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The Science Of Reading For English Learners

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THE SCIENCE OF READING FOR ENGLISH LEARNERS

by

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A capstone project submitted in partial fulfillment of the requirements for the degree of
Master of Arts in Literacy Education.

Hamline University

Saint Paul, Minnesota

August 2022

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CHAPTER ONE

Introduction

In the United States, our schools are increasingly becoming more diverse with an estimated 23% of students speaking a language besides English at home (Forum on Child and Family Statistics, 2021). Some of these students, usually labeled *English Learners* (ELs), enter school without sufficient English to access the curriculum, and it is their right to receive an education that will equip them with the language and literacy skills they need to succeed in school (*Lau v. Nichols*, 1974). Unfortunately, large percentages of students identified as ELs are not acquiring English language and literacy skills after the expected amount of time and go on to struggle profoundly in secondary school (Olsen, 2010). As an EL teacher who has worked in both elementary and secondary schools, these realities have led me to reflect on early literacy teaching practices, especially the widespread approach of balanced literacy, and to explore what changes need to be made to further support ELs in their English reading development. My interest in this issue only deepened as I became aware in the last couple years of the *science of reading* movement and saw that research contradicts teaching practices that are commonplace in the schools in which I have taught. Therefore, I have endeavored to understand the unique contours of English Learners' reading journeys and to integrate this with the critiques the science of reading movement is raising about the balanced literacy model. Throughout this capstone, I will explore the following question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?*

In Chapter one, I will introduce the context of this project. First, I will further describe my positionality as a teacher: how I came to choose my profession and how I

view myself and my students within the literacy classroom. Second, I will share about my early experiences in the classroom that led me to this topic. I will then explain a rationale of the importance of this topic by giving an overview of the EL population and the struggles of Long-term English Learners (LTELs). Finally, I will describe the professional importance of this project by introducing the balanced literacy approach and current critiques that have arisen from the science of reading movement. The chapter will end with a summary and an outline of Chapters two through four.

Positionality

I knew from a very young age that I wanted to be either a teacher or an author. I also grew up with a keen awareness that my life in suburban Minnesota was a tiny slice of a large world. Because I had family from the Bahamas and in Norway whom we traveled to see, and because my father traveled to other countries often for work, I grew to be fascinated by other languages and cultures. My favorite book growing up was *Children Just Like Me* (Kindersley & Kindersley, 1996), which detailed the daily lives of children from many countries around the world. When I got to college, I realized I could combine my desire to teach, my love of language and literature, and my desire to work cross-culturally by becoming an EL (English Language) teacher.

Throughout my time in college, as I learned more about history, studied sociolinguistics, and had more cross-cultural experiences, both overseas and in my own city of Minneapolis, I began to have a deeper understanding of the dynamics of power that are involved with language and with teaching. Though the United States has no official language, I must constantly contend with the fact that it is my language and my dialect that are privileged as “standard,” and that my students, many of whom are

immigrants and people of color, are measured against this standard. I must be aware of how the framing of educating English Learners in the United States is often deficit-based, erasing the value of the linguistic resources many students possess and caring only that they acquire the privileged dialect. I must reckon with how a white, native-English speaking student's bilingualism is seen as exceptional and desirable, while a language minority student's bilingualism is seen as an impediment or deficit. While I think it is essential and empowering to teach my students to master literacy skills in English, I strive to do this work while encouraging and supporting my students in continuing to develop their native language and literacy skills; while recognizing the inherent position of power I have as a white, middle-class teacher; and while encouraging my students to utilize their English language and literacy skills to take a critical stance towards the ways in which our society devalues their home language skills. Throughout this capstone project, I have striven to keep these issues front of mind, and I sincerely hope that my readers will remember that English Learners are so much more than the sum of their current English skills or reading ability, even as I focus this project on how to improve English reading outcomes for these students.

Classroom Experience

From my very first day on the job as a freshly graduated elementary EL teacher, I have also been confronted with the question of how exactly the literacy journey of ELs differs from that of monolingual native English speakers. I had been immersed in theories of Second Language Acquisition and language teaching strategies during my time in college, but, stepping into my first teaching setting, I felt that my knowledge of teaching reading specifically was still lacking. However, it was immediately apparent that

increasing my students' reading scores was the main thing my principal and the other teachers at my school expected me to do. I began as a teacher in 2012, and the pressure of No Child Left Behind was distinctly felt at my school. I felt both underprepared in knowing the nuts and bolts of teaching children how to read and insecure in my ability to clearly explain how the literacy needs and pathways of my EL students might be different from their monolingual peers.

I also had a lot to learn about the different theories and models that exist for teaching reading and the long history of the so-called "reading wars." I had to learn on the job, and I quickly became very familiar with the approach used at my school: balanced literacy. This approach has, for the last two decades, been branded as a research-backed, balanced mix of the warring approaches to teaching reading. I have now worked in two different suburban Minnesota districts at both the elementary and middle school levels, but the balanced literacy approach has been the model in every setting.

In my years as a teacher, I have been a part of the whole process from screening and qualifying ELs in kindergarten to middle school, where students who have not exited are now considered potential LTELs. I have seen how those who find early success go on to flourish while those who struggle face a harder and harder battle to gain proficiency as the content and language demands of school increase. I have found myself wondering, what exactly are the factors that differentiate LTELs from those who are reclassified? What can we do in the earliest years of schooling to prevent these students from falling so far behind?

Professional Significance

These questions are personally important to me, but are also critical for the field of education as a whole. ELs are an important and growing segment of the student population in the United States, and the number of students who become LTELs is cause for concern. Furthermore, the question of how to support ELs in their literacy ought to be an essential component of the current debate about balanced literacy practices and the science of reading. This section will give background and explore the impact of these questions on English Learners, Long-Term English Learners, and the science of reading debate.

English Learners

English Learners (ELs) are a rapidly growing segment of the U.S. student population. In 2018, 5 million students in the United States, about 10.2 percent of the total student population, were classified as ELs, and the numbers have been increasing every year (National Center for Educational Statistics, 2021). In Minnesota specifically, the EL population had increased more than 300% in twenty years prior to 2017, and was growing faster than any other demographic (Minnesota Department of Education, 2017). English Learners are defined as students who meet the requirements to be classified as *LEP* (Limited English Proficient) according to Title III of the Elementary and Secondary Education Act (ESEA) (1965), later amended as the Every Student Succeeds Act (ESSA) (2015). In Minnesota, students are identified for English proficiency screening when families indicate another language is spoken in the home on a Home Language Questionnaire that all students receive. Identified students will then be screened for English proficiency using an approved screener and classified as LEP if it is determined

that they are likely to struggle accessing the curriculum with their current level of English proficiency (Minnesota Department of Education, 2017).

Long-Term English Learners. While many initially identified ELs eventually go on to demonstrate proficiency, some do not. This segment of initially identified ELs have been given the name Long-term English Learners (LTELs) as researchers and educators have identified and tried to explain this phenomenon. Many LTELs were born in the US and demonstrate high levels of interpersonal English. Their academic language and literacy skills, however, are lacking (Olsen, 2010, p. 23). It is difficult to identify just how large the population of LTELs is because the term has not been clearly defined. While neither Minnesota nor federal law officially defines who is an LTEL, there is a requirement in ESSA to report how many ELs have not met proficiency standards within five years of their first designation as an English Learner (Minnesota Department of Education, 2021). The World-Class Instructional Design and Assessment (WIDA) Consortium, an organization which provides English Language Development standards and assessments to 41 states, has used six years in US schools as the cut-off (Sahakyan & Ryan, 2018). According to a large survey of districts in California, an estimated 59% of California's secondary EL students are LTELs (Olsen, 2010).

Because the state of California keeps a separate designation for reclassified EL students through all school years, Saunders & Marcelletti (2013) were able to compare the California Standards Test-English Language Arts (CST ELA) scores from 2010 of all current EL students to those of all reclassified EL students and found that the achievement gap between these groups is very large. Although the gap is by definition to be expected, the size of the gap is worrisome. 60% of EL students had been reclassified

as English Proficient by 11th grade (p. 146). By 10th grade, 87% of reclassified ELs scored basic or higher on the assessment while only 35% of current ELs did. 65% of current ELs scored at the “Far Below & Below” level (p. 147). While many former EL students are succeeding academically, far too many students are left without sufficient skills to access the curriculum, leaving them to fall further and further behind.

In this section, I gave an overview of the EL population, focusing specifically on the phenomenon of LTELs and their struggles to succeed because of insufficient literacy and academic language skills. The next section will introduce the context in which many ELs are receiving their early literacy instruction. This section will introduce the balanced literacy approach, which is used widely in the districts that I have worked in and across the nation in the elementary years, and the science of reading movement, which has begun to critique certain practices within balanced literacy.

Balanced Literacy and the Science of Reading Debate

In the last two decades since the National Reading Panel (NRP) (2000) published its influential report on research-based literacy practices, balanced literacy has been the most common approach to teaching literacy in the elementary grades. The report identified five pillars of effective reading instruction: phonemic awareness, phonics, fluency, vocabulary, and comprehension, and included elements from the two warring approaches that clashed in the 1980s and 1990s: the holistic *Whole Language Approach* versus a skill-based phonics approach. Many publishers have produced materials to support this balanced approach, which often is made up of structures including read alouds, shared reading, guided reading, independent reading, and word study. One widespread curriculum that has been implemented in the schools I have worked in is

Lucy Caulkin's (2015) *Units of Study for Teaching Reading*. Another common curriculum used for reading intervention within a balanced literacy framework is Fountas and Pinnell's (2018) *Leveled Literacy Intervention (LLI)*. A national survey conducted by EdWeek Research Center (2020) asked teachers to report the curriculum they used to teach literacy. LLI was the most common response at 43% of respondents. Lucy Caulkin's *Units of Study for Teaching Reading* was the third most popular core reading curriculum.

Despite the popularity of these programs, the reading wars have been reignited in American public consciousness since an APM report in 2019 which highlighted how many balanced literacy programs are not utilizing the systematic phonics instruction that the NRP (2000) report advocated (Hanford, 2019). A movement has emerged amongst researchers, teachers, and parents promoting the science of reading and pushing back against practices within balanced literacy which they believe are weighted much more heavily towards a Whole Language approach and do not align with research. In the current public debate and within this movement, the term *science of reading* refers to "basic scientific research concerning the mechanisms of skilled reading" and the types of instructional practices this research purportedly supports (Shanahan, 2020, p. 4).

A scathing report by a non-profit advocacy group called Student Achievement Partners, which focuses specifically on the needs of black students and English Learners as underserved populations, found many problematic components of Calkins' (2015) *Units of Study for Teaching Reading* (Adams et al., 2020). Lucy Calkins has even indicated her views are shifting about how to support students in phonics instruction and has promised forthcoming updates to her popular materials (Hanford, 2020; Schwartz,

2021). Given the poor outcomes for LTELs, I feel more compelled than ever to examine our widely accepted literacy practices to determine where we might be failing students in the critical elementary years when the foundation of literacy is laid. It is also important to consider where ELs fit within the current science of reading movement and debate and how their needs may be similar to or different from other students.

Conclusion

The EL population is rapidly growing in the United States, and these students have a right to an equitable education. As the science of reading movement has raised important points about how we can help all students to become strong readers by using approaches based in research, it is important that ELs are not invisible in this important conversation. In this chapter I introduced my research question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?* I recounted my journey to teaching and positionality in the classroom. I then described my experiences trying to determine how best to support my students as they learn to read. The next section introduced the EL population in the United States and the phenomenon of LTELs. Finally, I introduced balanced literacy, its main components, and some recent critiques from the science of reading movement. Chapter two will present two competing models of reading that inform the science of reading debate, describe the history and components of the balanced literacy model, summarize research on EL's reading development, and explore enhancements to support ELs' reading development in a balanced literacy model using insights from the science of reading movement. Chapter three will describe my project of creating a website which summarizes research and shares resources to support teachers to use insights from the science of reading to support

their English Learners in learning to read. Finally, Chapter four is a reflection on my personal learning and the professional impact of the process of writing this Capstone and creating the website project.

CHAPTER TWO

Literature Review

Introduction

Balanced literacy has been a widespread approach to literacy education in the U.S. for the past two decades that attempts to balance skills-focused instruction with authentic literature experiences as children learn to read (Au et al., 2001). A recent EdWeek Research Center survey (2020) found that 72% of respondents at the elementary level identified balanced literacy as the approach used at their school. Considering the amount of ELs who begin school in the U.S. and never acquire sufficient literacy skills and the recent momentum in educational circles around the science of reading movement, this paper will explore the question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?* In light of this, the research on ELs unique literacy development and the most current science on how children learn to read must be explored. Chapter two will begin by introducing models of reading that have informed the balanced literacy model and the science of reading movement. The second section will explain the history and the main components of a balanced literacy approach. The third section will define terms related to language minority students and explore how ELs develop literacy in ways that are both similar to and different from native-English speakers. The final section will survey the research on enhancements and modifications for ELs within the balanced literacy model.

The literature on these topics indicates that the Simple View of Reading, on which the science of reading movement is based, powerfully illuminates the unique reading instructional needs of ELs, yet the current science of reading discussion risks missing

these insights in its laser focus on improving decoding instruction. It is critical that we understand the language needs of ELs that will support them on their reading journeys and make the necessary shifts in our instruction to support ELs long-term reading success.

History of Reading Models

Many models or conceptions of reading have been developed over the years. Theories and models of the reading process have a profound impact on how reading is taught. Over the years, different models of reading have been influenced by theories of language and learning and developments in linguistics, psychology, and neuroscience. This section will provide an overview of the main models of reading that have influenced current instructional practices. The first subsection will examine Goodman's (1967) model of the "psycholinguistic guessing game" and the second section will examine the Simple View of Reading, along with two elaborations of the model: the Reading Rope and the Component Model.

Goodman's Model

Kenneth Goodman (1967) proposed his model of reading in a paper entitled "Reading: A Psycholinguistic Guessing Game" during a time when reading instruction was very skills based. In this influential work, Goodman describes the then popular skill-based methods of teaching reading as "naive, commonsense notions" and "outmoded beliefs." He then clearly states that he seeks to refute the claim that "Reading is a precise process [that] involves exact, detailed, sequential perception and identification of letters, words, spelling patterns and large language units," heralding his approach as "a more viable scientific alternative" (p. 126).

The alternative that Goodman proposed was that reading is, simply put, a “guessing game.” He elaborates:

Reading is a selective process. It involves partial use of available minimal language cues selected from perceptual input on the basis of the reader’s expectation. As this partial information is processed, tentative decisions are made to be confirmed, rejected, or refined as reading progresses. (p. 127)

Goodman’s hypothesis formed the basis of the whole language approach to teaching reading which became very popular in the 1980s and 90s. A more thorough history of this approach and how it relates to balanced literacy will be explored later in this chapter. The overall effect on pedagogy of this hypothesis was that it deemphasized the role of graphic cues in proficient reading. As a result, the teaching of phonics was seen as unimportant or even counter-productive. Instead of using phonics skills to decode words, Goodman suggested that “readers utilize not one, but three kinds of information simultaneously” (p. 132). Goodman identifies the three types of information utilized by proficient readers as syntactic, semantic, and graphic information. The pedagogical approach of teaching children to decode using this model has come to be known as the *three cueing* method. Of the three types of cues, graphic cues were seen as the least important.

Despite Goodman’s assertion that his hypothesis was “a more scientific alternative,” it is worth noting that the only study cited in his 1967 article was one that he himself conducted two years earlier with first-graders (Goodman, 1965). This study has been questioned on methodological grounds and has been discredited in replication studies (Hempenstall, 2003, p. 19). Beyond this one citation, Goodman provides miscue

analyses of a fourth grader (pp. 127-129) and a first-grader (pp. 132-134) and relates his hypothesis to linguist Noam Chomsky's model of sentence production (p. 131), which deals with spoken language, without establishing why the process of learning to speak a language and learning to read should be equated.

Even though Goodman's model has faced controversy since the beginning (Cambourne, 1976), it has had profound impacts on literacy education in the subsequent decades. The pedagogical approach which came from his theory came to be known as the *whole language* approach, and though the components of this approach were described differently by different educators and researchers, a common emphasis was that students needed to be given lots of exposure to quality, authentic texts, and that through this exposure students would learn to read naturally. While curriculum in previous decades had been more code-focused, with heavy use of basal readers, decontextualized worksheets, and skill development, whole language was child-centered and focused on giving students experiences with authentic literature (Pearson, 2004, p. 218). Though researchers and teachers varied in their implementation, they tended to believe that literacy skills were "better caught in the act of reading and writing genuine texts for authentic purposes than taught directly and explicitly by teachers" (Pearson, 2004, p. 221). The approach was widely embraced, including by prominent researcher and theorist in the field of second-language acquisition, Stephen Krashen, and others who supported its effectiveness for ELs (Krashen, 1999, 2002, 2009).

The Simple View of Reading

Another model proposed by Gough and Tunmer (1986), called the *simple view of reading*, seeks to integrate the bottom-up code-based aspects of reading with the

top-down linguistic and conceptual knowledge that the reader brings. Because it reintroduces the primary and essential role of visual cues for word recognition skills, like alphabetic understanding and phonics, and because of its strong research base and explanatory power, this model of reading is widely used within the science of reading movement of the last few years. In the simple view conception, reading comprehension (RC) is the product of two broad factors: *word recognition* (WR) and *linguistic comprehension* (LC). This is often written as an equation: $WR \times LC = RC$. In this model, neither of these broad components is sufficient for reading, but both are necessary for text comprehension to occur. Reading difficulties, therefore, could be classified as primarily having to do with word recognition, or decoding, which Gough and Tunmer term *dyslexia*; with linguistic comprehension, termed *hyperlexia*; or with both, termed *garden variety reading disability* (p. 7).

The simple view is part of a cognitive/psychological approach to literacy (Center, 2005, p. 64) and has been widely tested and referenced in research in the subsequent decades (Cervetti et al., 2020; Lonigan et al., 2018; Westerveld et al., 2020). Many studies have shown the effective predictive nature of the model (Catts et al., 2004, 2016; Kirby & Savage, 2008). For example, Hoover and Gough (1990) used data from 254 English-Spanish bilingual students, tracking their growth in reading from beginning in either kindergarten or first grade for five years. The results validated their predictions using the simple view and showed that students' reading comprehension closely matched the researchers' predictions based on students' word recognition and linguistic comprehension abilities. Kieffer and Vukovic (2012) also found that measuring the components of the simple view in first and second grade was a helpful model in

predicting reading comprehension in 3rd grade for both language minority students and native English speaking students from a low socioeconomic status at an urban school.

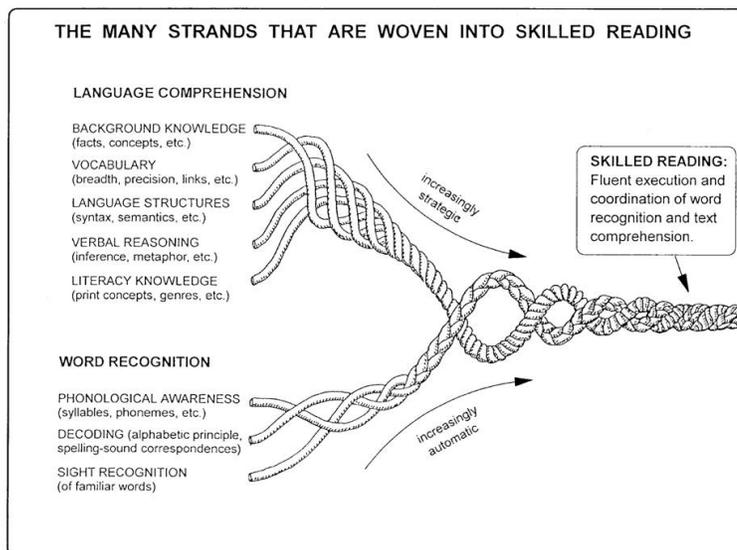
While many studies have shown the simple view to be useful in understanding reading difficulties and predicting students' reading comprehension, there can be changes in the exact relationship between the two components across time and different populations. Florit and Cain's (2011) meta-analysis established that the simple view is predictive for non-English alphabetic orthographies as well, but with a different strength of relationship between the two components depending on the orthography. Another nuance is that oral vocabulary, which would be considered a part of linguistic comprehension, affects reading comprehension both directly and indirectly because oral vocabulary has been shown to also influence word recognition skills, highlighting the importance of oral language support and instruction (Tunmer & Chapman, 2012). In regards to how the salience of the components change developmentally through the years of schooling, word recognition has its strongest predictive power in the early grades when the language in texts is more simple and students are mastering decoding skills. In later elementary grades, when text becomes more complex, linguistic comprehension becomes a stronger predictor (Adlof et al., 2010; Catts et al., 2004; Westerveld et al., 2020).

Another consideration is that the simple view works at a broad level to categorize the main components that lead to reading comprehension as a way of classifying types of reading difficulty, but it was not intended to be comprehensive. Tunmer and Chapman (2012) state that "the [simple view] was never intended as a complete theory of the cognitive, psychological, and ecological factors that contribute to reading comprehension. [Word recognition] and [linguistic comprehension] themselves can be further analyzed

into component processes” (p. 454). In this light, I will introduce two more models of reading that do not contradict but rather further amplify the simple view: the *reading rope* and the *component model of reading*.

The Reading Rope. Scarborough (2002) created a helpful visual breaking down the two main “strands” of skilled reading, namely language comprehension and word recognition from the simple view, into their component parts. First published in the *Handbook of Early Literacy Research*, this visual has come to be known as the *reading rope* and has become very popular among educators who are a part of the science of reading movement. In the visual, Scarborough breaks down the language comprehension strand into the substrands of background knowledge, vocabulary, language structures, verbal reasoning, and literacy knowledge, with further examples to illustrate each substrand. The word recognition substrand consists of phonological awareness, decoding, and sight recognition. In the graphic, arrows denoting strategy and automaticity describe how these substrands are woven together with skill over time until a solid “rope” of reading is built. Scarborough’s figure has been a powerful tool in illustrating how proficient reading is a complex integration of many subskills.

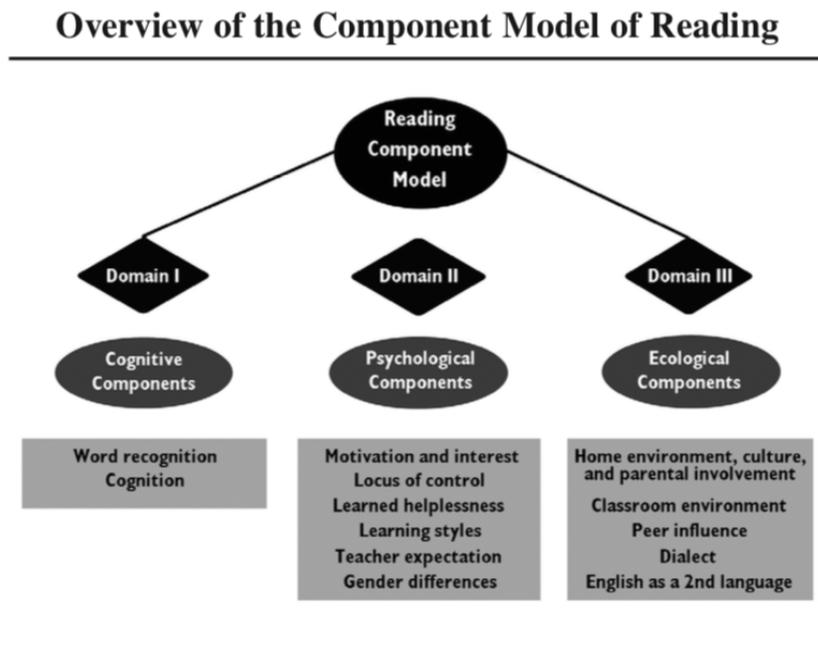
Figure 1



Note. From H. S. Scarborough in *Handbook of Early Literacy Research*, 2002, p. 98

The Component Model of Reading. The *component model* is another model that seeks to build on the simple view and make it more comprehensive. Aaron et al. (2008) created the component model as a way of approaching determining needs for students diagnosed as learning disabled. The component model expands on the simple view by also including categories of factors that are “psychological” and “ecological” (p. 69). Aaron et al. subsume “word recognition” and “cognition,” which is used in place of the term “linguistic comprehension” in the figure below, into one category. Psychological components include factors such as motivation and locus of control, while ecological components include factors such as home environment or speaking English as a second language.

Figure 2



Note. From P. G. Aaron et al. in *Diagnosis and Treatment of Reading Disabilities Based on the Component Model of Reading*, 2008, p. 69

This section introduced two important models of reading that have influenced reading pedagogy in the last 50 years and influenced the development of the balanced literacy approach. Understanding how reading works and how theory connects to practice will help answer the question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?* Goodman's model gave exclusive power to the top-down skills of a reader's background knowledge and linguistic abilities to help a reader predict words in a text, deemphasizing the role of visual cues. The simple view, in contrast, illustrates the importance of top-down processes like linguistic comprehension and the more traditionally taught bottom-up processes, like decoding using phonics knowledge, that had been cast aside by Goodman. Likewise, the pedagogical approach of balanced literacy, which emerged after decades of this debate

over reading instruction, sought to emphasize the importance of focusing on both top-down and bottom-up processes, of teaching from rich literary texts, and building component skills. The next section will further explore the history and components of balanced literacy as well as note recent critiques from the science of reading movement about ways in which balanced literacy relies too heavily on Goodman's model and whole language practices that do not accord with research.

Balanced Literacy

Balanced literacy is a widespread approach to literacy instruction in the United States. An EdWeek Research Center survey (2020) found that 68% of special education and K-2 teachers surveyed said balanced literacy was their approach to literacy teaching and 72% said it was the approach used by their school. The approach seeks to balance the best of the whole language approach and more traditional code-based skill instruction, in line with the twin strands of the simple view of reading. This section will outline the history of how this approach became widespread and common elements of the approach. The first subsection will explore the origins and history of the balanced literacy approach. The second subsection will outline common practices within balanced literacy. The third subsection will explain current critiques of balanced literacy from the science of reading movement.

History of Balanced Literacy

Balanced Literacy emerged as a prevalent approach to teaching literacy following an intense and politically charged period of debate over reading instruction which some have termed the *reading wars*. The conflict was between advocates of what is known as the whole language approach and advocates of a heavy focus on phonics. Throughout the

late 1980s and early 1990s when whole language was at its peak, there were always voices calling for a balanced approach of using the best from both sides of the debate (Pearson, 2004, p. 224). As the new millenium approached, comprehensive treatments of the balanced approach such as Pressley's (1998) *Reading Instruction that Works: The Case for Balanced Teaching* were published. An important turning point in the debate was arguably the publication of the National Reading Panel's (2000) report which validated the importance of practices from both approaches, including systematic phonics instruction. The report identified five effective and essential components of reading instruction by surveying scientific studies available at the time: phonemic awareness, phonics, fluency, vocabulary, and comprehension. These have come to be commonly known as the *five pillars of reading*.

Components of Balanced Literacy

In the two decades since the publication of this report, these five pillars have been widely accepted as essential components of effective reading instruction through balanced literacy. Balanced literacy has been the dominant language used to describe best practice now for over twenty years and is conceived in different ways. It is a “philosophical orientation” that can be seen as a balance between the top-down and bottom-up approaches to reading instruction, a recognition of the mutuality of reading and writing in literacy development, and/or a balance between teacher support and child control (Shaw & Hurst, 2012). Mada et al. (2019) argue that the construct of balance “continues to be a fundamental construct within the literacy curriculum today” and must be extended as we explore “what it means to enact a balanced literacy curriculum that

reflects the demands of 21st-century citizenry, enhances the schooling experience of students, and ensures high levels of literacy for all” (pp.27-28).

In its practical application, balanced literacy usually involves structures such as read alouds, guided reading/writing, shared reading/writing, and independent reading/writing, and word study (Chen & Mora-Flores, 2006; Shaw & Hurst, 2012), although there is no definitive definition of the exact components and structures that constitute a balanced literacy model. As referenced in chapter one, Lucy Calkins’ (2015) *Units of Study for Teaching Reading* is an example of a popular curriculum that would be considered balanced literacy. This approach has five components to each “readers workshop”: a mini lesson, independent work, conferring and small groups, a mid-workshop teaching point, and sharing/debriefing (Calkins, 2020). No matter the curriculum being used, the structures of the literacy block often include some form of literacy centers that give structure to independent work time so that teachers are freed to meet with small guided reading groups or confer with students individually (Richardson, 2009, pp. 9–22).

Read Alouds. Read alouds are an important part of balanced literacy and are used to demonstrate fluent reading; to think aloud and model reading skills; to pique student interest; to expose students to vocabulary, language structures, and text complexity that is beyond their independent reading ability; and to spark discussion between students and the teacher (Au et al., 2001, pp. 80–81; Chen & Mora-Flores, 2006, pp. 32–33; Rog, 2003, p. 11).

Shared Reading. Shared reading involves the teacher reading a text aloud but while displaying the text for students to see, often as a big book put up on an easel.

Students are encouraged to read along and attend to print. This method allows for teachers to develop concepts about print like tracking individual words, reading from left to right and top to bottom, and identifying the front and back of a book. It is also a time for a teacher to model word solving strategies and fluency (Au et al., 2001, pp. 88–91; Chen & Mora-Flores, 2006, pp. 64–66)

Guided Reading. Guided reading involves teachers creating small groups of no more than six students who are reading around a similar level or need work on a similar strategy. Students read an instructional level text, one that is not too easy, but also not frustrating for the student. Guided reading lessons are typically 20-30 minutes and have three phases. During the *before reading* phase, the teacher leads the students in previewing the book, making connections, and predicting. Novel vocabulary may be introduced. In the *during reading* phase, students read quietly and independently while the teacher listens to students one at a time, noting the word solving strategies they use and determining a teaching point for after the reading. In the *after reading* phase, students may retell the story, discuss a comprehension strategy, answer higher-order thinking questions about the text, do word work, or write in a response journal, depending on the text and the student needs determined by the teacher. Groups should be flexible and students should ideally be moved between groups when needed based on constant progress monitoring (Au et al., 2001, pp. 97–98; Chen & Mora-Flores, 2006, pp. 144–158; Rog, 2003, pp. 50–54).

Independent Reading. During independent reading time, students self-select books that are easy for them to read independently and that they are interested in. In the workshop model, this time begins with a mini lesson on a reading strategy. This is a time

for students to develop reading stamina; to apply strategies from the mini lesson, read alouds, or guided reading; and to develop a love of reading by finding books they personally enjoy. Teachers may meet with guided reading groups during this time or confer with individual students. It often ends with time for students to talk with a partner or with a whole group about what they read (Au et al., 2001, pp. 147–149; Chen & Mora-Flores, 2006, pp. 87–112).

Word Study. In balanced literacy, it is usually stressed that word study, which would include phonemic awareness, phonics, and vocabulary activities, be embedded in meaningful contexts, such as guided reading time and also during writers workshop (Au et al., 2001, p. 100), but sometimes teachers have skill groups focused specifically on word study and independent stations for practice as well (Helman et al., 2012, p. 68). Decoding by analogy is often the approach used (Au et al., 2001, pp. 99–101). Students are often leveled to find their developmental stage in word solving by using a spelling inventory to gauge their use of patterns (Helman et al., 2012, pp. 25–31; Richardson, 2009, p. 48).

In all of these components, there is an attempt to balance authentic literature and social interactions about text with explicit teaching of reading skills at the word and text level. There is also an intended balance between direct instruction by the teacher and self-guided learning experiences by the student. The science of reading movement, however, has brought questions as to whether a true balance has been struck.

Critiques of Balanced Literacy from the Science of Reading

Proponents of the science of reading contend that the balanced literacy approach is too favored towards tenets of whole language. Those who support Goodman’s model of

reading and whole language approaches have a socio-cultural or constructivist view of literacy that holds that children have a “natural disposition...towards written language acquisition” (Center, 2005, p. 64) and that literacy is a socially constructed activity (Au et al., 2001, p. 12). In contrast to this view, cognitive science has found that developing the word recognition component of the simple view is unnatural. Ehri (1998) states, “The brain is specialized for processing spoken language, but it has no special central equipment for processing written language” (p. 5). Further, Ehri establishes the primacy of visual cues in fluent readers, noting that explicit connections between phonemes (sounds) and graphemes (letters) must be stored in the brain for automaticity in word recognition to develop (p. 9). Studies have shown that skilled readers rely on decoding while poorer readers use context to guess (Seidenberg, 2017, p. 130).

Because of this, science of reading advocates worry that the pervasive use of three cueing in balanced literacy practices deemphasizes an essential component of beginning literacy by encouraging students to guess at words using context (Burkins & Yates, 2021, p. 117; Spear-Swerling, 2019, p. 205). Indeed, the three cueing model was clearly present in nearly every text on balanced literacy surveyed in this review (Au et al., 2001, pp. 94–96; Chen & Mora-Flores, 2006, pp. 23–25; Richardson, 2009, p. 46; Rog, 2003, p. 92). An EdWeek Research Center (2020) survey of elementary teachers found that 75% say they teach the three-cueing system when teaching students how to read. Science of reading proponents also note that phonics and phonemic awareness are not given nearly enough time during kindergarten and grade one, with other components crowding out word work (Spear-Swerling, 2019, p. 203). As an alternative approach, many science of reading advocates prefer to use the term *structured literacy* to refer to instruction that

teaches reading skills in “highly explicit, systematic ways with attention to important prerequisite skills, use of examples and nonexamples, and ongoing review”

(Spear-Swerling, 2019, p. 203).

Others retain the term balanced literacy, but promote changes or “shifts,” as Burkins and Yates (2021) term them, such as reemphasizing the importance of oral language development, increasing systemic phonemic awareness and phonics instruction, using orthographic mapping to teach high-frequency words rather than mere memorization, coaching students to use visual cues first to identify words, and increasing thoughtful use of decodable texts. As the science of reading debate prompts shifts within balanced literacy, it is important that we remember that a large and growing portion of students in the U.S. are multilingual. Any discussion about the benefits of such instructional shifts and the effectiveness of various instructional models needs to include discussion of the needs of ELs. The next section will explore ELs and their unique reading needs.

English Learners

Research and popular articles are replete with dire statistics about the achievement gap between ELs and non-ELs in reading (Kieffer & Thompson, 2018; Saunders & Marcelletti, 2013). ELs have the unique challenge of learning to read in a language that they have not yet fully acquired. Shanahan and Beck (2006) concluded from their review of the literature that the same five pillars of literacy, phonemic awareness, phonics, fluency, vocabulary and comprehension, are “necessary, but insufficient, for improving literary achievement among the English-language learners” (p. 437). This section will explore how the literacy needs and developmental trajectories of

ELs are similar and different from native-English speakers in order to answer the question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?* This will be established by first defining terms related to language minority students, examining the effects of cross-linguistic transfer, exploring the growth trajectories of ELs on measures of both word recognition and linguistic comprehension, and examining profiles of struggling EL readers.

Defining English Learners

In this paper, I use the term *English Learner* (EL) to refer to students who have qualified as Limited English Proficient (LEP), as described in chapter one. Many researchers and educators have advocated the use of more asset-based terms, such as *multilingual learners*, to combat the deficit perspective that words like *limited* create and to recognize that many students are using and learning multiple languages at once (WIDA, 2020). While I whole-heartedly affirm the dire need to combat deficit perspectives, I find it helpful to use the term EL to refer to students with the theoretically temporary classification of LEP and the terms *multilingual learner* or *language minority students* to refer to the broader multilingual student population, which also includes multilingual students who never qualified as LEP or have already demonstrated proficiency and have been reclassified.

It is important to know exactly what population of students we are talking about when exploring the current state of literacy education for language minority students. Saunders & Marcelletti (2013) have noted that many studies comparing the achievement of ELs and non-ELs suffer from the flaw of not accounting for reclassified ELs. By definition, ELs are students that have not yet achieved English proficiency, and, when

they do achieve proficiency, they are reclassified and removed from the pool of EL students being compared. Because of this Saunders & Marcelletti called the gap between ELs and non-ELs the “the gap that can’t go away.” (p. 139) This oversight inflates the achievement gap and contributes to deficit perspectives of ELs and other language minority students by portraying them as “chronic underachievers” when in reality many of them go on to do very well (p. 154).

Long-term English Learners. Even though the majority of ELs will go on to be reclassified as English proficient and succeed academically, many researchers and educators, myself included, continue to be concerned about those who do not. As introduced in chapter one, Long-term English learners (LTELs) are those ELs who have not been reclassified as English proficiency after six years in U.S. schools. Estimates of the size of the LTEL population vary widely. Olsen (2010) found that 59% of California ELs were classified as LTELs, with one district measuring the LTEL population at 75%. The WIDA consortium found that the percentage of LTELs across 15 of its consortium states varied from 2%-24% with an average of 13% (Sahakyan & Ryan, 2018).

It is important to note that LTELs broadly share some characteristics, but that they are not a homogenous group, and the LTEL label could encourage a deficit mindset of these students as linguistically impoverished (Mokhtari, 2021). There are also varied reasons why students become LTELs and varied definitions from state to state about who is an LTEL. However, it is clear that schools can and should do more to give ELs adequate and appropriate language and literacy instruction to reduce the number of students who go on to struggle academically long-term. Olsen (2010) lists transiency, absent or poorly implemented English Learner programs, narrowed curriculum, and

“elementary school curricula and materials that weren’t designed to meet English Learner needs” as factors that lead to the development of LTELs (p. 2). Olsen attests that LTELs are typically characterized by high social language proficiency combined with lower academic language and literacy, and that “many have developed habits of non-engagement, learned passivity, and invisibility in school” (p. 2). In order to understand what types of curricula and practices will meet ELs reading needs and prevent so many students from becoming LTELs, the following subsections will explore what is known from the research about the reading development of ELs and multilingual learners in general.

Cross-Linguistic Transfer of Literacy Skills

One important factor in the development of reading for ELs is the relationship between literacy in a student’s native language and English. Many studies have shown that literacy skills in a students’ first language “transfer” to the second language and support literacy success in that language as well (Castañeda et al., 2011, p. 41; Reese et al., 2000). For this reason, many studies have also shown that ELs in bilingual programs tend to have better long-term literacy outcomes than those in English-only programs (August & Shanahan, 2010, p. 213). However, most ELs experience an English-only model (Mancilla-Martinez & Lesaux, 2017, p. 430). Because English-only programs are most common in Minnesota, where there is quite a diversity of home languages present in schools, this paper will address the topic of ELs and balanced literacy within an English-only model.

English Learners' Reading Growth Trajectories

In considering how the reading growth patterns of language minority (LM) students might be unique, Kieffer (2008) suggests two possible hypotheses about how the trajectory for LM students might differ compared with monolingual English speakers. The first hypothesis, *differential skills*, predicts that the trajectories of LM students and native-English speakers will “diverge over time.” The second hypothesis, *developmental lag*, predicts that the trajectories will “converge over time such that LM students catch up with native English speakers” (p. 852). To test these hypotheses, Kieffer (2008) analyzed the growth trajectories of LM students using longitudinal data from a nationally representative sample and found that LM students who entered school proficient in English had nearly identical growth patterns with native speakers (p. 858). On the other hand, LM students who were designated LEP at school entry had reading growth trajectories that were substantially lower than native English speakers (p. 858). The discrepancy was moderate at the end of Kindergarten before widening in the early elementary years and remaining large through fifth grade when the study ended, thus confirming the *differential skills* hypothesis. Examining ELs’ growth within the two main strands of proficient reading identified in the simple view of reading, word recognition and linguistic comprehension, can illuminate why this is so.

Word Recognition Growth for ELs. The simple view would suggest that ELs, who by definition have lower English language proficiency, will have increased needs in the linguistic comprehension strand of reading skills, but not necessarily in word recognition. As in Keiffer’s (2008) study, other research has indeed confirmed that ELs tend to keep up with their monolingual English speaking peers on measures of word

recognition skills that have prominence in the early grades (Droop & Verhoeven, 2003; Geva & Yaghoub Zadeh, 2006; Lesaux et al., 2006; Lovett et al., 2008). They also respond to interventions on word reading and phonological awareness similar to non-ELs (Lovett et al., 2008). This is not to say that no ELs struggle with word recognition skills, but rather they are just as likely to struggle with them as native English speakers. Adams et al. (2020) note that it is “precisely because children are learning to read in a language they are simultaneously learning [that] systematic and explicit [phonics] instruction is vital” (p. 44). We can therefore feel confident to teach phonemic awareness, phonics, and fluency to English learners knowing that they also benefit from direct, explicit instruction in these skills.

Linguistic Comprehension Growth for ELs. In contrast to word recognition skills, ELs lag behind monolingual English speaking peers in reading comprehension beginning in second grade and continuing on through the school years (Lesaux et al., 2006, p. 120). Mancilla-Martinez and Lesaux (2017) found that, among Spanish speaking students in an English-only instructional context, English word-level skills measured in kindergarten, grade 1 and grade 2 were predictive of later English reading comprehension outcomes in grade 5, while English language comprehension skills became more predictive of English reading comprehension outcomes for grade 8. The degree to which language skills predicted reading comprehension was more pronounced for students with higher comprehension (p. 445). Kieffer (2010) investigated longitudinal data and found that, 9% of ELs, including those who had been reclassified as English proficient, developed late-onset reading difficulties that began in the upper elementary grades, compared with 4% of native English speakers (p. 485). When controlling for

socioeconomic status, however, this gap was reduced, suggesting that socioeconomic is the better predictor for late-onset reading difficulties (p. 486). These studies among ELs are in line with research with native English speakers as well which suggests that linguistic comprehension surpasses word recognition, while both remain essential, as the stronger predictor of reading comprehension once students reach a certain threshold of decoding fluency and once text complexity increases in the upper elementary grades (Adlof et al., 2010; Catts et al., 2004; Pearson et al., 2020; Westerveld et al., 2020).

Because of this, it is important to very intentionally continue to build ELs' oral language alongside their word recognition skills. A widely accepted timetable laid out by Cummins (1979) estimates that ELs take 1-3 years to learn basic interpersonal communication skills (BICS), but 5-7 years to develop cognitive-academic language proficiency (CALP), which is the language of higher-level academic text. Therefore it is imperative that acquiring academic language comprehension begin as early as possible. In regards to developing language and reading comprehension skills, ELs are in danger of suffering from what Stanovich (1986) terms the "Matthew Effect," namely that the "rich-get-richer" as students with stronger language skills begin to read with comprehension more quickly and are exposed to greater vocabulary and language that reciprocally support further growth in language and reading comprehension of more and more complex texts. Keiffer (2008) states:

For LM learners who enter kindergarten with limited vocabulary knowledge in English, this developmental process can be a downward spiral that accelerates in later years, as students not only lack the vocabulary to comprehend and analyze

texts, but then fail to gain the vocabulary and knowledge from texts that are essential to later success with English reading (p. 865).

Struggling EL Readers. Within the EL student population, then, there is a range of reading abilities, as there is in the general student population, and some ELs will struggle with reading more than others and for different reasons. A study by Cho et al. (2021) compared a group of 446 struggling readers, about half of whom were EL and half non-EL, and found that both groups had significant word reading needs. However, there were slight differences between the groups. Non-ELs were more affected by word reading difficulties while ELs were more affected by linguistic comprehension needs.

Among struggling EL readers, Baker et al. (2014) describe two profiles of English Learners. Students in the first group struggle with foundational reading skills such as decoding and fluency, while students in the second group have strong foundational reading skills but struggle with comprehension. Importantly, both groups should be provided with interventions that also include language development and comprehension. The second group, however, should receive interventions fully focused on language and comprehension. It is important not to assume that all struggling EL readers need foundational skills instruction, and appropriate diagnostic assessments should help educators “design small-group supplemental instruction that has an appropriate balance between foundational reading skills, reading comprehension instruction, and language instruction. This may well involve going beyond the content of any one ‘off-the-shelf’ reading intervention curriculum” (p. 61).

In summary, ELs have somewhat unique reading growth trajectories and needs. While ELs are just as likely to succeed with word recognition skills as native English

speakers, their most pressing need is to develop language comprehension (Mancilla-Martinez & Lesaux, 2017). Cervetti et al. (2020) cautions that the way the simple view has been used in the current science of reading debate can focus too heavily on the importance of word recognition while ignoring or down-playing the importance of oral language development and the “later importance of inferencing skill, vocabulary knowledge, background knowledge, and disciplinary knowledge for successful comprehension” (p. 165). Silverman et al. (2020) similarly caution that this research can be misinterpreted to mean that early grades should focus on decoding and later grades on language comprehension. On the contrary, because language comprehension builds cumulatively over a student’s life, language abilities must be constantly developed so that students are prepared to comprehend increasingly difficult texts as they master decoding (p. 208).

This section defined English Learners and explored the research on their literacy development to answer the question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?* ELs are not monolithic, and some struggle with reading more than others. Like native English speakers, some will struggle with foundational word recognition skills. The science of reading movement has refocused educators on the long history of research that undergirds the simple view and the importance of explicit, systematic teaching of decoding skills. This understanding of how children learn to read will benefit all learners, including ELs. The simple view also clearly highlights the importance of language comprehension development for ELs to support their long-term success in reading, even if they seem to be keeping up with peers in the early grades on foundational skills. Balanced literacy approaches must therefore

balance teaching language comprehension and word-level skills from the beginning to support all learners in developing strong reading skills (Center, 2005, p. 19). In the following section, we will turn to research on the effectiveness of balanced literacy practices for ELs and enhancements and strategies that will better support ELs in order to answer the question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?*

Enhancements for ELs in Balanced Literacy

ELs have unique needs and specific enhancements and strategies can improve the effectiveness of literacy instruction and interventions. This section will outline what is known about effective enhancements and strategies that will improve reading outcomes for ELs within the balanced literacy framework to answer the question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?*

The first subsection will explore the effectiveness of balanced literacy for ELs. The following subsections will examine substrands of Scarborough's (2002) reading rope which must be strengthened for ELs within balanced literacy: explicit teaching of word recognition skills and linguistic comprehension skills including academic oral language, background knowledge and linguistic genre.

Efficacy of Balanced Literacy for ELs

The research in the previous section shows that ELs develop similarly to monolingual English speakers in word reading skills and will benefit from instruction in the same basic reading pillars as native speakers: phonemic awareness, phonics, and fluency. It also highlights ELs' unique need for emphasis on the linguistic comprehension strand of reading skills, such as vocabulary and background knowledge.

In light of this, we must examine how balanced literacy as it is commonly practiced supports ELs in their development.

One study that examined this question was conducted by O’Day (2009) to evaluate the effects of various instructional practices for both ELs and non-ELs during balanced literacy curriculum implementation in San Diego schools. Positive effects for ELs were expected with the implementation of balanced literacy practices firstly because ELs have been shown to largely benefit from the same high-quality literacy instructional practices in the five pillars of reading as non-ELs, assuming strong supports for these pillars are present in balanced literacy (Shanahan & Beck, 2006). Balanced literacy also potentially provides opportunities for specific research based practices that support ELs. O’Day (2009) identifies three such aspects of San Diego’s approach to balanced literacy that “hold particular promise” for ELs: an *emphasis on meaning* that can encourage interaction to bolster oral language and academic vocabulary in a meaningful context; a focus on *differentiation* with coaching, modeling and flexible grouping; and increasing student engagement through *accountable talk* (p. 99).

In O’Day’s analysis, higher-level questioning and classroom discussion, integration of writing instruction, and accountable talk were all consistently associated with significant literacy growth for non-ELs (p. 103), however the effects for ELs were positive but statistically insignificant (p. 105). In regards to the lack of benefit from accountable talk and meaningful discussion, O’Day hypothesizes that ELs may have been unable to benefit by classroom discussion because it was beyond their linguistic capabilities and they were not taught the language or given enough scaffolds to participate (p. 105). Data also indicated that word recognition support embedded during

students' authentic reading was not particularly beneficial for ELs, probably because they may have also lacked the vocabulary knowledge to make meaning from the words even if they were successfully decoded (p. 107).

Perhaps the most important and potentially troubling finding of O'Day's analysis was the inverse effects of direct teaching or "telling" on ELs and non-ELs literacy growth. O'Day defines "telling" as "whenever the teacher simply provided students with information rather than engaging students in the creation of that information through coaching, recitation, or other forms of interaction" (p. 107). More of this explicit, direct teacher-talk had a slight negative impact on non-ELs, but a sizable positive impact on ELs. This is perhaps because students were provided with helpful background knowledge and more clear instructions to help them participate and because they were provided with more "extensive and consistent" modeling of academic English which they did not receive from their peers who were mostly other ELs (p. 108).

In regards to the lack of benefit from the expected focus on differentiation within balanced literacy, O'Day stressed that "emphasis on differentiation in general...does not guarantee that instruction will be adequately tailored to address the language needs specific to EL students" (p. 111). For differentiation to be effective, teachers must recognize that unique differentiation is necessary, analyze the language barriers and complexities in specific texts, know their students' needs well, and monitor their students' progress (p. 112). O'Day also noted a lack of systematic vocabulary instruction with only 19% of observed lessons focusing on vocabulary, and the instruction that was observed was minimal (p. 114).

Adams et al. (2020) argue that in the popular *Units of Study for Teaching Reading* curriculum by influential balanced literacy expert Lucy Calkins (2015), ELs not only suffer from the poor presentation of foundational skills, such as promoting the three-cueing method, but the curriculum also does not align with research in best practices in language development (p. 43). Adams et al. especially highlight the lack of explicit vocabulary instruction as problematic. Within Calkins' curriculum, Adams et al. describe the vocabulary instruction as haphazard. Students are encouraged to sketch a picture of the meaning of unknown words on post-its as they read, or students can choose words to add to a class word wall, but there is no systematic approach that helps teachers to prioritize words and systematically reinforce them so that students can effectively master them (p. 48). They also note that texts selected for read-alouds for grades K-2 were at or just above grade level, which takes away the potential benefit of a read-aloud for exposing students to complex text and explicitly pointing out how language works in these types of text (p. 22). There is also a paucity of non-fiction read-alouds, and no thematic structure to non-fiction units to help students build conceptual knowledge on topics they may have little experience with (p. 23).

In summary, balanced literacy models as currently practiced may be in danger of neither providing enough systematic, explicit instruction in English basic skills nor in providing sufficient language development opportunities. Practices which hold promise for language development are often not properly scaffolded or are not explicit and systematic in teaching vocabulary and syntax. Insufficient text complexity and lack of development of conceptual and genre knowledge to support comprehension are also concerns. In light of these potential shortfalls, the following subsections will explore

effective strategies and enhancements that address these pitfalls and can support ELs within the balanced literacy framework.

Enhancements for Word Recognition Skills

As previously mentioned, a common critique of balanced literacy is the unsystematic way in which it approaches basic word recognition skills. Teaching skills such as phonemic awareness and phonics explicitly and systematically may be especially important for ELs who have the added challenge of being potentially less familiar with the phonemes (sounds) and orthography (alphabetic writing system) of English, and special considerations for ELs language development needs should be taken into account (Adams et al., 2020; Goldenberg, 2008; Shanahan & Beck, 2006). This subsection will introduce strategies for developing word recognition skills that specifically support ELs.

Phonemic Awareness. A special consideration for teaching phonemic awareness to ELs is that the individual sounds and the syllable patterns present in English and the native language will be different. Some sounds may be shared, and it is important to make connections and build on this knowledge that ELs already possess as well as to be aware of differences and provide specific support in these areas (Lovelace-Gonzales, 2020). Lovelace-Gonzales gives suggestions based on a model for embedding EL supports developed by Sanford et al. (2012) to enhance a phonemic awareness lessons and gives the following steps:

“1) Students are provided with a phoneme awareness task that also addresses a new sound of the English language. 2) Students are provided with a model of the word and multiple opportunities to say the word. 3) Students are provided with an explicit example of the vocabulary for each word. 4) Students are provided with

the strategic use of the native language by thinking about the word in the home language.” (p. 54)

Studies also show that phonological awareness is a skill that transfers between languages (Shakkour, 2014). However, Adams et al. (2020) stress that this is not an automatic process and that students need guidance on how to leverage their first language skills, which requires teachers to take the time to learn about the sound systems of their students’ languages (p. 45). Helman (2004) suggests beginning with commonalities between languages before explicitly and systematically supporting students with sounds in English that are not present in the home language (p. 456). Solari et al. (2014) found that for Spanish-speaking ELs, phonological awareness in Spanish in Kindergarten (but not afterwards) was a good predictor of later English oral reading fluency, suggesting that early screening and interventions can be done in Spanish for Kindergarteners and skills will transfer to English.

Phonics. Contrary to the three cueing method which is still popular within balanced literacy, the National Reading Panel (2000) report established the need for explicit phonics instruction and studies have shown that visual cues are used most predominantly by skilled readers (Burkins & Yates, 2021; Seidenberg, 2017). Nieser and Cárdenas-Hagan (2020) argue that the components of phonics that should be taught to ELs, as with all students, are letter-name knowledge, grapho-phonemic knowledge (knowledge of letter-sound correspondence), decoding, and morphological awareness (pp. 63-64). Again, they also stress that learners can transfer literacy skills and that teachers should highlight both commonalities and differences between a students language and English (p. 65). Unfortunately, since most ELs in the U.S. receive

instruction through English-only models, they may not have many Spanish literacy skills to transfer to English (Mancilla-Martinez & Lesaux, 2017, p. 431). It is crucial for teachers to know their students individually and determine what native language literacy skills they may already bring to the table.

In order to tailor instruction of letter knowledge, Nieser and Cárdenas-Hagan (2020) encourage teachers to utilize resources such as MyLanguages.org (2019) which gives information about over 100 languages to familiarize themselves with letters and sounds of a language and how they correspond with English sounds and letters. In phonics and decoding lessons a teacher can then introduce sounds by either making a connection (that the letters in both languages make the same sound) or a contrast (the languages share the same sound but use different letters etc.). (Helman, 2004, pp. 457–458; Nieser & Cárdenas-Hagan, 2020, pp. 69–70). The same process can be used to compare and contrast syllable types across languages (Nieser & Cárdenas-Hagan, 2020, pp. 74–80). Teachers can pay careful attention to students' errors in oral reading and spelling and, using knowledge of the sound and letters systems in the students language, note where they are incorrectly transferring phonemic knowledge from their native language (Helman, 2004, p. 459). According to Cárdenas-Hagan, this can become a point of teaching for the student. It can also be a time to point out and celebrate that the student is leveraging all of their linguistic skills in their attempts to solve a word as they continue to refine their knowledge of English (as cited in Lambert, 2021).

Teaching morphemes is an important part of word recognition as well as developing vocabulary. A *morpheme* is the smallest unit of sound that carries meaning within a language (Moats, 2010). When teaching morphology, there is great opportunity

for building connections between English and other languages, especially European languages such as Spanish, which often build meaning from the same Greek and Latin roots, prefixes, and suffixes that are present in English (Nieser & Cárdenas-Hagan, 2020, p. 81).

Fluency. As students become more proficient in decoding, extensive practice reading in connected text has been shown to be important for monolingual English speakers to develop fluency that will free cognitive resources for comprehension (Carlson, 2020, pp. 92–94). The same fluency activities which are recommended for native English speakers, such as repeated oral reading, choral reading, partner reading, , and echo reading, can have the double impact for ELs of promoting both fluency and oral language (Carlson, 2020, p. 94) as long as texts are carefully selected with familiar words and content, and any unknown vocabulary is explicitly introduced when the text is initially presented (Carlson, 2020, p. 97). Snyder et al. (2017) cited research that oral reading fluency (ORF) measures are valid for monitoring the progress of ELs, but they should not be compared to norms from native speakers. Growth rates, however, can be compared (p. 143). This is because fluency may not correlate so highly with comprehension among ELs, since, as previously established, they often develop word recognition skills on par with native speakers while still having low linguistic comprehension. Crosson and Lesaux (2010) found that fluency was highly correlated with reading comprehension for students with high listening comprehension, but not for students with low listening comprehension, suggesting that along with these word recognition skills, language comprehension must be simultaneously supported if fluency is to bridge to comprehension for ELs (p. 485).

In summary, explicit teaching of phonics, phonemic awareness, and practice to gain fluency are essential components of reading instruction for ELs and all students. Modifications that leverage home language and literacy skills that students bring to school can enhance these practices for ELs. Teachers within a balanced literacy framework should look for ways across their day and literacy block to provide more explicit, systematic instruction in these skills, but attention must also be balanced with ELs' need to develop linguistic comprehension. The next subsections will explore enhancements for the linguistic comprehension strand of the reading rope in order to answer the question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?*

Developing Academic Language

ELs arrive at school with greater needs in developing English oral language skills compared with other students. Here I am using the term *academic language* to refer to two substrands from Scarborough's (2002) Reading Rope: Vocabulary and Language Structures (grammar). Students' use and understanding of English vocabulary and grammar in oral language will support their reading comprehension (August & Shanahan, 2010, p. 230).

Silverman et al. (2020) conducted a meta-analysis of language comprehension interventions at the elementary level and found that much more research is needed in how to best explicitly teach academic language skills. However, the review allowed for some tentative conclusions relating to ELs and language interventions. First, researchers found vocabulary interventions were most effective when they included a morphology component and that combining vocabulary and grammar improved reading

comprehension. Silverman et al. suggest therefore that “intervention that targets individual components and brings them together with authentic opportunities to use language for comprehension and expression may be most effective” (p. 229). Additionally, there was indication that the incorporation of technology in the interventions impacted reading comprehension (p. 220).

Like Silverman, Saunders and Goldenberg (2010) admit that there is unfortunately not a large body of research on effective language development practices for K-12 ELs. They reviewed the research and gave ten specific guidelines for language development that have the most evidence from research. The two guidelines that they rated as having the strongest research base for ELs are: “Providing ELD [English Language Development] instruction is better than not providing it” and “ELD instruction should include interactive activities, but they must be carefully planned and carried out” (p. 27). “Carefully planned and carried out” means to be intentional about pairing less proficient students with more proficient or native speakers for interactive tasks and designing tasks so that use of the target language form is essential for carrying out the task (pp. 31-33). It is not enough, therefore, to assume that English learners will naturally acquire academic language from mere exposure. This type of intentional ELD instruction may be carried out by a trained EL teacher during the language arts block or another separate time during the school day, but principles of effective language development instruction can and should inform all teachers on how to enhance the language interactions happening during a balanced literacy language arts block.

Saunders and Goldenberg (2010) also gave guidelines with less direct evidence but based on hypotheses from recent research. These include that language elements,

including vocabulary and grammar, should be taught explicitly, either deductively or inductively (p. 38); that “meaning and communication” should “support explicit teaching of language” (p. 40); and that students should receive “corrective feedback on form” (p. 44).

Helman (2012) similarly summarized these findings by giving four “specific conditions” that ELs need to improve their academic language: “language models, explicit instruction, feedback, and opportunities to practice” (p. 31). When looking at typical practices within balanced literacy, interactive read alouds, shared reading, repeated readings for fluency practice, and guided reading can all provide opportunities for this type of language development, but the choosing of texts, pairing of students, design of instructional tasks, and type of feedback given must be intentionally designed with ELs language needs in mind. For example, interactive read alouds are an excellent way to expose students to complex language which is beyond their current reading level and encourage practice with these more complex grammatical structures and vocabulary. However, in order for students to benefit in this way, the selected text must be sufficiently complex and be carefully chosen to contain words and structures that will be most beneficial to students (Adams et al., 2020, p. 22).

Vocabulary. Vocabulary is just one part of academic language, but it is a critical one. ELs’ vocabulary knowledge and reading comprehension are highly correlated (Droop & Verhoeven, 2003, p. 93). One critique of vocabulary instruction in some popular balanced literacy programs such as Lucy Calkins’ (2015) readers’ workshop is that vocabulary instruction is often implicit and incidental (Adams et al., 2020, p. 36). Pollard-Durodola (2020) contends that “teachable moments have a role in instruction, but

they cannot replace planned opportunities for maximizing knowledge-building talk around new words and high-priority concepts that are important for future comprehension” (p. 138). Instead researchers recommend designing vocabulary instruction that has a number of features: integration with content learning and texts; deep, intensive instruction for a small number of strategically selected words; clear and explicit explanation of word meanings, supported with pictures or gestures; multiple exposures to words across a variety of contexts; intentional opportunities for interaction using new vocabulary; instruction in word-learning skills such as using morphology; utilization of cognates to build connections to students’ home language; and deep rather than merely surface exploration of words (Adams et al., 2020, pp. 29–30; Baker et al., 2014, pp. 13–30; Helman, 2012, pp. 83–84; Pollard-Durodola, 2020, pp. 125–138).

Academic language is an important part of the linguistic comprehension component of the simple view modeled by Scarborough’s (2002) reading rope. Two other sub-strands that are of particular importance for ELs are background knowledge and a student’s literacy knowledge, which includes linguistic genre. We will explore these two sub-strands to further answer: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?*

Supporting Background and Content Knowledge

ELs are likely to bring linguistic and cultural experiences to texts which are different from those of their monolingual English-speaking peers. Comprehension has been shown to suffer for all students, including ELs, when they do not have prior content or cultural knowledge related to the text (Lesaux et al., 2006, p. 109; Reutebuch, 2020, p. 151). Teachers can prompt students to relate new concepts from a text to their

prior knowledge, but this is an easy step for teachers to skip in a lesson when pressed for time. Therefore instructional routines that regularly require students to use speaking or writing to “convey their connections” to their own previous experiences can help remind teachers to build background knowledge (Reutebuch, 2020, p. 152).

Content knowledge is also a predictor of reading comprehension, especially in the middle and high school grades (Cervetti et al., 2020, p. 165). Content knowledge helps a reader to connect ideas across a text, make inferences, and integrate new knowledge into existing schemas (Cabell & Hwang, 2020, p. 100). Cabell and Hwang (2020) contend that “content rich ELA instruction” in which science and social studies content is integrated into language arts, can build an early foundation of content knowledge to support comprehension, which is a critical need in early elementary grades when science and social studies have been pushed to the margins by expanding ELA blocks (p. 101). Such integration will build not only content knowledge but also ELs’ language as “enhancing vocabulary and content knowledge simultaneously through content-rich ELA instruction can have a synergistic, positive effect on reading development because knowledge and vocabulary work together to help a reader successfully construct meaning from a text” (p. 101).

Teaching Linguistic Genre

Students also bring expectations not only about the content of text but how it is structured, or its linguistic genre. The WIDA Consortium, an organization of 41 U.S. states, territories and federal agencies of which Minnesota is a part, has recognized the importance of linguistic genre and included it as an important organizing principle in the most updated 2020 edition of their English Language Development Standards Framework

(WIDA, 2020). WIDA defines genre as “multimodal types of texts (oral, written, visual) that recur frequently for specific purposes, with specific discourse organization and language features,” and uses the phrase “key language uses” to pinpoint the most “high-leverage” groups of genres and help educators focus on intersections between language and content. The four key language uses that WIDA includes are *narrate*, *inform*, *explain*, and *argue*. These language uses include genres that share “similar characteristics;” are present, although uniquely expressed, across disciplines; and “overlap and inform” each other (p. 27).

As teachers explicitly teach the forms of grammar and vocabulary that accompany linguistic genres across disciplines, it is important to know that narrative text structures can vary across languages (Helman, 2012, p. 32). Comprehension strategies can also be genre-specific (Duke & Martin, 2019, p. 252) and teachers should be careful to go beyond more commonly taught features of academic text, such as vocabulary, and focus on other language features that are particular to certain genres of text (Janzen, 2007, p. 723).

Genres depend on the social purpose of a text and proceed through predictable stages and influence the types of language structures with which students should be familiar (Derewianka, 2011, pp. 5–6). In their conception of academic language, termed Core Academic Language Skills (CALs), Phillips Galloway et al. (2020) list several discourse level skills along with the skill of breaking down words and sentences. These text level skills are: “connecting ideas logically by processing connective words,” “tracking terms that refer to the same participants or ideas,” “anticipat[ing] text structure,” “interpreting a writer’s viewpoint by applying knowledge of epistemic

markers of certainty,” and “recognizing the academic register as part of understanding language choices in response to contexts and purposes” (p. 334). Uccelli et al. (2015) found that these CALS skills predicted reading comprehension independently when controlling for academic vocabulary, word reading fluency, and demographic factors, such as EL status (p. 348).

In addition to utilizing these understandings to understand text, students must understand the function or social purpose of such language (Phillips Galloway et al., 2020, p. 336). Phillips Galloway et al. (2020) also bring an important sociocultural factor to bear on the idea of academic language in text, namely that “comprehending academic texts requires alignment with or resistance to the reader identities implied by the academic text’s language” (p. 336).

In summary, this section has explored the different aspects of instruction within balanced literacy that should be enhanced in order to answer the question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?* The science of reading has made important critiques of certain practices within balanced literacy, especially regarding how foundational word recognition skills are taught. This emphasis will benefit ELs along with native English speakers, but this section explored how connections to students’ home languages will make this instruction even more effective for ELs. Additionally, the focus on foundational skills within the science of reading movement also threatens to downplay a focus on language development that is essential to ELs long-term success with reading comprehension. Accordingly, research was explored regarding the importance of and best practices associated with promoting the linguistic comprehension components of oral academic language, background and

content knowledge, and linguistic genre knowledge that will support students in developing strong reading comprehension as text levels increase.

Conclusion

This chapter has reviewed the literature regarding models of reading, balanced literacy and critiques from the science of reading movement, English Learners and their reading development, and special considerations and enhancements for ELs within balanced literacy in order to answer the question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?* The first section established the strong research base supporting the simple view of reading and its elaborations and its strong predictive power compared to Goodman's model, which has continued to influence some practices within balanced literacy. The second section outlined the balanced literacy approach with its typical components and critiques from the science of reading movement. The science of reading movement has helpfully pointed out unhelpful approaches to early reading skill development such as the three-cueing method. The third section defined terms related to language minority students and established that ELs' growth in reading largely matches native English speaking students' growth regarding word recognition skills, but weaknesses in the linguistic comprehension strand lead to large gaps in reading comprehension as decoding skills are mastered and text levels increase. In view of the simple view and this research which shows the importance of linguistic comprehension development for English Learners, the final section reviewed the efficacy of balanced literacy as it is commonly practiced and argued what changes need to be made within a balanced literacy model to increase long-term reading success for ELs by supporting both their word recognition skills and linguistic

comprehension. Best practices in explicit teaching of decoding promoted by the science of reading will be enhanced by intentional use of a students' home language skills. The most critical focus for ELs, however, is to develop their linguistic comprehension through explicit teaching of oral academic English, background and content knowledge, and linguistic genre knowledge. Balanced literacy must be constantly rebalanced, and this research review clearly shows that another element of balance needs to be between "the demands of the mainstream language arts curriculum and the needs in learning to read and write of children of diverse cultural and linguistic backgrounds" (Au, 2011, p. 109).

Chapter three of this capstone will outline plans for a website project designed to bring the needs of ELs into the conversation about the science of reading and balanced literacy. This project will take the research from this literature review and format it in an accessible way using Scarborough's (2002) reading rope as a conceptual framework. The chapter will explain the rationale for choosing a website and design principles that will guide its creation. The chapter will then outline the content of the site and identify the intended audience and the context of the project.

CHAPTER THREE

Project Description

Introduction

English Learners continue to be a rapidly growing segment of the U.S. student population (Forum on Child and Family Statistics, 2021). Chapter two of this capstone uncovered many fruitful paths forward in exploring the question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?* Balanced literacy is not fundamentally helpful for ELs unless specific considerations and modifications are made. More explicit teaching and practice of language, more content integration, and more intentional exploration of genre are needed to develop the linguistic comprehension skills that ELs need to be successful readers in the long-term. The science of reading has been helpful in pushing educators to reevaluate balanced literacy practices, but this reevaluation needs to go far beyond debates about phonics instruction to make a difference for ELs.

Chapter three will introduce a website project to synthesize and share research in an accessible way that advocates for the needs of ELs using the momentum of the science of reading movement. This website will be shared primarily within my own district, but it is also intended for any teachers, especially at the elementary level but including middle school as well, who are involved in teaching reading to ELs. First, I will describe my methods by establishing the importance of creating an online resource, explaining my choice of a website platform, and citing website design principles that will guide my project. The next section will give an outline of how the content will be organized on the website and what resources will be available to users. The final sections will explain the

intended audience and context of this project, a timeline for completion, and my method for measuring the project's effectiveness.

Method

Online Professional Learning

I chose a website as the most effective means of sharing my learning and supporting professional growth for teachers in my district and beyond. This accords with Murray and Zoul's (2015) call for a shift in professional development to use twenty-first century tools to increase teacher's ownership of learning and collaboration. A website is effective because it serves as a repository of information that can be accessed by teachers at any time and place. Murray and Zoul (2015) note that with current technology "on-demand professional learning not only becomes possible but the preferred method of growth of many" (pp. 51-58). A website also does not assume "that teachers need the same type and amount of professional learning" (pp. 35-50) by allowing for multiple paths through the information, which can be organized to help teachers easily find what is most relevant to them and their team. Finally, a website is also easily shareable in ways that integrate with best practices in professional learning because it can be easily utilized for both in-person coaching and collaboration through professional learning communities (PLCs) (pp. 51-58) and shared online through a variety of social media platforms. Murray and Zoul (2015) emphasize the prevalence and importance of teachers connecting online across district boundaries and even across the globe as they develop their own "personal learning networks" (pp. 35-50).

Website Building Platform

Because I am a novice website builder, I used Google Sites to create my project. Google Sites provides accessible website building tools which result in easy to navigate user interfaces. Google Sites made designing an aesthetically pleasing and easy-to-navigate website simple for me so that I could focus on clear communication and organization of my content.

Website Design Principles

The U.S. Department of Health and Human Services (USDHHS) (2006) advocates several categories of important website design principles that are supported by research. Under the category of “Design Process and Evaluation,” the most important principle is to “provide useful content.” The report cites numerous studies supporting that providing content that is “engaging, relevant, and appropriate to the audience” is more important than “navigation, visual design, functionality and interactivity.” Because the topics of the science of reading and serving ELs are both trending and relevant discussions in the educational community, providing the research-based information included in chapter two of this capstone fulfills this important principle.

The USDHHS (2006) guide gives many recommendations about how to effectively write website content. In contrast to writing for an academic paper, writing on websites needs to be easily accessible to a wide audience and easily readable on a device. The guide recommends writing short sentences and paragraphs in the active voice with familiar language, with any jargon or acronyms clearly defined (p. 158). At the same time, credibility should be strengthened by linking to other credible websites and resources and including references to research (p. 10).

The Home Page is a critically important element of the design according to the USDHHS guide (2006). It must provide users with a good first-impression, clearly state the purpose of the site, “show all major options available on the website,” include limited text, and be clearly linked to all other pages within the website (p. 34). Other pages within the website should be uncluttered (p. 44) and any images, graphics, or videos should be carefully selected to support comprehension and not distract the reader (p. 142). Headings and link labels must be clearly descriptive of the content related to them (p. 76, 86). Krug (2014) also emphasizes that the use of headings should break up the page to support scanning, and the use of short paragraphs and bulleted lists (p. 39-40).

Project Description

Using the aforementioned principles of website design, I sought to use my project website to clearly communicate the relevant background information needed to understand the research question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?* I also outlined the specific strategies and considerations that will effectively support ELs using the lens of the simple view of reading as elaborated by Scarborough’s (2002) reading rope.

The homepage was designed to communicate the question at hand by briefly presenting statistics about the growing numbers of and outcomes for ELs in our schools and briefly defining the science of reading movement. This page was designed to make the purpose of the website clear and pique the reader's interest in the topic. Directly from this page, users are able to click on links to four broad categories of information: *Background, Instructional Shifts for ELs, Tools for Collaboration, and Feedback*. Under *Background*, there are two main pages: *The Science of Reading* and *English Learners*. I

also included a page explaining common components of balanced literacy linked within the *Science of Reading* page. I decided not to include it in the main navigation because my audience is ELA and reading teachers who are probably already familiar with balanced literacy due to its prevalence. In the *Instructional Shifts for ELs* section there are two broad categories based on the Simple View of Reading: *Word Recognition* and *Language Comprehension*. Under the *Word Recognition* category there are three pages: *Phonemic Awareness*, *Phonics*, and *Fluency*. Under the *Language Comprehension* category there are four pages: *Oral Language*, *Vocabulary*, *Background Knowledge*, and *Linguistic Genre*. Under *Tools for Collaboration* there are links to resources that I created or that others have created to support teams as they discuss and implement this information in their own contexts. Finally, on the *Feedback* page, readers will find a google form to send feedback about the site.

Each page under the *Instructional Shifts for ELs* section includes a brief definition of the sub-topic (one of the strands of Scarborough's reading rope) and how it is typically supported in balanced literacy. I then gave a summary of the critiques of balanced literacy from the science of reading movement and research based ways to improve instruction for all learners. The following section on each page focuses specifically on multilingual learners and additional considerations for their needs. The last section provides links to other practical web resources and books that address the topic to extend learning. My goal was to make the information as memorable and easy to digest as possible with lots of opportunities for supporting collaboration and extending learning. These features make the information relevant to my own school context and teachers in other settings as well.

Intended Audience

This website is immediately applicable to my local context as an EL teacher tasked with collaborating with mainstream ELA teachers within a district using a balanced literacy framework. Additionally, the topic has particular current relevance in my own district as schools within our district have taken different approaches to literacy instruction in the last few years. In the coming fall of 2022, schools will be closing and merging. Staff members from different buildings with different approaches to literacy instruction (very invested in traditional balanced literacy methods vs those advocating change based on the science of reading) will need to collaborate together to align practices in their new schools. It is critically important that the needs of EL students are not left out of these conversations and collaborative work. This website will be a tool I can share as I collaborate with ELA teachers within my middle school building and also across the district in other buildings.

It is also written so that it is relevant to teachers outside of my district and state as well. As an online resource, it is important that the content is written for a broad audience so it can be shared on the many social media platforms where discussions about the science of reading are taking place. Educators who could benefit from this site include EL teachers, elementary classroom teachers, reading interventionists, ELA teachers, and other content area teachers who are integrating reading and language into their lessons. The site is especially relevant for the elementary and middle school level when foundational reading skills are being built and solidified.

Timeline for Completion

The content of the website for this capstone project is based largely on the research gathered during the writing of chapter two during March of 2022. Further research and the creation of the website itself began in June 2022. The website was completed and published online on August 14, 2022. I intend for this website to be a living resource that continues to grow and adapt to remain relevant over the coming years. This will help me continue my professional journey as an EL and reading teacher by helping me synthesize current research and best practices as well as continue to keep the resource relevant to other educators.

Project Assessment

The intent of this project is to provide a resource for educators who are in some way responsible for the reading growth of ELs. I hope that teachers will be able to use the tools provided to identify areas where they could strengthen their reading instruction in ways that benefit ELs. I also hope that this project is the impetus for further collaboration and exploration of the other resources I have linked to.

In order to judge the effectiveness of this project for the above goals, I created a google form to collect feedback about the website. The form will not collect personal information such as a respondent's email, but it does ask about their role in education and the level they teach. The form then solicits feedback about what was most helpful about the website and suggestions for improvements or additions. There is a question at the end for an open ended response and where respondents can choose to share their contact information if they would like. By collecting this feedback, I hope to continue to keep the site up to date, learn from other educators, and keep the site relevant and effective.

Conclusion

Chapter three has given an overview of the website project I created in order to effectively communicate my learning around the question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?* The chapter began by outlining my methods including a rationale for creating a website resource, my choice of Google Sites as a platform, and website design principles that guided me in designing this resource. Second, I gave an outline for organizing content on the website in a clear and logical way for users using the simple view of reading as an organizational framework. I then described my intended audience, including both teachers within and outside my district and a timeline for the project's completion. Lastly, I described how I will assess the effectiveness of the project in achieving its goals. Chapter four will summarize my learning from this project, discuss limitations, and give suggestions for further research and improvements.

CHAPTER FOUR

Project Reflection

Introduction

In Chapter four I will reflect on the process and impact of my Capstone website project, *The Science of Reading for English Learners*, which addresses the question *How does the science of reading inform reading instruction for ELs within a balanced literacy model?* In Chapter three, I outlined the structure and goals of the website project. In this chapter I will begin by explaining my major personal learnings from the creation of this project and the entire Capstone process. The next section will revisit my research from Chapter two's literature review in the light of the completed project, drawing out important themes. The following sections will then detail the implications of the project, its potential limitations, and how further research could improve the website and address limitations. Finally, I will explain my plan to share this project and how it will benefit the teaching profession.

Reflections on the Capstone Process

Completing this Capstone project has been an incredible learning opportunity for me. Conducting this research and synthesizing it for a wider audience has empowered me as a teacher and advocate for English Learners and reinvigorated my desire to be a life-long learner in my teaching.

This Capstone project has stretched me personally, academically, and professionally, but it has been an overwhelmingly positive and empowering experience. I have been told I have a strength in writing and in synthesizing information in an understandable way. During this process, I was able to leverage my strengths to

increase my in-depth knowledge of the research behind teaching reading and specifically the way multilingual learners learn to read in a way that will also benefit others. Though I had training in these areas previously, I did not feel confident to articulate the research and best practices when faced with push-back in my workplaces. This process forced me to dive deep into the research and create a framework for understanding how to support English Learners' reading growth. I now feel more equipped to be able to explain how what I do as an EL (English Language) teacher fits in with the larger picture of literacy instruction in my school. I am excited that, through my website project, this personal learning journey will also be something that can empower others.

The Capstone process also reminded me of the importance of continued professional learning. Completing this masters program has felt very different than my undergraduate experience. At the start of this Capstone process, I had six and a half years of teaching experience both in the United States and abroad as well as some time off doing other work and spending time with my young son. It had also been nearly a decade since I finished my first degree. It was important for me to dive into the literature again and familiarize myself with current research, best practices, and resources. Doing so has inspired me to commit myself to continued professional learning and sharing what I learn with others. I was also able to start this project with burning, practical questions related to my work that gave relevance and focus to my research. I know that this Capstone has truly been a catalyst for my growth as an empowered advocate and reflective teacher.

Revisiting the Literature Review

My literature review covered quite a wide variety of topics. I knew that to answer my research question of *How does the science of reading inform reading instruction for*

ELs within a balanced literacy model? I would need to gain a deep understanding of balanced literacy, reading science, multilingual learners, and many different practical strategies for addressing their needs. At times, my topic felt so broad that I didn't know where to start. The most helpful part of my research during the literature review was learning more about the simple view of reading (Florit & Cain, 2011; Gough & Tunmer, 1986; Hoover & Gough, 1990; Tunmer & Chapman, 2012) and its research-backed predictive power (Cervetti et al., 2020; Florit & Cain, 2011; Kirby & Savage, 2008; Lonigan et al., 2018; Tunmer & Chapman, 2012), because it helped give me a solid theoretical framework for understanding how language plays into literacy.

First, the simple view of reading underscores the dangers of not being intentional about language development for English Learners (ELs). Because the simple view of reading is so widely used within the science of reading movement, it is a very powerful tool for cautioning against a narrowed view of the science of reading that focuses too heavily on word recognition skills. It is also a helpful tool for advocating for the intentional, explicit language instruction that balanced literacy programs are often lacking. The simple view makes sense of the research which shows that ELs often begin to fall more behind in the upper level grades once the demands of reading are more about comprehending complex language than about decoding (Kieffer, 2008, 2010; Lesaux et al., 2006).

The simple view of reading and the reading rope (Scarborough, 2002) are also easily understood. Through the accessible concept of the simple view of reading and the illustration of the reading rope, I was able to organize the research within my literature review and ultimately my website around the categories of word recognition skills and

language comprehension and their subskills. Because the reading rope is visual, it was very helpful to include in my website project as a helpful way for my readers to organize and integrate their new learning as well.

The simple view of reading helped me to categorize my learning, but as I did further research while I created my website, I was also able to make new connections within my research about high-impact principles that supported ELs in multiple “categories” of language skills. As I dove deeper into how to practically support ELs in developing their language comprehension strand I found these five recurring themes:

- building on students home language resources
- explicit, direct teaching
- content-based ELA practices that provide rich contexts for language and knowledge development
- appropriate scaffolding based on students’ language levels
- plentiful opportunities for language production

Through the literature review I found a model of reading with strong explanatory power and usefulness in advocacy. In addition, the process of creating my project helped me to see the common themes from my literature review. Although I think it is helpful to address each substrand of language comprehension separately and in-depth, pulling out these five general principles helps me to succinctly communicate the types of shifts that help ELs with their literacy across the board.

Implications

The research compiled in this project has important implications for teaching reading and for our discourse around reading instruction. This project has revealed that

both balanced literacy practices and the science of reading as it is popularly interpreted need cautions based on the simple view of reading and research on reading development in multilingual learners. Both the science of reading movement and balanced literacy have sometimes failed to take the importance of language and the needs of ELs into account (Adams et al., 2020; Cervetti et al., 2020; Goldenberg, 2020; Silverman et al., 2020). Reading researchers have been concerned about narrow interpretations of the science of reading (Goodwin & Jiménez, 2020), but those messages are not always reaching the teachers in the trenches who are passionately looking for answers on how to help their students read. Similarly, there has been good pushback against unstructured teaching practices in balanced literacy, but further critiques must be made if we are to fully address the reading needs of ELs. This is an important area for advocacy for teachers who are concerned about equity and effective reading instruction for ELs.

Further, expecting teachers to make all of the necessary shifts within their classrooms to better support ELs without school, district, and state level support is unreasonable. Curriculum creators and leadership tasked with selecting a reading curriculum need to keep the needs of all learners in mind when determining what program will best support teachers in providing an equitable education. We as teachers can all start making changes in our own practice, but we must also build momentum for change in our collaborative teams, schools, and beyond. This website project can be a helpful tool for advocacy in bringing the needs of ELs into the many debates currently happening about the science of reading and balanced literacy.

Limitations and Future Research

While I hope that the website created for this project will be a useful tool for professional growth and advocacy, there are several limitations of which I am aware that could be addressed by future research.

First, because the topic of reading development for ELs is very broad, there is a lot of information that was not included in the website in order to keep the purpose of the site focused. For example, I did not address specifically the importance of integrating writing instruction with reading instruction (Helman, 2012) or the importance of culturally responsive teaching (Au, 2011). I also could not go into each topic with great depth. For instance, the concept of linguistic genre and teaching language from a functional perspective could be an entire Capstone project in itself. In order to not overwhelm readers, I chose to give a helpful introduction to each topic with links to further reading and resources that teachers can use based on their needs. I also was careful to frame the website as a helpful starting point for learning about teaching reading to ELs that is meant to spur further learning and collaboration.

Another limitation is that the website is focused on teaching ELs within an English-only educational setting. Most ELs receive their education in English-only settings for both practical and political reasons (Mancilla-Martinez & Lesaux, 2017). I limited my project to this setting because it is the most common setting in my state of Minnesota, it is the only setting I am personally familiar with, and it is the most common setting across the United States. Research shows, however, that bilingual programs show the best results for multilingual students' language and literacy (August & Shanahan, 2010). Although I do mention this fact on the website, I did not present information about

best practices for teaching reading in a bilingual classroom. The website, therefore, will be less helpful for teachers working in this setting.

Further research could address some of the limitations of this website project. As I receive feedback through the feedback form on the website, I hope to be able to add links to more resources and continue to update content to stay current with the research.

Communication of Results

I chose to create a website for this project so that I could share the results of my research as widely as possible. This website project will be something I can use as a resource with colleagues in my school and can be used for asynchronous professional development within my district. In order to give a wider audience of educators access to the website, I plan to share a link to the finished site on Facebook groups related to the science of reading. There is a lot of interest in and momentum around the science of reading movement currently, and the topic of multilingual learners and bilingual students is also gaining a lot of interest. For example, *Science of Reading: The Podcast* by Amplify (2019-present), now in its fourth season, did not previously have any episodes specifically focused around the needs of multilingual learners, but has now published four episodes on the topic since October 2021. I hope that this momentum will help this project reach a wide audience.

Benefit to the Profession

As more than 10% of the U.S. student population are identified as English Learners (National Center for Educational Statistics, 2021) and 23% speak a language other than English at home (Forum on Child and Family Statistics, 2021), it is past time for the education system to make their needs an essential focus. The future is

multilingual, and it is time for reading instruction to stop being built on monolingual assumptions. This project highlights the ways in which ELs' reading needs are sometimes overlooked and gives practical principles and practices to better address their needs. Because it is published publicly on the internet, it can serve as a resource that teachers can work through at their own pace, return to as needed, and share with colleagues.

Conclusion

In Chapter four, I reflected on the outcomes of my research and project addressing the question: *How does the science of reading inform reading instruction for ELs within a balanced literacy model?* I began by describing my reflections on the process of conducting this research. I then revisited which aspects of the literature review were most impactful in creating the project and themes that emerged from my research. Next, I discussed the implications of this research and project as well as limitations and possible directions for further research. Finally, I explained how the project will be shared with a wide audience of educators in order to benefit the profession by advocating for English Learners reading needs and supporting professional growth. It is my desire that this project will be an impactful resource that impacts not just educators but ultimately the students we serve, no matter which language(s) they speak.

REFERENCES

- Aaron, P. G., Joshi, R. M., Gooden, R., & Bentum, K. E. (2008). Diagnosis and treatment of reading disabilities based on the component model of reading: An alternative to the discrepancy model of LD. *Journal of Learning Disabilities, 41*(1), 67–84.
<https://doi.org/10.1177/0022219407310838>
- Adams, M. J., Fillmore, L. W., Goldenberg, C., Oakhill, J., Paige, D. D., Rasinski, T., & Shanahan, T. (2020). *Comparing reading research to program design: An examination of Teachers College Units of Study*. Student Achievement Partners.
https://achievethecore.org/content/upload/Comparing%20Reading%20Research%20to%20Program%20Design_An%20Examination%20of%20Teachers%20College%20Units%20of%20Study%20FINAL.pdf
- Adlof, S. M., Catts, H. W., & Lee, J. (2010). Kindergarten predictors of second versus eighth grade reading comprehension impairments. *Journal of Learning Disabilities, 43*(4), 332–345. <https://doi.org/10.1177/0022219410369067>
- Amplify. (2019). *Science of reading: The podcast*.
<https://amplify.com/science-of-reading-the-podcast/>
- Au, K. H. (2011). *Literacy achievement and diversity*. Teachers College Press.
- Au, K. H., Carroll, J. H., & Scheu, J. A. (2001). *Balanced literacy instruction: A teacher's resource book*. Christopher-Gordon Publishers.
- August, D., & Shanahan, T. (2010). Effective English literacy instruction for English learners. In F. Ong & V. Aguila (Eds.), *Improving education for English learners: Research based approaches*. California Department of Education.
- Baker, S., Geva, E., Kieffer, M., Lesaux, N., Linan-Thompson, S., Morris, J., Proctor, C.

- P., & Russell, R. (2014). *Teaching academic content and literacy to English learners in elementary and middle school* (NCEE 2014-4012; p. 115). National Center for Education Evaluation and Regional Assistance.
- Burkins, J., & Yates, K. (2021). *Shifting the balance*. Stenhouse Publishing.
- Cabell, S. Q., & Hwang, H. (2020). Building Content Knowledge to Boost Comprehension in the Primary Grades. *Reading Research Quarterly*, 55, S99–S107. <https://doi.org/10.1002/rrq.338>
- Calkins, L. (2015). *Units of Study for Teaching Reading*. Heinemann.
- Calkins, L. (2020). *Comprehensive overview: Units, tools and methods for teaching reading, writing, and phonics*. Heinemann.
https://samplers.heinemann.com/uos/overview_download?submissionGuid=875c6028-894b-4066-9d99-ecd3941795ab
- Cambourne, B. (1976). Getting to Goodman: An analysis of the goodman model of reading with some suggestions for evaluation. *Reading Research Quarterly*, 12(4), 605–636. <https://doi.org/10.2307/747444>
- Carlson, C. D. (2020). Reading fluency among English learners. In E. Cárdenas-Hagan (Ed.), *Literacy foundations for English learners* (pp. 89–115).
- Castañeda, M., Rodríguez-González, E., & Schulz, M. (2011). Enhancing reading proficiency in English language learners (ELLs): The importance of knowing Your ELL in mainstream classrooms. *The Tapestry Journal*, 3(1), 38–64.
- Catts, H. W., Hogan, T. P., & Adlof, S. M. (2004). Developmental changes in reading and reading disability. In H. W. Catts & A. G. Kamhi (Eds.), *The Connections Between Language and Reading Disabilities*. Taylor & Francis Group.

- Catts, H. W., Nielsen, D. C., Bridges, M. S., & Liu, Y.-S. (2016). Early identification of reading comprehension difficulties. *Journal of Learning Disabilities, 49*(5), 451–465. <https://doi.org/10.1177/0022219414556121>
- Center, Y. (2005). *Beginning reading: A balanced approach to teaching literacy during the first three years at school*. Continuum International Publishing Group.
- Cervetti, G. N., Pearson, P. D., Palincsar, A. S., Afflerbach, P., Kendeou, P., Biancarosa, G., Higgs, J., Fitzgerald, M. S., & Berman, A. I. (2020). How the Reading for Understanding Initiative’s research complicates the simple view of reading invoked in the science of reading. *Reading Research Quarterly, 55*, S161–S172. <https://doi.org/10.1002/rrq.343>
- Chen, L., & Mora-Flores, E. (2006). *Balanced literacy for English learners, K-2*. Heinemann.
- Cho, Y., Kim, D., & Jeong, S. (2021). Evidence-based reading interventions for English language learners: A multilevel meta-analysis. *Heliyon, 7*(9), e07985. <https://doi.org/10.1016/j.heliyon.2021.e07985>
- Crosson, A. C., & Lesaux, N. K. (2010). Revisiting assumptions about the relationship of fluent reading to comprehension: Spanish-speakers’ text-reading fluency in English. *Reading & Writing, 23*(5), 475–494. <https://doi.org/10.1007/s11145-009-9168-8>
- Cummins, J. (1979). Cognitive/academic language proficiency, linguistic interdependence, the optimum age question, and some other matters. *Working Papers on Bilingualism, 19*, 121–129.
- Derewianka, B. (2011). *A new grammar companion*. Primary English Teaching

Association Australia.

Droop, M., & Verhoeven, L. (2003). Language proficiency and reading ability in first and second-language learners. *Reading Research Quarterly*, 38(1), 78–103.

<https://doi.org/10.1598/rrq.38.1.4>

Duke, N. K., & Martin, N. M. (2019). Best practices in informational text comprehension instruction. In L. M. Morrow & L. B. Gambrell (Eds.), *Best practices in literacy instruction*. Guilford Press.

EdWeek Research Center. (2020). *Early reading instruction: Results of a national survey*.

<https://epe.brightspotcdn.com/1b/80/706eba6246599174b0199ac1f3b5/ed-week-reading-instruction-survey-report-final-1.24.20.pdf>

Ehri, L. C. (1998). Grapheme-Phoneme knowledge is essential for learning to read words in English. In J. Metsala & L. C. Ehri (Eds.), *Word Recognition in Beginning Literacy*. Taylor & Francis Group.

<http://ebookcentral.proquest.com/lib/hamline/detail.action?docID=474573>

Elementary and Secondary Education Act of 1965, 20 U.S.C. § 6301 (1965).

<https://www2.ed.gov/documents/essa-act-of-1965.pdf>

Every Student Succeeds Act, 20 U.S.C. § 6301 (2015).

<https://www.congress.gov/bill/114th-congress/senate-bill/1177>

Florit, E., & Cain, K. (2011). The simple view of reading: Is it valid for different types of alphabetic orthographies? *Educational Psychology Review*, 23(4), 553–576.

Forum on Child and Family Statistics. (2021). *America's children: Key national indicators of well-being*. ChildStats.

<https://www.childstats.gov/americaschildren/family5.asp>

- Fountas, I. C., & Pinnell, G. S. (2018). *Leveled Literacy Intervention*. Heinemann.
- Geva, E., & Yaghoub Zadeh, Z. (2006). Reading efficiency in native English-speaking and English-as-a-second-language children: The role of oral proficiency and underlying cognitive-linguistic processes. *Scientific Studies of Reading, 10*(1), 31–57. https://doi.org/10.1207/s1532799xssr1001_3
- Goldenberg, C. (2008). Teaching English language learners: What the research does—And does not—Say. *American Educator, Summer 2008*.
- Goldenberg, C. (2020). Reading wars, reading science, and English learners. *Reading Research Quarterly, 55*(S1). <https://doi.org/10.1002/rrq.340>
- Goodman, K. S. (1965). A linguistic study of cues and miscues in reading. *Elementary English, 42*(6), 639–643.
- Goodman, K. S. (1967). Reading: A psycholinguistic guessing game. *Journal of the Reading Specialist, 6*(4), 126–135. <https://doi.org/10.1080/19388076709556976>
- Goodwin, A. P., & Jiménez, R. T. (2020). The Science of Reading: Supports, Critiques, and Questions. *Reading Research Quarterly, 55*(S1), S7–S16. <https://doi.org/10.1002/rrq.360>
- Gough, P. B., & Tunmer, W. E. (1986). Decoding, reading, and reading disability. *Remedial and Special Education, 7*(1), 6–10. <https://doi.org/10.1177/074193258600700104>
- Hanford, E. (2019, August 22). *How a flawed idea is teaching millions of kids to be poor readers*. <https://www.apmreports.org/episode/2019/08/22/whats-wrong-how-schools-teach-reading>

- Hanford, E. (2020, October 16). *Influential literacy expert Lucy Calkins is changing her views*.
<https://www.apmreports.org/story/2020/10/16/influential-literacy-expert-lucy-calkins-is-changing-her-views#:~:text=In%20a%20major%20shift%2C%20the,document%20obtained%20by%20APM%20Reports.>
- Helman, L. A. (2004). Building on the sound system of Spanish: Insights from the alphabetic spellings of English-language learners. *The Reading Teacher*, 57(5), 452–460.
- Helman, L. A. (2012). *Literacy instruction in multilingual classrooms*. Teachers College Press.
- Helman, L. A., Bear, D. R., Templeton, S., Invernizzi, M., & Johnston, F. (2012). *Words their way with English learners*. Pearson.
- Hempenstall, K. (2003). The three-cueing system: Trojan horse? *Australian Journal of Learning Disabilities*, 8(2), 15–23. <https://doi.org/10.1080/19404150309546726>
- Hoover, W. A., & Gough, P. B. (1990). The simple view of reading. *Reading and Writing: An Interdisciplinary Journal*, 2, 127–160.
- Janzen, J. (2007). Preparing teachers of second language reading. *TESOL Quarterly*, 41(4), 707–729. <https://doi.org/10.2307/40264403>
- Kieffer, M. J. (2008). Catching up or falling behind? Initial English proficiency, concentrated poverty, and the reading growth of language minority learners in the United States. *Journal of Educational Psychology*, 100(4), 851–868.
<https://doi.org/10.1037/0022-0663.100.4.851>
- Kieffer, M. J. (2010). Socioeconomic status, English proficiency, and late-emerging

reading difficulties. *Educational Researcher*, 39(6), 484–486.

Kieffer, M. J., & Thompson, K. D. (2018). Hidden progress of multilingual students on NAEP. *Educational Researcher*, 47(6), 391–398.

<https://doi.org/10.3102/0013189X18777740>

Kieffer, M. J., & Vukovic, R. K. (2012). Components and context: Exploring sources of reading difficulties for language minority learners and native English speakers in urban schools. *Journal of Learning Disabilities*, 45(5), 433–452.

<https://doi.org/10.1177/0022219411432683>

Kindersley, A., & Kindersley, B. (1996). *Children Just Like Me*. DK Publishing.

Kirby, J. R., & Savage, R. S. (2008). Can the simple view deal with the complexities of reading? *Literacy*, 42(2), 75–82.

<https://doi.org/10.1111/j.1741-4369.2008.00487.x>

Krashen, S. D. (1999). *Three arguments against whole language and why they are wrong*. Heinemann.

Krashen, S. D. (2002). Defending whole language: The limits of phonics instruction and the efficacy of whole language instruction. *Reading Improvement*, 39(1), 32–42.

Krashen, S. D. (2009). The Goodman/Smith hypothesis, the input hypothesis, the comprehension hypothesis, and the (even stronger) case for free voluntary reading. In P. L. Anders (Ed.), *Defying convention: Inventing the future in literacy research and practice*. Taylor & Francis Group.

Krug, S. (2014). *Don't make me think*. New Riders.

Lambert, S. (Host). (2021, October 20). Empowering multilingual learners: Elsa Cardenas-Hagan (No. S4-08). In *Science of reading: The podcast*. Amplify

Education.

Lau v. Nichols, 414 U.S. 563 (1974).

Lesaux, N. K., Koda, K., Siegel, L., & Shanahan, T. (2006). Development of literacy. In D. August & T. Shanahan (Eds.), *Developing literacy in second language learners*. Lawrence Erlbaum Associates Inc.

Lonigan, C. J., Burgess, S. R., & Schatschneider, C. (2018). Examining the simple view of reading with elementary school children: Still simple after all these years. *Remedial and Special Education, 39*(5), 260–273.

<https://doi.org/10.1177/0741932518764833>

Lovelace-Gonzales, V. (2020). Phonological awareness development. In E. Cardenas-Hagan (Ed.), *Literacy foundations for English learners*. Paul H. Brookes.

Lovett, M. W., De Palma, M., Frijters, J., Steinbach, K., Temple, M., Benson, N., & Lacerenza, L. (2008). Interventions for reading difficulties: A comparison of response to intervention by ELL and EFL struggling readers. *Journal of Learning Disabilities, 41*(4), 333–352. <https://doi.org/10.1177/0022219408317859>

Madda, C. L., Griffio, V. B., Pearson, D., P., & Raphael, T. E. (2019). Current issues and best practices in literacy instruction. In L. M. Morrow & L. B. Gambrell (Eds.), *Best practices in literacy instruction* (6th ed.). The Guilford Press.

Mancilla-Martinez, J., & Lesaux, N. K. (2017). Early indicators of later English reading comprehension outcomes among children from Spanish-speaking homes. *Scientific Studies of Reading, 21*(5), 428–448.

<https://doi.org/10.1080/10888438.2017.1320402>

- Minnesota Department of Education. (2017). *MN Standardized English Learner Procedures: Identification*.
<https://education.mn.gov/mdeprod/groups/educ/documents/hiddencontent/bwrl/mdcy/~edisp/mde072228.pdf>
- Minnesota Department of Education. (2021). *English Learner Education in Minnesota* (No. 2020-21 Report).
https://education.mn.gov/mdeprod/idcplg?IdcService=GET_FILE&dDocName=MDE035523&RevisionSelectionMethod=latestReleased&Rendition=primary
- Moats, L. C. (2010). *Speech to print: Language essentials for teachers* (2nd ed.). Paul H. Brookes.
- Mokhtari, K. (2021). Instructional Casualties: A Review of transforming literacy education for long-term English learners: Recognizing brilliance in the undervalued. *Journal of Adolescent & Adult Literacy*, 64(5), 604–607.
<https://doi.org/10.1002/jaal.1144>
- Murray, T. C., & Zoul, J. (2015). *Leading professional learning: Tools to connect and empower teachers*. Corwin.
- MyLanguages.org. (2019). *Learn languages*. My Languages. <https://mylanguages.org/>
- National Center for Educational Statistics. (2021). *English Language Learners in Public Schools*. U.S. Department of Education.
https://nces.ed.gov/programs/coe/pdf/2021/cgf_508c.pdf
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*.

<https://www.nichd.nih.gov/sites/default/files/publications/pubs/nrp/Documents/report.pdf>

- Nieser, K., & Cárdenas-Hagan, E. (2020). Phonics development among English learners. In *Literacy foundations for English learners*. Paul H. Brookes.
- O'Day, J. (2009). Good instruction is good for everyone—or is it? English language learners in a balanced literacy approach. *Journal of Education for Students Placed at Risk (JESPAR)*, 14(1), 97–119. <https://doi.org/10.1080/10824660802715502>
- Olsen, L. (2010). *Reparable Harm: Fulfilling the unkept promise of educational opportunity for California's long term English learners*. Californians Together. https://web.stanford.edu/~hakuta/Courses/Ed330X%20Website/Olsen_ReparableHarm2ndedition.pdf
- Pearson, P. D. (2004). The Reading Wars. *Educational Policy*, 18(1), 216–252. <https://doi.org/10.1177/0895904803260041>
- Pearson, P. D., Palincsar, A., Biancarosa, G., & Berman, A. (2020). *Reaping the rewards of the Reading for Understanding Initiative*. National Academy of Education. <https://doi.org/10.31094/2020/2>
- Phillips Galloway, E., McClain, J. B., & Uccelli, P. (2020). Broadening the lens on the science of reading: A multifaceted perspective on the role of academic language in text understanding. *Reading Research Quarterly*, 55, S331–S345. <https://doi.org/10.1002/rrq.359>
- Pollard-Durodola, S. D. (2020). Vocabulary instruction among English learners. In E. Cardenas-Hagan (Ed.), *Literacy foundations for English learners* (pp. 118–145). Paul H. Brookes.

- Pressley, M. (1998). *Reading instruction that works: The case for balanced teaching*. The Guilford Press.
- Reese, L., Garnier, H., Gallimore, R., & Goldenberg, C. (2000). Longitudinal analysis of the antecedents of emergent Spanish literacy and middle-school English reading achievement of Spanish-speaking students. *American Educational Research Journal*, 37(3), 633–662. <https://doi.org/10.3102/00028312037003633>
- Reutebuch, C. (2020). Reading comprehension among English Learners. In *Literacy foundations for English learners*. Paul H. Brookes.
- Richardson, J. (2009). *The next step in guided reading*. Scholastic.
- Rog, L. J. (2003). *Guided reading basics: Organizing, managing, and implementing a balanced literacy program in K-3*. Stenhouse Publishing.
- Sahakyan, N., & Ryan, S. (2018). *Long-term English learners across 15 WIDA states: A research brief* (WIDA Research Brief No. RB-2018-1). WIDA at the Wisconsin Center for Education Research.
<https://wida.wisc.edu/sites/default/files/resource/WIDA-Brief-Long-Term-English-Learners%20.pdf>
- Sanford, A. K., Brown, J. E., & Turner, M. (2012). Enhancing instruction for English learners in response to intervention systems: The PLUSS model. *Multiple Voice for Ethnically Diverse Exceptional Learners*, 13(1), 17.
- Saunders, W. M., & Goldenberg, C. (2010). Research to guide English language development instruction. In *Improving education for English learners: Research-based approaches*. California Department of Education.
- Saunders, W. M., & Marcelletti, D. J. (2013). The gap that can't go away: The catch-22

of reclassification in monitoring the progress of English learners. *Educational Evaluation and Policy Analysis*, 35(2), 139–156.

<https://doi.org/10.3102/0162373712461849>

Scarborough, H. S. (2002). Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of Early Literacy Research*. The Guilford Press.

Schwartz, S. (2021, October 27). Popular literacy materials get “science of reading” overhaul. But will teaching change? Lucy Calkins and Jennifer Serravallo are among those making shifts. *Education Week*, 41(11).

https://go-gale-com.ezproxy.hamline.edu/ps/i.do?p=GPS&u=clic_hamline&id=G ALE%7CA680903762&v=2.1&it=r

Seidenberg, M. S. (2017). *Language at the speed of sight*. Basic Books.

Shakkour, W. (2014). Cognitive skill transfer in English reading acquisition: Alphabetic and logographic languages compared. *Open Journal of Modern Linguistics*, 4, 544–562.

Shanahan, T. (2020). What constitutes a science of reading instruction? *Reading Research Quarterly*, 55(S1). <https://doi.org/10.1002/rrq.349>

Shanahan, T., & Beck, I. (2006). Effective literacy teaching for English-language learners. In D. August & T. Shanahan (Eds.), *Developing literacy in second language learners: Report of the National Literacy Panel on Language-Minority Children and Youth* (pp. 415–488). Lawrence Erlbaum Associates Inc.

Shaw, D., & Hurst, K. (2012). A balanced literacy initiative for one suburban school district in the United States. *Education Research International*, 2012.

<https://doi.org/10.1155/2012/609271>

- Silverman, R. D., Johnson, E., Keane, K., & Khanna, S. (2020). Beyond decoding: A meta-analysis of the effects of language comprehension interventions on K–5 students' language and literacy outcomes. *Reading Research Quarterly, 55*, S207–S233. <https://doi.org/10.1002/rrq.346>
- Snyder, E., Witmer, S. E., & Schmitt, H. (2017). English language learners and reading instruction: A review of the literature. *Preventing School Failure, 61*(2), 136–145. <https://doi.org/10.1080/1045988X.2016.1219301>
- Solari, E. J., Aceves, T. C., Higareda, I., Richards-Tutor, C., Filippini, A. L., Gerber, M. M., & Leafstedt, J. (2014). Longitudinal prediction of 1st and 2nd grade English oral reading fluency in English language learners: Which early reading and language skills are better predictors? *Psychology in the Schools, 51*(2), 126–142. <https://doi.org/10.1002/pits.21743>
- Spear-Swerling, L. (2019). Structured literacy and typical literacy practices: Understanding differences to create instructional opportunities. *Teaching Exceptional Children, 51*(3), 201–211. <https://doi.org/10.1177/0040059917750160>
- Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Journal of Education, 21*(4), 360–407. <https://doi.org/10.1177/0022057409189001-204>
- Tunmer, W. E., & Chapman, J. W. (2012). The simple view of reading redux: Vocabulary knowledge and the independent components hypothesis. *Journal of Learning Disabilities, 45*(5), 453–466. <https://doi.org/10.1177/0022219411432685>

- Uccelli, P., Galloway, E. P., Barr, C. D., Meneses, A., & Dobbs, C. L. (2015). Beyond vocabulary: Exploring cross-disciplinary academic-language proficiency and its association with reading comprehension. *Reading Research Quarterly, 50*(3), 337–356.
- U.S. Department of Health and Human Services. (2006). *Research-based web design & usability guidelines*. U.S. Dept. of Health and Human Services : U.S. General Services Administration.
- Westerveld, M. F., Armstrong, R. M., & Barton, G. M. (2020). Reading success. In M. F. Westerveld, R. M. Armstrong, & G. M. Barton (Eds.), *Reading Success in the Primary Years: An Evidence-Based Interdisciplinary Approach to Guide Assessment and Intervention* (pp. 1–17). Springer Singapore.
<https://doi.org/10.1007/978-981-15-3492-8>
- WIDA. (2020). *WIDA English language development standards framework, 2020 edition: Kindergarten—Grade 12*. Board of Regents of the University of Wisconsin System.
<https://wida.wisc.edu/sites/default/files/resource/WIDA-ELD-Standards-Framework-2020.pdf>