% of American 12th graders at Below Basic levels, the majority from low-income homes or people of color. Whole Language assumes learning to read is a natural process where unsuccessful students are deficient. Can this change?

Obstacles to Change

Teacher educators may be familiar with children's literature, but remain unaware of the basic constructs required for structured literacy (Binks-Cantrell et al., 2012; Washburn et al., 2016). A growing teacher shortage, particularly in special education (Garcia & Weiss, 2019), discourages adding requirements to current candidates. Professional organizations for school psychologists, speech therapists, physical therapists, and occupational therapists have objected to expanded dyslexia requirements in the past when unfunded dyslexia mandates threatened funds from their programs (Rae, 2015). Corporations that invest in textbooks and testing may pressure universities to maintain the status quo for financial reasons. This is especially prevalent in California, where its size sets national trends (California State University, 2019). These influences from professional organizations, corporations, and a declining pool of teachers may compel universities to maintain their already established and familiar whole language and balanced literacy curricula.

This study investigated reading differences, dyslexia, teacher candidate requirements, and influences on curricula from the viewpoint of professors who instruct preservice candidates and graduate level veteran teachers. Figure 8 shows the results of current university programs. Students who score as Below Basic readers are more likely to have dyslexia, come from low-income homes, and face systemic racism. Instead of filling the ranks of future teachers with instructors who understand dyslexia and students with dyslexia, they are more likely to drop out of school, become unemployed, depressed, die by suicide, or face incarceration (Hernandez, 2011; Shaywitz & Shaywitz, 2020). This catastrophic loss impairs more than students, it maims our entire educational system. We can do better.

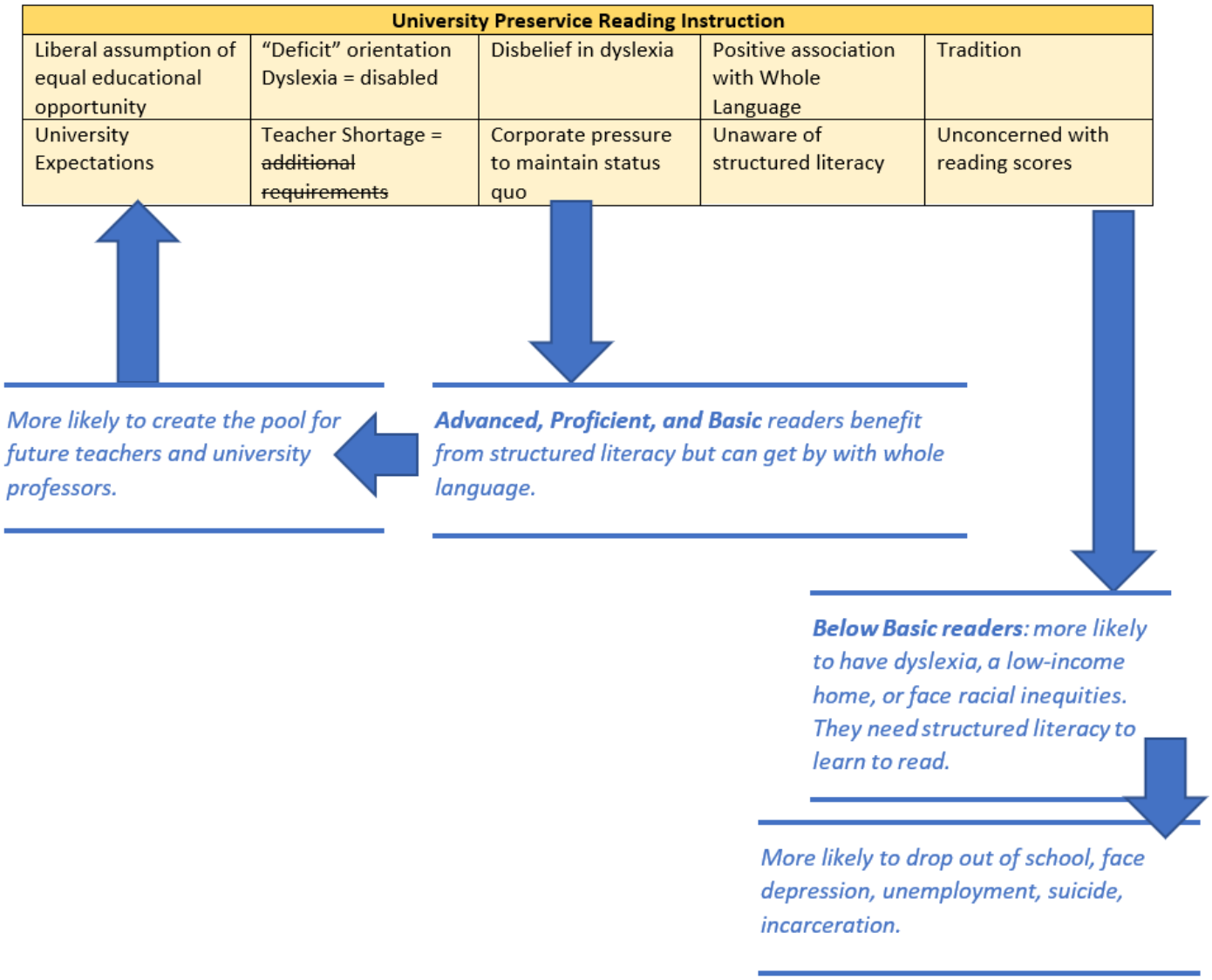


Figure 8. Assumptions of current teacher preparation programs

Possibilities

If schools offered universal screening in early grades, provided structured literacy for all students with intensive intervention and accommodations for struggling students, Below Basic numbers would shrink. When former Basic and Below Basic students join Proficient and Advanced readers, they would be less likely to race away from academics and more likely to enter the ranks of educators. Teachers who are familiar with dyslexia and structured literacy could better serve struggling students since they would understand reading challenges and what is needed to manage them.

Teachers with an understanding of dyslexia and structured literacy would benefit students and could more capably assist parents in understanding their child's needs. Indeed, knowledgeable teachers would assist not only students and parents but all of society. When teachers dissolve reading roadblocks, students may proceed into more complicated academics unencumbered by reading anxiety and failure. Students who read can apply for jobs and promotions and enjoy a good book or a bedtime story, while contributing to our nation's economy. Teachers who are familiar with dyslexia allow generations of readers a true equal opportunity to plant their tree of reading deep and strong.

Summary

Extensive research about how children learn to read has been ignored in favor of a whole language/balanced literacy reading approach in teacher preparation programs. This practice disproportionally harms students with dyslexia, English language learners, low-income students, and students of color. This study will interview university professors to better understand what is taught to teacher candidates and why.

CHAPTER 3

METHOD OF INQUIRY

Structured literacy is the recommended instructional approach for students with dyslexia, beginning readers, and English language learners (Hettleman, 2019; Moats, 2020; NRP, 2000). Many university programs do not address dyslexia or structured literacy in preservice or graduate-level teacher training. Some researchers suggest university professors may be unaware of dyslexia or structured literacy, leaving them unable to teach what they do not know (Binks-Cantrell, 2012; Hettleman, 2019; Moats; Shaywitz & Shaywitz, 2021; Wolf, 2018). Moats and Wolf describe professors who do not believe dyslexia exists, consider reading to be a natural process, and argue that the explicitness of structured literacy is unnecessary and even harmful.

The purpose of this qualitative study was to analyze reading instruction programs for preservice and graduate teachers in a large, U.S. university system. It focused on inclusion/non-inclusion of teaching strategies for students with reading challenges, inclusion/non-inclusion of dyslexia, inclusion/non-inclusion of structured literacy. Data from interviews, syllabi, websites, and memos were examined to understand why dyslexia and structured literacy were included or not included in university preservice programs. This study addressed the following research questions:

1. How do current teacher preparation programs address reading differences?
2. Is dyslexia addressed in teacher preparation programs? If so, to what extent?
3. What factors determined the curriculum presented to teacher candidates?

In this chapter, I first present the role of the researcher, or positionality, then describe methodology for the study, including its philosophical foundations. Next, I describe the research design within the methodological approach used in this study. Following the research design, I detail my specific research methods. This description includes information about the setting, sample, data collection, instrumentation, procedure, data analysis, and trustworthiness. I conclude with a chapter summary.

Positionality

Learning and teaching are dual pillars of my teaching career. I am proud of my years as a bilingual classroom teacher, Spanish dual-immersion teacher, special education teacher, Title I instructor, and owner of a tutoring company for people with dyslexia. Ten years ago, one of my struggling reading students suddenly zoomed ahead of his peers. His mother explained he had been diagnosed with dyslexia and started specialized tutoring outside of school. At that time (to my shame), I dismissed dyslexia as a label from overprotective parents. After all, dyslexia was not mentioned in my Multiple Subject certification, Elementary Education Master's degree curriculum, Special Education certification, or over 30 years of professional development.

Independently, I learned how to teach the approximately 15% of students with dyslexia (Shaywitz & Shaywitz, 2021; Wolf, 2018). While it is indescribably exciting to witness a child, convinced they are unable to read, realize they can, I also remember decades of classes with two or three students who barely progressed in reading every year. Now I know they needed to learn differently, with a method I did not yet know. These experiences created my positionality as an interviewer.

When I interviewed university professors about their reading instruction curriculum for preservice teachers, I was aware that tools to help students with dyslexia exist but are not part of most credentialing programs, that children are frequently mislabeled slow or lazy by parents and teachers unaware of dyslexia, and that only parents able afford expensive outside of school tutoring can equitably address their children’s dyslexia. I knew that without outside intervention, students with dyslexia are more likely to drop out of school, have a low-paying job, face depression, end up in jail, or die by suicide (Moody et al., 2000; Shaywitz & Shaywitz, 2020).

My personal experiences, professional experiences, and research about dyslexia create my positionality. I am biased in favor of structured literacy instruction for all students, particularly students with dyslexia. Most of the programs I interviewed did not include dyslexia, universal assessment, or structured literacy that assures success for students who learn differently. I employed reflexivity to

understand my biases and respectfully listen to, empathize with, and learn from viewpoints that differed from mine.

Research Design

"Planning is essential; plans are worthless." Creswell and Guetterman (2019) use General Dwight D. Eisenhower's quote to illustrate the flexible, inductive nature of qualitative research. Qualitative studies employ an interactive approach, with design adjustments occurring as needed throughout the study. Final research does not describe quantities, but qualities that are insightful and informed by deep understanding (Bazeley, 2021). Qualitative researchers become part of their study, employing reflexivity of themselves and relationships among data at every stage.

Qualitative research addresses a central phenomenon, that is, an identified concept, idea, or process with unknown variables. Reporting qualitative research includes data, themes, and interpretation of themes. Qualitative reporting assumes author reflexivity and an awareness of the researcher's bias, assumptions, and prior experience that might affect data interpretation (Bazeley, 2021; Creswell & Guetterman, 2019). This study's central phenomenon was preservice and graduate orientation in reading instruction programs. Data was collected through interviews, syllabi, memos, and websites. Data analysis identified themes leading to interpretation and connections to existing research.

Phenomenology, the study of lived experience, is a research design within qualitative research that focuses on participants' unique experiences in a specific circumstance. It describes the essence of a phenomenon from the perspective of those who have lived it (Bazeley, 2019). Phenomenology is often used for complex, ambiguous, or emotionally laden topics. Neubauer et al. (2019) cite health professions' particular reliance on phenomenology as it directly focuses on the experiences of others. In this study, a phenomenological design was employed to understand the experiences of teacher educators.

Most phenomenology studies follow either a transcendental or hermeneutic orientation. Both approaches share thematic reduction and focus on the essence of the individual. Transcendental

phenomenology, also known as descriptive, pure, or Husserlian phenomenology, also emphasizes seeking correct and valid answers while charging the researcher to maintain awareness of their own bias (Miles et al., 2019). Hermeneutic phenomenology, known as interpretive or Heideggerian phenomenology, emphasizes understanding what it means to be in the world and expects the researcher to disengage themselves from the study. This study incorporated a transcendental approach, seeking valid data with an awareness of researcher bias (Neubauer et al., 2019).

Qualitative research "gives voice to the voiceless" (Rubin & Rubin, 2021) by exploring the unknown, looking for yet unyielded concepts and answers. Participant experiences, interpretations, and perspectives drive qualitative studies. Qualitative research does not conclude with universally applied, objective, neutral data drawn from a representative sample. Instead, qualitative research lends itself to understanding situations that cannot be easily measured or that make consistently maintaining objectivity difficult.

This study utilized a qualitative approach with a transcendental phenomenological research design to explore and understand university reading instruction for preservice and graduate teachers. It gave voice to professors by spotlighting their expertise, experience, and perspective around reading instruction.

Research Methods

This section describes the research methods used in this qualitative study. Specifically, I will discuss the setting, participants, data collection, data analysis, and steps to ensure validity and trustworthiness.

Setting

Nine of the 13 interviews occurred online, through Zoom, from the participants' office. Four interviews were conducted on the telephone by participant request.

Participants

All participants were professors teaching reading instruction to preservice or veteran teachers in a state university system.

Sources of Teacher Candidates

Traditionally, teacher candidates complete a Bachelor's degree followed by a 1-to-2-year credentialing program at an accredited university. Some districts and universities may offer alternative pathways for candidates with non-educational backgrounds, such as internships, programs for paraeducators, or Peace Corps participants (Commission on Teaching Credentials, 2017).

In this state, 97 institutions certify teachers in the traditional method. Twenty-three campuses of a large state university system (SUS) annually authorize close to half of the state's credentials. Ten research system campuses certify 7% of the state's teachers, while 49 private colleges issue around 46% of credentials (Brown, 2020). Online universities, the fastest growing sector in higher education, also certify teachers (U.S. Department of Education, 2020).

SUS holds a formidable space in teacher education; it prepares more of the state's teachers than all other institutions combined, awards around 6,500 credentials each year, almost 50% of state certifications, and 8% of all American teachers (California State University, 2019). SUS influences teachers and thousands of students with reading differences (Teaching, Learning, and Counseling Consortium, 2015). This study focused on SUS due to its wide-ranging impact on state and national teacher preparation (Commission on Teaching Credentials, 2017).

Study Participants

The study interviewed 13 professors from six of 23 SUS campuses, or 26% of the university system. Participants were recruited through direct email with a flyer and consent form attached (Appendix B, Appendix C). Ethical procedures were followed for all participants, maintaining adherence to Institutional Review Board (IRB) regulations, including IRB application and informed consent through Docu-Sign.

Three professional programs were represented: Teacher Education-General Education (TE Gen Ed) prepares preservice teachers for general education classrooms; Teacher Education-Special Education (TE Sp Ed) certifies candidates as mild/moderate education specialists; Master’s Literacy (M Lit) leads to a Master’s in Literacy for already certified teachers. This study included four TE

General Education professors, 30.7% of study total; five TE Special Education professors, 38.4%; and four Masters of Reading/Literacy professors, 30.7% (Figure 9).

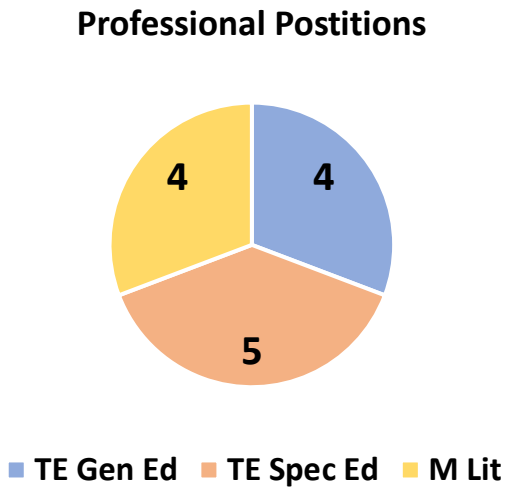


Figure 9. Professional positions within the study

Figure 10 displays the years of experience for each professor in their current position. Their experience ranged from 2 to 30 years, with a mean of 15.07 years. With the exception of Participant 6 who held their current position for two years, all professors had taught in their current position for at least five years. Ten of the thirteen participants had their same position for ten or more years.

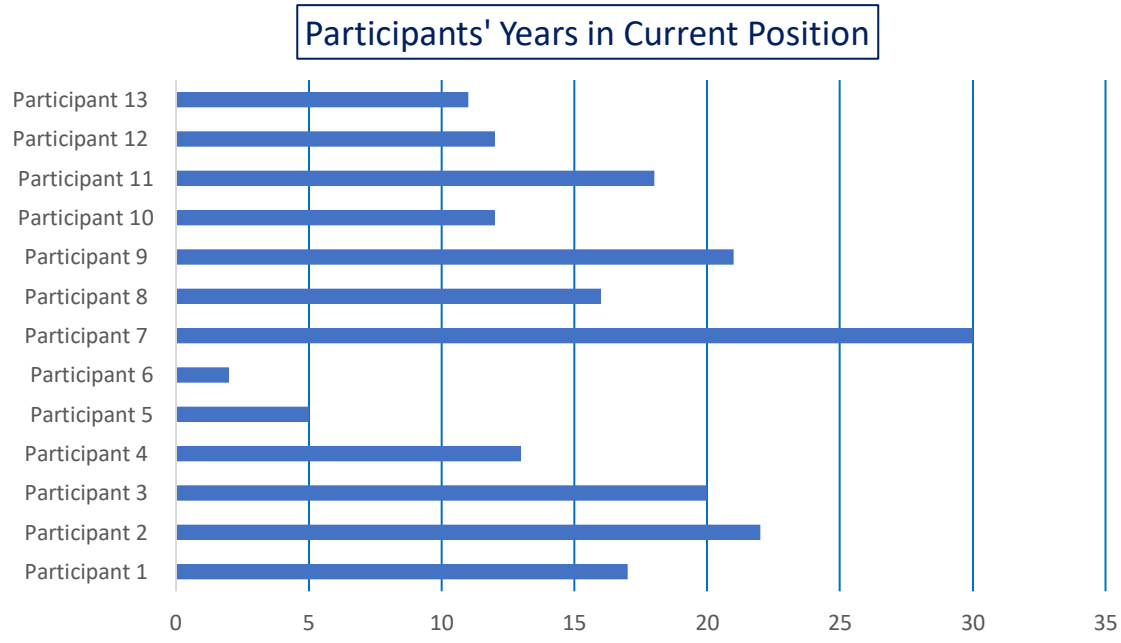


Figure 10. Participants' years in current position

Data Collection and Management

This qualitative study's data collection and management maintained data from interviews, syllabi, and websites separate from any identifying data. The following section discusses instrumentation, procedures for data collections, and data management strategies.

Instrumentation

Interviews of university professors provided the majority of data for this study. Supplementing interviews was a study of class syllabi, memos, and university websites. All instrumentation procedures sought to reveal the depth and breadth of inclusion or non-inclusion of reading differences and dyslexia within university teacher preparation programs.

Interviews. The interview protocol (Appendix D) focused on the history and perspective of the university instructor and the institution's orientation of reading instruction. The protocol's development and trial implementation resulted in revisions around specific wording of questions, the addition of questions, and shifting the order of questions. Topics that appeared to evoke a strong, positive response were moved to the beginning of the interview to increase participant comfort and willingness to share opinions. The revised protocol strived to set participants at ease and offer a more logical sequence of topics within the interview.

Each session was allotted an hour, though actual times ranged from 48 to 95 minutes. The interview began with an introduction and a request to record the interview, followed by a description of the participant's rights, notification that answers would be confidential, and questions were encouraged. Participants were offered a transcript of the interview if desired. Contact information was provided for post interview comments This introductory phase sought to inform, welcome, and connect with the participant.

The subsequent interview section focused on the participant's background, beginning with a description of their current position and a brief history of their educational background and employment history. Questions then moved to reading, exploring the participant's enjoyment of

reading and memories of learning to read. This section provided information for the interviewer about the participant while opening the interview with a pleasurable topic.

Remaining interview sections addressed types of reading instruction, preservice and graduate programs at their institution, expectations for students around learning to read, dyslexia, a comparison of the reading orientations (whole language, balanced literacy, structured literacy), NAEP scores, and the NRP report of 2000. Probes assisted clarification or reorientation with conversations. General questions began each section before moving to more detailed topics. For example, under expectations for students who are learning to read, the initial question was "Do you expect that all students will become proficient readers?" This broad question allowed room to discuss teacher expectations tempered with student environments or range of student abilities. Follow-up questions more specifically asked, "What strategies do teachers candidates learn to more effectively assist students unsuccessful at reading?" and "What steps can teachers take to ensure reading success for all students?" Each section mirrored this pattern of general to specific.

Interviews ended with a solicitation of participant comments and questions. Contact information was provided for future observations, and a transcript of the interview was offered. Offering a transcript of the interview to participants helped assure its validity; participants had the right and opportunity to review and amend their comments. Confidentiality was reiterated as well as gratitude for participants' time and expertise.

Syllabi. Before the interview, each instructor was asked to share a syllabus for their classes. Out of the 13 professors, 10 submitted one or more syllabi, with 21 syllabi submitted in total. Several participants hesitated to release their syllabi, citing confidentiality concerns. When advised submitting a syllabus was not mandatory, three participants immediately declined. Participant 7 (P7) explained professors' hesitancy stemmed from two reasons. First, in prior studies, privacy had not been maintained, leaving professors interested in participating in studies but wary about sharing their materials. Second, a syllabus alone, without an opportunity to explain its implementation, could lead to misinterpretation. P7 clarified: "I'd like to be there when you read it so I can explain everything."

Conversely, Participant 1 shared four syllabi and a supplementary article used in class and encouraged their dispersion to others.

Websites. Websites were accessed through an internet search for each of the six university campuses. In conjunction with Mills's (2020) analysis of American and UK university websites, each campus's mission statements, student recruitment materials, research goals, and alumni affairs articles were selected and perused for items relating to the three research questions. Next, this process was repeated with the websites' home pages and Education Department webpages. Finally, using the search bar, the entire website was scanned for "reading differences" and "dyslexia."

Procedures

The study was implemented after completion of proposal defense, IRB approval, and collection of signed Docu-Sign online consent forms. Multiple interviews were scheduled each week, with time allotted between sessions for preliminary data entries and organization. Ongoing data analysis occurred asynchronously as the interviews progressed over one month. After completing all 13 interviews, I began more thorough data analysis that incorporated additional information supplied by professors' syllabi, memos, and websites.

Coding. Saldaña (2021) suggests qualitative researchers begin with a preliminary list of codes that are open to continual review and periodic reorganization. This process ultimately generated a codebook, or list of codes to scrutinize data generated from interviews, syllabi, and university websites (Appendix E). Thirty-three a priori codes were developed in conjunction with Spear-Swerling's "Structured Literacy and Typical Literacy Practices: Understanding Differences and Instructional Opportunities" (2019) and Moats and Tolman (2020) *LETRS: Language Essentials for Teachers of Reading and Spelling*. These sources suggest that reading program analysis include themes of reading approach, instructional methodologies, assessment, foundational skills, and identification and intervention for struggling students. An additional theme, dyslexia, was added. Codes were continually revised within themes. As the study progressed, inductive codes emerged

independently (Appendix F), an expected process noted by Saldaña. This ongoing revision and reorganization created final codebooks to accurately represent the purpose of this study.

Interviews. All interviews consisted of recorded conversations that followed an identical progression of questions to support reliability. Each participant was assigned a numerical pseudonym; each interview was transcribed and coded. Memos that augmented interviews were also coded. The six SUS campuses were color coded by location. After each interview, the transcription and memos were reviewed and labeled with relevant codes from the codebook. After completion of all interviews, the process of review and labeling codes was repeated two or more times for all participants.

Syllabi. Similar to the interview procedure, identifying information was removed from all syllabi to protect participant confidentiality. Each syllabus was coded, using the study's deductive and inductive codebooks, and labeled in conjunction with the participant interview. After completion of all interviews, syllabi were again coded a minimum of at least two more times, more as needed.

Websites*.* Mills (2020) suggests that analysis of university websites revolve around student recruitment, research goals, and alumni engagement. These concepts were utilized in addition to the codebook on the websites' home page, mission statement, and Education Department pages. Websites were scrutinized after interviewing a professor from that specific institution. All websites were later analyzed two or more times.

Data Management

A contact log tracked participant information such as place of employment and position title. Participants were assigned numerical pseudonyms and campuses were color coded. Data from interviews, syllabi, documents, and websites were stored in locked files or within a password-protected computer. Only I had access to the data and contact logs. The interviews were digitally recorded, both online and over the phone, and later transcribed. Aside from transcriptions, oversized Word documents and Excel spreadsheets tracked participants' responses and were entered into the data management system. Per IRB regulations, data will be maintained for at least 3 years.

Initially, data housed in locked physical and online file were organized by data type, such as interviews, syllabi, documents, or websites. As the interviews progressed, files were rearranged according to participants' reading instruction orientation and also color coded by the university campus. Duplicate copies of all online data were maintained in cloud storage as well as computers. All systems were strongly password protected.

Data Analysis and Interpretation

Creswell and Guetterman (2019) urge thorough and repeated readings of data before embarking upon analysis to "get a sense of the whole before breaking it into parts" (p. 244). This study's reading included transcriptions, recordings, syllabi, websites, and memos. After this initial data review, coding looked for relationships and themes. Codes, a word or group of words representing salient characteristics of data, can be descriptive, process-oriented, or in vivo, actual quotes from the data. The coding process categorized data to establish a framework for analysis. Codes overlapped, shared similarities, or illustrated differences as described by Bazeley (2021) while aligning with the study's three research questions.

Deductive and Inductive Coding

The study primarily utilized deductive coding, with a priori, concept-driven codes and themes to analyze data from interviews, syllabi, websites, and memos. When data did not fit the established codes, it generated its own inductive, or emergent themes with unique codes (Appendix F). Contrary evidence ultimately supported themes or required reorganization. Themes were layered from general to more specific, as well as scrutinized for interrelationships as described by Vanover et al. (2021).

The study narrative explained and supported deductive and emergent themes, with tables and figures to further illuminate processes and findings. Combining narrative and visual displays more completely delineated data meaning and importance. Personal reflections, comparison to literature, and suggestions for future research (Creswell & Guetterman, 2019) assisted interpretation of data. Finally, validity measures established the veracity of the study.

Trustworthiness

Trustworthy research rests in awareness; "validity in qualitative research is not the result of indifference, but of integrity" (Maxwell, 2013, p. 124). Bazeley (2021) refers to two threats against qualitative research validity: researcher bias and avoidance of uncomfortable or inconvenient themes. In a similar vein, Maxwell (2013) points out the effect of the researcher on study conclusions. Phenomenological qualitative research does not claim to eliminate researcher bias but strives to deepen the researcher's awareness of their perceptions and judgement. This awareness allows the researcher to conduct studies with increased trustworthiness. In this section I address these two threats along with steps to ensure study validity.

Researcher Bias and Avoidance of Uncomfortable Themes

In this study, adherence to an established interview sequence addressed researcher bias and discussing uncomfortable themes. The standardized routine allowed awareness of discomfort, while providing a structure to simultaneously proceed. Interview questions uncovered disquieting themes for participants, too. For example, four participants responded to a question about dyslexia intervention with a variation of "I'm embarrassed, I should know more….".

Strategies for Validity

Although there is no foolproof validity guarantee, Maxwell (2013) offers eight strategies to guard against validity threats and increase conclusion credibility. I will discuss the five that applied to this study: rich data, respondent validation, discrepant evidence, triangulation, and comparison.

Maxwell's Strategies Against Validity Threats

Rich Data. Rich data details the depth and variety of participant experiences. Review of interview transcriptions, memos, syllabi, and websites allowed a rigorous exploration of each instructor and university program. All participants freely and proudly shared information about their institution's program of instruction with an abundance of details that grounded conclusions. Specific interview questions elicited complete answers about professors' perspectives towards teaching

reading. This yielded abundant information around the type of program, methods of instruction, incorporation of struggling readers, and the inclusion or non-inclusion of dyslexia.

Respondent Variation. Respondent validation, also known as member checks, systematically solicited feedback from participants on their completed interviews. All respondents were offered a transcription of their interview and researcher contact information to review and amend their comments. These steps decreased the possibility of misinterpreting meanings and creating misunderstandings. Two professors initiated further contact within two days of their interview, offering additional information and to suggest authors pertinent to the study. Two different professors asked questions of the researcher, soliciting opinions about reading orientation and teaching methods. Two professors were contacted post interview to verify interview comments.

Discrepant Evidence. Discrepant evidence, data that cannot be accounted for, can point out flaws in logic or interpretation. Negative data requires scrutiny: Does it disprove an assumption, create a new theme, or remain an outlier? (Maxwell, 2013). These contrary cases must be entered into the study narrative. In this study, two professors claimed support for opposing points of view: “studies show increased phonics creates low reading scores (Participant 1)” and “studies show an emphasis on phonics raises reading scores (Participant 13).” Two instructors, self-identified as proponents of whole language, approved of isolated phonics instruction in specific settings, which contradicts a pure whole language orientation. Similarly, two self-identified balanced literacy professors rejected phonics in favor of increasing, but not changing, reading instruction, which is a whole language strategy.

Triangulation. Triangulation informs results from different angles, requiring a range of settings and methods (Maxwell, 2013). Varied sources of information from interviews, syllabi, memos, and websites reduced the chance of bias from one single source. In this study, participants taught in six different campuses in a state university system within three professional reading programs and ranged across three reading orientations. This created a diversification of perspective. Data

confirmed, and occasionally contradicted, interview findings. This heterogeneity of data sources and participants protected findings against validity threats.

Comparison. Comparing participants and responses lowers validity threats. In this study, the number and range of participants allowed comparison of responses between all professors, professors at the same university, professors' professional positions, years of experience, and between the universities themselves. It was not uncommon for professors' responses to directly conflict; for example, P5 lamented Below Basic NAEP scores while P2 vehemently denied their validity. Participants provided complex and sometimes contradictory data. Additionally, interview comments were compared to information from syllabi and university websites.

Trustworthiness in qualitative literature requires the participation of researcher and participants. Awareness of researcher bias and willingness to persevere through uncomfortable themes extended integrity into the study. Qualitative strategies, such as rich data, respondent validation, analysis of discrepant evidence, triangulation, and comparison provided sturdy protection for trustworthiness.

CHAPTER 4

FINDINGS

This chapter presents findings based on the study's three research questions. While there is no standard presentation of qualitative research findings, Miles and colleagues suggest organization by research questions as a clear method to explain qualitative outcomes (Miles et al., 2019). The research questions are followed by data from syllabi and websites not addressed within the interviews and concludes with a final summary.

Emerging Themes

Inductive codes emerged independently from the a priori, deductive codebook analysis. As the study progressed, several inductive codes appeared.

Lack of Time

The most frequent emergent theme was professors' frustration at demands placed on themselves and classroom teachers without allotted time in which to complete them. Ten of 13 participants mentioned needing more time in their teacher education classes. P2, P12 and P13 agreed teacher candidates are unprepared for the needs of struggling students. P2 explained,

> Teacher education candidates need time to observe skilled teachers, consult with mentors, and engage in coaching. The investment in scripted programs but not in ongoing learning for teachers is criminal.

Six participants mentioned the Reading Instruction Competence Assessment (RICA) as a useful instrument to investigate foundational reading skills, but as noted by P12, "RICA is appropriately rigorous, but many students fail because there is no time in our curriculum for them to become properly prepared." P11 concurred, "Reading is less about programs and more about who implements programs. Teachers need more education, experience, mentorships, and time. Teachers need time—for preparation, practice, and observation."

P5 suggested NAEP scores reflect what occurs when "teacher educators do not have to time teach the basics of reading or allow time to practice what is learned in class." Three professors

included more time in their response to the perfect reading program interview question. P10 summarized professors' responses: "Teachers need more time in order to become experts."

Reading Philosophies

Five of the 13 professors expressed exasperation with the science of reading and structured literacy. For example, P6: "I understand the educational pendulum swings back and forth, and I can't wait for it to move away from the science of reading." Three whole language professors and one syllabus mentioned Dick Allington, a former reading researcher at the University of Tennessee, as a respected reading authority, particularly for struggling readers. Conversely, P13 related, "Now we have balanced literacy, but it's better than whole language and we're slowly moving toward structured literacy."

Reading Interventions for Struggling Readers

Four professors emphasized student timed reading passages as either a motivating strategy or a procedure to avoid. Depending on the participant, timed reading was "stupid (P10)," "motivational (P5)," "helpful and kids love it (P3)," or "destructive (P9)." Two whole language and two balanced literacy professors mentioned the commercial word study approach Words Their Way as an effective reading program for struggling readers.

Universalities

The 13 professors detailed a wide range of opinions about how to teach reading. However, in three areas they reported 100% agreement:

1. All participants described a personal enjoyment of reading.
2. All participants described having autonomy within their university in the creation and delivery of their curricula.
3. All participants stressed the importance of joy in reading for students.

Reading Differences

Research Question 1 asked, How do current teacher preparation programs address reading differences? Strategies for struggling readers varied, with a trend toward similar answers based on participants' reading instruction orientation.

Orientation to Reading Instruction

One professor self-identified as whole language, three as balanced literacy, and four as structured literacy, and five declined to label themselves or claimed to "take the best of all of them" (P9). When asked to describe a perfect reading program, professors provided extensive information about reading priorities and values. Answers ranged from P1's deliberate avoidance of phonics to P13's insistence that every student receive explicit training in word analysis.

Using the perfect reading program responses, interview answers, and information from syllabi, participants were categorized as whole language, balanced literacy, or structured literacy. Criteria for placement followed Spear-Swerling's "Structured Literacy and Typical Literacy Practices: Understanding Differences and Instructional Opportunities" (2019b) and Moats and Tolman (2020) *LETRS: Language Essentials for Teachers of Reading and Spelling*. Of the 13 participants, three were classified as whole language (23%), six balanced literacy (46%), and four structured literacy (30%). Table 1 shows a continuum ranging from most Whole Language to most Structured Literacy. Campuses are color coded.

Table 1. Continuum from Whole Language to Structured Literacy

1	2	3	4	5	6	7	8	9	10	11	12	13
Whole Language			Balanced Literacy						Structured Literacy			

Reading Instruction Programs and Reading Orientation

Whole Language. Three professors, 23% of total, shared characteristics of a whole language orientation. Two whole language professors taught general education and one special education. Whole language professors cumulatively shared 59 years of experience in their current positions, with a mean of 19.66 years of experience.

Balanced Literacy. Balanced literacy, the category with the largest number of participants, contained six of 13 professors, or 46% of the total. One professor taught general education, one special education, and four were in graduate programs leading toward a Masters in Literacy.

Balanced literacy professors cumulatively shared 84 years of experience in their current position, with a mean of 14 years.

Structured Literacy. The structured literacy category was dominated by three special education professors; there was one Master's in Literacy program and zero general education professors. The structured literacy professors accounted for four of the 13 participants (30%). Structured literacy professors cumulatively shared 53 years' experience in their current position, with a mean of 13.25 years.

Table 2 displays professors' instructional positions within their reading orientation, that is, if their teacher preparation class led to general education or special education credential or a Master's in Literacy and Reading. Conversely, Figure 11 relates the type of instructional program (general education credential, special education credential, Master's in Literacy and Reading) within the professors' reading orientations. Figure 12 shows mean years of professors' experience by reading instruction orientation (whole language, balanced literacy, structured literacy).

Table 2. Professors' Positions within Reading Orientations

1	2	3	4	5	6	7	8	9	10	11	12	13
TE Sp Ed	TE Gen Ed	TE Gen Ed	TE Gen Ed	M Lit	M Lit	TE Gen Ed	M Lit	TE Sp Ed	TE Sp Ed	TE Sp Ed	M Lit	TE Sp Ed
Whole Language			Balanced Literacy						Structured Literacy			

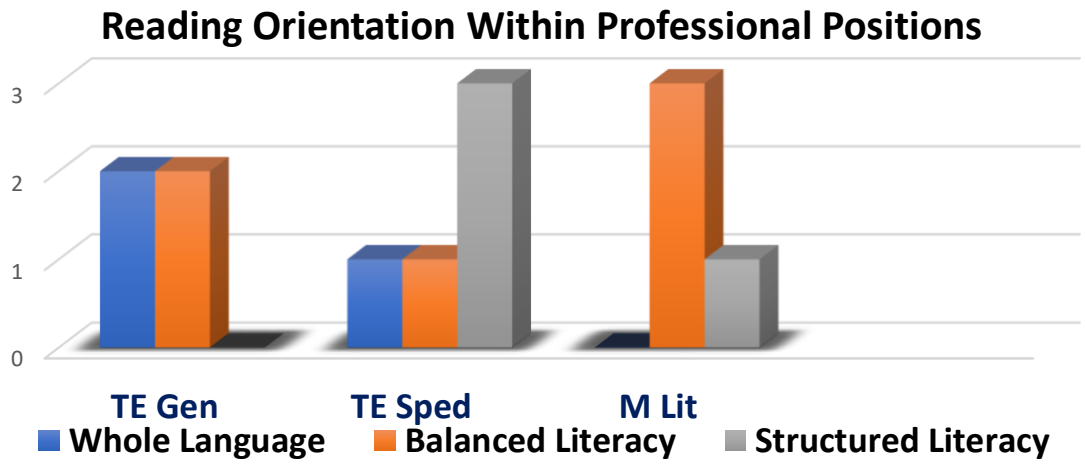


Figure 11. Reading orientation within professional positions

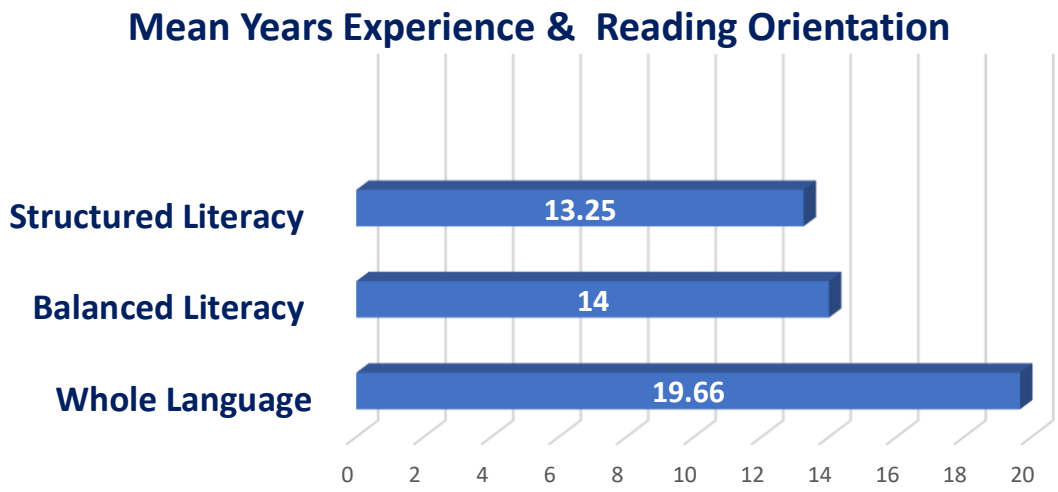


Figure 12. Mean years' experience and reading orientation

Reading Differences in Whole Language

All of the three whole language professors viewed reading instruction as meaning centered, skills were not included or deemed as supplementary. They agreed learning to read is a combination of natural and learned processes.

Reading Expectations – NAEP and NRP

When presented with 2019, pre-pandemic, NAEP scores that ranked 34% of fourth graders and 30% of seniors as Below Basic readers, participants were asked, "What are your expectations of who can learn to read?" All of the professors, across reading orientations and professional programs, agreed almost all students can achieve some level of reading expertise. Opinions of how expertise develops varied among the participants.

NAEP. While agreeing almost every child can learn to read, P1 added, "It's up to the teacher, the teacher decides who learns to read." According to P3, "The NAEP is not an accurate representation of reading ability nor an acceptable source. All kids can learn to read, I expect them to and they do."

NRP. When asked if the NRP's five pillars of reading are incorporated into their curriculum, P1 said, "Coincidentally, but not by design, we cover some parts of it. Pillars is an unfortunate metaphor."

P2 regarded the NRP as a “dysfunctional process, 20 years old, and criticized by researchers.” P3 deliberately included the five pillars in the curriculum.

Strategies for Reading Differences

Identification. When asked, “How are reading differences are identified within your program?” all whole language professors suggested students need more time to evolve as readers. P2 stated, “Reading is meaning centered and needs to remain meaning centered. Some kids just need more support.” P1 viewed teachers’ oral reading as the driver of reading instruction and opined that struggling students “may need to hear even more reading to increase their motivation.”

Intervention. Two professors expressed concern that emphasis on phonics destroys reading enthusiasm and its meaning-centered focus. P1 stated, “Occasionally, phonics, phonological awareness, or decodable readers may be temporarily incorporated. Students should be transitioned away from them as soon as possible.” P1 supplied a supplementary article, “The Science of Reading Progresses: Communicating Advances Beyond the Simple View of Reading” (Duke & Cartwright, 2021) that proposes an alternative to Scarborough’s rope of reading. Its active view of reading advances three assumptions: elements of reading are not separate but overlapping, reading difficulties stem from more than decoding or language comprehension, and student self-regulation affects reading:

> In addition to word reading and language comprehension, readers must learn to regulate themselves, actively coordinate the various processes and text elements necessary for successful reading, deploy strategies to ensure reading processes go smoothly, maintain motivation, and actively engage with the text (Duke & Cartwright, 2020, p.30).

All whole language participants mentioned working from student strengths instead of weaknesses as an intervention strategy. P3 suggested teachers “Get to know struggling readers' likes and dislikes, find out what they can do! Ask other students to assist less successful peers. The most important thing is to read, read, read." Citing reading complexity without a simple fix for reading difficulties, P2 selects books that connect to students' experiences along with the cueing system for

low-scoring readers: “Let them know it’s OK to not read every word and they can just fill words by context.” None of the professors mentioned referrals or changing to a different reading method.

Foundational Skills. P1 avoided foundational skills as much as possible in favor of instructional time that “savors books and projects.” P2 said, “The science of reading reenergized foundational skills. The issue is how to teach foundational skills not in isolation but in context. Reading is making meaning.” P3 considered foundational skills important, “they are in my curriculum and classroom.” One syllabus (P2) included foundational skills in the syllabus.

Reading Groups. All three professors preferred leveled reading groups based on students’ reading abilities. P1 explained, “Less successful students get easier books.” P3 cautioned against “embarrassing books” for older students with reading differences, suggesting smaller groups with more instructional time.

Table 3 summarizes whole language strategies for reading differences described by the whole language professors, Spear-Swerling (2018b), and Moats and Tolman (2020).

Table 3. Whole Language Reading Components

1	2	3
TE Sp Ed	**TE Gen Ed**	**TE Gen Ed**
Whole Language		
Meaning Centered Foundational skills as needed Leveled reading groups Struggling students given easier tasks Struggling student – no specialized intervention Dyslexia not addressed		
Summary of Whole Language Professors’ Positions		
1 TE Special Education 2 TE General Education		

Reading Differences in Balanced Literacy

The six balanced literacy professors viewed reading instruction as meaning-centered process. Five stated learning to read is a combination of natural and learned processes. One professor (P7)

suggested, “Reading may appear to naturally occur in some students, but it’s always learned. And this is a hot button topic!”

Reading Expectations – NAEP and NRP

NAEP. When presented with 2019 NAEP scores, similar to other study participants, balanced literacy professors agreed almost all students should have the capacity to read. Table 4 summarizes balanced literacy professors’ reactions to NAEP results.

Table 4. Balanced Literacy Professors’ Reactions to 2019 NAEP scores

Participant	Response
Participant 4	NAEP is a reductionist view of reading. The examples aren’t engaging and it doesn’t measure any critical thinking beyond foundational skills.
Participant 5	The scores are troubling. It is hard to get my head around why, with our country’s resources, that this exists. Part of it is the differences among public schools.
Participant 6	It is a reflection of systemic racism; we need empowerment and to advocate for student resources.
Participant 7	I don’t accept that students can’t learn to read. Parents need information, reading begins before preschool. This is an equity issue with cascading consequences. Every child has the right to literacy.
Participant 8	Literacy is not prioritized in the United States. So much demand for local control prevents effective programs. Too much is required of schools, we need assistance for students in poverty and with mental health.
Participant 9	Is NAEP a valid assessment? We need a critical eye toward its results.

NRP*.* P9 “most definitely” included the NRP pillars as part of curriculum. Four professors stated it was somewhat included: “We talk about it in context, but not explicitly” (P7), “or “In the department it depends on the instructor” (P5). P4 was not certain about the five pillars or if they were included in instruction. Instead of the five pillars, P6 discussed controversy surrounding the NRP, stating it is not necessary to incorporate the five pillars to effectively teach reading.

Strategies for Reading Differences

Identification. Five of six balanced literacy professors mentioned assessment as the driver for appropriate reading differences interventions. P7 asserted that teachers must “first understand typical reading development to be able to identify atypical readers who may require additional assessment

and a different method of reading instruction” and also reminds teacher candidates to "assess, assess, never assume." P5 suggested “Teachers should do their own assessments, do not rely on computer programs to assess students.” P9 advocated, “Early assessment—catch them before they fall and never give up.”

Intervention. Balanced literacy was more likely to propose assessment and intervention for less successful reading, assuming “intervention always occurs within balance” (P5). Four professors (P6, P7, P8, and P9) mentioned phonological awareness and phonics as likely interventions for low-scoring students. P4 and P5 suggested incorporating family support along with classroom interventions to build from student strengths. P5 emphasized “finding and working within students’ zones of proximal strength, and providing individual instruction within the classroom” while also acknowledging that smaller groups and additional time are a challenge, particularly in upper grades.” P6 preferred a “micro/macro approach, involving both classroom and community involvement.” Most balanced literacy professors suggested less successful students may be taught to read differently from peers, in an explicit systematic manner, but always within a context of authentic reading.

Foundational Skills. Four of the six balanced literacy professors (P6, P7, P8, and P9) included foundational skills instruction in their curricula and syllabi, not only for struggling students but for all reading groups and always within a reading context. The same four professors identified the required RICA as an additional reason to include foundational skills. In the words of P9, “RICA demands foundational skill knowledge.”

Reading Groups. Balanced Literacy professors uniformly supported reading groups that are leveled by student reading ability. Within groups, P5 suggested interventions such as smaller sized groups and additional instructional time. P4 and P5 recommended easier texts to assist low-scoring students.

Table 5 displays characteristics of balanced literacy instruction as described by the participants, Spear-Swerling (2018), Moats and Tolman (2020).

Table 5. Balanced Literacy Reading Components

4	5	6	7	8	9
TE Gen Ed	**M Literacy**	**M Literacy**	**TE Gen Ed**	**M Literacy**	**TE Sp Ed**
Balanced Literacy					
Meaning centered Foundational skills addressed in context Leveled reading groups Struggling students assessed as reading difficulties arise Struggling students provided with explicit instruction Dyslexia may be addressed (2/6 professors include dyslexia in curriculum)					
Summary of Balanced Literacy professors' positions					
1 TE Special Education 2 TE Gen Education 3 Masters Literacy					

Reading Differences in Structured Literacy

Even though structured literacy is skill-based, participants identify it as meaning-centered because accommodations remove stigma and embarrassment from students with reading differences, "this allows all students to access the joy of reading" (P13). All structured learning professors labeled reading as a learned process.

Reading Expectations – NAEP and NRP

NAEP. When presented with 2019 NAEP scores, P10 remarked, "I'm not surprised. We aren't training teachers beyond a surface understanding of reading. We have a low national expectation about reading, the USA Today standard." P12 agreed, "Of course students are unsuccessful, their teachers don't know the science of reading." Similarly, P11 saw scores as "More reflective of the teachers than students." On the other hand, P13 believed, "It is not the teachers' fault. They need training, collaboration, and time."

NRP. All structured literacy professors included the NRP within curricula. A P10 remarked, "Most definitely! Why not? It's evidence based and shows the need for structured literacy." P11 includes the five pillars but still sees teachers "unprepared from their one ELA class in a credential

program.” And while P13 appreciates how attention on foundational skills “simultaneously prepares students for RICA, we need a new National Reading Panel.”

Strategies for Reading Differences

Identification. Structured literacy's motto might be "Assess early, before reading begins” (P12). All structured literacy professors stressed universal assessment, before any instruction begins, as a crux of reading success. Assessment spurs immediate intervention for students who may have reading differences. P10 viewed preschool, kindergarten, and primary grade assessments as “the most significant chance for equitable reading instruction.” To this end, P12 suggested a K-3 teaching credential, emphasizing systemic reading procedures for all teachers of young students.

Intervention. All structured literacy professors stated intervention depends on assessment results. P12 admitted early identification risks false positives and that low reading scores relate to “the US’s diversity compared to more homogeneous countries. We have a greater variation of ethnicities, socioeconomic statuses, and languages that influence reading.” P13 also acknowledged false positives, but argued “the needs of students who require intervention outweigh the possibility of students [receiving] unneeded help.” P11 stated the science of reading would dictate intervention, as it is “integral … and also lacking in most credential programs.”

In addition to the syllabus, P13 proffered a document about reciprocal teaching, a reading comprehension strategy for students with and without reading differences. In reciprocal teaching “the teacher hands power over to the students.” The goals of reciprocal teaching include student independence, undoing of learned helplessness, and an ability to generalize knowledge among classes and texts.

Foundational Skills. In addition to early assessment, all four structured literacy professors expected foundational skills to be presented in every classroom for every student. Transitory instructional skill groups vary with students’ needs and abilities, but “every child benefits from foundational skills” (P12).

Reading Groups. Eschewing leveled reading groups, the four structured literacy professors suggested that all students access grade-level literature through traditional reading or accommodations. P13 explained, “There are two types of accommodations. Some are temporary to build skills, an alphabet chart to remind a student of letter sounds. Others are compensatory for lifelong assistance, such as audiobooks or speech to text.” P13 recommended that every student, neurodiverse or neurotypical, to choose reading in a traditional manner or to utilize accommodations, regardless of IEP status.

In structured literacy all reading careers begin with assessment, before a child learns to read. Regardless of reading ability, all students receive foundational skill instruction that is explicit and systematic. Students whose assessments indicate potential reading differences participate in frequent, intense practice. Structured literacy students access grade-level literature through traditional reading or accommodations. Table 6 displays components of reading instruction as described by the study participants, Spear-Swerling (2018), Moats and Tolman (2020).

Table 6. Structured Literacy Reading Components

10	**11**	**12**	**13**
TE Sp Ed	**TE Sp Ed**	**M Literacy**	**TE Sp Ed**
Structured Literacy			
Skills centered Foundational skills – sequential, systematic for all students All students access grade level literature through accommodations (UDL) All students receive early, universal screening Struggling students receive early, frequent, intense intervention Dyslexia addressed in curriculum, syllabi, and texts			
Summary of Structured Literacy professors’ positions			
1 Masters Literacy 3 TE Special Education			

Dyslexia

Research Question 2 asked, Is dyslexia is addressed in teacher preparation programs? And, if so, to what extent? Participants answered four questions about dyslexia:

- Is dyslexia included in the curriculum?
- How would you define dyslexia?
- How would you identify a student with dyslexia?
- What are appropriate interventions for students with dyslexia?

Inclusion of Dyslexia

This section describes findings for inclusion or non-inclusion of dyslexia within instructional programs. This is followed by inclusion or non-inclusion of dyslexia within reading orientations.

Inclusion of Dyslexia Within Types of Instructional Reading Programs

Figure 13 shows the inclusion and non-inclusion of dyslexia within the study's three types of instructional reading programs; professors' reading orientations are noted.

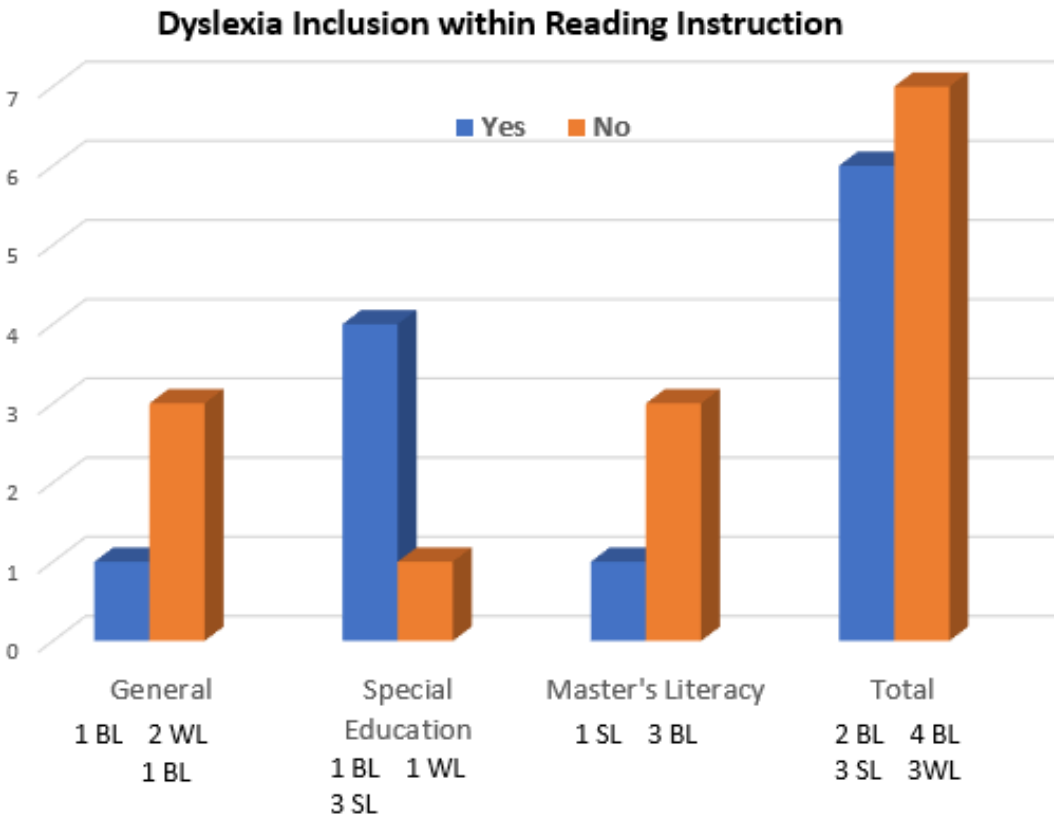


Figure 13. Dyslexia inclusion within reading instructional programs

General Education Inclusion of Dyslexia. The study included four general education (GE) programs. One balanced literacy GE program included dyslexia. Two whole language and one balanced literacy GE curricula did not include dyslexia within their curricula.

Special Education Inclusion of Dyslexia. Four of the five special education programs included dyslexia: three structured literacy programs and one balanced literacy. The whole language special education program did not include dyslexia within its curriculum.

Master's in Literacy Inclusion of Dyslexia. Of the four programs for inservice teachers, one structured literacy Master's program included dyslexia. Three balanced literacy Master's programs did not address dyslexia.

Figure 14 shows the percentage of dyslexia inclusion within reading orientations.

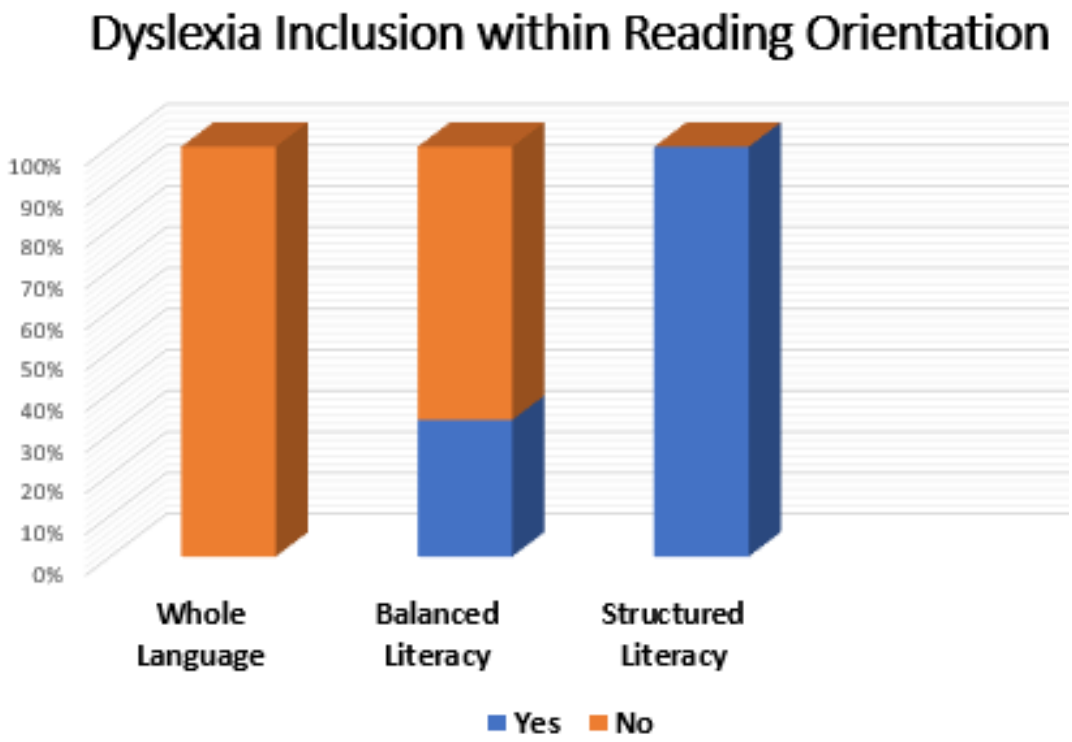


Figure 14. Dyslexia inclusion within reading orientation

Whole Language Inclusion of Dyslexia. None of the three whole language professors included dyslexia in their curricula, outside of a list of specific learning disabilities (P2). P2 remarked the exclusion was deliberate because dyslexia is "politicized, tied to money and phonics. Who benefits from phonological awareness and pushing phonics? There is no consensus and they are not looking at kids."

Balanced Literacy Inclusion of Dyslexia. Of the six balanced literacy professors, P7 and P9 included dyslexia in the curriculum, along with the syllabus of P7. The syllabus of P5 included a

required text by Allington, a researcher who posits dyslexia is an invented construct that does not exist.

Structured Literacy Inclusion of Dyslexia. All four structured literacy professors' curricula and two syllabi included dyslexia. Two professors additionally volunteered their membership in a state and research university consortium about dyslexia. P12 wished dyslexia was part of mandated teacher education and considered the California Dyslexia Guidelines "a joke." P10 was "appalled at the anti-dyslexia 'research' [professor's air quotes]. It is rhetoric: inflammatory and not backed up by data." The university website of P11 and P13 mentioned dyslexia as a component of their teacher education program.

Definition and Identification of Dyslexia

"What is dyslexia, and how would you identify a child with dyslexia?" unlocked varied and interesting responses. As with previous responses, answers tended to cluster around reading instruction orientation. Two professors, one whole language and one balanced literacy, cited dyslexia as a medical diagnosis and therefore not within the purview of teacher identification.

Whole Language Dyslexia Definition and Identification

When asked to define and identify dyslexia, two whole language professors mentioned reversals; one commented, "and even when you point it out, the student can't see the difference." P2 stated, "I have never worked with a student who has dyslexia, but every struggling student I have worked with has improved," before adding, "We don't know enough about dyslexia for what teachers need." P1 noted students with dyslexia don't pay attention to meaning: They "want to hustle through the text." The same professor cited DIEBELS testing as "stupid" because "it makes kids read fast, they don't take their time, and that creates dyslexia. I'm not sure, but I think it could." P3 mentioned many explanations exist about dyslexia, but students with dyslexia likely use a different way to sense and learn and dyslexia creates a "scrambling between brain and eyes."

Balanced Literacy Dyslexia Definition and Identification

All balanced literacy professors agreed that dyslexia exists, with P9 exclaiming, “Talk about a hot topic!" P5 and P7 commented that the spectrum of dyslexia requires precise assessments to identify specific student needs. P4 volunteered, “I need more training, I only know the stereotype of reversing letters,” and P9 admitted, “I’m still learning myself about dyslexia.” P5 and P9 stated dyslexia is a medical condition requiring a doctor’s diagnosis, therefore teachers are not permitted to identify students with dyslexia. P9 added, “since we can’t diagnose it, we don’t identify it in class.” Table 7 shows balanced literacy professors’ responses to dyslexia identification.

Table 7. Identification of Dyslexia by Balanced Literacy Professors

Participant	Response
Participant 4	Difficulty with reading, challenge making meaning from printed text.
Participant 5	A lack of automaticity.
Participant 6	Students who might need help in sorting and organizing? Decoding text is difficult.
Participant 7	A learning disability, code-based, that interferes with phonological processing resulting in weaknesses in phonological awareness, memory, and retrieval. It also interferes with spelling.
Participant 8	Kids who mix up letters, skip sounds, and decoding is so difficult that comprehension doesn’t occur.
Participant 9	That’s a hard question. Students who aren’t reading well yet.

Structured Literacy Dyslexia Definition and Identification

The four structured literacy professors easily defined dyslexia and how to identify it. P11 recited a definition from the CA Dyslexia Guidelines; P10 described a "neurological difference in how the brain processes auditory information, affecting how a brain codes sounds into symbols and interfering with many areas: vocabulary, Rapid Automatic Naming, and spelling." P11 and P13 cited frustration at myths about dyslexia, such as simplifying it to letter reversals. Both worried that the lack of teacher knowledge and training about dyslexia impedes intervention for students. P13 asked, “How can a teacher identify dyslexia if they have not learned what it is?” P12 mentioned “misinstructed” teachers and agreed with P11 and P13 that students unsuccessful at reading, for any reason, be

assessed and provided intervention. Instead of focusing on dyslexia identification: when anything interferes, assess and intervene. P12 pointed out,

> We are not doing a good job with dyslexia, sometimes the word isn't allowed to be used. Often it [dyslexia] is only in special ed., but it should be everywhere. It has the best chance of identification in special education, but it should be familiar to every teacher. Teachers need training.

P12 described teacher candidates' increasingly requesting universities for dyslexia information: "There is a push from teachers about dyslexia, especially how to identify it. Universities need to do their own PD [professional development] about dyslexia."

Interventions for Students with Dyslexia

Professors responded to "What interventions are appropriate for a student with dyslexia?" Two professors were not sure what dyslexia was and one claimed never to have met a student with dyslexia.

Whole Language Interventions for Students with Dyslexia

A common theme among the three whole language professors was that more reading and less phonics assisted struggling readers. P1 explained,

> Research shows as reading programs add phonics, scores decrease. Instead, a struggling reader might benefit from reminders to slow down when reading. Phonological awareness or phonics activities may be appropriate in extreme cases, but should be eased off for the good of the reader.

In place of phonics, P1 offered increased time listening to oral reading and dynamic reading engagement through art, drama, and music. Changing instruction was not advocated by P2, who preferred "increased time in reading groups and excluding any scripted program." P3 stated "reading should always be a creative thinking process" and suggested an index card with arrows indicating print direction and colored overlays.

Balanced Literacy Intervention for Students with Dyslexia

Balanced literacy professors described a range of interventions. P4 admitted, "I really don't know what to do, I'd refer the child to special education or the student study team." P5, P7, and P9 recommended Words Their Way, a commercial word study approach to reading and spelling, as a

resource for students with dyslexia. P5 reminded students, "Pause and think when your mind plays tricks on you." P8 would “teach a child with dyslexia the same as I’d teach anyone else.” Two participants, P7 and P9, preferred a more active intervention when students showed reading difficulty: assessment, intense phonological awareness and phonics, and progress monitoring.

Structured Literacy Intervention for Students with Dyslexia

All four professors included a universal design for learning (UDL) approach. P13: “We should have a UDL system based on structured literacy. It is good for everyone; it won’t hurt successful readers and prevents failure. It helps those who need it most by identifying reading differences on the spot.” P12 addressed the misconception that structured literacy ignores proficient and advanced readers, “while a UDL system protects students with reading differences, it does not penalize successful students. Efficient readers deepen their reading ability and understanding.”

Structured literacy professors agreed the assessment, identification, and interventions for students with dyslexia mirrors what should occur for every student. This includes universal screening in K-3rd grades, followed by intense intervention for identified students. P12: “in the simple view of reading, dyslexia is on the decoding side of the Scarborough Reading Rope (Figure 15); therefore, assessment would likely indicate a need for intervention in phonological awareness and systematic phonics.”

Structured literacy professors denounced the lack of training for teachers. P11 explained, "Teachers need more education, practice, and observation for students with dyslexia; it's not part of most general education programs." P13 offered a more optimistic view:

> We have had a shift from whole language to balanced literacy. Balanced literacy is not good, but in five years we will reclaim reading instruction with a structured literacy that infuses the joy of reading from whole language. And although dyslexia is still a “bad word” in many schools, there is always a disconnect between practice and research, and we are making progress.

P11 and P13 were from the same campus and belonged to a consortium of general and special education professors that meets regularly to collaborate on neurodiversity and reading instruction. Their campus website also described the consortium.

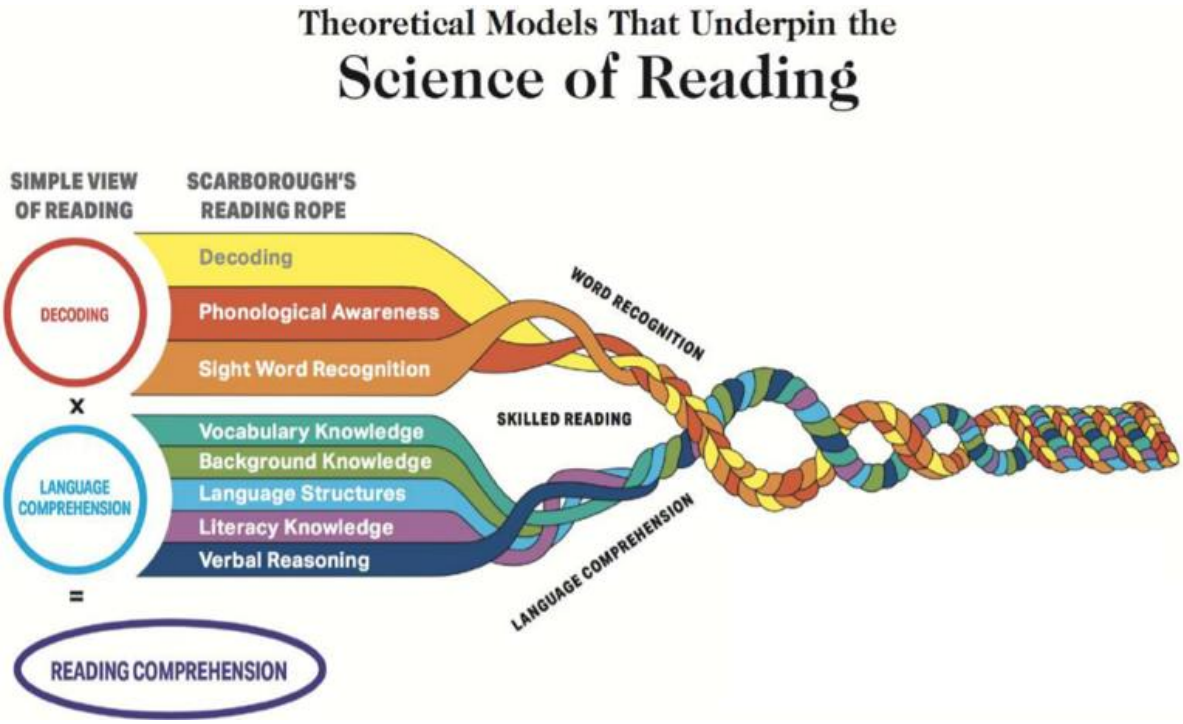


Figure 15. Scarborough reading rope and the simple view of reading (Blevins, 2021)

Syllabi

Ten professors submitted one or more syllabi, with 21 submitted in all. As with participant interviews, the study's deductive codebook and inductive codebook guided their analysis. Syllabi differed greatly in their length and verbosity, varying from terse descriptions to detailed explanations of mandated state requirements for teachers, instructional concepts, lesson formats, student expectations, and assignments. Two syllabi included dyslexia identification in the goals of the course, but without mention in lessons, assignments, or texts.

Out of the four whole language syllabi, only one incorporated the deductive codebook themes of assessment, reading differences, dyslexia, phonological awareness/phonics and accommodations (Appendix H). All balanced literacy syllabi reported inclusion of assessment and all but two included phonological awareness/phonics. Three of four structured literacy syllabi incorporated reading differences, phonological awareness/phonics and dyslexia. One structured literacy syllabus hosted seven lessons on phonological awareness.

Table 8 displays the syllabi elements of reading instruction within the types of reading programs. Out of 21 syllabi, 12 addressed assessment, evenly distributed between reading programs.

Special education syllabi more frequently included reading differences, phonological awareness/phonics, and dyslexia. Master's programs recorded the fewest numbers of these concepts.

Table 8. Syllabi Elements of Reading Instruction within Reading Programs

	Assess	Foundational Skills	Reading Differences	Phonological Awareness/ Phonics	WTW	RICA	Dyslexia	NRP	UDL
General Education	4	5	2	7	3	8	4	3	1
Special Education	4	0	5	11	0	0	5	2	1
Masters Literacy	4	0	1	4	1	0	0	0	0

Note. 21 syllabi were submitted: 3 General Education, 8 Special Education, 9 Master's in Literacy

Websites

The study's 13 professors taught in six of 23 university campuses in a large, Western state. These six university websites' home pages, mission statements, and Education Department pages were analyzed with the study's deductive and inductive codes. As suggested by Mills (2020), attention was also focused on student recruitment, alumni, and university research in the area of reading instruction. Finally, each website's search bar yielded references of dyslexia.

None of the university mission statements, home pages, student recruitment, or alumni pages referred to reading, reading differences, or dyslexia. On every website, a search for dyslexia yielded information offering assistance for current university students with dyslexia, such as speech-to-text programs and web/text accessibility. One website encouraged, "Come and get proper help for your disabilities."

Dyslexia searches also yielded a speaker about dyslexia at a spring conference, a previous conference on disabilities that included dyslexia, and a faculty publication that reviewed dyslexia research (Appendix I). The Education section of P11 and P13 university's website described dyslexia

as part of its special education program. That university's Education pages also mentioned membership in a statewide, multiuniversity consortium for neurodiverse learning.

Summary

Research Question 2 asked if dyslexia was addressed in the university reading program. The answer was, it depends. Four of 13 professors could not describe dyslexia, apart from popular misconceptions, how to identify a student with dyslexia, or what are appropriate interventions. No whole language professors suggested changing the type of reading instruction. Four of six balanced literacy professors prescribed assessment for students suspected of dyslexia, followed by explicit, systematic instruction in phonological awareness and phonics. Structured literacy professors advocated for universal assessment before students learn to read. Within a UDL approach, structured literacy professors supported foundational skills for all students with more intense, frequent intervention for struggling students, including those with dyslexia.

Professor Autonomy

Research Question 3 asked, "What factors determine curricula for university reading instruction?" Every participant responded, we do (Table 9).

All professors claimed curricular autonomy, in the words of P1, "I'm the expert; I decide." Six professors mentioned adherence to state teacher standards. P7 described the university's syllabus approval program as an additional curricula structure.

Summary

The purpose of this study was threefold: to ascertain if a chasm exists between science-based reading research and what is taught in preservice and graduate teaching programs, to deepen the understanding of how and why teachers are prepared to teach reading, and to examine factors that determine the curriculum for teacher instruction. These three concepts addressed the problem of a gap between science-based reading research and what is taught in preservice and graduate teaching programs. The findings described in this chapter were organized by the three research questions, a qualitative reporting method described by Miles et al. (2014).

Deductive coding guided the study's structure, utilizing 33 a priori codes to analyze interview transcriptions, syllabi, course documents, and university websites. Amid the deductive process, inductive codes emerged from the data. These included teacher stress, timed reading, annoyance with the science of reading, timed reading, Words Their Way, and Allington. Finally, three universal themes were shared by all of the professors.

This study's findings describe professors' strategies for struggling readers, inclusion or non-inclusion of dyslexia within their course curriculum, and factors affecting what is included in their course curriculum. Professors offered a spectrum of responses that were occasionally contradictory but usually clustered with similar answers of a reading orientation.

Table 9. Professor Autonomy

Participant	Response
Participant 1	We create our own program.
Participant 2	I have complete autonomy aside from required CA teacher standards.
Participant 3	Our university supports Balanced Literacy, but I have the flexibility to present Whole Language.
Participant 4	Within state teacher requirements I have the autonomy to choose what I think is appropriate. Most of us support Balanced Literacy and we respect each other.
Participant 5	Recently, younger faculty members have pushed for more Structured Literacy and Science of Reading. We've been having debates for the first time.
Participant 6	We do Balanced Literacy and have academic freedom.
Participant 7	Our syllabus is approved by a university process. We are required to follow state teacher standards, but outside of those we have autonomy.
Participant 8	We have autonomy within expected standards.
Participant 9	We have responsible freedom that follows teacher standards. When the standards change, our syllabi will change.
Participant 10	Professors are free to teach theory and practice. We work within teacher standards.
Participant 11	No one bit are we told what to teach. We collaborate, emphasize social justice and structured literacy.
Participant 12	Professors have autonomy, we are bound by state and professional standards.
Participant 13	There is no prescribed curriculum. We collaborate as faculty as well as with surrounding universities. We support and complement each other's weaknesses.

CHAPTER 5

DISCUSSION

The purpose of this qualitative, phenomenological study was to ascertain if a chasm exists between science-based reading research and what is taught in teacher preparation programs, to deepen the understanding of how and why teachers are prepared to teach reading, and to examine factors that determine curriculum for reading instruction. Three research questions guided his study:

1. How do current teacher preparation programs address reading differences?
2. Is dyslexia addressed in teacher preparation programs? If so, to what extent?
3. What factors determined the curriculum presented to teacher candidates?

The primary data source were interviews with professors of reading instruction. Participants were from six of 23 state university campuses who taught general education, special education, and a Master's degree program in literacy. Syllabi, websites, and memos augmented the interviews.

There were four significant findings. First, all professors acknowledged reading differences, with responses clustered around reading orientation. Most instructional programs did not include dyslexia, with responses clustered around reading orientation. Third, all professors claimed autonomy in curriculum development. Finally, the impetus for change in reading instruction erupted from parents and teachers, not universities. This chapter presents the findings of the study, including limitations. This will be followed by a discussion of implications and recommendations for policy, practice, and theory. The chapter ends with a conclusion.

Conclusions

Reading Differences

This study affirmed that a chasm does exist between science-based reading research and what is presented in teacher preparation, with the profundity of that chasm dependent upon reading orientation. Despite the 2000 report of the NRP, Council in Prevention of Reading Difficulties in Young Children (1999), and voluminous research supporting structured literacy for all students and essential for beginning readers, English language learners, and struggling readers (Hettleman, 2019; Moats, 2017; Shaywitz & Shaywitz, 2020; Spear-Swerling, 2019a; Torgesen, 2014; Wolf; 2018), it

was absent from all whole language curricula and from two of five balanced literacy curricula. P1, a Whole Language participant and self-identified "not a fan of phonics," postulated, "Actual research proves that too much phonics has lowered test scores." The professor was unable to recall the specific source. Alternatively, teacher candidates with structured literacy professors learned that all students benefit from foundational skills, and that 60% of their future students will require them to read.

Whole language and balanced literacy's well-intentioned, meaning-centered approach envisions reading *joie de vivre* without providing essential literacy tools for 60% of students who require structure to learn to read (Hettleman, 2109). Decades of steadily increasing percentages of students receiving Below Basic reading scores reflect these dominant systems' lack of success (NAEP, 2019). Two whole language professors, P3 and P4, not only ignored research, but overtly taught incorrect information to teacher candidates regarding the three-cueing system. In the 1990s, Stanovich showed strong readers look at each letter, use all visual information, and process words part to whole. Poor readers rely on semantic cues to decode (as cited in Kim, 2008, Kim & Goetz, 1994). Yet these professors instructed teacher candidates to ignore decoding in favor of the cueing method, where students use syntax, context, and illustrations to guess at meaning—the opposite of how skilled readers read. How would teacher candidates possibly know that method, presented in teacher education, contradicts research and will interfere with future students' reading?

The chasm disappeared in structured literacy, where science-based reading research drove instruction for teacher candidates. For example, only structured literacy professors advanced a UDL model. UDL evolved from civil rights and special education legislation to prioritize "equity by design" (Chardin & Novak, 2021). Its three elements (multiple means of engagement, multiple means of representation, multiple means of action and expression) reduce barriers to learning:

> We cannot allow students from diverse backgrounds to feel like afterthoughts who we've been obliged or guilted into making space for. We need to proactively and intentionally remove barriers of … known or unknown bias…. Every student deserves the opportunity to be successful regardless of their zip code, skin color, language they speak, sexual and/or gender identity, and whether or not they have a disability. (Chardin & Novak, 2021, p.113).

An example of UDL is structured literacy's foundational skills for all. This structure specifically targets the 60% of students who require them to learn while not hampering but helping more advanced readers. An analogy for UDL is a sidewalk curb cut designed for wheelchairs; it causes no harm and benefits a wide range of other needs. UDL accommodations, for example, speech-to-text and audiobooks, provide multiple means of engagement toward an educational goal. Fortunately for the future students of teacher candidates in a structured literacy program, new teachers embark on careers buttressed by science-based research. This translates into brighter student academic and emotional futures for all students.

Assessment

In addition to reading instruction, a gap exists in the imperativeness of early assessment. Although NRP and other researchers show that, without early, intense, structured intervention, poor readers in first through third grades are unlikely to ever attain average reading skills (Gonzalez & Brown, 2018; Moats, 2017; Shaywitz & Shaywitz, 2020; Torgesen, 2004), none of the whole language professors suggested referring an unsuccessful reader for assessment nor an alternative type of instruction. Balanced literacy professors recommended assessment and intervention after students exhibit reading difficulties, in line with special education's "wait to fail" two-year gap model. Delaying intervention effectively destroys vulnerable students' optimal windows of opportunity (Moats, 2017; Torgesen, 2004). All four structured literacy professors recommended annual, universal assessment before reading instruction begins, in Grades K-3 and with older struggling students. Early assessment spotlights a structured literacy goal, "catch them before they fail" (P11).

Literature

Franz Kafka described literature as "the axe that breaks the frozen seas within us." Literature broadens knowledge, nurtures beauty, and challenges us to stretch our human souls. For this reason, structured literacy professors champion grade-level literature for all students in place of leveled reading groups. For example, almost always, the fourth graders who cannot read grade-level *Esperanza Rising* in a traditional manner, can understand it (Foss, 2013). Only from structured

literacy professors did teacher candidates learn how accommodations bridge this gap in two ways. First, accommodations were available for all, untethered to IEPs or reading differences. If a highly skilled, lightning-fast reader preferred an audiobook, that was an acceptable choice. This removes the stigma of accommodations as only for less able students. Second, accommodations present equal access to complex literature for students with low traditional reading skills. Instead of "high" readers enjoying *Esperanza Rising* and "low" readers decoding primers, everyone accesses grade-level literature in the manner of their choosing. Students experience a real equal educational opportunity where their needs are prioritized above the needs of the educational system (Howe, 1997). Accommodations in a UDL approach seek to dissolve the CRT tenet where the dominant group (traditional reading) is considered normal. Structured literacy offers an alternative that prioritizes the content of the literature above how it is accessed.

All whole language and balanced literacy professors prescribed leveled reading groups. In this system, students witness academic stratification: struggling readers with easier texts and successful students with grade-level literature. Though one professor directly disparaged a "deficit" approach, the teacher candidates in that program learned to separate students by reading abilities. These practices parallel compensatory educational opportunities (Howe,1997), CRT (Ladson-Billings,1998), and Ruíz's theory of language orientations (Ruíz, 1984). Differences from an established norm (struggling readers) become problems to be "fixed" (easier texts) with the goal of returning to "normal" instruction (traditional reading).

Equity

Our American liberal educational philosophy upholds equal educational opportunities for all students. However, professors' exclusion of structured literacy information from teacher candidates perpetuates a system favoring the 40% of students who read with any instruction to the detriment of the 60% of students who require structured literacy. In Dennett's "bare opportunity" example, prisoners remain unaware of a nearby key (Howe, 1997). Teacher candidates, along with their future

students and the parents who will rely on their expertise, remain in reading prison as long as their professors exclude the key: current, accurate information about reading needs.

Since reading scores decrease as poverty increases, students most affected by this exclusion are students of color or from low-income households. Structured literacy is essential for struggling readers (Harry & Klingner, 2014; Moats, 2017; McGown & Slate, 2109; NRP, 2000). In this study, four of 13 professors addressed the needs of those students. This matters because when professors ignore the research and results of structured literacy, future teachers graduate unprepared to address the reading needs of most of their students, disproportionately students of color and from low-income homes. We have fortified systemic barriers to reading equity, resulting in decades of drastic academic and economic consequences for our most vulnerable students (Moody et al., 2000; Shaywitz & Shaywitz, 2020).

This finding is a call for teacher education to shift from traditional ideology favoring the 40% of students who quickly learn to read in favor of recognizing all students' needs. Structured literacy supports all students: the 40% who learn in any system, the 60% who rely on structure, and the 15% within the 60% who will fail without early, intense, frequent structured intervention. Based on my findings, all university professors in this study have not evolved with equity in mind.

Dyslexia

If 60% of students rely on code-based instruction, the 15% of students with dyslexia depend entirely upon it. Students with dyslexia require the earliest, most intense, and most frequent intervention. Without explicit, systematic instruction, students with dyslexia are likely to drop out, face underemployment, depression, incarceration, or die by suicide (Foss, 2013; Moody et al., 2000; Shaywitz & Shaywitz, 2020). Even more vulnerable are students with dyslexia who are also struggling with language comprehension, disproportionately from low-income homes or a person of color. These students are the least likely to succeed in school without structured, intense intervention (McGown & Slate, 2019). Early assessment and intervention save reading and student futures (Foss, 2013).

Six of 13 professors (46%) included dyslexia in their instruction for teacher candidates, seven (54%) did not. Whole language professor P2's inclusion was limited to including dyslexia in a list of SLDs. Within balanced literacy programs, P7 and P8 addressed it most thoroughly within their curricula. All structured literacy professors presented dyslexia to teacher candidates. Shaywitz and Shaywitz (2020) summarize this dilemma:

> The greatest stumbling block preventing a dyslexic child from their potential and dreams is the widespread ignorance about dyslexia. We do not have a *knowledge gap* but an *action gap*. Schools and policymakers are way behind in translating existing scientific progress into policy and practice. (Shaywitz & Shaywitz, p. 89)

Is Dyslexia a Medical Condition?

Whole language professor P3 and balanced literacy professor P8 claimed dyslexia is a medical condition requiring a doctor's diagnosis; teachers are not qualified to identify dyslexia. In 2015 the U.S. Department of Education sent a letter to every American public school: "there is nothing … that prohibits the use of the term dyslexia … in IDEA evaluations, eligibility determinations, or IEP documents" (p. 1). Assistant Secretary of Special Education Yudin reminded schools that dyslexia is an SLD mentioned by name in the Individuals with Disabilities Education Act (IDEA); the professional teams conducting IEP meetings are qualified to identify and intervene for students with dyslexia.

Although classroom teachers do not diagnose dyslexia, they also do not diagnose ADHD, depression, child abuse, or malnutrition. Yet our educational system relies on teachers' frontline awareness of these issues. Teachers learn to recognize signs of child abuse; we can learn to identify children who can't rhyme in kindergarten, don't learn the names and sounds of letters despite repeated instruction, and inconsistently read CVC words (one-syllable, three-letter words that follow the pattern of consonant-vowel-consonant) in upper elementary school. We can recognize signs of dyslexia because children will suffer their entire lives unless we intervene. Teacher candidates whose professors somehow missed Secretary Yudin's pronouncement remain in a prison of ignorance, unaware a legally sanctioned key is within reach.

"Shoot Whoever Wrote It"

The Dyslexia Training Institute (https://www.dyslexiatraininginstitute.org/) sells t-shirts exclaiming "Dyslexia is Real," a position amazingly still debated by some educators. For example, two whole language curricula (P1, P2) and one balanced literacy participant's required text (P5) included Richard Allington, an outspoken denier of dyslexia. None of these professors had dyslexia in their curriculum for teacher candidates. At a 2019 national reading conference, Allington, a former professor of education at the University of Tennessee and former president of the International Reading Association, cited proposed Tennessee dyslexia legislation and suggested the governor "veto the bill and shoot whoever wrote it." Later he stated the governor "was going to hell" for signing the new law (Schwartz, 2019).

David Flink, CEO of Eye to Eye, a nonprofit organization that matches college mentors with dyslexia with high schoolers with dyslexia (Flink, 2019), addressed Allington's remarks. Pointing out Functional Magnetic Resonance Imaging (fMRI) studies at Yale that show dyslexic brain differences, Flink emphasized how environment predicts success or failure for people with these brains. Untreated dyslexia results in dropout rates three times higher than typical students and a "staggering number" in the criminal justice system (Flink, 2019). Allington wants to do away with the interventions that Flink describes as "sending students to college instead of prison" (p.1). Echoing Schneps et al.'s (2011) description of dyslexic strengths, Flink sees Allington's remarks as not only irresponsible but dangerous, noting society benefits when intervention supports dyslexic students' skills and creativity. Those same interventions prevent what Flink labels the correlates of dyslexia: depression, lowered self-esteem, and suicide.

Allington's comments illuminate why frustrated, infuriated parents created Decoding Dyslexia. Instead of promulgating Allington's beliefs, university professors who train future teachers could choose to hold him accountable and protect the rights of the students with dyslexia.

Professor Autonomy

Professors claimed autonomy in creating and presenting curricula outside of state-mandated requirements for teachers. Four participants pointed to RICA as an influence on their curricula; it was the impetus for including foundational skills to teacher candidates. P1 explained that all syllabi must go through the university approval process, but no syllabus had ever been denied or corrected. All 13 professors claimed they were able to make their own curricular decisions without pressure from university requirements, teacher shortages, or textbook publishers. P1 summed it up: "I'm the expert, I decide."

This finding is alarming. The study showed most teacher preparation excluded the structured literacy needed by 60% of students, often students of color and from low-income homes. Even though approximately 15% of students in general education classrooms sit on a spectrum of dyslexia the majority of professors did not mention it to teacher candidates. Their autonomous, curricular decisions leave new teachers unprepared to meet the needs of future students and parents who look to teachers for advice (Moats, 2017; Shaywitz & Shaywitz, 2020; Spear-Swerling, 2019a; Will, 2019; Wolf, 2018). Moats has suggested professors are unaware or disdainful of dyslexia and structured literacy. Wills wondered if it's too painful to retract positions after decades of teaching whole language. None of these ideas were mentioned by any professor. No professor lamented university pressure, stress from teacher shortages, or textbook publisher influence. The inclusion or exclusion of structured literacy and dyslexia appeared to be the professors' choice.

Impetus for Change

Hanford (2017) likened educational change to moving an ocean liner in excruciatingly tiny increments. Who first prodded the whole language/balanced literacy vessel? One might reasonably assume it was academic researchers as they are experts in their fields, with fMRIs of brains illuminating dyslexia and cutting-edge studies at their fingertips. Or was it university professors, brimming with knowledge and experience while mentoring teacher candidates? Perhaps it was school boards advocating for the most effective learning for all students.

Parents

The answer is parents. Parents who were "exhausted from trying to get appropriate services for their children with dyslexia" (Rae, 2015, p. 1) and infuriated at comments that deny the existence of dyslexia (Schwartz, 2019). In 2011, New Jersey families created Decoding Dyslexia to generate awareness of dyslexia and improve services for children. This nonprofit organization now has chapters in every U.S. state and in Canada and frequently influences dyslexia legislation.

Teachers

Decoding Dyslexia empowered parents to speak up when forbidden to say the word dyslexia, to lobby for legislation recognizing their children's needs, and to press teachers, schools, and school boards for change (Hanford, 2017; U.S. Department of Education, 2015). These organized parents, "a trend you cannot ignore” (Will, 2019, p. 4), impacted teachers by demanding IEPs and state education committees to address dyslexia and structured literacy. In 2013, Mississippi trained every public-school teacher in structured literacy. Arkansas’s 2017 legislation required all elementary and special education teachers to learn science-based reading. California’s 2107 Guidelines for Dyslexia offered suggestions for teachers, schools, and districts. Parents’ pressure slowly altered the ocean liner of reading instruction.

Universities

P12 reported teacher candidates know more about dyslexia and structured literacy than universities. Their university professors routinely receive requests about dyslexia identification along with queries of why it is not more thoroughly presented. P5's university is firmly balanced literacy, yet they stated, "Younger instructors and graduate students have pushed to include more science of reading. For the first time, we are having debates."

When parents, through Decoding Dyslexia, started nudging reading instruction in 2011, reverberations reached teachers, legislators, and the U.S. Department of Education. Eleven years later, this study found four of 13 professors presented dyslexia and structured literacy to teacher candidates. Whole language and balanced literacy professors felt this educational jostling, resulting in

the confusion of P5 or resistance of P8, "I can't wait for the pendulum to swing away from the science of reading!"

Acceptance of or aversion to dyslexia and structured literacy may relate to professors' years of experience. Structured literacy professors' mean years in their current position was 13.25 years. Whole language was 19.66, and balanced literacy was 14 years. When balanced literacy's lowest score of 2 years was removed, the mean was 18 years. P5 reported graduate students and "younger professors" pressuring faculty about the science of reading, and it is P12's teacher candidates asking about dyslexia. Relative youth is pushing educational change. The momentum launched by parents is coming, albeit slowly, for universities and professors. Professors may ignore it, learn from it, or in the words of Bob Dylan, "Get out of the new way if you can't lend a hand, for the times, they are changing."

Limitations

Three study limitations can be addressed in future studies.

Professors were requested but not required to submit syllabi of their classes. Since submission was optional, the syllabi did not fully reflect the makeup of participants. Of the 13 professors, 10 submitted syllabi. Eight of the 25 submitted syllabi (32%) came from two professors! Syllabi size ranged from nine to 22 pages and included sparse to voluminous data. A short syllabus with a scanty word count might not accurately reflect the content of class presentations. In the future, I would more strongly request a syllabus from each professor. Instead of multiple syllabi, I would ask for one syllabus for the class that most directly related to the study topic. Finally, taking the suggestion of P7, who wanted "to be with you so I could explain everything," I would include a discussion of the syllabus within the interview protocol. This would increase confidence that the syllabus reflected the class curriculum and content.

The professors claimed autonomy in curriculum development, with no restrictions beyond state teacher requirements. This outcome could have resulted from an unintentional participant bias since all of the professors were full or associate professors. Two were heads of the General Education and

Special Education Departments at their university. P9 announced, "I write the curriculum for everyone else." Although the participants experienced full autonomy, lower ranking instructors may not have felt the same degree of freedom. For future studies, I would design the participant roster with a broader spectrum of professor and instructors, purposely including participants with less experience.

A larger sample size would more fully confirm or challenge the results of this study. Wills (2019) cited an Education Week Research Center survey estimating 22% of teacher education programs ascribe to whole language, 57% balanced literacy, and 22% structured literacy. Those statistics roughly match this study's distribution within its 13 participants with 23% whole language, 46% balanced literacy, and 30% structured literacy. Data collected from more than six of the 23 state university campuses would include a wider range of professors and their reading orientations. Future studies incorporating other educational systems, such as state research-based universities, private schools, and online universities would yield data with which to compare results from the state university system.

Implications

Study findings around reading differences, dyslexia, and professor autonomy present implications for policy and practice.

Policy: Hire Professors with Knowledge of Structured Literacy

Since universities bear the responsibility of training preservice and veteran teachers, universities should hire professors who understand structured literacy and dyslexia. Current professors should be retrained. This study included three professors supporting an author who denies dyslexia's existence and two who taught the cueing system. These professors affect teacher candidates, the parents who will rely on those candidates' advice, and their future students with dyslexia. It is not teachers' fault that students with dyslexia remain unidentified and struggling in American classrooms. Universities must hire instructors who will present reading research.

These professors will likely be younger since the mean years' experience of structured literacy professors in this study was almost seven years less than that of whole language professors. Another

significant difference to expect among professors is awareness of UDL to ensure equitable experiences for all students (Chardin & Novak, 2121). Knowledge of structured literacy and UDL should be required of professors who train teacher candidates.

Training the currently employed professors who deny the existence of dyslexia or who only espouse a joyous, meaning-centered perspective toward reading instruction requires a three-pronged intervention. First, science-based reading coursework, evidence of dyslexia's physical manifestation from fMRIs, and investigation of structured language research results will create a base for a more complete understanding of student needs. Second, what better way to broaden one's understanding of any concept than experience? Professors could work with students who have dyslexia, meet and listen to parents, and attend Decoding Dyslexia meetings. Finally, exercises in identifying their own biases may shift professors toward a more encompassing perspective of students with reading differences and dyslexia. At minimum, it may lay a foundation for a future shift.

This approach could be implemented by individual universities, state legislators, or a state boards of education. It matters because our current system, while improving, still produces beginning teachers unaware of dyslexia, that 60% of students need Structured Literacy instruction, or even what Structured Literacy is. Teacher education professors hold the key for teachers' futures. Unfortunately, some professors appear unaware or unwilling to choose that key. It is time to change that.

Practice: Switch Sides of the Reading Rope to Find Joy

All 13 professors enthused about prioritizing students' joy of reading. The study's inductive codebook noted the most common reason for avoiding structured literacy was the assumption that phonics strips joy from reading and is boring. It doesn't have to be so.

Scarborough's rope and the SVR (Gough & Tumner, 1986) divide reading into overlapping divisions: decoding and language comprehension. Whole language and balanced literacy professors diligently attempt to infuse joy into decoding. And for some students, that works (NAEP, 2019). But no amount of joy provides success for the beginning readers, English language learners, and struggling readers who require structure to learn (NRP, 2000).

What better place than the language comprehension side of the rope to celebrate whole language's themes, drama, art, and music? Students can build background knowledge through projects, improve fluency through dramatic performances, and expand vocabulary through experiences that reflect students' interests. Why not make decoding as pleasurable as possible and deliberately cultivate joy within language comprehension?

This approach recognizes whole language and balanced literacy's concerns about engagement and conforms to science-based reading research. Language comprehension issues are related to environment and appear disproportionately in students of color or from low-income homes (McGown & Slate, 2019; NRP, 2000). Language comprehension responds well to instruction and experience, providing an excellent bang for an educational buck (Harry & Klingner, 2014; Weisleder & Fernald, 2013). It's the perfect place for reading fun.

The reading rope compares to math instruction. For example, students need to know multiplication tables to successfully function in higher level math. Students need phonics to succeed at reading. Good teachers make phonics and multiplication facts as engaging as possible. But the ultimate purpose of times tables is success at math; the ultimate purpose of phonics is reading success. Whole language is correct: Reading should be joyous. Structured literacy is correct; there will be no joy for students unable to decode. Realistically, there will be no math joy for algebra students who can't multiply or for literature students who can't read. Mixing structured literacy's attention to foundational skills (decoding side of the rope) with whole language delight in language comprehension is a recipe for happy reading: accurate and joyous.

Practice: Know Thyself, Increase Professors' Self-Awareness

All study participants reported enjoyment of leisure reading and pleasant memories of learning to read. P3 "was born reading," and the only negative comments were that participants were wishing for more time to read. But P13 pointed out, "Most teachers love to read, and that is a problem. We don't easily identify with students who require structure to read." Learning to read compares to White privilege; in both scenarios, the privileged remain unaware of their advantage (Collins, 2018). From

CRT, we know it is the responsibility of the unaware to awaken themselves. In education, this means a professor who loves to read and learned to read with great joy bears the burden of understanding that not all students share that experience. Imposing "joy" on a child who can't remember the names of letters creates anxiety and plummeting self-esteem. This is unacceptable.

Unawareness and privilege self-perpetuate an insulated, exclusionary world of educators. Professors view struggling students who require structure and don't receive it and often students of color or from low-income homes, as “deficient,” a problem to be fixed. Understandably, improperly taught and therefore unsuccessful readers frequently drop out of school. They are unlikely to become teachers or university professors (Moody et al., 2000; Shaywitz, 2020). This is education's catastrophic loss.

Egalite et al. (2015) represent one of many studies depicting student–teacher congruence's educational and social benefits: Students who see themselves reflected and accepted in their teachers improve academically and socially. Since unsuccessful readers leave school behind as quickly as possible, education hemorrhages a vast source of educators.

When teachers and professors realize that reading, their personal magic key, may be an albatross around a student's neck, progress may begin. We must realize even though our 6-year-old selves could almost seamlessly intuit "cat, bat, fat, mat" after learning "hat," it doesn't mean all students can. Hard-working, bright, motivated children may need extensive structure to read successfully.

An aware teacher learns to provide the appropriate structure for each student’s success. Student success lowers dropout rates. Reduced dropout rates increase the opportunity for formerly struggling readers to attend college and become teachers. These teachers' presence in the classroom nurtures other struggling students who can now see themselves in their teachers. Besides breaking a tragic cycle, aware teachers' examples provide modeling for colleagues. When these educational leaders become professors who train teacher candidates, our system can transform.

Instead of an exodus of struggling students, we commence a breathtaking, upward educational spiral. It begins with awareness.

Recommendations

Policy: Embed Knowledge of Dyslexia in Teacher Education

In addition to hiring professors with a background in structured literacy and providing training for existing professors around dyslexia, universities must require teacher education programs' curricula to include dyslexia and structured literacy. Similar to the RICA requirement that forces inclusion of foundational skills, a dyslexia requirement would mandate the inclusion of dyslexia independently of who teaches the class. The study shows why this is necessary: 53% of professors did not include dyslexia in their curricula, a professor of 22 years stated, "I've never met a child with dyslexia." Two professors thought dyslexia was a medical condition. Since 15% of students struggle with dyslexia and 32% of students in special education have dyslexia (Shaywitz, 2020), all professors and teacher candidates should be aware of dyslexia.

This would be implemented at the university level but would need to originate from state legislators or state boards of education. As shown by previous dyslexia legislation, if dyslexia is not addressed in a timely manner by universities, pressure from parents and teachers may force their hand.

Likely this mandate would ignite resistance from some professors. For this reason, the creation process should include both professors who support it and those who oppose it. Discussions would allow space for antistructure viewpoints. Sharing concerns such as "boring" phonics could promote dialogue about dyslexia and structured literacy misconceptions. Presentation of data can lower professors' reluctance to be "retrained" around dyslexia. Despite opposition, the needs of students outweigh professor opposition. Professors' curricula must reflect the reality of dyslexia.

Practice: Universal Assessment

Universal, annual assessment in Grades K-3 and for older, struggling readers followed by appropriate intervention would prevent thousands of reading difficulties from ever starting. Our current

"wait to fail" special education system misses the best window of opportunity for substantial reading intervention results (Moats, 2017; Torgesen, 2004). Previous bills for universal assessment have been presented and defeated. None had specified funding but would have been paid through the existing general education fund that also supports school psychologists, speech therapists, and occupational and physical therapists (Rae, 2015). Understandably, these groups opposed universal assessments. According to Torgesen, money should not be a problem; universal assessment and intervention would ultimately decrease special education enrollments by 50-70%. The cost of assessment and intervention would pay for itself.

Universal assessment requires a substantial educational shift, away from formal opportunities to participatory opportunities for all, as exemplified in UDL. Further studies could investigate the socioeconomic and racial gap between the equal educational opportunities heralded by our liberal education philosophy yet often ignored in practical applications. For example, private schools for dyslexia offer universal assessment, as do public schools in affluent neighborhoods with outspoken parents. Does this mean American schools value affluent struggling students above low-income struggling students?

Theory: Professors and Teachers Need More Time

Ten of 13 professors expressed exasperation with lack of time for themselves and their teacher candidates. Candidates have no opportunity to practice what they have learned, observe skilled teachers, and be mentored. In the words of P10, "We are learning endless recipes with no time to be in the kitchen." For example, to pass RICA, candidates must learn foundational skills and how to teach foundational skills while completing other components of teacher education. RICA's first-time pass rate is 67%, P12 offered candidates voluntary weekend boot camps: "It's the only way, we don't have enough time in class to learn and practice skills."

As the United States’ teacher shortage increases, time constraints will likely worsen. Teachers' responsibilities increase as the amount of time to accomplish them decreases. Professors of teacher candidates worry about this trend's impact on candidates and existing teachers, citing teacher

burnout, increased numbers of teachers leaving the profession, and early retirements that exacerbate teacher shortages. Teachers need time or at least assistance.

Conclusion

This study addressed the problem of a chasm between science-based reading research and teacher preparation. The chasm yawned most widely in whole language and balanced literacy programs, where structured literacy and knowledge of dyslexia are locked away from teacher candidates due to their professors' unfamiliarity or indifference. This perpetuates continually swelling ranks of students with Below Basic reading scores and increased systemic inequity where only affluent students can circumvent their schools' lack of knowledge. However, teacher candidates with structured literacy professors learned about code-based instruction for all students, dyslexia, and an UDL model that intentionally builds equity for all students. The chasm size depends on professors' reading orientation.

The ranks of structured literacy professors and teachers are growing (Will, 2019); however, reorienting professors' reading dispositions "is intimidating, uncomfortable … many wish [we] would just go away; they don't want to change" (Hanford, 2017). Ultimately, this protracted shift toward structured literacy will benefit all readers. But it is of little succor for students sitting in classrooms today wondering why they can't read like everyone else. Most struggling children do not surmise that their personal lack of success in reading stems from flaws in their educational institution's reading instruction or that their teachers were trained by professors unaware of or hostile to structured literacy. Tragically, students conclude something is wrong with them.

For those students, disproportionately students of color and from low-income homes, we advocate. We insist that professors become aware of their own bias and knowledgeable about structured literacy, that dyslexia be included in education curricula, and for the universal assessment that flatlines reading failure. With the parents at Decoding Dyslexia, young professors, graduate students, and statewide consortiums of professors celebrating neurodiversity, we will persist until all students have a truly equal educational opportunity to find the joy of reading.

APPENDIX A

A HISTORY OF READING INSTRUCTION

Early Reading Instruction

Humans have been reading for around 5,000 years (Miller, 2010). Until the mid-nineteenth century, almost all reading instruction was the alphabet method (Dodds, 1967) where students sequentially learned sounds of letters that formed words. Pupils read aloud, often chorally with an emphasis on elocution. Despite criticism that this was "child torture - a slower and more sure murderer" (Graves & Dykstra, 1997, p. 341), the alphabet method persisted. Early American education used the alphabet method: *The New England Primer* (1688–early 1800s) and Noah Webster's *The American Spelling Book*, or “blue back speller” (1738-mid 1800s; Dodds, 1967).

Emergence of Whole Language

In 1837, Horace Mann of the Massachusetts Board of Education described the alphabet method as impeding reading and the alphabet itself as a "vertical row of lifeless and ill-favored characters" (Graves & Dykstra, 1997, p. 342). Mann argued that reading's purpose is meaning, and teachers should present words not "letters, those bloodless, ghostly apparitions" (Kim, 2008, p. 1). In 1886, research by Cattell stated adults read words faster than letters, bolstering Mann's position (Kim, 2008).

The word, or “look-say” method began its ascent. Teachers trained students to recognize individual words, with phonics later added. Look-say evolved into a sentence method where a teacher tells a story, writes sentences from the story on the board, and students copy/read. Silent reading began to eclipse elocution and oral reading. Not all educators agreed with the word/sentence method, viewing it as illogical to not learn letter sounds first (Kim, 2008; Schreiner & Tanner, 1976).

Progressive educators in the late 1800s and early 1900s, such as Colonel Francis Parker and John Dewey, seconded the word/sentence method as a gentler approach to education. It assumed children’s goodness, encouraged exploration, and made meaning the raison d'être of reading.

Edmund Burke Huey's research postulated that skilled readers ignore many letters in words. Reading moved from an oral, phonetic process toward one of silent reflection (Schreiner & Tanner, 1976).

Basal Readers

As public education expanded, basal readers became integral to school. McGuffey Readers, first published in 1836, was a four-volume set used for almost 100 years. Volume 1 began phonetically with sounding out letters, syllables, words, and sentences. Sight words were gradually presented in stories appropriate for the child's age. Later publications moved away from oratory towards silent reading. Basal readers remained a mainstay in American classrooms through the midtwentieth century; most were sight word-oriented with phonics as auxiliary strategy. William S. Gray dominated teacher and student textbook development from 1916 to 1956, promoting the whole word method through the *Elson Gray Basic Readers* published in 1936, also known as "Dick and Jane" (Dodds, 1967: Kim, 2008).

Re-Emergence of Phonics

In the 1950s, two events upended reading instruction. First, Rudolph Flesch's 1955 book Why *Johnny Can't Read* attacked Gray's whole word empire:

> Ever since 1500 BC people all over the world have learned—whatever alphabetic system was used—to read and write by the simple process of memorizing the sound of each letter of the alphabet. Except, twentieth century Americans, we have thrown 3,500 years of civilization out of the window. (Graves & Dyskstra, 1997, p. 343)

The other event was Russia's 1957 Sputnik launch, spurring education funding in the U.S. and the 1959 Conference on Research.

Jeanne Chall, professor of Education at Harvard University, was charged with analyzing reading methods and determining which approach was most effective. Chall looked at research from 1900 to 1965 focusing on look-say (based on meaning) and systematic phonics (based on "the code"). *Learning to Read: The Great Debate* (Chall, 1967) reported that code-based instruction produced better results, particularly for beginning readers, low-income students, and less skilled readers (Kim, 2008: Moats, 2007; Graves & Dykstra, 1997).

Whole Language Fights Back

Chall's work was quickly countered by Goodman, positing that readers need context clues, background information, and exposure to literature, not the identification of sounds and letters. Frank Smith extended Goodman's ideas in the 1970s, bolstering Gray's concepts of whole word superiority over phonics. Smith saw reading as a natural process similar to speaking: children learn to read by reading. Phonics impeded reading and "makes teachers into brainless purveyors of predigested nonsense" (Kim, 2008, p. 94). Goodman, Smith, and Gray's method of context clues, guessing unfamiliar words, incorporating skills in context instead of a sequential system, and emphasizing that reading is a natural process became known as whole language. In California, State Superintendent Bill Honig published a 1987 Language Arts Framework promoting whole language and criticizing phonics. The influence of California, particularly in the area of textbook adoption, indirectly expanded whole language nationwide (Kim, 2008).

Then Phonics Fights Back

Smith's insistence on the importance of context prompted Stanovich to experiment with strong and weak readers (Kim, 2008). 1970s data indicated weak readers, not strong readers, relied most on context cues. Contrary to Cattell, Huey, Thorndike, and Smith, Stanovich concluded strong readers looked at each letter, used all visual information, and processed words part to whole, not as an immediate entire word. Stanovich predicted the failure to acknowledge scientific research would inevitably fail: "The weight of empirical evidence will fall on their head" (as cited in Kim, 2008).

In 1985, *A Nation of Readers* emphasized phonics' efficacy in reading. Adams (1990) reiterated Chall's findings and repudiated Goodman and Smith's assertions that phonics slowed reading progress. Stahl and Miller's 1989 meta-analysis concluded Whole Language produced poor results, except in kindergarten and middle/upper-class children; phonics was imperative for students struggling with reading (as cited in Kim, 2008).

White Hot Reading Wars

Moats (2017) described the reading wars of the 1980s and 1990s as "white hot." 1992 National Assessment of Educational Progress (NAEP) scores indicated 52% of fourth-grade students in California read at a basic or below basic level. By 1994, it was 56%, with scores of every subgroup declining. Surprisingly, 46% of the students had parents with a college education, a traditionally high-scoring subgroup (Moats, 2007; Kim, 2008). As predicted by Stanovich, whole language, the dominant method of reading instruction, was accused of ignoring reading research and failing students. Ironically, Bill Honig, former CA Superintendent of Schools who had supported whole language now viewed it as disastrous for California students (Kim, 2000).

National Reading Panel

To end the reading wars, the United States Senate authorized the National Institute of Child Health and Development's National Reading Panel (NRP, 2000) to stop "the inflated rhetoric, partisan lobbying, and uninformed decision making that has been detrimental to reading instruction in American schools." The NRP identified five elements for reading mastery: phonemic awareness, phonics, fluency, vocabulary, comprehension. It recommended phonics instruction as beneficial for all students and essential for beginning readers, English language learners, and students with reading disabilities. Moats described the NRP report as "a body blow to whole language" (2007).

Balanced Literacy Emerges

Whole language was not so easily disposed of (Moats, 2007), and it reorganized as balanced literacy. The ostensible blend of blend of phonics and whole language, in reality, became a whole language program with a smattering of phonics though called balanced literacy.

Moats reminds educators, "there is always a long delay between developments in academic research and their incorporation into teaching practices" (as cited in Kim, 2008, p. 107). By pulling on the scientific base of phonics and whole language joy in reading, Moats suggests teachers can "connect the teaching of skills with the joy of reading by using motivating activities popularized by the Whole Language movement." Reading can be both successful and enjoyable.

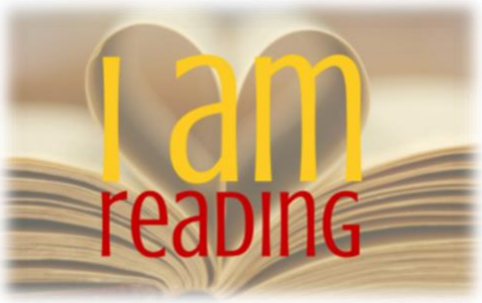
APPENDIX B

RECRUITMENT FLYER

California State University Fullerton, Department of Educational Leadership

Doctoral Study Recruitment

Volunteers Wanted!



Title: Teaching Teachers to Teach Reading

Researcher: Suzanna Bortz, CSUF Educational Leadership graduate student

Who: Teacher educators for elementary general or special education candidates

What: Research study interviews about reading instruction for preservice teachers Participation is voluntary. You may withdraw from the study at any time or decline to answer any question with no penalty. Results are anonymous and confidential.

How long does it take? All it takes is a 30-40 minute interview!

Where? At your place of work or zoom whichever is most convenient for you.

What do I get? All volunteers receive a $5 Starbucks gift card for their participation.

Who do I do now? For questions or more information contact:

Suzanna Bortz: XXX-XXX-XXXX, xxxxxx@xxxxxxxxxx.xxx

APPENDIX C

CALIFORNIA STATE UNIVERSITY, FULLERTON
RESEARCH STUDY CONSENT FORM

Study Title: University Teachers

Protocol Number: HSR-21-22-25

Researchers: Suzanna Bortz, CSUF graduate student, Educational Leadership

Advisor: Dr. Rosalinda Larios

You are being asked to take part in a research study carried out by Suzanna Bortz. This study investigates reading instruction methods for general and special education preservice teachers.

Participation is voluntary. You are being asked to take part because you are a teacher educator.

Take as much time as needed to read this consent form, and ask the researcher to explain anything you don't understand.

What will I be asked to do if I am in this study?
If you take part in the study, I will ask you questions about your personal enjoyment or non-enjoyment of reading, methods of reading instruction in your institution's preservice teacher program, and your familiarity with dyslexia.

The interview will be video or voice recorded and take approximately 30-40 minutes.

Are there any benefits to me if I am in this study?
You will not directly benefit from participation in this study. Study results may expand and deepen knowledge about reading instruction for preservice teachers.

Are there any risks to me if I am in this study?
There are no anticipated risks or discomforts from taking part in this study.

Will my information be kept anonymous or confidential?
The data for this study will be collected anonymously. Neither the researcher nor anyone else will be able to link data to you. No published results will identify you, and your name will not be associated with the findings. Under certain circumstances, information that identifies you may be released for internal and external reviews of this project. Data will be coded and kept separately from participant information, kept in a password-protected computer with access only to the primary investigator. Interviews on Zoom will be video recorded, and in-person interviews will be audiotaped. The data for this study will be kept for three years; it will then be destroyed.

Are there any costs or payments for being in this study?
There are no costs to take part in this study. Participants will receive a $5 Starbucks gift card.

Who can I talk to if I have questions?
If you have questions about this study or the information in this form, please contact the researcher, Suzanna Bortz, xxxxxx@xxxxxxxxxx.xxx, XXX-XXX-XXXX. If you have questions about your rights as a research participant, or would like to report a concern or complaint about this study, please contact the Institutional Review Board at (657) 278-7719, or e-mail irb@fullerton.edu

What are my rights as a research study volunteer?

Your participation in this research study is completely voluntary. You may decline to answer any interview question. You may choose not to be a part of this study at any time. There will be no penalty or loss of services or benefits if you decide not to take part in the study.

What does my signature on this consent form mean?

Your signature on this form means that:

- You understand the information given to you in this form
- You have been able to ask the researcher questions and state any concerns
- The researcher has responded to your questions and concerns
- You believe you understand the research study and the potential benefits and risks that are involved.

Statement of Consent

I have carefully read and/or I have had the terms used in this consent form and their significance explained to me. By signing below, I agree that I am at least 18 years of age and agree to participate in this project. You will be given a copy of this signed and dated consent form to keep.

Name of Participant (please print) _____

Signature of Participant_____Date _____

Signature of Investigator_____Date_____

If you are requesting permission to audio or videotape; create a second signature line for that. An individual could conceivably be willing to participate, but not to be included in an audio or videotape.

Your signature below indicates that you are giving permission to audio/video tape your responses.

Signature of Participant_____Date_____

APPENDIX D

INTERVIEW PROTOCOL

Name of participant:

Position and school:

Where interviewed:

Date:

Time beginning:

Time ending:

Thank you for meeting with me today; I appreciate you sharing your time and expertise. My name is Suzanna Bortz; I'm a Title I reading intervention teacher. I have also been a special education teacher and a classroom teacher in Santa Ana, San Clemente, and Aliso Viejo. We're meeting today because I'm in a doctoral program at Cal State Fullerton, interested in how universities teach teachers to teach reading. The information I learn from you assists my dissertation about teaching reading. I'm excited to hear about the reading instruction programs for your preservice teachers.

All of your responses will be confidential; you will never be identified by name. All answers will be maintained separately from identifying information. There are no right or wrong answers. You may decline to answer any question, and you may terminate the interview at any time without question or penalty. We'll probably talk about 30-40 minutes; you may have a transcription of the interview if you'd like. I'll also leave you contact information, if you would like to add any further comments at a later date, you are welcome to email, text, or call me. I'd like to record this session to ensure accuracy. Do I have your permission to record our conversation today? Do you have any questions before we begin?

Professional Background

1. How long have you been in your current position?
2. I'm interested in your educational journey; where did you work before here?
3. What led you to teacher education?

Personal reading experience

4. Outside of reading for academic purposes, how would you describe your interest in reading for leisure?
    a. Is reading something you enjoy doing in your free time?

5. Do you remember learning to read? If so, did you enjoy learning to read?
    a. Can you recall any fond or not so fond memories of learning to read in school? Would you like to share a memory?
    b. What type of reading instruction did you have when learning to read?

Reading Instruction

6. If you had a magic wand to create a perfect reading program, what would it look like?
7. When teaching reading, do you have a preferred method or approach?
    a. What components do you see as important in a reading program?
    b. Are there any activities you would avoid in teaching reading?

Professor Autonomy

8. What method/approach to reading is taught to preservice teachers at this university?
    a. Who decides how reading instruction will be presented to preservice teachers?
9. Is there an established curriculum process, or can each professor create their own?
10. How much autonomy do you have in what you teach to preservice teachers?

Expectations

11. Some educators assume 15% of students are incapable of learning to read. What are your expectations of who can learn to read?
    a. What do preservice teachers learn about students unsuccessful at reading?
    b. What steps can teachers take to ensure reading success for all students?

Dyslexia

12. Are you familiar with dyslexia? How would you describe it?
    a. How would you identify a student with dyslexia?
    b. How would you work with a student with dyslexia?

Whole language, balanced literacy, structured literacy

13. Are you familiar with whole language, balanced literacy, structured literacy?
    a. Do you support one of these approaches? Why?
    b. Does the university endorse a whole language, balanced literacy, or Structured Literacy approach to reading instruction?
    c. Is there a discrepancy between your views of reading and university expectations?

National Reading Panel

14. Are you familiar with National Reading Panels 5 pillars of reading instruction?
    a. Is the NRP part of preservice instruction in your program?

Do you have any questions, or do you notice anything I forgot to ask you today? Please feel free to contact me if you would like to add any additional comments. If you would like I will send you a transcription of the interview. Would you prefer mail or email to receive that?

Thank you again for meeting with me today. I appreciate sharing your time and expertise.

APPENDIX E

DEDUCTIVE CODEBOOK

<table>
<tr><th colspan="3">Deductive, a priori protocol for evaluation of reading instruction program</th></tr>
<tr><td>Position

Personal enjoyment of reading

Memories of reading</td><td colspan="2">Foundational Skills

16. FS skills defined
17. Teaching FS skills to candidates
18. FS integral to program
19. FS taught to pass RICA
20. NRP included in curriculum</td></tr>
<tr><td>Reading Approach

1. Whole Language/Balanced Literacy/Structured Literacy
2. Natural/Learned process
3. Meaning Centered
4. Skill Centered
5. Accommodations
6. Observe skilled teachers
7. Coaching</td><td colspan="2">Assessment

21. NAEP
22. Who can learn to read?
23. Screening, early identification
24. Assessment drives intervention
25. Intervention differs from prior instruction
26. Progress monitoring
27. Intervention for struggling students only
28. UDL – all students learn systematic skills</td></tr>
<tr><td>Instruction

8. Explicit/Sequential
9. Leveled readers
10. All students access to same text
11. Reading Errors phonetic analysis
12. Reading Errors cuing
13. Avoid in reading instruction</td><td>Struggling Students

29. Identification
30. Intervention</td><td>Dyslexia

31. Inclusion, definition
32. Identification
33. Intervention</td></tr>
</table>

APPENDIX F

INDUCTIVE CODEBOOK

Inductive Codes

Teachers are: (10/13 participants)

1. Overwhelmed
2. Stressed
3. Not enough time
4. Too much responsibility
5. Insufficiently trained

Balanced Literacy/ Whole Language Participants

1. Annoyance with Science of Reading (5/13)
2. Pendulum moving toward Science of Reading, will return to the middle again (5/13)
3. Increased phonics = decreased pleasure & skill in reading (4/13)
4. Timed reading strategy (positive and negative comments) (4/13)
5. Word Their Way for struggling students (4/13)
6. Richard Allington (3/13)

Universalities (13/13 participants)

1. Personal enjoyment of reading
2. Autonomy within university curriculum
3. Importance of joy of reading for students

APPENDIX G

SUMMARY OF DATA SOURCE, PROCEDURES, AND ANALYSIS

Data Source	Procedures	Analysis	Informs
Interviews with teacher educators from 6/23 SUS campuses	Interviews conducted online or by phone	Interview Protocol Codebook	RQ 1, RQ 2, RQ 3
Syllabi, class materials	Materials requested prior to interview	Materials cross-referenced with interview responses Codebook	RQ 1, RQ 2, RQ 3
University and Education department websites	Websites accessed after interviews	Websites cross-referenced with interviews, syllabi, course documents In Vivo coding	RQ 1, RQ 2

APPENDIX H

ELEMENTS OF SYLLABI WITHIN READING ORIENTATIONS

Syllabi Course Titles	Test	Foundation skills	Reading difference	PA Phonics	WTW	RICA	Dyslex-ia	NRP	UDL
Whole Language									
Content Area Literacy		1	1				1		
Literacy			1						
Children's Literature									
Elementary Reading				1		1			
Advanced Literacy	2		2	1			4	1	1
Balanced Literacy									
Reading – Secondary									
Reading Assessment	1			1					
ELA Instructional Strategies	1	2	1	1	3	6			
Foundations Literacy	2			1	1				
Literacy Assessment	2								
Integrated Curriculum	1	1				1	1		
Reading Instruction	1			3			1		1
Foundations Literacy		1				1	1		
Structured Literacy									
Literacy Instruction	1		4	3			1		
Foundations of Literacy			1	3			1		
Literacy Implementation			1				1		
Reading Instruction	1		1	7			1	1	

APPENDIX I

UNIVERSITY WEBSITES: READING DIFFERENCES AND DYSLEXIA SEARCH

University Websites: Reading Differences and Dyslexia Search			
	University Research	**Education Pages**	**Dyslexia Search**
1 Sp Ed professor	March 2022 Graduate researcher conference: 1 of 6 presentations will address dyslexia		University center for parents of neurodivergent students: assessment and intervention assistance
1 GE, 1 Sp Ed professors			
2 GE professors			
1 M-Lit professor			Review of Governor Newsom's children's book about dyslexia
1 GE 1 Sp Ed 3 M – Lit Professors	2016 conference on disability awareness that included dyslexia		
2 Sp Ed Professors	Jackson, J (2014). *Towards Universally Accessible Typography: A Review of Research on Dyslexia*	Consortium for Neurodiversity in Learning; Dyslexia part of Special Education credentialing	University relations page- "Dyslexia, once the reading disability that shall not be named, comes into its own"

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