

PERSPECTIVES

ON LANGUAGE AND LITERACY

75TH ANNIVERSARY ISSUE

Structured Literacy

Grounded in the Science of Reading

International Dyslexia Association
1949–2024

Winter 2024 • Volume 50, No. 1

IDA 75th

ANNIVERSARY



IDA Celebrates its 75th Anniversary: *Legacy of Achievement & Vital Vision for the Future*

As the International Dyslexia Association (IDA) celebrates its 75th year, we remain steadfastly dedicated to tackling the defining and most consequential challenge for people with dyslexia—a difficulty learning to read.

IDA has a long and storied history of advancing reading instruction grounded in what is now known as the “science of reading.” This instruction has proven beneficial for all students and *essential* for those with various risk factors, including dyslexia. Milestones in our campaign to advance effective reading instruction for all include:

1. **Creating the “Structured Literacy Wheel & InfoMap”** to convey Structured Literacy’s comprehensive scope and key content and principles.
2. **Coining the term Structured Literacy** to differentiate approaches aligned with IDA’s “Knowledge and Practice Standards” from those lacking essential content and principles vetted by science (e.g., whole language and balanced literacy).
3. **Establishing Knowledge and Practice Standards (KPS)** specifying the knowledge and skills all teachers of reading must possess to teach all students to read proficiently.
4. **Launching Structured Literacy Program Accreditation** to accredit pre-service and in-service educator preparation programs aligned with KPS.
5. **Founding the Center for Effective Reading Instruction and creating the Knowledge and Practice Examination of Effective Reading Instruction (K-PEERI)** to certify educators who demonstrate mastery of KPS content.

These accomplishments and other IDA initiatives provide the scaffolding for achieving our vision—*Structured Literacy for every child in every classroom across the nation and around the world*. In addition to this work, the International Dyslexia Association:

- Developed the seminal **definition of dyslexia** (now under consideration for an update to reflect advances in the “science of dyslexia.”)
- Provides vital support—**through over 40 branches**—to families struggling with dyslexia.
- Advances best practices and information about dyslexia and literacy around the world, through **IDA’s Global Network**.
- Disseminates **valuable content** across its publications and platforms.
- Conducts the preeminent **annual conference** on dyslexia and literacy.

In short, the International Dyslexia Association has a rich history of impressive achievements and a vital vision for the future.

Contents

Structured Literacy Prevents Reading Failure!	6
<i>David P. Hurford and Carolyn D. Cowen</i>	
Introduction to Structured Literacy:	
An Approach Grounded in the Science of Reading	9
<i>Barbara Wilson and Jessica Hamman</i>	
Structured Literacy Wheel	12
Structured Literacy Infographic	14
About the Authors	16

WHY

The WHY of Structured Literacy

Scientific Research and Classroom Practice:	
How Structured Literacy Spans the Divide	20
<i>G. Reid Lyon and Margaret Goldberg</i>	
Inclusivity and Excellence: Why Structured Literacy	
Is Essential to Safeguard Students' Civil Rights	28
<i>Kareem Weaver</i>	

OVERVIEW

Structured Literacy Overview

Structured Literacy: An Integrated Approach	
to the Science of Reading	32
<i>Barbara A. Wilson</i>	
Domains of Language (ASHA)	47

WHAT

The WHAT of Structured Literacy

Developing Word Reading and Spelling Skills
with a Structured Literacy Approach 48

Linnea C. Ehri

Structured Literacy and Handwriting:
Explicit Instruction of an Essential Skill 56

Steve Graham

Making and Conveying Meaning: How Structured
Literacy Integrates Comprehension and Composition 60

Kate Cain

Integrated Language, Reading & Writing Instruction
Supporting Automaticity, Fluency, & Proficient Reading 69

Jessica Hamman

HOW

The HOW of Structured Literacy

The “How” of Structured Literacy:
Just as Important as the “What” 70

Louise Spear-Swerling

WHO

WHO: Students and Instructors

Structured Literacy: The Backbone of a Robust
Literacy Ecosystem 80

Timothy Odegard

Structured Literacy for English Learners: A Bridge to Equity 86

Elsa Cárdenas-Hagan

Consolidated References 92

Introduction

Structured Literacy Prevents Reading Failure!

By David P. Hurford
& Carolyn D. Cowen

We are delighted to introduce this 75th anniversary issue of the International Dyslexia Association's *Perspectives on Language and Literacy*, a triumph and labor of love from theme editors, Barbara Wilson and Jessica Hamman. This issue of *Perspectives* reflects their deep dedication to making quality Structured Literacy available to all learners. It also reflects the expertise of the distinguished authors Hamman and Wilson brought together for a deep dive into Structured Literacy's why, who, what, and how—the key topographical features in our newest infographic, *IDA's Structured Literacy InfoMap*.

Origin Story

The origin story for this issue of *Perspectives* dates back to 2014, when the International Dyslexia Association (IDA) coined the term *Structured Literacy* to embody the key elements vetted by science as essential in reading instruction, not just for struggling readers but for all students learning to read. Structured Literacy is an umbrella term intended to,

- Identify approaches and programs that align with IDA's Knowledge and Practice Standards (KPS)—see text box for more about KPS.



- Differentiate science-based methods from ineffective strategies not grounded in science.

The term Structured Literacy has been widely embraced, gaining popularity along with the term the *Science of Reading* (which has roots dating back to the National Reading Panel of the early 2000s and “scientific research-based reading”). With very little promotion, the term Structured Literacy garnered considerable recognition, resonating within communities of reading scientists, educational practitioners, and parents. IDA deployed fact sheets, infographics, *Perspectives* issues, and briefs all devoted to advancing the understanding of Structured Literacy. We also conducted webinars and conference presentations. Nevertheless, concerns emerged that the term's sudden popularity might reduce Structured Literacy to just another educational buzzword—a Rorschach ink blot into which

anyone could project his or her interpretation and thinking.

This led the experts who serve on IDA's editorial boards and multimedia team to focus on developing a new infographic, one that,

- Anchored Structured Literacy in the [Science of Reading](#) and the instructional foundations and principles of the Knowledge and Practice Standards.
- Amplified and furthered the consensus among thought leaders and experts regarding a common vocabulary and framework.
- Conveyed Structured Literacy's comprehensive scope as well as its details in ways that were easily understood and indelible.
- Advanced IDA's sharpened vision—"Structured Literacy for every child in every classroom across the nation and around the world."

It was an ambitious undertaking, one that built on IDA's previous body of work (including the *Structured Literacy Wheel*) and tapped the knowledge and generosity of our community of experts on literacy, language, and dyslexia. The result is IDA's Structured Literacy InfoMap and an updated Structured Literacy Wheel (see pages 13–15).

But that is just the beginning. Now we have a wonderful graphic organizer for IDA's extensive bank of content. We also have the basis for an interactive version of the map, and already our editorial boards are working on generating and repurposing content to populate the map with clickable links leading to deeper knowledge and valuable resources. Indeed, the interactive In-

VISIT DyslexiaIDA.org [Knowledge and Practice Standards](#)

TO LEARN MORE ABOUT

- IDA's Knowledge and Practice Standards (KPS), which define the knowledge and skills all teachers of reading must have to teach all students to read proficiently.
- IDA's Structured Literacy program accreditation, which accredits pre-service and in-service educator preparation programs aligned with KPS.
- Structured Literacy Certification from the Center for Effective Reading Instruction (CERI) for educators who demonstrate mastery of KPS content by passing the Knowledge and Practice Examination of Effective Reading Instruction exam (K-PEERI).

foMap will include content from this issue of *Perspectives*.

75th Anniversary

As we approach the 75th anniversary of the International Dyslexia Association's founding, we are reminded how far our interdisciplinary field and IDA have progressed. Our roots have always been grounded in science. As science advanced, IDA evolved. As we evolved, our vision sharpened. That vision is to bring Structured Literacy to every child in every classroom across the nation and around the world. Why? A vast body of research has determined that teaching students to read using Structured Literacy is the most powerful way to prevent reading failure. That failure prevents far too many children from thriving—particularly those with risk factors, such as dyslexia.

There is much to celebrate in IDA's 75th year. Promising winds of change seem to be sweeping across the reading-instruction landscape. We think this issue of *Perspectives* will help advance that change in important ways. As you dip into its pages and explore the InfoMap, you will discover articles that enrich your understanding of Structured Literacy's comprehensive scope and a framework for envisioning the synergistic interplay between its integrated content and powerful teaching principles.

Finally, congratulations to the theme editors, Barbara Wilson and Jessica Hamman, on this important issue of *Perspectives*, one packed with information, tools, and inspiration to help bring Structured Literacy to all learners!

David P. Hurford, Ph.D., Perspectives Editor-in-Chief
Carolyn D. Cowen, Ed.M., Executive Editor-in-Chief, IDA
Editorial Boards/Media Teams

IDA
75th
ANNIVERSARY

Structured Literacy Program Accreditation

Accredits pre-service and
in-service educator preparation
programs aligned with IDA's
Knowledge and Practice Standards.

DyslexiaIDA.org/knowledge-and-practices

Introduction to Structured Literacy:

An Approach Grounded in the Science of Reading

By Barbara Wilson and Jessica Hamman

Structured Literacy (SL) and the Science of Reading (SoR) are part of a growing national conversation on literacy instruction best practices. For some educators, Structured Literacy instruction, an approach grounded in the Science of Reading research base, has been part of their practice for decades; for others, the approach is a shift away from previous practices. To support this shift, educators must understand what it looks like and how to implement it in their classrooms.

In response to this, the International Dyslexia Association (IDA) is taking several steps to establish a common language and framework around the approach to unify the discussion and move the field forward. IDA coined the term *Structured Literacy* in 2014 for the evidence-based approach that had previously been known in the field by many different names. However, as stakeholders move toward embracing Structured Literacy in their school systems, questions naturally arise such as “Why do



we need it? Who will teach it? What will be taught? and How is it taught?” To help answer these questions, IDA created a graph-

ic—IDA’s Structured Literacy InfoMap—to address these questions and build a common understanding of this evidence-based approach to literacy instruction. The InfoMap was designed by a team of Structured Literacy experts who worked to represent the many facets and comprehensive nature of this integrated approach. We are thrilled to present you with this anniversary edition issue of IDA’s *Perspectives on Language and Literacy (Perspectives)* based on this InfoMap.

This issue first presents an introduction that explains why Structured Literacy is necessary. Dr. Reid Lyon, former chief of the Child Development and Behavior Branch within the National Institute of Child

Health and Human Development at the National Institutes of Health, and Margaret Goldberg, a literacy coach in Oakland, California, and co-founder of the Right to Read Project, team up to present a cohesive voice explaining its importance. They provide readers with an understanding of the current climate regarding Structured Literacy instruction and the stakes for the students we serve from two viewpoints—that of the leader of the reading research movement and that of an educator who works daily with teachers and students in the classroom.

For some educators, Structured Literacy instruction has been part of their practice for decades; for others, the approach is a shift away from previous practices.

The WHY is further discussed by Kareem Weaver, who is co-founder and executive director of FULCRUM and is the Oakland NAACP's 2nd Vice President and Chair of its Education Committee. In his article, Weaver explains that literacy is a civil right and the delivery of systematic, explicit literacy instruction is an essential step in upholding this right. He states, "calls for equity, without ensuring that systematic, direct, explicit instruction is provided, opens the door for bias and assumption to enter into the classroom."

Next, Barbara Wilson, co-founder of Wilson Language Training, provides an over-

As stakeholders move toward embracing Structured Literacy in their school systems, questions naturally arise such as "Why do we need it? Who will teach it? What will be taught? and How is it taught?"

view of Structured Literacy with a tour of the InfoMap's design and components as she was a member of the team that worked to develop it. This article also serves as a preview of the more detailed articles that follow. Wilson lays the foundation for understanding this powerful approach and describes what educational stakeholders need to know as they begin to adopt, implement, and deliver Structured Literacy in their organizations.

The WHAT, HOW, and WHO parts of the InfoMap are all informed by the WHY, or the research that provides the foundation of Structured Literacy. For this reason, we asked researchers with expertise in those areas to write articles, providing additional detail and clarifications about the Structured Literacy approach.

The WHAT to teach in classrooms is then tackled by three different authors. Dr. Linnea Ehri, Distinguished Professor Emerita at CUNY New York, focuses on word recognition and spelling, outlining keys for foundational instruction. Dr. Stephen Graham, Professor of Special Education at Arizona State University, adds to this with an explanation of the importance of explicit handwriting instruction. Lastly, Dr. Kate Cain, a

Clinical Psychologist at the University of Melbourne, describes the essential instructional components of comprehension and composition instruction.

Dr. Louise Spear-Swerling, Professor Emerita in the Department of Special Education at Southern Connecticut State University, outlines a critical aspect of the approach: the HOW to provide instruction. Dr. Spear-Swerling shares how Structured Literacy practitioners provide explicit, cumulative, systematic, sequential, multi-modal, and data-driven instruction that builds impact and ensures literacy student proficiency.

Finally, the WHO of the InfoMap is explained by Dr. Tim Odegard, a professor of psychology who holds the Katherine Davis Murfree Chair of Excellence in Dyslexic Studies at Middle Tennessee State University. Dr. Odegard discusses how Structured Literacy can and should be a part of instruction in all Tiers of the MTSS framework. Furthermore, Dr. Elsa Cárdenas-Hagan, the president of Valley Speech and Language Center, discusses Structured Literacy as a research-based approach for English and Multilingual Learners.

We are excited about this issue and hope that it will help stakeholders and educators better understand and explain why implementing high-quality Structured Literacy instruction is so important. We thank the experts who have dedicated their time to creating these articles with the mission of building a common language and framework around Structured Literacy, which will bring awareness, answer questions, and pave the way for effective literacy instruction across the country.

IDA

75th

ANNIVERSARY

Structured Literacy Certification

For educators who demonstrate mastery of IDA's Knowledge and Practice Standards (KPS) content by passing the Knowledge and Practice Examination of Effective Reading Instruction exam (K-PEERI).

effectivereading.org

Structured Literacy: An Approach Grounded in the Science of Reading

Structured Literacy is a comprehensive approach to literacy instruction, *not* a program, although educators can use one or more programs to deliver this kind of instruction. Structured Literacy explicitly and systematically teaches the structure of language—from granular elements to global skills. Structured Literacy integrates the full scope of this instructional content (WHAT is taught) with essential principles or methods of teaching (HOW content is taught) to develop the automaticity and fluency needed for proficient reading and writing.

The dynamic interplay between Structured Literacy’s integrated content (the wheel’s **maroon** inner circle and InfoMap’s left side) and its powerful teaching principles (**blue** outer ring and InfoMap’s right side) benefits *all* students—particularly those with risk factors, such as dyslexia.

For free downloads of both the SL InfoMap & SL Wheel, visit → [ShopIDA.org](https://shopIDA.org)

**The
“What”**

Integrated Language, Reading & Writing Instruction
Supporting Automaticity, Fluency & Reading Proficiency

Word Recognition/
Handwriting & Spelling



Comprehension/
Composition



**The
“How”**

Planned, Purposeful Instructional Decisions
for Tasks and Text

Direct & Systematic



Mastery Oriented

Tier 1:
General Education
Classroom Teacher

Tier 2:
General or Special
Reading Specialist, In

Structured

The "WHAT"

Instructional content integrates the domains of language as they pertain to reading (word recognition and comprehension) and written expression (handwriting, spelling, and composition).

**Word Recognition/
Handwriting & Spelling**

Phonemes ↔ Graphemes

Morphemes

Syllable & Stress Patterns

Orthographic Conventions

**Comprehension/
Composition**

Vocabulary/Background Knowledge

Sentence Structure/Grammar

Text Structure

Critical Thinking

Integrated Language, Reading & Writing Instruction
Supporting Automaticity, Fluency & Reading Proficiency

Science o

The "V

Scientific evidence from accumulated research
underlying basis for the content and

©2022 INTERNATIONAL DYSLEXIA ASSOCIATION. FOR PERMISSION TO REPRINT, PLEASE CONTACT info@DyslexiaDA.org

Structured Literacy: An Introductory Guide is available from www.DyslexiaLibrary.org. This brief can be downl

*For individuals with dyslexia and other reading difficulties, Structured Literacy must be delivered with mor

See Accreditation ^{Plus} <https://tinyurl.com/2p8v3hcf> and <https://tinyurl.com/5bvrr8hz>.

Grounded in the Science of Reading

Who

WHO

Tier 2:

Special Education Teacher,
Intervention Personnel

Tier 3:

Dyslexia Specialist,
Special Education Teacher*

How

The "HOW"

Essential principles of instruction guide how content is taught for both reading and written expression. These principles are beneficial for all students and necessary for struggling students.

Direct & Systematic

Mastery Oriented

Explicit

Data Driven

Sequential

Targeted Prompt Feedback

Cumulative

Highly Interactive

Multimodal

Scaffolded

Planned, Purposeful Instructional Decisions
for Tasks and Text

Why

WHY

Research on reading/writing acquisition provides the
foundational principles of Structured Literacy.

Downloaded after logging into the IDA digital library.

Requires individualization and intensity and by a highly qualified instructor.

(rev. 10/25/23)

Authors

G. Reid Lyon, Ph.D.

Dr. Reid Lyon is a neuroscientist and specialist in learning disorders and disabilities. He received his B.A in physiological psychology and biology at North Carolina Wesleyan in 1973. He received his Ph.D in neuropsychology and learning disorders from University of New Mexico in 1978 and completed post-doctoral training in neurophysiology and electrophysiology at the University of New Mexico Medical Center under Dr. Jack Rhodes. He then served as an assistant professor and director of the neuropsychology laboratory within the Communication Sciences and Disorders Department at Northwestern University.

Dr. Lyon was recruited from Northwestern by Dr. Blanche Podhajski at the Stern Center for Language and Learning in Burlington, Vermont to serve as the Director of Research. He held a joint appointment as an associate professor of neurology at the University of Vermont Medical School.

In 2001, he was recruited to the NIH (NICHD) by Dr. Duane Alexander to serve as a research neuropsychologist and Chief of the Child Development and Behavior Branch. During his 14 year tenure he designed and directed both the NICHD Reading Research Program and the NICHD Learning Disabilities Research Centers Program while also overseeing research programs in cognitive neuroscience, behavioral pediatrics, social and emotional development, Spanish to English reading development, human learning and behavior and school readiness.

In 2005, Dr. Lyon returned to the academic sector where he retired as a distinguished professor emeritus of Educational Leadership and associate dean at Southern Methodist University and as a distinguished scientist emeritus in cognition and neuroscience at the Center for Brain Health, University of Texas, Dallas. He has published over 130 journal articles, books, and book chapters. He is a combat veteran, serving as a paratrooper in Vietnam.

Barbara A. Wilson, M.Ed.

Barbara Wilson is Co-Founder of Wilson Language Training® (WLT). For 35+ years, she's brought Structured Literacy to educators through consultation to organizations focused on reading, professional learning work of WLT, and a dedication to implementation science. She authored three Structured Literacy programs—Wilson Reading System®, Just Words®, and Foundations® and has written articles, books, and chapters about teaching students to read based on the science of reading. She oversees graduate courses with clinical practicums accredited by the International Dyslexia Association (IDA). Barbara testified in front of Congress for the READ Act, and in 2022, she was recipient of IDA's annual Margaret Byrd Rawson Lifetime Achievement Award.

Jessica Hamman, M.A.

Jessica Hamman, MA, is the founder and CEO of [Glean Education](#), an organization that partners with school districts and

states to build teacher knowledge around the Science of Reading, Structured Literacy instruction, RTI/MTSS systems implementation, and school improvement. Jessica has worked in education for over 20 years and considers it her life's work to bridge the gap between educational research and practice in the area of literacy instruction.

Margaret Goldberg, M.A.

Margaret Goldberg is a literacy coach in a large urban district in California. She's held a variety of roles including district Early Literacy Lead, site-based literacy coach, reading interventionist, and classroom teacher. In every role, she's worked to help schools and districts align instruction with reading research. She is the co-founder of The Right to Read Project, a group of teachers, researchers, and activists committed to the pursuit of equity through literacy. Her writing is published on The Right to Read Project blog <https://righttoreadproject.com/> and on Reading Rockets <https://www.readingrockets.org/blogs/right-to-read>.

Kareem Weaver, M.S.

Kareem Weaver is Co-Founder and Executive Director of [Fulcrum](#), the Oakland NAACP's 2nd Vice President and Education Committee Chair, an award-winning teacher and [administrator](#), and the former Executive Director for the Western Region of New Leaders' (a leadership development organization which prepares educators to serve in the country's most challenging environments). His advocacy is featured in the film [The Right to Read](#). A graduate of Morehouse College and the University of South Carolina, Mr. Weaver believes in the potential of all students, the brotherhood of man, service above self, and setting excellence as the most important standard in

education. His educational heroine is the late Marva Collins.

Linnea Ehri, Ph.D.

Linnea Ehri is Distinguished Professor Emerita at the Graduate Center of the City University of New York. She earned her Ph.D. in Educational Psychology from the University of California, Berkeley. She has received several awards for her research. She is a member of the Reading Hall of Fame. She served on the National Reading Panel, commissioned by the U.S. Congress to identify effective research-based methods of teaching reading. She has published many studies on literacy acquisition and instruction that clarify how children learn to read and spell words, phases of development in acquiring reading and spelling skills, and how orthographic mapping explains the storage of sight words in memory by application of phonics skills.

Steve Graham, Ed.D.

Steve Graham is a Regents and the Warner Professor at Arizona State University. He studies how writing develops, how to teach it effectively, and how writing can be used to support reading and learning. His research involves typically developing writers and students with special needs in both elementary and secondary schools. Graham is the former editor of *Exceptional Children*, *Contemporary Educational Psychology*, *Journal of Writing Research*, *Focus on Exceptional Children*, and *Journal of Educational Psychology*. He is the co-author of the *Handbook of Writing Research*, *Handbook of Learning Disabilities*, *APA Handbook of Educational Psychology*, *Writing Better*, and *Powerful Writing Strategies for all Students*.

Kate Cain, BSc

Kate Cain is a Professor of Language and Literacy in the Department of Psychology at Lancaster University. Her research concerns the different cognitive and language-related skills that underpin the development of reading and listening comprehension and the causes of reading comprehension difficulties. Kate has published numerous papers, chapters, and books in this field, including the following written for teachers of reading and literacy: Oakhill, J., Cain, K., & Elbro, C. (2015). *Understanding and Teaching Reading Comprehension: A Handbook*. Kate is currently President for the Society for the Scientific Study of Reading.

Louise Spear-Swerling, Ph.D.

Louise Spear-Swerling, Ph.D., is Professor Emerita at Southern Connecticut State University. Her research interests focus on common poor reader profiles and preparing teachers to teach reading effectively, especially to at-risk students. She is the author or editor of several books on these topics, most recently, *The Structured Literacy planner: Designing interventions for common reading difficulties, Grades 1–9* (Guilford Press).

Dr. Spear-Swerling helped to write IDA's *Knowledge and Practice Standards*, and she prepared both general and special education teacher candidates to teach reading using Structured Literacy approaches for many years. Currently she consults often for K-12 schools, mostly on students with persistent literacy difficulties and ways to improve their achievement.

Tim Odegard, Ph.D.

Dr. Tim Odegard, Ph.D., is a psychology professor at Middle Tennessee State Uni-

versity, holding the Katherine Davis Murfree Chair of Excellence in Dyslexic Studies. He leads the Tennessee Center for the Study and Treatment of Dyslexia, showcasing a deep commitment to education through service in various leadership roles. As Editor-in-Chief of the *Annals of Dyslexia* and consulting editor for the *Journal of Learning Disabilities*, Dr. Odegard is a key contributor to advancing the Science of Reading. He's dedicated to improving dyslexia services and has held significant service positions for organizations like the International Dyslexia Association and the Academic Language Therapy Association. Additionally, Dr. Odegard has influenced literacy initiatives nationally, aiding teacher training and advocating for universal screening for risk prevention.

Elsa Cárdenas-Hagan, Ed.D., CCC/SLP, CDT, CALT, QI

Elsa Cárdenas-Hagan is the President of the Valley Speech Language and Learning Center in Brownsville, Texas and a research associate with the Texas Institute for Measurement, Evaluation and Statistics at the University of Houston.

Elsa has dedicated 25 years working in research projects addressing the development of language and literacy skills among Spanish-speaking English learners. She has helped to design assessments and interventions for English learners. Elsa is the Chairperson of the National Joint Committee on Learning Disabilities, and a Past-Vice-Chairperson of the International Dyslexia Association. Her book: *Literacy Foundations for English learners: A Comprehensive Guide to Evidence-Based Instruction* can help educators implement Structured Literacy among English learners.

THE INTERNATIONAL DYSLEXIA ASSOCIATION'S



1949-2024

Scientific Research & Classroom Practice:

How Structured Literacy Spans the Divide



By G. Reid Lyon and Margaret Goldberg

Science of Reading

The “WHY”

Scientific evidence from accumulated research on reading/writing acquisition provides the underlying basis for the content and principles of Structured Literacy.

This introduction to the Structured Literacy issue of *Perspectives* departs from standard scientific presentations because we have written this through the combined perspectives of a neuroscientist and a public school teacher. Much of the content included in this introduction is the result of a partnership we forged in 2020 to better understand how the experiences of a scientist and a teacher could be melded and used to guide the application of the Science of Reading to classroom instruction.

This is not a review of literature—there is too much of it and not enough space to do it justice. Nor is this an endorsement of published Structured Literacy programs. These programs are too uneven in scientific quality, and many are sold with false claims of effectiveness. The overarching goal of this introduction is to underscore three major facts that bear on why Structured Literacy approaches are important. First, the negative consequences of reading failure for children, their parents, and their teachers are debilitating and life changing. Second, there is extensive replicated scientific research that shows that children can and must develop proficiency in the reading-related language domains included in Structured Literacy models. Third, there is overwhelming evidence that direct, systematic, and explicit instruction is the most reliable method for building expertise in word reading and reading comprehension.

Schooling's Unfulfilled Promise

For children and their parents, each new school year begins with promise. Kids walk through hallways emblazoned with hopeful messages—Amazing Work: Coming Soon!—and flood into classrooms where

they expect to learn. By the spring, optimism has faded for many students and their teachers. Year after year, schools fail at their core mission: teaching children to read.

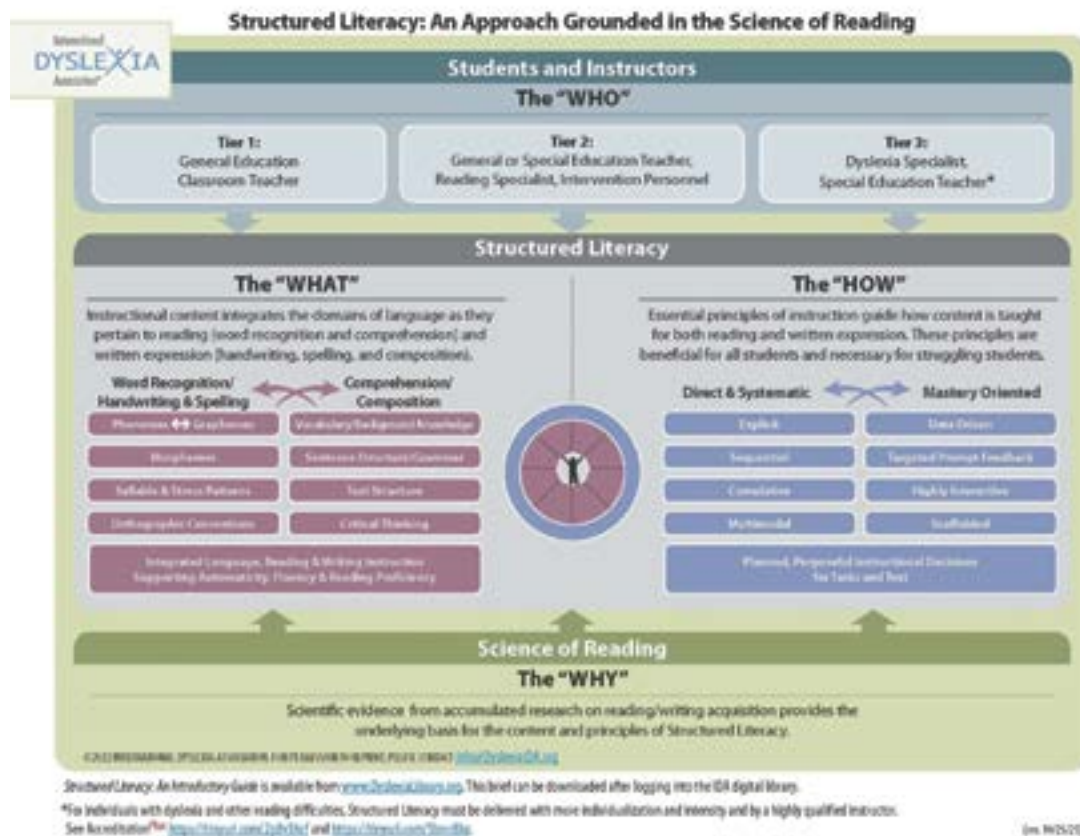
The negative consequences of reading failure for children, their parents, and their teachers are debilitating and life changing.

Consider last year, 56 percent of Black, 50 percent of Hispanic, and 27 percent of White students left the fourth grade unable to read at even a basic level. These low literacy rates should be alarming, but, for many years, people have accepted and excused this degree of failure, unaware that better is possible.

Parents weather critiques of their ability to parent: *Don't you know that literacy begins at home? What have you done to help your child?* Children themselves are blamed when learning to read poses a challenge. *He's not trying. She's not focused. They distract their classmates.* Many families assume the burden of reading instruction. They teach their children themselves or pay for tutoring.

Too often, families assume that their child's reading difficulty is an aberration rather than typical. But reading is a challenging and unnatural cognitive process. Learning to read is simply hard for many kids ... just like learning to learn math or piano.

Figure 1



Reading difficulty should be anticipated, but school instruction is too often tailored to the small percentage of children who can learn with little teaching. Instruction informed by reading science can ensure that most students become skilled readers. However effective reading instruction does not occur in many classrooms. Why?

A Divide Between Teaching and Science

Due to inadequate training, teachers are rarely well prepared to teach reading. Teacher training expounds on print-rich environments (how to organize classroom libraries, match students with interesting books, and instill a love of reading) and presents reading as a naturally unfolding, joyous part of children's development. But unlike listening and speaking, learning to

read is not a natural evolutionary gift. Children must be taught how our written system uses symbols to represent our spoken language. The most effective method for teaching the linguistic gymnastics necessary for making sense of printed text, Structured Literacy, is not sufficiently covered in teacher training, nor is it written into most reading curricula.

Structured Literacy

The Structured Literacy approach (see Figure 1) was first introduced by the International Dyslexia Association in 2014 and is based on a substantial corpus of scientific data. Structured Literacy typically refers to a systematic approach to reading and spelling instruction that utilizes direct and explicit teaching. Concepts are presented systematically and sequentially, followed

by guided practice that engages learners, corrective feedback, and sufficient cumulative review so that students develop essential reading and spelling skills. Progress and mastery are determined by continuous assessment.

Structured Literacy is not a curriculum or a program but a systematic approach to teaching based on years of research. Structured Literacy is a rare breed in reading instruction because its positive impact is predicated on the quality of evidence that has shaped its instructional design. Clarity of instruction in Structured Literacy is ensured through direct and intentional teaching. A teacher implementing Structured Literacy does not leave learning to chance.

The WHAT section of Figure 1 represents several language domains believed to be essential for reading—phonology, morphology, syntax, semantics, and discourse—as they pertain to reading and written expression instruction. The HOW to teach are the principles of instruction depicted on the right side of the graphic and were also selected based on scientific research.

The Scientific Foundation for Structured Literacy

Extensive research data regarding reading acquisition began to accrue in the mid-1960s and has continued to build through replication and contemporary discoveries. Converging scientific evidence obtained over 50 years ago taught us that learning to read is not a naturally unfolding process. By the mid-1970s, we knew that beginning and struggling readers must understand that the speech they hear can be segmented into smaller phonological units, and these

These low literacy rates should be alarming, but, for many years, people have accepted and excused this degree of failure, unaware that better is possible.

segmented units are represented by printed alphabetic characters. We knew that applying this insight was difficult for many children because the ear cannot “hear” the individual phonemes in segmented speech. Even when we pronounce a syllable, the phonemes are produced almost simultaneously. Thus, the word *cat*, which has three phonological units, comes by the ear as one pulse of sound. This merging of phonemes, termed *coarticulation*, enables us to speak fluently rather than orally spelling out the words. The downside is it makes it difficult to access the individual sounds to map onto letters and letter clusters. Thus, phoneme-to-print relationships must be taught directly and explicitly. When readers have difficulty mapping print-to-speech segments, the ability to read words accurately and fluently is compromised.

While single-word reading does not equal reading comprehension, it is difficult if not impossible to understand what has been read if the words in the text are not recognized quickly. This consistent finding has been attacked for years by champions of constructivist approaches to literacy because of the incorrect belief that good readers do not read every word in the text.

Despite evidence to the contrary, proponents of indirect and child-centered instruction cling to the practice of prompting students to draw on context and sentence structure, along with letters, to identify words. Frequently, picture cues are enlisted to aid beginning readers in their guessing of unknown words. However, a substantial number of well-designed studies beginning in the mid-1980s demonstrated it is typically beginning and poor readers who attempt to use partial visual cues and guessing strategies to pronounce unknown words. Good readers, on the other hand, focus attention on the word itself and its phonological and orthographic characteristics.

Skilled readers process every word, a fact that has been known since the mid-1980s.

There is extensive converging evidence that instructional approaches based on guessing unknown words from context are dangerously flawed. These approaches fail to consider that naturalistic text is not that predictable. Studies beginning in the late 1950s and early 1960s and replicated over the past 40 years converge on the finding that students need an average of at least four guesses to correctly decipher upcoming words in a reading passage. At least six major studies have replicated the finding that a reader's probability of predicting the next word in a passage is between .20 and .35%. Using guessing strategies to read unknown words is an unreliable tactic and leaves much to chance.

These findings undergird the principles of instruction in Structured Literacy. You will note that the terms *context*, *guessing*, or *cueing strategies* are not included in the HOW to teach column in Figure 1. Rather,

instruction is characterized as being direct, explicit, sequential, data-driven, and highly integrated among other features. Why? Since the mid-1960s, scientifically based effectiveness studies have reported that direct, systematic, and explicit instruction promotes improvement in reading skills among beginning and struggling readers. What is also clear from studies during the last two decades is that phonics-only instruction is insufficient in achieving gains in reading comprehension. A child must deploy relevant vocabulary, background knowledge, and strategic organizing strategies to understand what is read.

Structured Literacy is a rare breed in reading instruction because its positive impact is predicated on the quality of evidence that has shaped its instructional design.

The value of implementing direct, explicit, and systematic literacy instruction early in a child's school career is underscored by longitudinal research undertaken since the late 1980s and early 1990s and continuing through the current decade. For example, if students are struggling to read in the fourth grade, they most likely continue to struggle through the eighth grade and beyond. The data indicate that, while decoding and word recognition skills can be remediated in older struggling readers, reading fluency and comprehension skills are more resistant to change.

The early 1990s saw the initiation of large-scale multidisciplinary research programs that provided scientific opportunities to study skilled and unskilled readers through the lens of neuroscientists, cognitive psychologists, linguists, educators, speech scientists, geneticists, and other experts. These multidisciplinary programs were designed by the first author while at the National Institute of Child Health and Human Development (NICHD) at the National Institutes of Health (NIH). A major goal of these collaborative efforts was to determine the environmental, instructional, neurobiological, and genetic factors related to reading failure by studying the same children over time and applying methods and modalities across disciplines. For example, neuroimaging studies carried out by neuroscientists, neuropsychologists, linguists, and cognitive scientists began to map the neural systems and circuits that played significant roles in reading acquisition. In other studies, reading specialists collaborating with neuroscientists found that effective interventions not only improved reading skills in struggling readers but also produced concomitant changes in neural activation in brain regions necessary for skilled reading. The reader is referred to [10 Maxims, Reading Universe](#) (2023) for a more succinct presentation of these and other critical findings combined with scientific references reporting necessary data.

Problems in Need of Solutions

Unfortunately, the work of reading scientists over the past 50 years does not populate the syllabi of most teacher preparation programs. Scientific research has been eschewed by professors at most colleges of education. Consequently, the teachers

matriculating from these institutions have not learned about the cognitive processes involved in skilled reading, nor have they learned how to address reading difficulties. Reading instruction in most schools continues to be based on untested assumptions, anecdotes, fads, and debunked theories. Teachers are not at fault. They've trusted the teachings of their professors and the curriculum handed to them by their districts. And, they begin their teaching in schools that are not designed to ensure that all students become readers.

Solving long-standing problems caused by the divide between educators and scientific researchers will require inventive solutions and strategic planning. Laws, policies, and new programs will ameliorate nothing if we do not bridge the chasm between educators and research scientists. That brings us back to an important goal of this article—to demonstrate that collaboration between scientists and classroom teachers is non-negotiable if the successful implementation of evidence-based reading approaches, such as Structured Literacy, is to be achieved.

Parting Thoughts

Some final words on the *Science of Reading*, a phrase that is now in widespread use. Many publishers of reading instruction claim their products are exemplars of the Science of Reading. When selling their programs to parents, teachers, school leaders, and legislators, publishers make claims about efficacy, and they promise results. But the field is not yet able to answer the effectiveness question posed by the first author in 1997: "For which children are which instructional approaches and methods most

beneficial, at which stages of reading development, in which instructional settings, taught by which teachers, with what level of intensity and duration?" The buyers and developers of curricula should proceed with caution.

The Science of Reading is not a teaching method, curriculum, or ideology. The Science of Reading is not synonymous with phonics. The phrase "the Science of Reading" is ripe for bandwagon parades if misunderstood. The level of desperation to reverse unconscionably high reading failure rates leads us to hope for magic bullets. The phrase *the Science of Reading* has the potential to serve as a political rallying point, and it could destroy itself if paired with impossible promises and unrealistic expectations. Let us all ensure that the Science of Reading is not the next educational trend destined to fade by being careful about how we use the phrase.

The ever-expanding Science of Reading is, in our view, an objective way to explain that reading is complex and must be taught using instructional approaches informed by science and student data. Science is open-minded and objective. It doesn't take sides but rather illuminates a path. If new data confront and overturn long-held assumptions and beliefs, even about Structured Literacy, we need to make changes that reflect this new information, not succumb to confirmation bias. Following the science and seeking to ensure that every student becomes a reader is the right starting place. There are no fix-alls in education, but ensuring every child becomes a reader would open possibilities that children, their families, and educators deserve to explore.

IDA 75th ANNIVERSARY

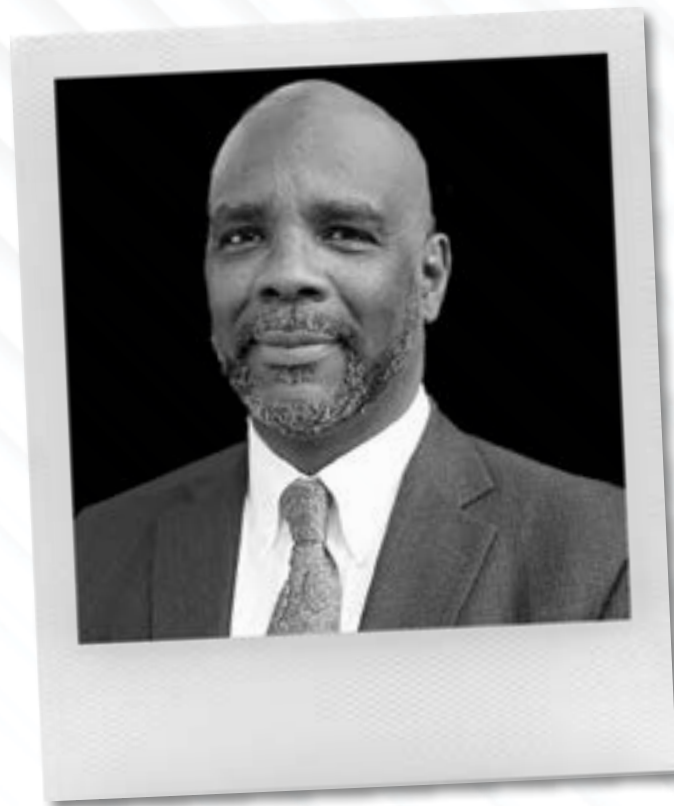
What is K-PEERI?

IDA's Knowledge and Practice Examination of Effective Reading Instruction (K-PEERI) measures an educator's knowledge of the principles and practices of Structured Literacy.

To learn more, visit
DyslexiaIDA.org/knowledge-and-practices

Inclusivity & Excellence:

Why Structured Literacy Is Essential to Safeguard Students' Civil Rights



By Kareem Weaver

Science of Reading

The “WHY”

Scientific evidence from accumulated research on reading/writing acquisition provides the underlying basis for the content and principles of Structured Literacy.

Debates around Structured Literacy instruction usually focus on what is to be taught. The WHAT of Structured Literacy reigns supreme in academic discourse and is tightly associated with our identities and convictions. Conferences, workshops, and professional learning spaces are inundated

Structured Literacy is
anti-exclusionary; all kids, by
design, are included in the
scope and sequence.

with information about what motivates, inspires, and uplifts children. Critical issues around parental rights and public duties related to what is taught, often become all-consuming in the public square. But the HOW of Structured Literacy—which is just as important—is regularly consigned to the margins of program construction. Consistently providing explicit, direct, cumulative, sequential, and systematic instruction is key to protecting students' civil rights.

Having lessons and assessments mapped to a purposeful scope and sequence provides clear guidance and ensures student needs are not overlooked. Teachers' adjustments can occur from a well-grounded design that's intended to get the greatest number of children to read. Calls for equity, without ensuring that systematic, direct, explicit instruction is provided, open the door for bias and assumption to enter into the classroom.

Student needs, as determined by observation and formative assessments, must always be at the center of instruction. However, educators need clarity about the intentional design of the materials and how gaps from previous years will be addressed; this allows them to make informed judgments to maximize student learning. Structured Literacy, an umbrella term for evidence-based programs and approaches that align with the International Dyslexia Association's Knowledge and Practice Standards, is an approach to instruction that is beneficial for all children, but especially places the most vulnerable learners' needs in the center of instruction and ensures that learning gaps will be identified and resolved.

Students from different cultural backgrounds may not fully appreciate the nuances within the teacher's subdialect. In the haze of cultural and linguistic variation, intentions and details become murky; assumptions fill in the blanks. Given that cultural differences in communication impact many classrooms, especially in more diverse regions, comprehensively designed Structured Literacy with direct instruction is an important component of instructional excellence because it leaves much less to chance. Explicitly providing instructional guidance, with clarity, is the timeless standard for communication and ensures no children are excluded from accessing the content and skill development.

Neurological, linguistic, and cultural differences among students increase the difficulty in perceiving needs. And, given socioeconomic diversity, there are some students who, quite literally, cannot afford to have instructional content be skipped.

Students need teachers who are prepared to deliver the type of instruction that ensures their needs are met. Structured Literacy ensures the HOW is calibrated to get the greatest possible number of students reading; its explicit, direct, cumulative, sequential, and systematic approach is a key to inclusivity, excellence, and overcoming differences and bias. It eschews assumptions and elevates consistency. It is

anti-exclusionary; all kids, by design, are included in the scope and sequence. Simply put, Structured Literacy is the path to ensuring students have access to all parts of the curriculum. It safeguards students' civil rights and protects educators from the guilt of knowing our blind spots created holes within the learning foundation that students can ill afford.

IDA 75th ANNIVERSARY

Dyslexia Digital Library

Looking for free comprehensive, curated content and resources about dyslexia, structured literacy and more?

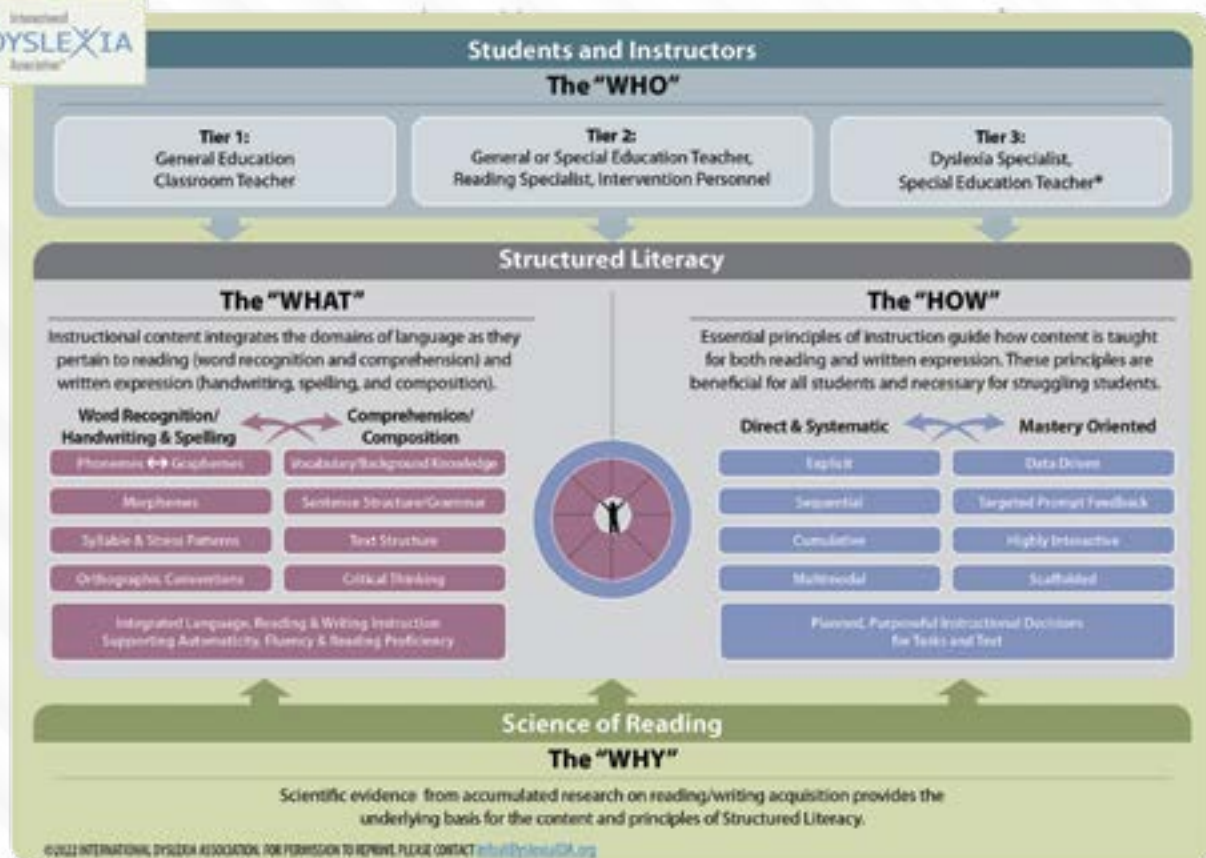
Visit [DyslexiaLibrary.org](https://www.DyslexiaLibrary.org)

Structured Literacy:

An Integrated Approach to the
Science of Reading



By Barbara A. Wilson



Across North America and the world, educators are learning about the Science of Reading (SoR) and Structured Literacy (SL). With information coming from many different sources with differing perspectives, it can be difficult to gain a complete and accurate understanding of these terms and their implications for instruction. To assist, this article is designed to synthesize and summarize key points, following the International Dyslexia Association's Structured Literacy InfoMap, so that educators are aligned on a framework.

As background, the International Dyslexia Association (IDA) is celebrating its 75th anniversary in 2024. IDA has supported the dissemination of reading research throughout the years, first sharing what works for individuals with dyslexia who are the most vulnerable in achieving literacy acquisition. Then, since the 1990s, because of evidence compiled under the leadership of Dr. Reid Lyon at the NICHD (1992-2005), IDA also shared research findings about literacy for all students.

As time progressed, it became clear that a term meaning "instruction based on the accumulated and substantial research" would be important. In 2014, with a board meeting vote following much deliberation, IDA established the term *Structured Literacy (SL)*.

Though the term Structured Literacy is relatively new, the tenets of the approach are not.

Structured Literacy is a comprehensive approach to literacy instruction that integrates

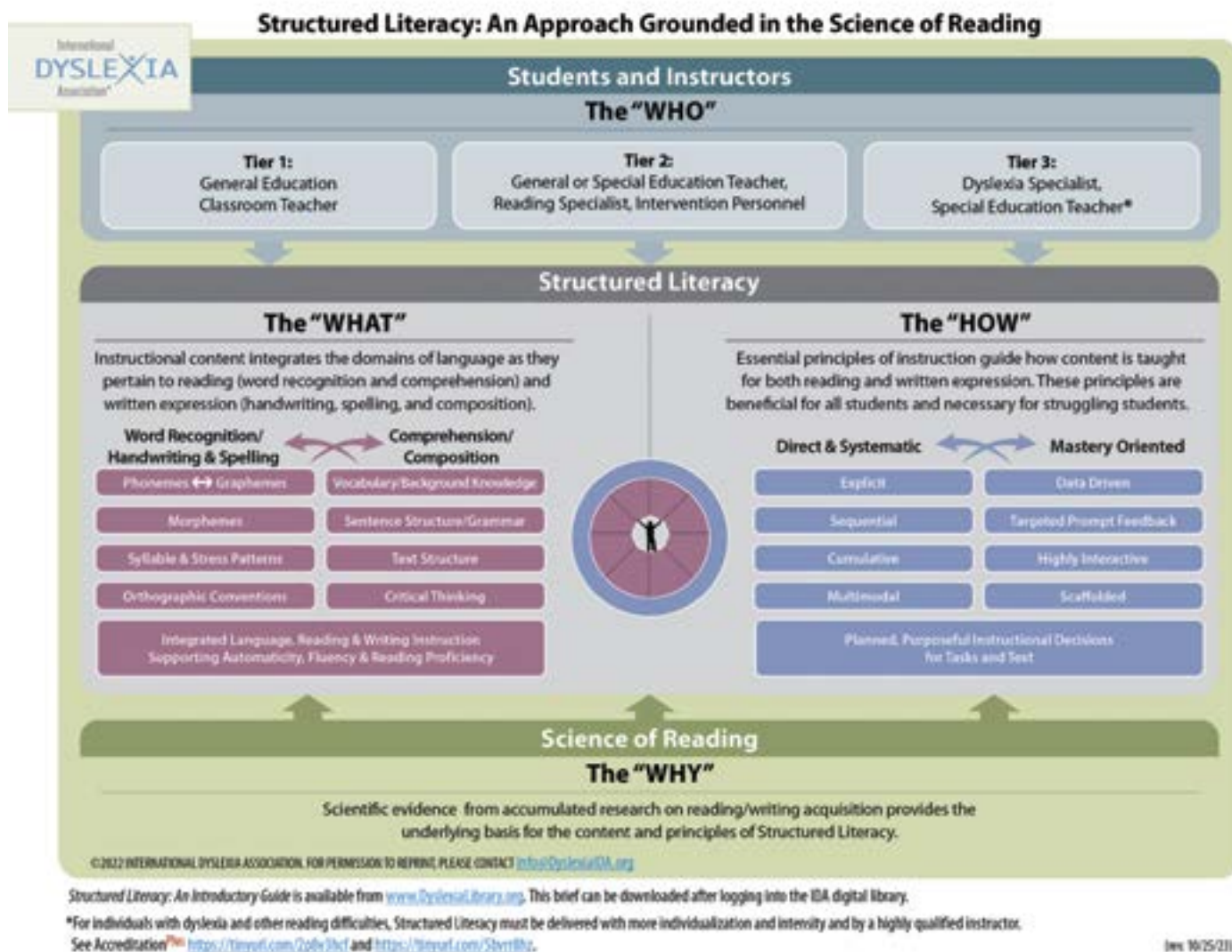
content across the domains of language (phonology, morphology, syntax, semantics, and pragmatics) as they pertain to reading and written expression. SL is informed by interdisciplinary research on learning and cognition, as well as both oral (listening and speaking) and written (reading and writing) language and its acquisition.

Structured Literacy includes direct and systematic, mastery-oriented literacy instruction that integrates word recognition, handwriting, spelling, comprehension, and composition. Unfortunately, as this term became widely adopted, it was often narrowly misrepresented. Pursuing a more comprehensive and collective understanding, IDA sought the input of researchers and Structured Literacy experts over several years. The result was the creation of the IDA's Structured Literacy InfoMap and Structured Literacy Wheel (IDA, 2023) as graphical representations of the approach to literacy instruction grounded in the Science of Reading. These, too, will evolve as research continues to inform best practices.

Structured Literacy is an approach to literacy instruction, not a program, although classroom educators often use one or more programs, combined with teacher expertise, to help them deliver this kind of instruction. For example, teachers might learn how to systematically teach varied text structures as part of their Structured Literacy approach while also using a foundational skills program to deliver word recognition, handwriting, and spelling instruction. Most importantly, teachers must have professional learning and significant support to provide high-quality Structured Literacy in a comprehensive way.

Following is a brief description of each part of IDA's Structured Literacy InfoMap—a tour of the key components of Structured Literacy that together provide a comprehensive approach to literacy instruction (See Figure 1).

Figure 1

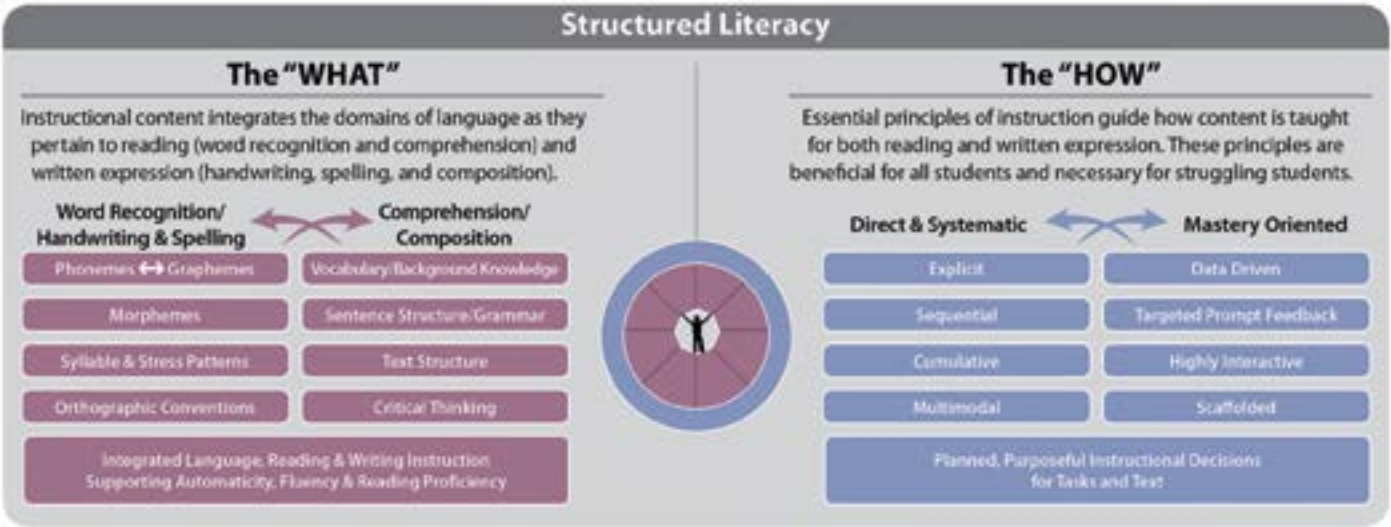


The WHY

The terms *Science of Reading* and *Structured Literacy* are not interchangeable. Rather, scientific and compelling evidence provides the foundation of the Structured Literacy approach as represented by the placement of WHY at the bottom of IDA's InfoMap. The term, *Science of Reading* (SoR) refers to an interdisciplinary body of scientific evidence that informs how students learn to read and write proficiently. This scientific evidence is from accumulated,

replicated, and peer-reviewed research on reading and writing acquisition, and cognition. From this, we can derive the components of evidence-based (EB) instruction, which serve as the underlying basis for the content (the WHAT) and principles of instruction (the HOW) of Structured Literacy. The WHY is also driven by the reading crisis which necessitates a comprehensive approach to translate scientifically validated methods and instructional targets to teach all children to read and write.

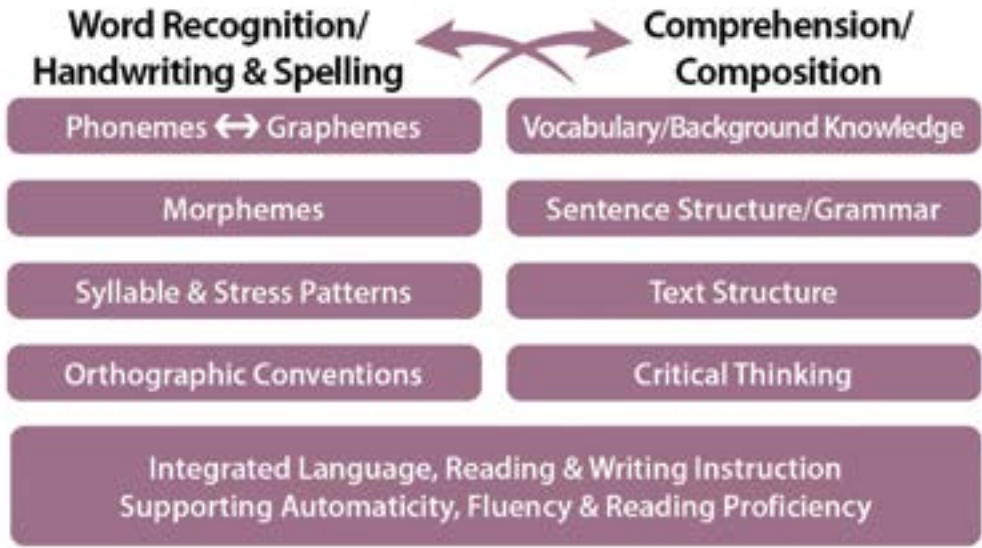
Figure 2



The WHAT and the HOW (See Figure 2) The Structured Literacy approach **equally** focuses on the instructional content (the WHAT of SL) and the essential principles of instruction (the HOW of SL). Content includes word recognition, handwriting,

spelling, comprehension, and composition. Direct, systematic and mastery-oriented principles of instruction guide how content is taught. The principles—the HOW— are as important as the content and are key to student success.

Figure 3



The WHAT (See Figure 3) Written language skills should be taught simultaneously for both reading (word recognition and comprehension) and writing (handwriting, spelling, and composition). Though often misrepresented as a “phonics only” approach, Structured Literacy is com-

prehensive. A Structured Literacy approach includes word recognition, handwriting, and spelling instruction. Teachers simultaneously teach strategies that are necessary to master language comprehension and composition.

Figure 4



Students in Structured Literacy classrooms learn phonemes, graphemes, morphemes, syllable and stress patterns, and orthographic conventions as well as letter formation automaticity.

Structured Literacy classrooms include the following instruction (See Figure 4):

Phonemes and Graphemes: A *phoneme* is the smallest segmented part of spoken words, and a *grapheme* is a letter or combination of letters that represent that phoneme. To become proficient readers, students must master the *alphabetic principle* (the linking of these sounds to their letters). Reading and writing should be taught simultaneously as reciprocal processes. For example, students learn how to efficiently form letters as they also learn the letter names and corresponding sounds. They practice sounds to automaticity in two directions. In one direction, they see the letter and say the corresponding sound (they see the letter *m* and know that it says /m/). In the other direction, they hear the sound /m/ and name and write the corresponding letter, *m*.

Phoneme awareness is the ability to be aware of and consciously think about phonemes or individual speech sounds in spoken words. Explicit phoneme awareness instruction (targeting the phoneme level) is

the aspect of phonological awareness that most correlates to reading acquisition. This involves teaching students to isolate phonemes in a word, segment and blend them, and manipulate them.

Blending and segmenting at the phoneme level are the most important phonemic awareness skills as these lead directly to the acquisition of decoding and encoding skills. Teaching these phoneme awareness skills, along with the connection between the phonemes and graphemes from the beginning, best supports reading and spelling development.

“This approach is an example of an important concept of Structured Literacy: Student learning of foundational reading skills is facilitated by instruction that is integrated—that coordinates the development of phoneme awareness with the learning of letter and grapheme names and sounds, and that includes instruction in handwriting along with practice writing the targeted letters.” (IDA, 2022)

At a foundational level of reading and writing acquisition, automatic word recognition relies on the ability to efficiently decode words, and efficient spelling requires an ability to encode words. In a Structured Literacy lesson, these are closely linked.

Decoding instruction, often referred to as phonics, involves directly and systematically teaching students the letter-sound correspondences, and how to blend them to read words. Encoding is spelling by segmenting the sounds and identifying the corresponding letters rather than through rote memorization. Encoding strongly reinforces decoding (and vice versa).

Figure 5



Syllable and Stress Patterns: Structured Literacy, even at the foundational level, goes far beyond phonemic awareness and typical decoding and encoding instruction. Educators teach students about syllable structure, including accent or stress. This instruction strengthens students' word analysis and recognition, as well as their spelling skill.

Morphemes: *Morphemes* are the smallest units of meaning, and written morphemes are called *word elements*. Their instruction includes how base elements, prefixes, and suffixes work in written English words. The direct teaching of morphemes should begin during early reading instruction (for

example, teaching suffixes -s and -es in the words *maps* and *boxes*) and gradually progressing to include complex words (containing more than one word element) as these account for more than half of the vocabulary students encounter while reading beyond a fourth-grade level.

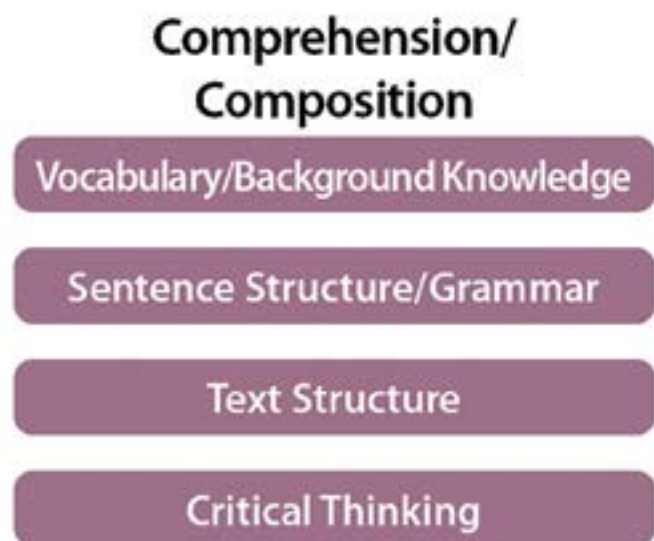
Orthographic Conventions: Instruction about *orthographic conventions*, the study of the rules that govern written language, is included. Students learn acceptable spelling combinations for English words, including one-to-one phoneme/grapheme correspondences, spelling of letter sequences, and rules beyond.

Conventions of English orthography include:

- Spelling the sound /j/ after a short vowel with *dge* not *j* at the end of a word (ledge not lej).
- Adding an e at the end of give because v doesn't generally end a word.
- Doubling the g in the word bugging but not in bugs when adding a vowel vs. a consonant suffix.

The phrase *high-frequency words* is often used to describe the most common words found in print. These words, along with all words, need to be recognized on sight, and spelled with automaticity. Some high-frequency words in English follow the conventions of spelling (*he*, *for*), but others may have one or more parts of the word that do not follow the expected spelling patterns. Typically, only one grapheme deviates from its most frequent pronunciation (e.g., the *a* in *what*). In a Structured Literacy approach, students learn which parts of a word follow the conventions of English and which parts do not, and as applicable, the reasons behind the variation.

Figure 6



From the beginning, comprehensive Structured Literacy includes direct and systematic instruction to develop students' vocabulary, background knowledge, sentence structure and grammar, understanding of text structure, and critical thinking.

In the Structured Literacy approach, teachers bolster student comprehension and composition through strategies that integrate reading, writing, and oral language activities. Structured Literacy classrooms include the following instruction (See Figure 6):

Vocabulary and Background Knowledge:

Teaching strategies for comprehension and composition begins with early literacy instruction, and can even be fostered before formal reading instruction begins. Extensive reading or listening to narrative and informational text is a central part of instruction in an SL classroom. This, along with teacher-facilitated discussion, is essential for all students and is especially important for those who are not yet capable of accessing text at higher levels. This approach helps students develop both vocabulary and background knowledge, especially when a set of text selections focus on one topic.

Teachers also build students' word awareness mindset by consistently asking them to consider "What's the word structure? What's the word's meaning?" Teachers help

students learn multiple meanings of words and word relationships in semantic clusters (words and phrases such as *happy*, *content*, *joyous*, and *over the moon*). When students successfully decode or spell a word, it should always be linked to its meaning. This development of word consciousness is another example of the integrated nature of Structured Literacy.

Sentence Structure and Grammar: Direct instruction in the structure of the language occurs at the word, sentence, and text levels. Students learn how to parse a sentence into meaningful phrases and read with intonation, offering both fluency and comprehension support. Conversely, students learn how words combine to make coherent, meaningful sentences, that each word serves a purpose for the writer, and that word order matters. Instruction involves examining sentence construction and learning to expand sentences and combine short, choppy sentences into longer, grammatically correct ones. Additionally, from early on, students learn conventions of written language, such as capitalization and punctuation.

Text Structure: Awareness of text structure supports both comprehension and writing. A Structured Literacy approach includes teaching students the structure and components of a narrative story. A narrative anchor map helps students understand the events in the story, the characters, rising action, climax, and falling action.

Teachers also directly and systematically develop students' understanding of the common expository, or informational, text structures, and teach ways to identify them when reading. Commonly, these structures are description, sequence, chronology, compare/contrast, problem/ solution, and cause/effect. Teaching these text structures for reading should also include teaching these for writing.

Critical Thinking: Teaching students to think deeply about what they are reading takes significant instructional time and de-

termination. This effort must be intentional and prioritized, especially in this age of digital reading where students often skim rather than read deeply.

In SL classrooms, students learn how to listen to or read longer text passages and build a comprehensive and coherent mental model of what the words convey. This involves helping them determine the gist of the story or picture it in a deeply cohesive way rather than simply grasping isolated events or facts. With narrative text, students learn to create a mental picture of characters, objects, events, and so forth. With informational text, they create a mental image of the key information and content presented. When working with students to do this, teachers help them with critical thinking skills and strategies, such as comprehension monitoring, prediction, and inference making.

Figure 7

Integrated Language, Reading & Writing Instruction
Supporting Automaticity, Fluency & Reading Proficiency

Please note that this box is part of the InfoMap. See the WHAT section.

In a Structured Literacy classroom, students do not learn word structure in isolation first (for individual word recognition and spelling) and then later read connected text. Rather, from the beginning, word-level instruction is combined with real reading. Reading is sufficiently practiced with appropriate text as students must be able to read text fluently to comprehend it.

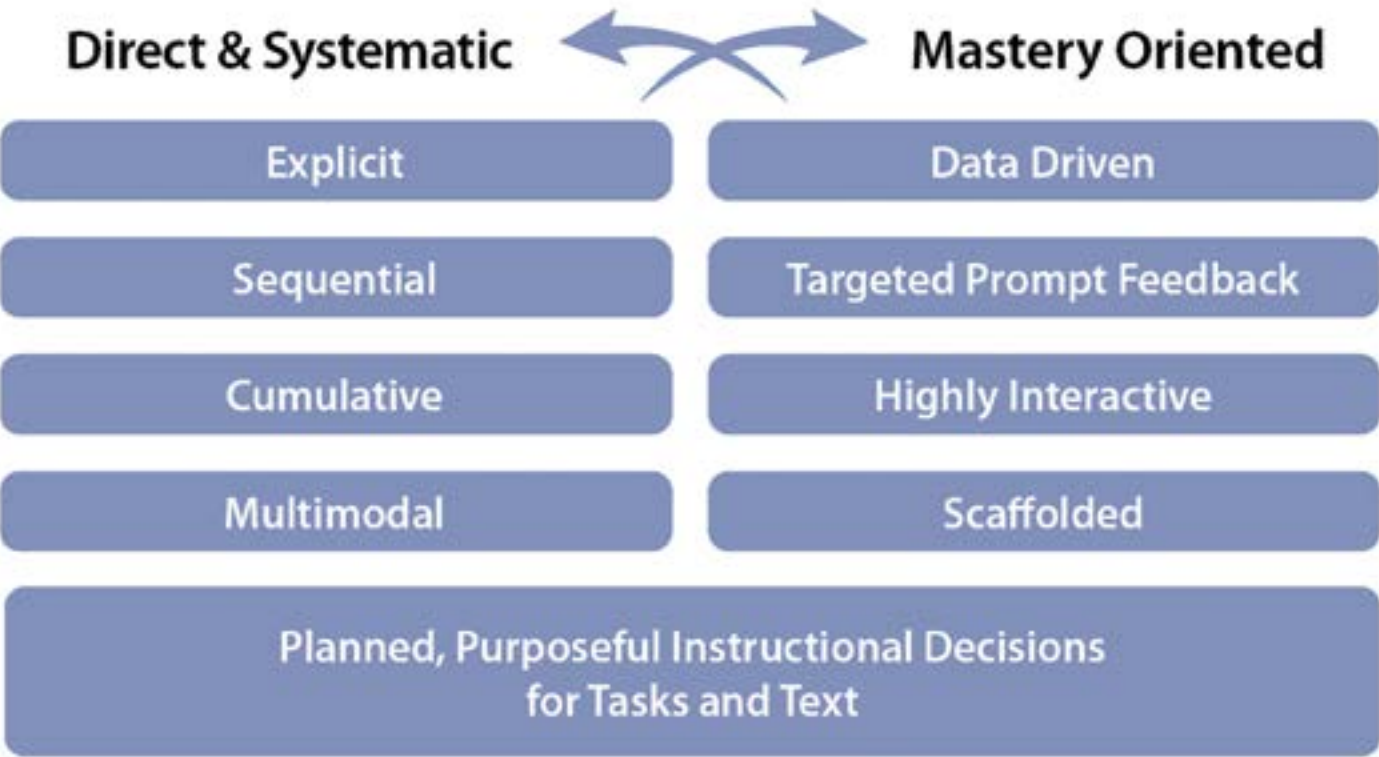
During early literacy acquisition, students use decodable texts to practice reading words with word structures that have been taught directly. Reading orally is an important component because this type of reading integrates, and therefore links, what students see with what they hear and say, helping to establish automatic word recognition.

As students’ decoding ability increases, the amount of text that they read has an impact on their reading proficiency. It is essential to provide students with progressively more difficult text, scaffolded support, and targeted and prompt feedback.

Written expression should also be directly and systematically taught and sufficiently practiced. The teaching of comprehension

and written expression should be integrated and engage corresponding strategies. For example, students both read from a variety of texts and write narrative and expository text. Reading comprehension improves when writing processes, including sentence construction, are explicitly taught. Writing about topics also improves fluency and comprehension (See Figure 7).

Figure 8

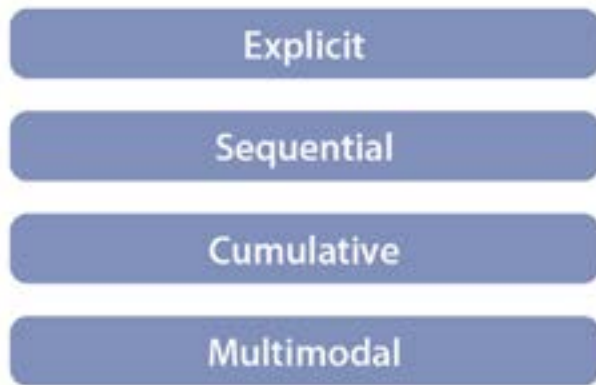


The HOW (See Figure 8)
 The HOW of Structured Literacy refers to the essential principles of instruction that guide how content should be taught. These principles are a central part of Structured Literacy, not only with word recognition, spelling, and handwriting instruction, but

also with the teaching of strategies for comprehension and composition. For individuals who struggle, especially those with dyslexia, these principles are essential for success.

Figure 9

Direct & Systematic



Strategies and skills are explicitly, sequentially, and cumulatively taught with clear explanations and multimodal experiences.

Structured Literacy classrooms include the following principles of instruction (See Figure 9):

Explicit: The purpose of instruction is clearly articulated to students and is straightforward and explicit, addressing the concepts that govern the structure of written English in manageable chunks at a pace that allows mastery. Educators directly teach concepts and skills to students through explanation, modeling, and active learning.

Sequential: Using a Structured Literacy approach, teachers introduce concepts using a sequential order of instruction. For example, students successfully segment three sounds before four, five, or six sounds, and they learn to write a simple sentence before learning how to recognize or construct a complex one. Though there isn't one right order of skill introduction, a progressively logical sequence is important to help students learn the English language as a reliable system. The sequential aspect relates to the complexities of specific language skills, however, this aspect sometimes leads to a misconception that SL promotes only step-by-step instruction of separate *components* of reading. Structured Literacy is integrated and instruction in the varied

components overlaps simultaneously from the beginning.

Cumulative: Teachers ensure that students attain prerequisite skills to experience success. Connections are clearly made to previous learning that has been mastered by the students. Tasks within lessons also proceed in a sequential manner, building upon previous instruction.

Multimodal: The term *multisensory*, previously used when describing Structured Literacy instruction, was often misinterpreted as simply referring to activities such as writing letters in sand or shaving cream. In the Structured Literacy approach, *multisensory* refers to multimodal experiences. For example, when students learn letters and sounds, they say the letter name and letter sound while forming it. This activity allows the student to say the letter, see it, write it, and hear it simultaneously. Beyond beginning reading instruction, multimodal experiences can include demonstration and practice with appropriate manipulatives to help to clarify verbal explanations. Distinctive features of new concepts are emphasized with words explaining the concepts and as needed, accompanied with visuals or manipulatives.

Figure 10

Mastery Oriented



In a Structured Literacy approach, data is central to both planning and instruction. Teachers give targeted, prompt feedback during highly interactive lessons and scaffold work so students can master concepts before moving on.

Structured Literacy instruction is all about mastery, which requires diligent attention to every aspect of HOW instruction is provided. Mastery-oriented instruction means that teachers should provide a pace of learning that is neither stymied nor too fast. Educators use data to differentiate and provide distributed and ongoing practice as needed. Mastery-oriented learning is described below (See Figure 10):

Data Driven: In Structured Literacy, data matters. After content introduction to all students, differentiated focus is then data driven and built around mastery-oriented learning. Teachers progress based on student outcomes on formative and summative assessments, performance-based tasks, and daily observations.

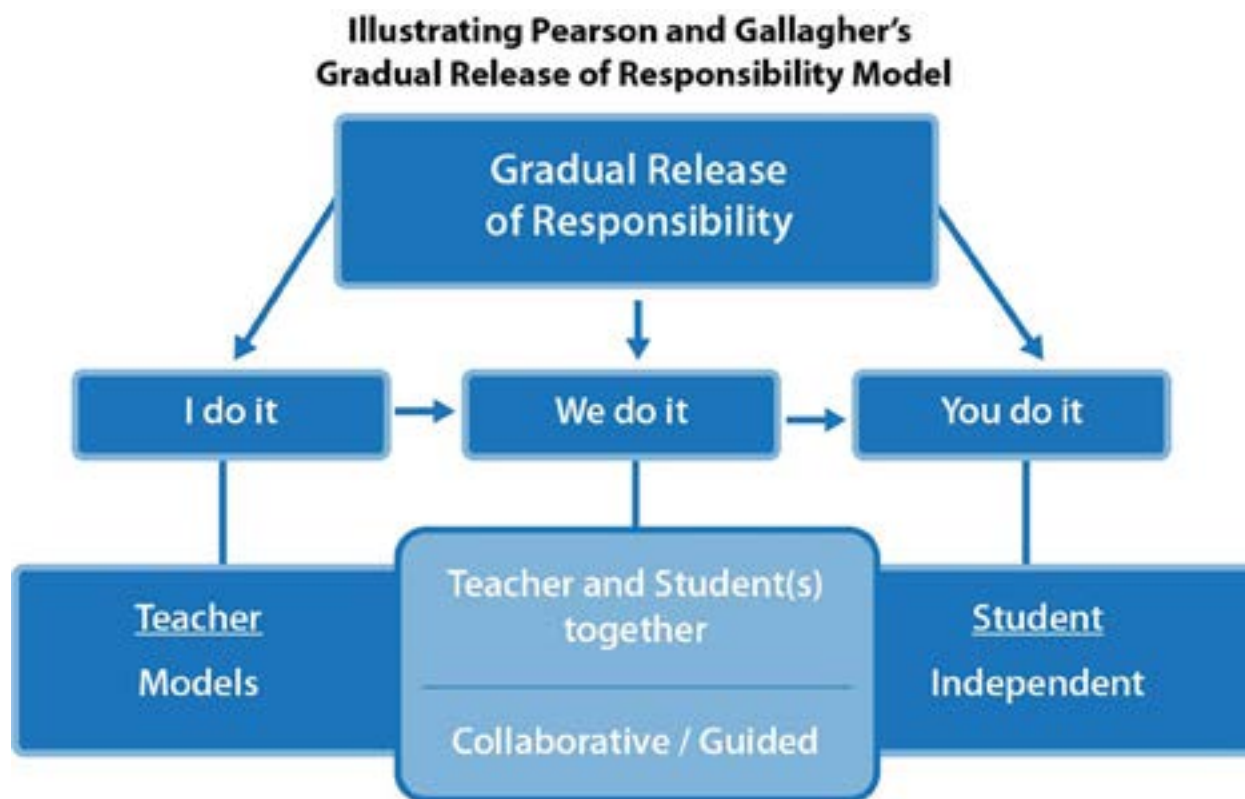
Highly Interactive: All learning involves highly interactive, teacher-led lessons with

activities that fully engage students in the task and allow for immediate feedback. This combination of engagement and motivation is highly correlated to positive student outcomes.

Facilitated by Targeted Prompt Feedback: Because instruction is highly interactive, it also allows for targeted, prompt feedback so that students can immediately learn from both correct responses and mistakes. Feedback is specific and concise. For example, rather than “good job,” a teacher would say, “I love how you looked at the prefix to figure out this word!”

Scaffolded: Instruction is scaffolded for success. A teacher models a new skill or strategy, and then the teacher and student use it together. Next, the student engages in guided practice before moving to independence.

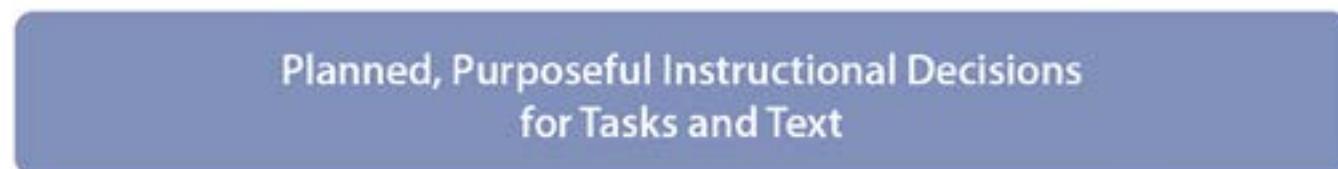
Figure 11



Reprinted with permission, Wilson Language Training, 2018, adapted from Pearson & Gallagher, 1983

Independent work is only given for previously learned strategies after careful monitoring for understanding and correct application (See Figure 11).

Figure 12

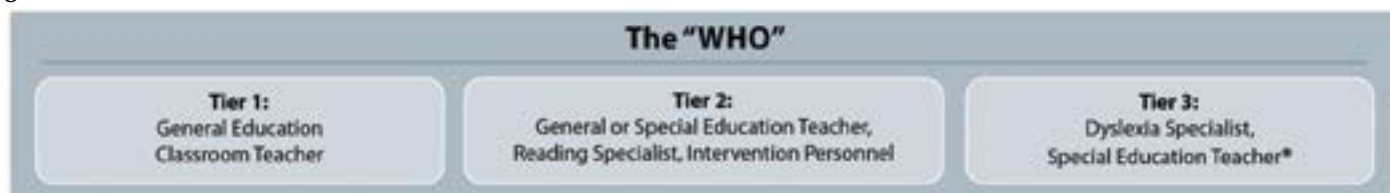


Please note that this box is part of the InfoMap. See the HOW section.

Information is presented in different ways within a lesson and students demonstrate their understanding and application through a variety of performance-based tasks. While all students benefit from SL and its direct and systematic instruction, the amount and kind of practice is then differentiated. Some students readily transfer skills whereas others require multiple and varied opportunities to practice and rein-

force them. Text selection depends on the student and the task. For example, students who need substantial practice with highly decodable text should also have enriched text read to them. For other students who can read and comprehend the enriched text on their own, text selections for both independent and small-group tasks would be quite different (See Figure 12).

Figure 13



The WHO (See Figure 13)

Structured Literacy is central to a schoolwide framework beginning in pre-K and kindergarten, and appropriate for all students within a Multi-Tiered System of Supports (MTSS). Research confirms that this is beneficial for all students and helps prevent failure. Assessments are used to better understand both students' mastery or likelihood of risk so that teachers can either move quickly on or provide additional targeted practice and support. For students with dyslexia, an individual who has been highly trained should provide more intensive and diagnostic instruction (see IDA Guidelines for Accreditation Plus).

Figure 14



A Structured Literacy approach is student-centered.

In Structured Literacy classrooms, teachers build student success through clear and manageable expectations and an instructional model that is mastery-oriented and impact-focused. While learning tasks are rigorous, teachers ensure students receive the necessary opportunities for practice with scaffolding and support for both daily success and overall reading and writing achievement. Self-efficacy develops as students see that their incremental successes add up to measurable achievements due to the way the spoken and written language is presented to them in manageable parts (See Figure 14).

Literacy Instruction Aligned to Research: Not New, But Always Evolving

Structured Literacy translates what has been documented as effective instructional practice in classrooms. Though the term *Structured Literacy* is relatively new, the tenets of the approach are not. They have been discussed as critical elements of effective reading and writing instruction in research spanning the past thirty years and have been cited in earlier IDA publications. The Structured Literacy approach has always gone far beyond phonics. It is a comprehensive and integrated approach to literacy instruction that addresses WHAT should be taught and HOW to teach it based on the foundation of accumulated scientific research. The instructional content and the essential principles of instruction support development of the fluency and language comprehension skills necessary for proficient reading and writing.

Research informs us that Structured Literacy benefits all students and is necessary for students who need additional support as they learn to read and spell, including individuals with dyslexia. The tenets of SL will continue to evolve with additional research—but there is sufficient evidence to fully implement a Structured Literacy approach now. Students deserve no less.

IDA 75th ANNIVERSARY

Our Vision:

Structured Literacy
for every child
in every classroom
across the nation
and around the world



Domains of Language

Language is a rule-governed behavior. It is defined as the comprehension and/or use of a **spoken** (i.e., listening and speaking), **written** (i.e., reading and writing), and/or **other communication symbol system** (e.g., American Sign Language).

Spoken and written language are composed of receptive (i.e., listening and reading) and expressive (i.e., speaking and writing) components.

Spoken language, written language, and their associated components (i.e., receptive and expressive) are each a synergistic system comprised of individual language domains (i.e., phonology, morphology, syntax, semantics, pragmatics) that form a dynamic integrative whole (Berko Gleason, 2005).

Descriptions of the five language domains follow:

- **Phonology**—study of the speech sound (i.e., phoneme) system of a language, including the rules for combining and using phonemes.
- **Morphology**—study of the rules that govern how morphemes, the minimal meaningful units of language, are used in a language.
- **Syntax**—the rules that pertain to the ways in which words can be combined to form sentences in a language.
- **Semantics**—the meaning of words and combinations of words in a language.
- **Pragmatics**—the rules associated with the use of language in conversation and broader social situations.

The five basic language domains are part of a continuum which spans to **higher order language skills**, such as discourse, which is impacted by skills in the pragmatics domain.

Higher order language skills include inferencing; comprehension monitoring; interpretation of complex language, such as jokes and puns; and use of text structure knowledge. **Metalinguistic awareness** is requisite for the development of higher order language skills and is defined as “the ability to think about and reflect upon language” (Gillon, 2004, p. 10). Metalinguistic awareness includes phonological awareness, morphological awareness, syntactic awareness, semantic awareness, and pragmatic awareness. Metalinguistic skills are also critical for self-regulation and self-monitoring.

Spoken Language		Written Language		
	Listening	Speaking	Reading	Writing
Phonology	ability to identify and distinguish phonemes while listening (i.e., phonological awareness)	appropriate use of phonological patterns while speaking	understanding of letter-sound associations while reading (i.e., phonics)	accurate spelling of words while writing
Morphology	understanding morphemes when listening	using morphemes correctly when speaking	understanding grammar while reading	appropriate use of grammar when writing
Syntax	understanding sentence structure elements when listening	using correct sentence structure elements when speaking	understanding sentence structure while reading	using correct sentence structure when writing
Semantics	listening vocabulary	speaking vocabulary	reading vocabulary	writing vocabulary
Pragmatics (includes discourse)	understanding of the social aspects of spoken language, including conversational exchanges	social use of spoken language, including production of cohesive and relevant messages during conversations	understanding point-of-view, needs of the audience, etc.	conveying point-of-view, intended message, etc.

Used with permission of American Speech-Language-Hearing Association (ASHA), Domains of Language, from Clinical Topics, Spoken Language Disorders, Language in Brief, (ASHA); permission conveyed through Copyright Clearance Center, Inc.

Developing Word Reading & Spelling Skills with a Structured Literacy Approach



By Linnea C. Ehri

Structured Literacy

The “WHAT”

Instructional content integrates the domains of language as they pertain to reading (word recognition and comprehension) and written expression (handwriting, spelling, and composition).

**Word Recognition/
Handwriting & Spelling**



**Comprehension/
Composition**

Phonemes ↔ Graphemes

Vocabulary/Background Knowledge

Morphemes

Sentence Structure/Grammar

Syllable & Stress Patterns

Text Structure

Orthographic Conventions

Critical Thinking

Integrated Language, Reading & Writing Instruction
Supporting Automaticity, Fluency & Reading Proficiency

Attaining reading proficiency is a complex process that involves the learning and integration of knowledge and skills that emerge and grow over time. Some components involve language comprehension processes. Others involve word recognition. Scarborough's (2001) rope model depicts these components in Figure 1. When children begin learning to read, they possess or are taught components represented by strands of the rope. As these are learned, they become integrated with other components and skilled reading emerges.

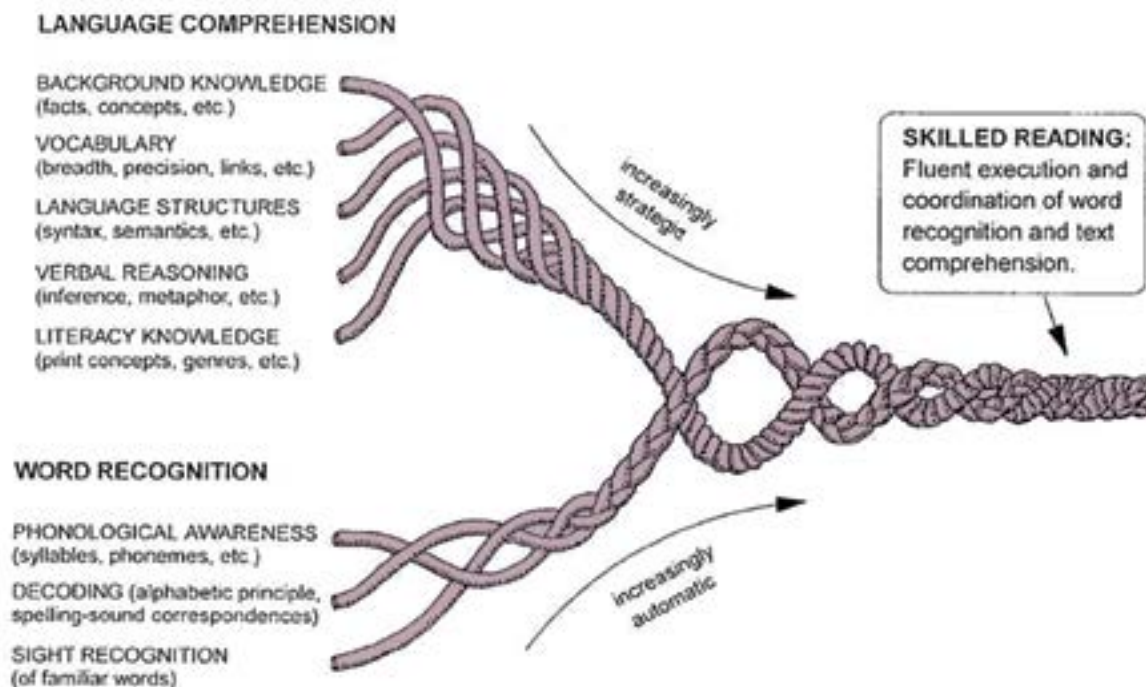
The focus of this article is WHAT is taught in a Structured Literacy approach for word recognition and spelling. These skills are

like two sides of a coin, both recruiting the same processes during learning. Two essential drivers of growth in Figure 1 are teacher-managed, structured, reading and writing instruction, and student-managed reading and writing practice.

Phonemes and Graphemes

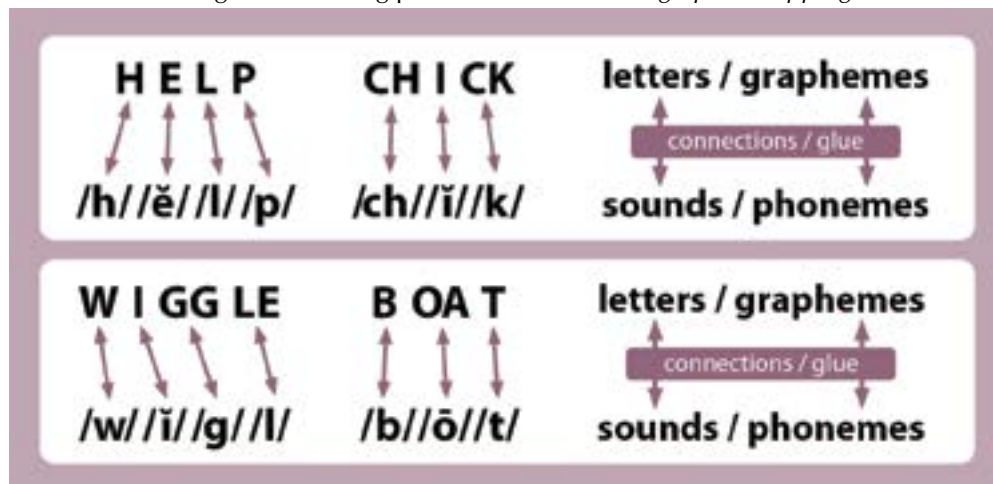
When young children first read their names or recognize words in environmental print (such as the word *STOP* on stop signs), they do this by remembering salient visual cues rather than letter-sound cues. To move students to an alphabetic phase of reading (using letter-sound cues), direct and systematic instruction is necessary. This ap-

Figure 1: Hollis Scarborough's rope model depicts the knowledge and skills that become intertwined as reading skill develops.



Used with permission of Guilford Publications, Inc., Scarborough's Reading Rope, from Handbook of Early Literacy Research, S. B. Neuman & D. K. Dickinson, Volume 1, 2001; permission conveyed through Copyright Clearance Center, Inc.

Figure 2: Grapheme-phoneme connections provide the glue that bonds spellings of individual words to their pronunciations in memory for sight word reading. This bonding process is called *Orthographic mapping*.



proach requires teaching students letter shapes, names, and sounds, and phonemic awareness.

To explain how readers can read thousands of words by sight, a powerful mnemonic system is needed that glues written words into memory. The glue that bonds them consists of the grapheme-phoneme writing system. *Graphemes* are letters or combinations of letters that represent *phonemes*—the smallest segmented parts of spoken words. For example, *t-ea-ch* has three graphemes and three phonemes; *sh-r-i-m-p* has five graphemes and five phonemes.

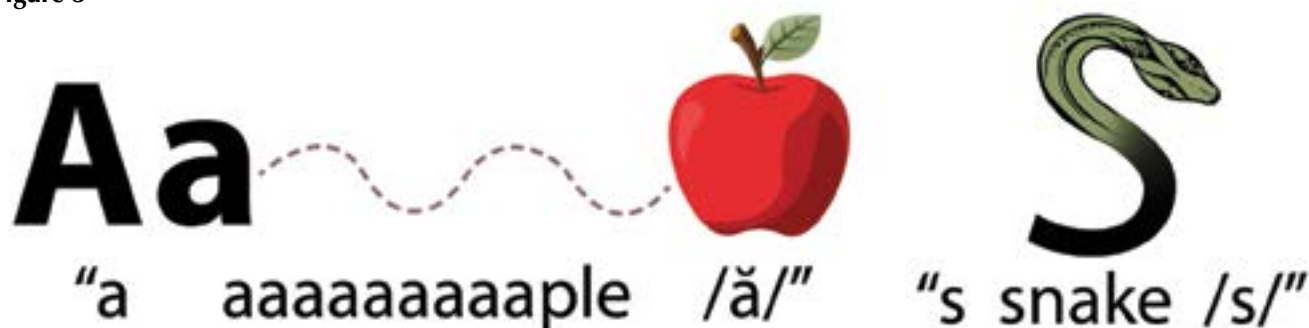
When readers decode a word, connections are activated between graphemes in the spelling and phonemes in the pronunciation (see Figure 2). This bonds the spelling to its pronunciation and stores the spelling in memory along with its meaning. This bonding process is called *orthographic mapping*. Readers need specific knowledge and skills to perform orthographic mapping. They need *phoneme segmentation skill* to distinguish the separate phonemes

in the pronunciations of words. They need to know letter shapes, names, and sounds.

Students need to learn the **major grapheme-phoneme relations** in the writing system.

Instruction in the alphabetic writing system begins by teaching letter names, shapes, sounds, and how to write letters efficiently. If children know the names of letters, a relevant phoneme can be found in many of the names (e.g., *bee*, *dee*, *ess*, *em*). Learning the letter names makes learning grapheme-phoneme relations much easier as there are fewer left to learn (i.e., short vowel sounds and consonant sounds of H, W, Y, C /k/, and G /g/ are phonemes not found in their letter names). Many Structured Literacy approaches teach students a picture keyword to help them master the letter-sound correspondences. For example, students learn to say, *a- apple* /a/, or *a- aaaaaaaapple* /a/ when shown the letter a with an apple. Additionally, an embedded picture mnemonic can help, for example, S drawn as a snake beginning with /s/. See Figure 3.

Figure 3



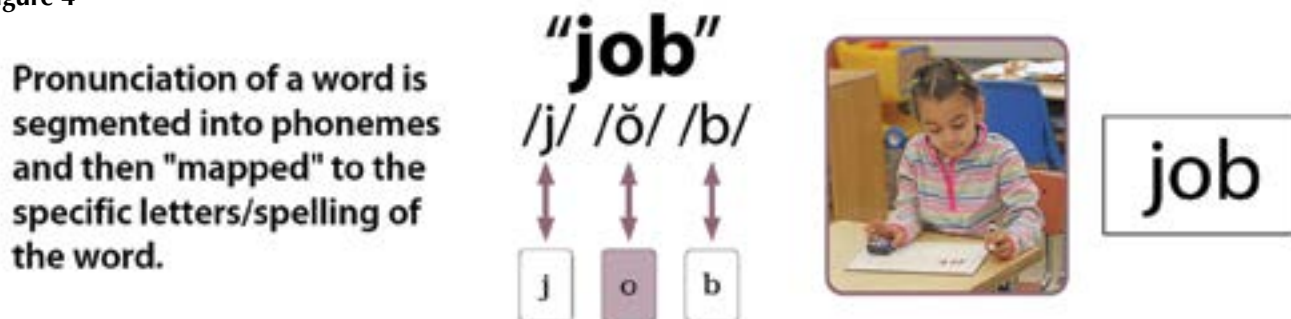
Phoneme segmentation instruction involves teaching students to detect the separate phonemes in spoken words. Phoneme segmentation and phoneme blending are the phonological awareness skills most directly related to spelling and reading success. As stated in the IDA Fact Sheet [Building Phoneme Awareness: Know What Matters](#), “Though several different skills within phoneme awareness require explicit teaching, the most important skills are blending and segmenting at the phoneme level because those two skills lead directly to decoding and encoding (spelling). When teaching and practicing these skills, it is therefore essential to link the speech sounds with the letters that spell them to facilitate the transfer of skills to reading and writing” (International Dyslexia Association, 2022). Additionally, students can be taught not only to attend to the acoustic properties of phonemes but also to mouth

positions and movements involved in producing the sequence of phonemes in words (Boyer & Ehri, 2011).

In the Structured Literacy approach, right from the beginning, it is important to teach students grapheme-phoneme relations, how to segment spoken words into phonemes, and how to select the graphemes corresponding to the phonemes they detect in spoken words.

As depicted in Figure 4, spelling instruction begins with this phonemic segmentation instruction where children are taught to use their knowledge of grapheme-phoneme relations to write the phonemes they detect in spoken words. This preparation enables them to begin storing the correct spellings of words in memory. As their memory bank of written words grows, they learn more about recurring spelling patterns and

Figure 4



this knowledge improves their ability to remember individual word spellings.

In the Structured Literacy approach, teachers help students learn how to decode a word synthetically, by transforming each grapheme into its corresponding phoneme and then blending the phonemes to pronounce the whole word and find its meaning. Blending is made easier if children are first taught to decode with continuant consonants in the initial position. These are consonants that can be spoken without schwa and can be stretched and held, (ssss) at the beginning of the word as in /ssss-sip/ — *sip*. Once the decoding process is learned with continuants, other consonants can be introduced. Teachers must learn to clip the sound when they pronounce these consonants (/k/ rather than /kuh/, also /t/, /d/, /b/, /g/, /p/) so that they avoid the insertion of schwa sound at the end of the consonant, which makes blending difficult (for example /p/ /i/ /g/, not /puh/ /i/ /guh/).

Students might have difficulty remembering the separate sounds just spoken when they try to blend them. Thus, when teaching students to blend, help them master it with two or three sounds (*in*, *at*, *up*, *sun*, *map*, *pit*, *shop*) before moving on to words that have consonant blends with four sounds or more (*clap*, *chest*, *stomp*).

In a Structured Literacy classroom, teachers provide direct and systematic instruction for all the major grapheme-phoneme relations and how to use them to decode words. Reading words in decodable books provides decoding practice and builds students' sight vocabulary. Children need to read text aloud rather than silently so that words are decoded rather than skipped

over, and spellings become connected to pronunciations and stored in memory. These components are all explicitly taught in systematic phonics programs.

Syllables and Morphemes

As described earlier, grapheme-phoneme connections are essential for decoding words and initiating reading acquisition during the full alphabetic phase of reading development. More advanced readers at the next consolidated alphabetic phase of development can decode words by sounding out and blending multi-letter units such as syllables, or morphemes, which are the smallest units of meaning in words. For example, *fan-tas-tic* has three syllables, and *un-lock-ing* has three morphemes, a prefix, a root word, and a suffix (see Figure 5).

Figure 5



Readers at the consolidated phase use multi-letter units (spellings of syllables, morphemes, prefixes, suffixes, and root words) to store sight words in memory. Instruction in Structured Literacy classrooms includes teaching students to break a spoken word into syllables or morpheme elements, and to hear and see these bigger chunks, linking each spoken part to its corresponding letters in the spelling. This approach enables students to apply orthographic mapping to connect the spellings of multisyllabic words to their pronun-

ciations and retain them in their memory for sight word reading and writing.

Orthographic Conventions

Students in Structured Literacy classrooms acquire a solid understanding and knowledge of the orthographic structure of words, which letters co-occur, and their positions in words. Direct instruction helps students learn conventions of the writing system, such as the use of doubled letters at the end of words such as *bell* and *spill* but never at the beginning of words. Not only regularly spelled but also irregularly spelled words are stored in memory when readers apply orthographic mapping to bond their spellings to pronunciations. This bonding is possible because most of the letters in these words can be mapped onto phonemes. For example, all but *s* in *island*, all but *w* in *sword*, and all but *t* in *listen* are mapped. In Structured Literacy approaches, teachers help students identify the parts of a word that follow the conventions of written language as well as any part of the word that does not.

Integrated Language, Reading, and Writing Instruction Supporting Automaticity, Fluency, and Reading Proficiency

When proficient readers see a word they have read before and stored in memory, they recognize its pronunciation and meaning automatically without any decoding, analogizing, or prediction required. They read it as a whole unit as soon as it is seen with little conscious attention or effort. Contrary to the belief that only irregular or high-frequency words are read by sight, all words

become sight words read from memory once readers practice reading them, making text reading much easier. Readers can focus on the meaning of the text while the words are read automatically.

Contrary to the belief that only irregular or high-frequency words are read by sight, all words become sight words read from memory once readers practice reading them, making text reading much easier.

To acquire sight words, meanings must become connected to spellings and pronunciations in memory so that all these identities are activated automatically when words are read. Semantic connections to spellings are formed when words are read in meaningful contexts. This means that students need to read and comprehend text to grow their sight word memory. Text reading is especially important for words that have little meaning outside of sentences, for example, function words (*was*, *from*) and past tense verbs (*held*, *said*). Additionally, text reading is important for adding new words and their meanings to students' vocabularies. Bonding spellings to new vocabulary words strengthens memory for the words (Rosenthal & Ehri, 2008).

Foundational Skill Acquisition

Alphabetic phase theory portrays the course of development in learning to read and spell words from memory (Ehri, 2014). The phases are labeled to reflect the pre-

dominant type of alphabetic connection that children use to remember written words. At the pre-alphabetic phase, children use visual, non-alphabetic connections. At the partial alphabetic phase, children use some of the letter sounds in words to form connections. At the full alphabetic phase, children form more complete grapheme-phoneme connections. At the consolidated alphabetic phase, children use multi-letter units such as spellings of syllables, morphemes, prefixes, suffixes, and root words to store words in memory. These larger units are consolidated out of grapheme-phoneme units. The transition from one phase to the next is gradual, so at any point, the child may be using more than one type of connection, although one type is most common.

Alphabetic phase theory details the importance of equipping students with foundational knowledge when they begin learning to read. Phase theory also provides a framework for assessing how far students have advanced in acquiring literacy skills and what forms of instruction and practice are needed for further progress. This instruction includes teaching students letter knowledge (letter shapes, how to write letters efficiently, and grapheme-phoneme relations) and phonemic awareness. It also includes teaching students syllable structure, word parts, and the conventions of the English language. All of these, along with text reading, comprise the essential components (or the WHAT) for word recognition and spelling skill that are effectively taught with a Structured Literacy approach.

Learning foundational components and their integration lines the path to proficient reading.

IDA

75th

ANNIVERSARY

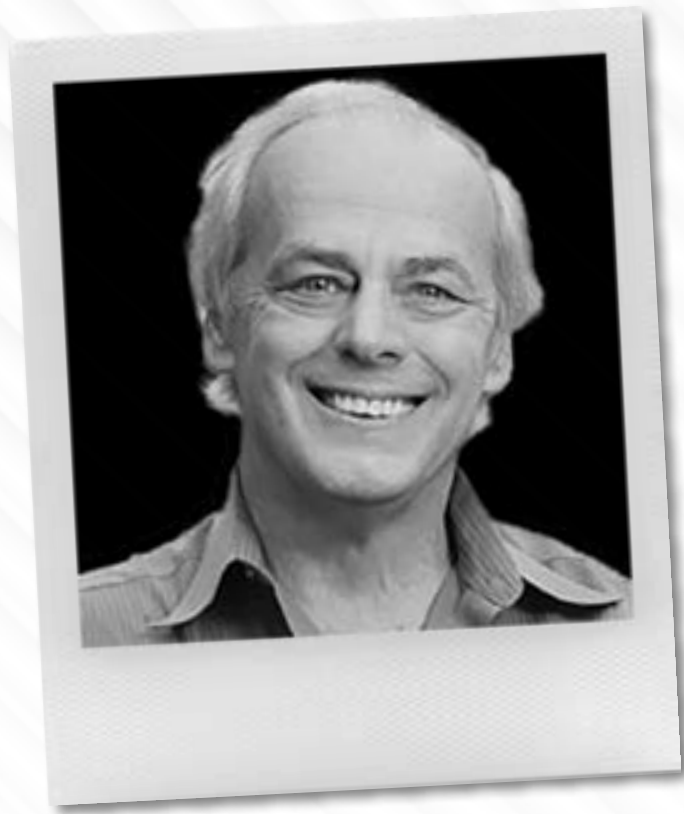
IDA TV Educational Platform

Introducing IDA TV, our premier streaming platform! Dive into a world of educational content, resources, and training all in one place. Gain valuable insights into dyslexia, structured literacy, and the science of reading. Subscribe now for the latest learning videos and trainings, empowering educators, researchers, and advocates worldwide.

IDATV.org

Structured Literacy and Handwriting:

Explicit Instruction of an Essential Skill



By Steve Graham

Structured Literacy

The “WHAT”

Instructional content integrates the domains of language as they pertain to reading (word recognition and comprehension) and written expression (handwriting, spelling, and composition).

**Word Recognition/
Handwriting & Spelling**



**Comprehension/
Composition**

Phonemes ↔ Graphemes

Vocabulary/Background Knowledge

Morphemes

Sentence Structure/Grammar

Syllable & Stress Patterns

Text Structure

Orthographic Conventions

Critical Thinking

Integrated Language, Reading & Writing Instruction
Supporting Automaticity, Fluency & Reading Proficiency

Handwriting is an essential skill that students must master to become proficient writers. If children do not learn to form letters legibly and fluently, they cannot efficiently translate their ideas into text (Graham, 2009/2010). Any time they must think about how to form a letter, possible ideas for writing may slip from memory. If handwriting is not fast enough to keep up with thoughts, even more ideas may be forgotten. When students must devote effort to thinking about handwriting, this energy cannot be applied to other writing processes. Readers judge writing more harshly as text becomes less legible. Children who find handwriting difficult often avoid writing and may come to believe they cannot write.

It is important that children master the skill of handwriting early, and it cannot be left to chance. If children construct their own motor patterns for forming letters, they will learn to form some or even many letters in a slow and laborious manner. The antidote is to teach students directly how to form letters efficiently. Over 100 years of research supports this approach to learning (Graham, 2009/2010).

Teaching handwriting does not require a large investment of time. It can be successfully taught in short 15- to 20-minute lessons provided three to five times a week. This time spent teaching handwriting is time well spent as students' sentence-writing skills, writing output, and writing quality improve along with their handwriting. Such instruction may even improve reading skills (Graham, 2009/2010).

An effective practice for teaching students how to form letters is for the teacher to

name the letter and model how to form it (this can be paired with making the sound the letter makes). The teacher and students should also examine how the formation of the letter is similar and different from other

It is important that children master the skill of handwriting early, and it cannot be left to chance.

letters. Students then need to practice tracing, copying, and writing the letter from memory. Tracing and copying can be facilitated by providing a visual model of the letter which provides visual cues such as arrows showing how it is formed. Students can be encouraged to identify their best-formed letters and encouraged to correct poorly formed letters. Instructional sessions should be short, and frequent review and practice should be provided.

Handwriting fluency can be promoted by having students write frequently and providing opportunities to copy short paragraphs repeatedly, trying to write a little faster each time. Students must also be taught how to position their paper when writing and how to hold their pencil in a comfortable position.

Handwriting is an essential skill. When children learn to form letters legibly and fluently, they can become more efficient in their writing processes which will serve them as they move in their literacy acquisition across the grades (Graham, 2009/2010).

Key Takeaways

- Handwriting is an essential skill for proficient written expression.
- Slow or laborious handwriting interferes with a student's ability to translate ideas into text.
- Children need to master the skill of handwriting early; it cannot be left to chance and it requires direct instruction.
- Handwriting can be successfully taught in short 15-to-20 minute lessons provided three to five times a week.
- Components of effective instruction:
 - Students learn how to position their paper when writing and comfortably hold their pencils.
 - The teacher names the letter and models how to form it (this is paired with saying the corresponding sound in a Structured Literacy approach).
 - The teacher and students examine how the formation of the letter is similar and different from other letters.
 - Students practice tracing, copying and writing the letter from memory.



Connect to members in 50 states and countries
Affiliate with your local branch
Receive discounts
Gain access to researchers,
teachers, professional, and parents
Access to expert publications
Member rates for IDA TV and ShopIDA

<https://portal.dyslexiaida.org/>

Making & Conveying Meaning:

How Structured Literacy Integrates Comprehension and Composition



By Kate Cain

Structured Literacy

The “WHAT”

Instructional content integrates the domains of language as they pertain to reading (word recognition and comprehension) and written expression (handwriting, spelling, and composition).

Word Recognition/ Handwriting & Spelling



Comprehension/ Composition

Phonemes ↔ Graphemes

Vocabulary/Background Knowledge

Morphemes

Sentence Structure/Grammar

Syllable & Stress Patterns

Text Structure

Orthographic Conventions

Critical Thinking

Integrated Language, Reading & Writing Instruction
Supporting Automaticity, Fluency & Reading Proficiency

Good oral language and communication skills provide a strong foundation for the development of reading and writing. Preschoolers who know the meanings of more words, speak longer utterances, and produce more sophisticated narratives are those who typically acquire stronger literacy skills, and more quickly, than their peers.

Although these early foundational language knowledge and skills are important, they are not sufficient to ensure reading and writing success. This is because printed text is not simply “speech written down.” Fundamental differences between speech and print present a young reader and writer with challenges (and opportunities) beyond word-level competence in word recognition and spelling. These opportunities include differences in the familiarity of the words and content, the length and complexity of sentences, and the structure of the information presented in text. Also, critical thinking skills are necessary for a reader to independently construct the intended meaning. When talking, a conversational partner is present who can be asked to clarify their intended meaning; when reading, the author of the print is not present, so the reader cannot ask them for clarification. Targeted instruction in vocabulary, background knowledge, sentence structure/grammar, text structure, and critical thinking is necessary to support successful reading and writing development.

Comprehension and Composition Instruction

To directly support students’ reading comprehension and writing composition, research informs four key areas of instruction to target in Structured Literacy classrooms:

- 1) vocabulary and background knowledge;
- 2) sentence structure and grammar;
- 3) knowledge and use of text structure; and
- 4) critical thinking skills, such as inference and comprehension monitoring (see the IDA Infomap).

To appreciate why each is important for reading and writing and worthy of instructional focus, consider this short text:

Lily had been busy with her bucket and spade for hours. A huge wave crashed onto the shore, just after she had completed the tower. On seeing that her day’s work had been ruined, Lily started to cry.

Now, answer these questions: *Is this a considerate text? Where was Lily? What was she doing? What happened to make Lily cry?*

A *considerate text* supports comprehension by including features such as the use of unambiguous language to guide meaning selection, cohesive words to aid the integration of ideas, and sufficient information related in a logical sequence. In the sample text, the author has been considerate and used *local cohesive ties* (words and phrases that aid integration of ideas) in the form of pronouns – *she* and *her* – in sentences two and three. These words and phrases enable readers to link meanings across the separate clauses and sentences.

However, some might argue that this is not a “considerate” text because some critical

content words have multiple meanings. For example, familiarity with the most frequent meaning of *wave* (moving one's hand in greeting) does not help you to fully understand the main event in this sad tale. Also, the events in sentence two are not described in chronological order; knowledge of adverbial phrases must be applied to guide understanding of the relationship between the events in each clause and the passage. Narratives typically include common elements, but here the author has not specified the central action or the setting. One must understand the relationship between *bucket and spade* and *tower* to support the inference that Lily is building a sandcastle, and the occurrence of *wave* and *shore* together to recognize that the most probable location for these activities is the seaside rather than the shore of a lake.

Analyzing the requirements to construct meaning from this short text illustrates that successful comprehenders do not interpret individual words or sentences in isolation. Instead, comprehension is an active process requiring readers to retrieve and gauge the contextually appropriate sense of words, integrate information across sentences, use knowledge of text structure as a framework, evaluate their understanding, and generate inferences from the text, as necessary. In doing so, they construct an integrated and coherent representation of the actions and events described in the text, referred to as a mental model.

Successful text comprehension and good writing is more than accurate word reading and spelling; thus, a comprehensive Structured Literacy approach also provides direct and explicit instruction in these key areas along with essential foundational skills.

Vocabulary and Background Knowledge

Vocabulary and background knowledge are necessary to satisfactorily comprehend a text. They can be thought of as *unconstrained skills* because we continue to build these throughout our lifetime as we learn new words and new facts. Readers who know the meanings of more words in general, and those who have prior knowledge of a topic, show better understanding of and learning from text. These words may be particularly important to understand and learn from expository texts, which typically describe or explain unfamiliar topics.

Fundamental differences between speech and print present a young reader and writer with challenges (and opportunities) beyond word-level competence in word recognition and spelling.

We hear words all around us, whether in conversations, movies, songs, television, or other modes, so why should instruction to support literacy also focus on vocabulary? It is well established that books provide more rich, diverse, and advanced linguistic content than child-directed speech and everyday conversation. In fact, the rare and less familiar words in academic books are typically content—words that convey critical meaning. Thus, good oral vocabulary knowledge is not sufficient to support good reading comprehension.

Although the vocabulary in books can be challenging to a reader, it also exposes them to a rich and varied lexicon that expands their word knowledge. The Structured Literacy approach not only teaches foundational skills; it also includes wide reading of a variety of texts. Teachers both read to students and have students read on their own as they are able to broaden their knowledge of the world by providing opportunities to learn new facts and extend conceptual knowledge. An individual's reading habit (the frequency of reading and being read to) is positively associated with the breadth of their vocabulary knowledge (how many words they can understand or produce) and their broader conceptual and background knowledge.

Good word knowledge extends beyond the meanings of individual words. Different words convey shades of meaning for related concepts. Consider the words: *content, happy, pleased, glad, joyful, delighted, and ecstatic*. Also consider the variety of words to represent concepts that share some related aspects of meaning: *high, tall, cliff, tower, over, jump, and sky*.

Students are directly taught to think about multiple meanings of words as well as shades of meanings in Structured Literacy classrooms. An individual's depth of word knowledge, what they know about individual words, and the relations between words, is an important indicator of the quality of their word knowledge. Those with high-quality word knowledge quickly access the precise meaning of a word when reading and can readily select the appropriate word to include when writing. Thus, good literacy relies on instruction that promotes the broad and deep word

knowledge that forms a network of word meanings that one can tap when reading and writing.

Word comprehension and production are also supported by direct instruction leading to an appreciation of *morphology*: knowledge of the smallest meaningful units of words. The same root morpheme

Table 1: The word joy with some derivational and inflectional suffixes that combine to form new words.

derivational prefixes	root	inflectional suffixes	
en over	joy	ed	
		ing	
		derivational suffixes	
		ful	ly
		ous	ness

can occur in several different words that are formed from a combination of the root with derivational or inflectional affixes (for an example, see Table 1). Knowledge and use of morphology is related to word reading, spelling, and reading comprehension.

Instruction in morphology in Structured Literacy classrooms can also help readers derive the meanings of complex, unfamiliar, multi-morphemic words that they may encounter when reading.

Sentence Structure and Grammar
Sentence comprehension is critical to becoming a good reader. Sentence structures used in books are qualitatively different than those used with spoken language. Sentences in print are typically longer than those used in everyday conversation and, critically, they are more syntactical-

Table 2: Examples of sentence structures that are more common in print than speech.

Sentence Structure	Example
Passive	The giraffe was chased by the monkey.
Relative clause	The man whom the girl helped finished clearing the path
Complement clause	Rabbit told the mouse that she ate the cake.
Adverbial clause	Julie handed the cloth to Rita because she had spilled her milk.

ly diverse. Print is more likely to include constructions such as passive voice and complex sentences that comprise a main clause and at least one subordinate clause (see Table 2).

Thus, texts for young readers may convey meaning through sentence lengths and structures that are not common in one's spoken environment. Structured Literacy approaches help students acquire an understanding of grammar and cohesive devices to grasp the meanings of these sentences; word order alone will not result in an accurate understanding.

Although most readability formulas favor texts with short words and sentences, key vocabulary words, such as adverbial phrases (or connectives), support comprehension by providing a "signal" to help one link information between clauses. Table 2 illustrates the kinds of clauses that help a reader to make causal inferences that, for example, explain a character's actions or clarify who "she" is in the second clause. Because of this signaling function, multi-clause sentences in print do not necessarily make print harder to understand than speech.

Knowledge of adverbial phrases is associated with both reading and writing across the grades, and there are differences in the

comprehension and production of these phrases between good and poor readers and also between monolingual readers and second-language learners. Of note, the meanings of these phrases do not have a one-to-one mapping across languages, so may present a particular challenge to the quality of comprehension and production in second-language learners. However, research has shown that literacy instruction that includes a focus on the function of this critical academic vocabulary (often taught alongside knowledge of text structure; See next section) has a positive influence on both reading and writing. The benefits of instruction are evident in both the early grades and adolescence, making it an ideal candidate for instruction in Structured Literacy classrooms.

Text Structure

Books and writing assignments, such as essays and reports, contain more than just words and sentences; they can include paragraphs, chapters, and sections (for informational texts). A Structured Literacy approach that provides direct instruction is necessary for students to learn how to successfully navigate a range of texts. Without that, developing readers may be challenged by how to integrate information over these extended sections of text, keep track of multiple characters across multiple

Table 3: Key features and academic language markers for expository text.

Expository Text Structure	Key features	Academic language
Description	provides information about the attributes of something	to illustrate; for instance; for example
Sequence	group ideas based on order or time	then; next; finally; first, second, third
Cause/effect	explanation of why something happened or the effects of something	as a result; accordingly; may be due to;
Compare/contrast	exposition of how two (or more) things are similar or different	from; same as; on the other hand; in contrast to
Problem/solution	example of how a problem might be solved	the problem is; a solution is; the question is; one answer is

episodes for narratives, and make sense of the relationship between different pieces of information in expository texts. Likewise, the developing writer needs to learn how to use structure to convey ideas so that they are presented in a logical and coherent sequence.

Different types of text structures contain regularities or features that provide readers and writers with a framework that can guide them in understanding the elements to expect in the text. For example, narratives typically have a clear temporal and causal sequence, common elements such as characters, setting, plot, and solution, and include motivations for a character's actions and responses. Preschoolers who are better at understanding stories read aloud to them, and better able to retell those stories, are more likely to excel in reading comprehension in the first few years of literacy instruction. This is why it is essential to directly teach all students the structure of stories and how to retell them. Though

most children demonstrate proficiency in their knowledge and use of narrative conventions and organizational structure by nine to ten years of age, direct instruction supports earlier understanding.

Narrative texts share commonalities. In contrast, expository texts vary in key features that influence how information is presented (see Table 3). Expository text builds content knowledge and is a critical vehicle for learning in school. Many children come to school with little exposure to expository text. Instruction in the range of expository text structures is required to develop proficiency in their use and has been found to benefit learning across a range of content areas.

In a Structured Literacy classroom, key features and associated academic language for varied expository text structures are explicitly taught. Table 3 provides examples of academic language cues used by writers to signal to readers how to connect ideas

within a text. These organizational cues aid readers in establishing the overall structure or framework of ideas and alert readers to key facts and main ideas. They may also emphasize a common (or the author's own)

Good readers use their language background knowledge and critical thinking skills to understand each new piece of information and incorporate these to build a meaning-based representation of the text in their minds—their coherent mental model.

viewpoint, for example: *"most people believe..."*, *"contrary to popular belief,"* and *"in my opinion."* This range of academic language may be particularly beneficial to comprehend expository text. Readers with a greater understanding of how these signaling devices work show better learning from informational texts. Many of these words and phrases are uncommon in everyday spoken language and infrequently used in the typical delivery of the classroom teacher, so children must be taught directly how to identify and use them. This language supports learning, and demonstration of learning through writing, across a range of disciplines and content areas.

Critical Thinking: Inference, Integration, and Comprehension Monitoring

Reading and writing are active processes. Good readers use their language back-

ground knowledge and critical thinking skills to understand each new piece of information and incorporate these to build a meaning-based representation of the text in their minds—their coherent mental model. Good writers provide sufficient information to convey the text's meaning logically and coherently and choose words and phrases to convey precise meaning and avoid unnecessary repetition.

In Structured Literacy classrooms, teachers invest the essential time it takes to help students develop a deep understanding of the text by learning how to formulate a mental model rather than simply skimming a text. Inference-making is a critical skill that enables successful comprehension and learning from text. Successful comprehenders make inferences as needed to derive the meanings of unfamiliar words, combine ideas within sentences, and integrate ideas within and outside of the text, using prior knowledge, to understand and learn from the text. As illustrated by the short text about Lily on the beach, the author does not specify all the details. Readers need to be taught how to use relevant prior knowledge and their understanding of the function of cohesive ties to fill in implicit but critical details and link events expressed in separate sentences. If they do not do this, they cannot understand the relationship among the events in these sentences and build a coherent mental model of the text.

Students need to pinpoint where there is a breakdown in understanding. When students learn to develop a coherent mental model while reading, they can more readily become aware of any failure to fully understand—this skill is the product of successful comprehension monitoring.

Good readers evaluate their understanding as they read—they identify when they do not fully understand a word, cannot con-

Good writers provide sufficient information to convey the text's meaning logically and coherently and choose words and phrases to convey precise meaning and avoid unnecessary repetition.

nect two events, or are unable to integrate new information into the unfolding mental model—and take strategic action to resolve difficulties. This use of critical thinking skills supports learning and vocabulary enrichment. Thus, when comprehension monitoring results in the identification of an unfamiliar word, students can learn how to use inference skills to support an approximate meaning derived from the surrounding context.

Reading, Writing, and Learning: Integrating and Coordinating Skills and Knowledge

A key component of Structured Literacy is integrated instruction. Vocabulary, background knowledge, sentence and text structure, and critical thinking all matter for reading and writing. These skills and knowledge bases do not operate in isolation and the associations between them are not one way. For example, depth of vocabulary knowledge supports inference-making when reading, because rich and well-connected semantic representa-

tions of words permit the rapid activation, not only of the word's meaning but also of related concepts. On the other hand, when a reader identifies an unfamiliar word through comprehension monitoring, inference, and morphological analysis, skills can help them obtain an approximate meaning of the word, building their vocabulary knowledge. In this way, skilled readers can draw on their skills to consolidate and extend knowledge further, resulting in learning from text.

Instruction in both reading and writing is mutually supportive. Reading informational texts provides a model of text features and the organizational structure of ideas that is inherent in good written composition. The ability to reflect on the adequacy of one's understanding when reading is a metacognitive skill that can (and should) be applied to the evaluation of the logic and structure of ideas when writing. A skilled writer can produce essays that contain accurate and precise descriptions and well-structured arguments to demonstrate their understanding and learning from text. Thus, instruction in reading can enhance writing, and vice versa.

The language and content of books present challenges to the young and older struggling reader and writer, beyond decoding and spelling single words. Systematic, targeted instruction helps to develop the knowledge and skill sets necessary to construct meaning from and to convey meaning through written text. Proficiency in these skills supports the development of fluent, independent readers and writers who are then able to benefit from the texts they read and write, supporting a continuous cycle of learning and development.

Integrated Language, Reading & Writing Instruction Supporting Automaticity, Fluency, & Proficient Reading

The National Institute for Child Health and Human Development (NICHD) has funded over 40 years of research to study reading acquisition, struggling readers, and effective instructional approaches. Results suggest that integrated, multicomponent instruction in phoneme awareness, phonics, fluency development, and reading comprehension strategies—**provided by well-trained, linguistically informed teachers**—can increase reading skills to average reading levels or above for 90% to 95% of students (Mathes et al., 2005) even those at risk for or with reading difficulties.

Structured Literacy is a comprehensive instructional approach that **integrates** oral language, reading, and writing instruction with the goals of accuracy, automaticity, fluency, and proficiency in both reading and written expression. Teachers delivering Structured Literacy instruction integrate these components in a way that sets this methodology apart and contributes to its effectiveness.

Hallmarks of an Integrated Structured Literacy Approach Include:

- explicitly teaching phonemic awareness skills, integrated with the instruction of letter names, sounds, and formation
- explicitly teaching grapheme-phoneme relationships and offering consistent practice in applying these skills in spelling, reading, and writing activities
- explicitly teaching word meaning when teaching word structure
- explicitly teaching word automaticity and reading and writing fluency at sentence, paragraph, and text levels with guided practice for application of skill
- explicitly teaching strategies for extracting meaning through vocabulary and comprehension instruction while listening and/or reading at the word, sentence, paragraph, and text level

Teachers delivering Structured Literacy instruction thoughtfully plan lessons that include purposeful, cumulative review of previously learned concepts and the introduction of new concepts. They skillfully build automaticity, fluency, automaticity, and reading and writing proficiency in their students by integrating reading and writing instruction. Through this powerful approach, students can attain the literacy skills that will allow them to reach their full potential.

—Jessica Hamman

The “How” of Structured Literacy:

Just as Important as the “What”



By Louise Spear-Swerling

Structured Literacy

The "HOW"

Essential principles of instruction guide how content is taught for both reading and written expression. These principles are beneficial for all students and necessary for struggling students.

Direct & Systematic



Mastery Oriented

Explicit

Data Driven

Sequential

Targeted Prompt Feedback

Cumulative

Highly Interactive

Multimodal

Scaffolded

Planned, Purposeful Instructional Decisions
for Tasks and Text

Recently, I attended a conference aimed at helping teacher educators implement a new state policy requiring them to prepare teacher candidates in Structured Literacy (SL). Although most attendees were receptive to this topic, one was persistently skeptical, “*How is this new? We already prepare candidates to teach phonics.*”

Although in some ways she was right—many teacher candidates do learn to teach phonics—Structured Literacy is about much more than phonics instruction. Equally important, Structured Literacy is not only about WHAT is addressed in instruction but also HOW it is addressed. The HOW is the topic of this article.

Essential Principles of Structured Literacy Instruction

What are the essential principles of Structured Literacy instruction, and the HOW of Structured Literacy? Structured Literacy teaching is *direct and systematic*, and it is *mastery-oriented*. Some key details and examples of each component follow.

Direct and Systematic Instruction

Direct, systematic instruction is *explicit*. Teachers do not expect students to infer important skills and concepts solely from exposure or incidental teaching. Rather, teachers clearly and concisely explain them with modeling and guided practice.

For example, educators explicitly teach common phoneme-grapheme correspondences (e.g., *m* ↔ /m/, *sh* ↔ /sh/) to help students learn word recognition and spelling skills; they explicitly teach the essential

vocabulary students need to comprehend academic texts.

Students are not expected to learn advanced skills—say, spelling complex multisyllabic words—when they have not yet developed prerequisites such as spelling basic one-syllable word patterns.

Direct, systematic instruction is *sequential* within a domain such as word reading, spelling, or text composition. Educators teach skills and concepts, working from simple to complex. Students are not expected to learn advanced skills—say, spelling complex multisyllabic words—when they have not yet developed prerequisites such as spelling basic one-syllable word patterns. Table 1 displays one example of a Structured Literacy instructional sequence that involves phonics skills for reading common word patterns for basic one-syllable patterns.

Specific phonics sequences can vary by Structured Literacy approach, and there is not one perfect sequence; however, all Structured Literacy sequences order skills from simple to more complex. Additionally, they all directly teach prerequisite skills (e.g., decoding of one-syllable short vowel words) before more advanced skills (e.g., decoding one-syllable short vowel words with inflectional endings).

Table 1: Sample Phonics Sequence (Partial).

Word Patterns	Sample Words
Consonant-vowel-consonant (CVC), one short vowel at a time	<i>map, fin, lot, sun, met</i>
Short vowels with consonant digraphs	<i>bath, shin, chop, thud, deck</i>
Short vowels with consonant blends	<i>brag, limp, spot, just, spend</i>
Short vowels with common inflectional endings (-s, -es, -ed, -ing, -y, -er, -est)	<i>bugs, wishes, lifted, resting, rocky, thicker, smallest</i>
Silent e (-VCE); with endings	<i>shame, wide, spoke; hopeful, rudest</i>
Open; with endings	<i>go, flu, cry; going, flyer</i>
Vowel R; with endings	<i>barn, first, stern; farmed, shorter</i>
Vowel team; with endings	<i>plain, boost, true; painter, sleepy</i>

In Structured Literacy classrooms, broad components of learning occur in tandem, or integrated, with each other. For instance, teachers guide beginning decoders to read simple words while also developing their comprehension abilities through teacher read-alouds of age-appropriate children's literature. Students do not need to master the foundational skills of word recognition before developing their comprehension abilities. Foundational skill instruction and comprehension instruction in a Structured Literacy approach occur simultaneously, with each following a scope and sequence from easier to more difficult. That is, pho-

nic instruction starts with simple words and builds to more complex ones; comprehension instruction starts with content at an appropriate level of difficulty for students and builds toward increasingly complex content.

The HOW of Structured Literacy instruction is also *cumulative*, that is, previously learned skills build upon those previously mastered and are continuously revisited. Review is always part of Structured Literacy lessons. Moreover, cumulative instruction is built into the design of SL lessons because lessons involve applying previous-

ly learned skills and concepts to increasingly complex, though carefully structured, tasks. When students read a decodable text composed of the word patterns they have studied, or use previously taught text structures in their writing, they continuously review these skills.

Structured Literacy instruction is *multimodal*. Important skills and concepts are frequently taught using multiple modes—such as looking, listening, and writing—simultaneously, including manipulatives, as appropriate, to enhance learning. Students might learn to spell new word patterns by using grapheme-phoneme letter tiles to form words, then read and write the words; students might learn a particular sentence structure by seeing a model of a written sentence, reading it aloud, and then writing their sentence with the same structure. Multimodal instruction reinforces different areas of literacy learning, as well as engages students, and focuses their attention on important details of print.

Mastery-Oriented Instruction

Structured Literacy teachers ensure that students have a command of prerequisite skills and concepts before moving on to more advanced ones. Criteria for mastery can differ somewhat but are typically defined by specific programs. For example, a program using the phonics sequence in Table 1 might specify that students be able to decode 90% of CVC words correctly before moving on to the next step involving short vowel words with consonant digraphs.

Mastery-oriented instruction is *data-driven*. Teachers use appropriate assessments to identify reading problems early, plan

effective interventions, and evaluate students' progress, adjusting intervention as needed. Many assessments can be valuable, depending on individual students' needs and the purpose of the assessment. For students with decoding difficulties, criterion-referenced phonics measures are extremely helpful. These measures require students to read sample words organized into different phonics categories—such as those shown in Table 1—with a mastery criterion, such as the 90% correct criterion mentioned above. This assessment enables teachers to see which word patterns a student has mastered, and which ones need to be taught next.

Another useful assessment involves curriculum-based measurement (CBM), quick-timed probes that are good predictors of a student's overall competence in reading, especially at the elementary level (Hosp et al., 2007). CBMs exist for progress monitoring in multiple areas of reading, including oral reading fluency (ORF) and reading comprehension. Figures 1 and 2 on the next page display ORF CBM data for Darnell, a fourth grader who has been receiving reading intervention for several months. The first graph shows Darnell's accuracy of reading on fourth-grade passages and the other reports his rate of reading. These data show that Darnell has made excellent progress in text reading accuracy and now meets the fourth-grade benchmark of 96% accuracy. In contrast, his reading rate, after some initial progress in December and January, has plateaued. Currently, he is not on a trajectory to catch up in this area. These data indicate that Darnell's intervention should be adjusted to increase the emphasis on building fluency while maintaining his good accuracy.

Figure 1: ORF Progress-monitoring (PM) Data for Darnell: Accuracy.

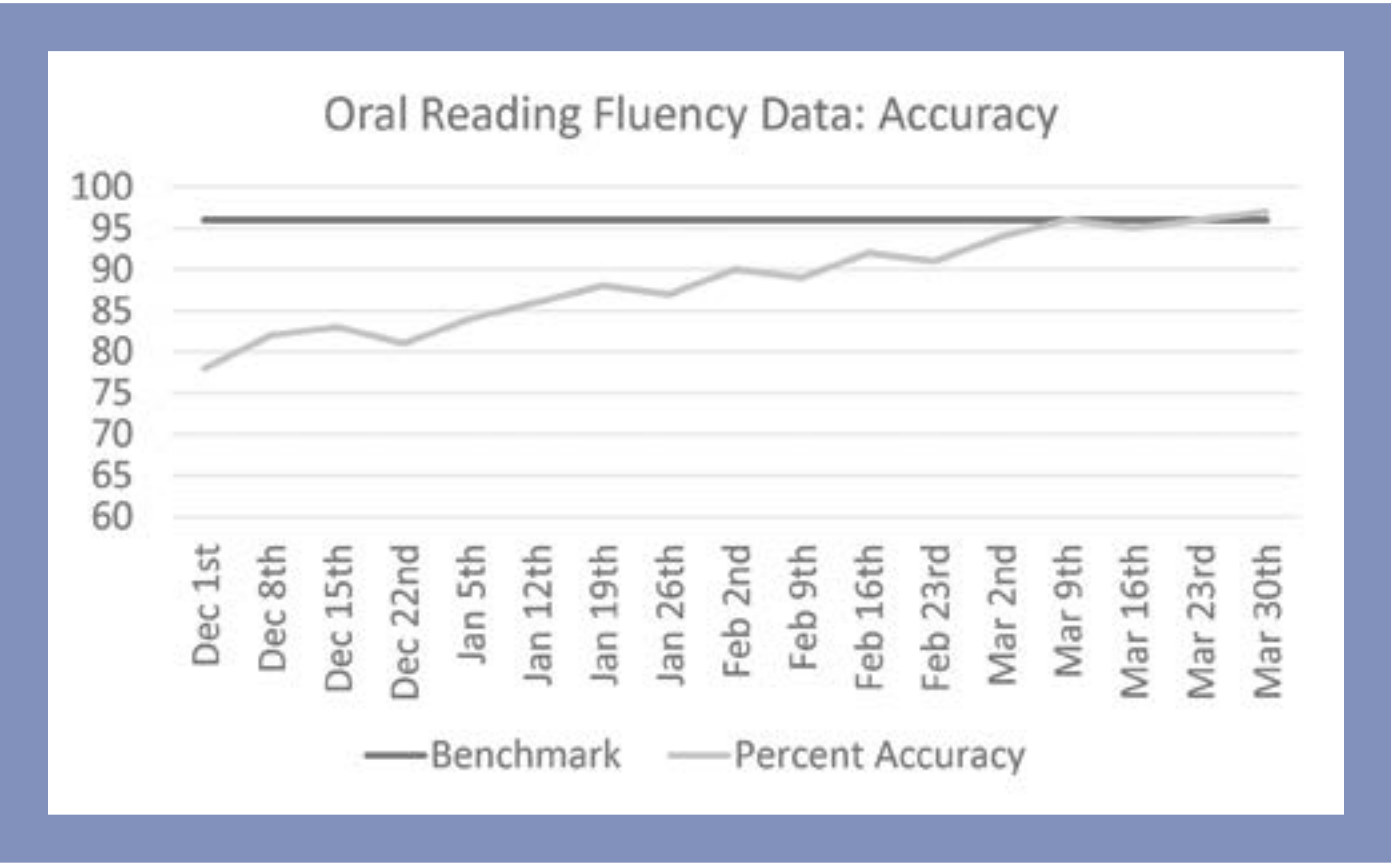
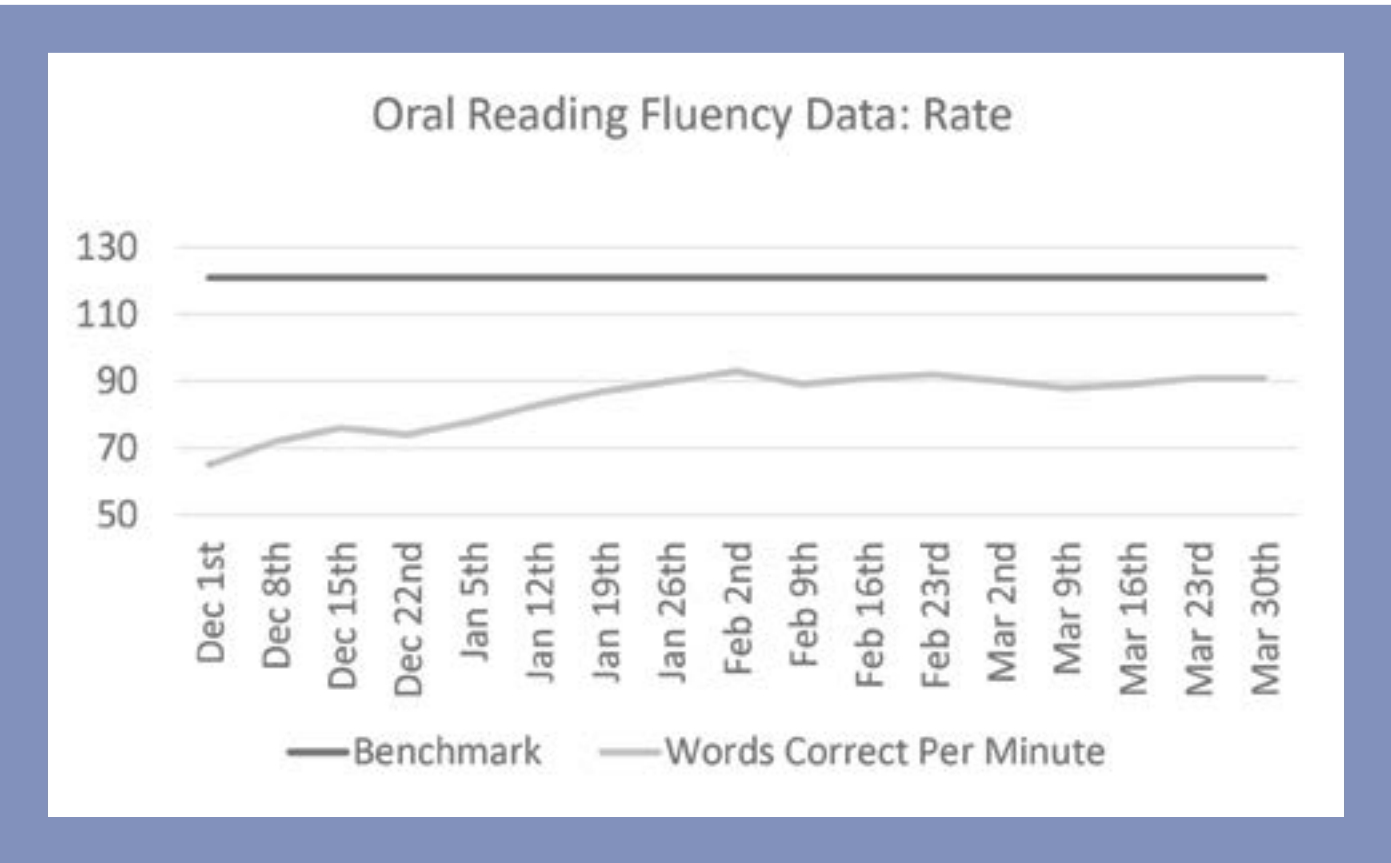


Figure 2: ORF Progress-monitoring (PM) Data for Darnell: Rate.



Mastery-oriented instruction provides *prompt, targeted* affirmative feedback recognizing the specific strengths of a student's responses as well as clear, helpful feedback to errors. Excessively wordy feedback can be confusing, so feedback should also be concise. Most importantly, feedback should help a student understand how to improve, ideally paired with an immediate opportunity for the student to apply feedback. This is possible because the Structured Literacy approach is highly *interactive*.

Effective Structured Literacy instruction provides students with many opportunities to respond, both verbally and through specific tasks. Frequent responses help maintain engagement, allow the teacher to monitor whether all students understand a new skill or concept, and provide students with practice. Ample practice opportunities are routine in Structured Literacy and are especially important for struggling students.

Scaffolded instruction, including a gradual release of responsibility from the teacher to students, is also essential. Scaffolding involves providing support such as questions, verbal prompts, and written prompts, to facilitate students' learning and improve their progress. A gradual release of responsibility involves teacher modeling of a new skill being taught (I do), teacher guidance as students try a new skill (we do), and student practice of the skill (you do). The teacher monitors and provides feedback as needed to facilitate student learning and improve progress.

Finally, *planned, purposeful selections of instructional texts and tasks* are necessary to create the successful delivery of Structured Literacy lessons. For example, in phonics

activities, teachers are careful to use words that fit the patterns students are learning, as well as decodable texts for students at the early stages of decoding. In comprehension activities, teachers employ texts that are clear examples of the comprehension strategies and knowledge being taught (e.g., identifying compare-contrast passage structure); they use interrelated, appropriately sequenced texts to help build students' vocabulary and background knowledge over time.

Comparing Structured Literacy to Non-Structured Literacy Instruction

The HOW of Structured Literacy instruction differs greatly from the ways that many students learn to read and write. Although educators cannot explicitly teach every single skill or concept that students should ideally know, in Structured Literacy, the most important skills and concepts for learning to read and write—such as foundational reading and writing skills, key content vocabulary, and essential background knowledge (see the WHAT side of the [IDA InfoMap](#))—are taught using Structured Literacy principles. In contrast, in non-SL approaches, key skills and concepts may not be explicitly taught, and when they are, multimodal instruction is often not used. Without a cumulative progression of skills and with much less frequent review, advanced tasks, such as lengthy text reading or writing, may tap many unmastered skills and concepts. Some students—those who already possess important literacy competencies or learn them easily—may succeed in this situation. However, vulnerable readers tend to become overwhelmed.

Whereas Structured Literacy instruction is data-driven, using appropriate assessments, in non-SL approaches, assessments may not reveal the specific skills that students need to learn or may be inadequate to monitor progress. For instance, assessments involving oral text reading in leveled texts make it difficult to know which phonics skills students have mastered, because students can use context to help compensate for poor decoding, and because a given text may provide only one or two examples of a specific phonics pattern.

Unlike the prompt, targeted teacher feedback of Structured Literacy, in non-SL approaches, feedback may not be immediate as students may select and read the text more independently. When students are orally reading to teachers in non-SL approaches, certain decoding errors, such as *this* for *that* or *mom* for *mother*, are often ignored. Comprehension questions may be asked only at the end of a long section of text reading, making it difficult to catch students' misunderstandings promptly and address them. While Structured Literacy approaches are highly interactive, with many opportunities for students to respond during lessons, in non-SL approaches, weaker readers in particular may have few opportunities to respond, with limited teacher scaffolding to support students' learning.

Structured Literacy uses planned, purposeful tasks that correspond to carefully selected texts, whereas non-SL approaches frequently do not. In the latter, for example, initial words for decoding and spelling instruction are often chosen based either on their frequency (i.e., common words such as *cat*, *go*, *down*, *school*, *the*, *saw*), or because they fit a theme (e.g., ocean life, with

words such as *whale*, *ocean*, and *dolphin*). These words do not conform to linguistic patterns, so they do not lend themselves to developing the knowledge about word structure that is important to progress in word reading and spelling. Furthermore, with beginning readers, non-SL approaches

Most importantly, feedback should help a student understand how to improve, ideally paired with an immediate opportunity for the student to apply feedback.

often use predictable, not decodable, texts. Predictable texts are not phonetically controlled, and they are written to encourage the use of pictures and sentence context to guess at words, rather than application of phonics skills.

Similarly, rather than choosing texts purposefully in relation to their language comprehension and background knowledge demands, non-SL approaches may have students select texts of interest that are a poor fit to students' competencies in these areas, or that are not sequenced to build knowledge in important curriculum areas over time. Again, although these issues can affect all students, they are especially likely to have a negative impact on struggling readers. Incorporating the content and instructional features of Structured Literacy into core general education reading instruction—the WHAT and the HOW, with appropriate differentiation for students with varied needs, including high-achiev-

ing readers—could prevent or ameliorate many students' poor reading.

The Value of Structured Literacy for Different Types of Readers

As the previous section suggests, Structured Literacy principles are entirely appropriate for Tier 1 instruction. These principles can benefit typical readers as well as those with reading difficulties, although typical readers generally require much less intensity of instruction to progress than do struggling readers. Furthermore, Structured Literacy principles are effective not only for teaching foundational skills but also for higher-level comprehension and composition abilities (Archer & Hughes, 2011; Fletcher et al., 2019; Vaughn et al., 2022). Therefore, appropriately targeted Structured Literacy interventions can help a wide range of poor readers. For example, while Structured Literacy approaches are effective for students with dyslexia, whose problems typically center on decoding and spelling, SL can also benefit students with specific reading comprehension difficulties. Structured Literacy is also effective for poor readers with experientially based weaknesses. English learners often have difficulties with comprehension related to a lack of exposure to academic vocabulary and language, and some ELs have phonics weaknesses as well. A Structured Literacy approach can benefit these students (e.g., Cardenas-Hagan, 2020).

Subgroups of poor readers may require different emphases in relation to the WHAT of instruction, or the intensity of the HOW. For example, poor comprehenders vary in the specific underpinnings of their com-

prehension problems (e.g., problems with vocabulary vs. syntax vs. text structure),

A gradual release of responsibility involves teacher modeling of a new skill being taught (I do), teacher guidance as students try a new skill (we do), and student practice of the skill (you do). The teacher monitors and provides feedback as needed to facilitate student learning and improve progress.

leading to a need for different emphases in intervention. Poor decoders in general benefit from Structured Literacy interventions for phonemic awareness and phonics, but those with dyslexia can require much greater intensity of intervention—such as smaller group size, more teacher scaffolding, and more practice—in order to progress (Fletcher et al., 2019).

Meeting the Needs of Teachers as Well as Students

To implement Structured Literacy approaches successfully, teachers need preparation addressing both the WHAT and the HOW of effective reading instruction. Many teachers still receive inadequate preparation in both aspects of instruction. State policies such as the one mentioned in the opening of this article could improve this situation over time. Doing so is essential to meet the needs of all of our students, as well as their teachers.

IDA 75th ANNIVERSARY



The International Dyslexia Association's Annual Conference on Reading, Literacy, and Learning

Don't Miss

The premier dyslexia-literacy conference:

- Connecting a global community of researchers, educators, families, and people with dyslexia
- Featuring renowned speakers, in-depth symposia, engaging workshops, and fun networking events.

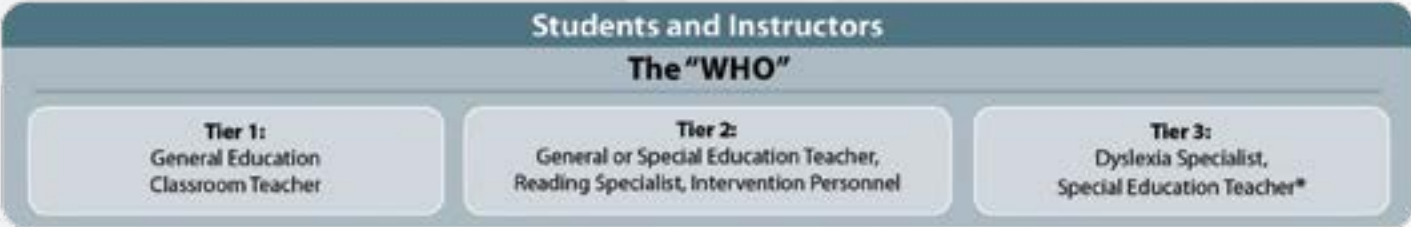
<https://DyslexiaCon.org/>

Structured Literacy:

The Backbone of a Robust
Literacy Ecosystem



By Timothy Odegard



All students can better develop proficient reading when explicitly taught to read and write with ample opportunities to practice (Archer & Hughes, 2011; Foorman et al., 2016; Kamil et al., 2008). Learning happens at the magical intersection of teacher-facilitated student engagement with oral and written language instruction and practice to develop a student's language proficiency and knowledge of the world. It also happens within systems implemented as part of a literacy ecosystem.

Within this ecosystem, one must consider how the different language domains, teaching principles, and individualized instruc-

tional designs interact (see [IDA Structured Literacy InfoMap](#)) to successfully address a range of individual differences observed among developing readers. A key to effective Structured Literacy instruction is the understanding that the individual language components required for skilled reading are each necessary but not sufficient in their own right. For example, you cannot teach phonics in isolation and expect proficiency in reading comprehension. The beauty and power of Structured Literacy is the intricate weaving together of critical reading-related skills through direct and comprehensive instruction.

Figure 1.

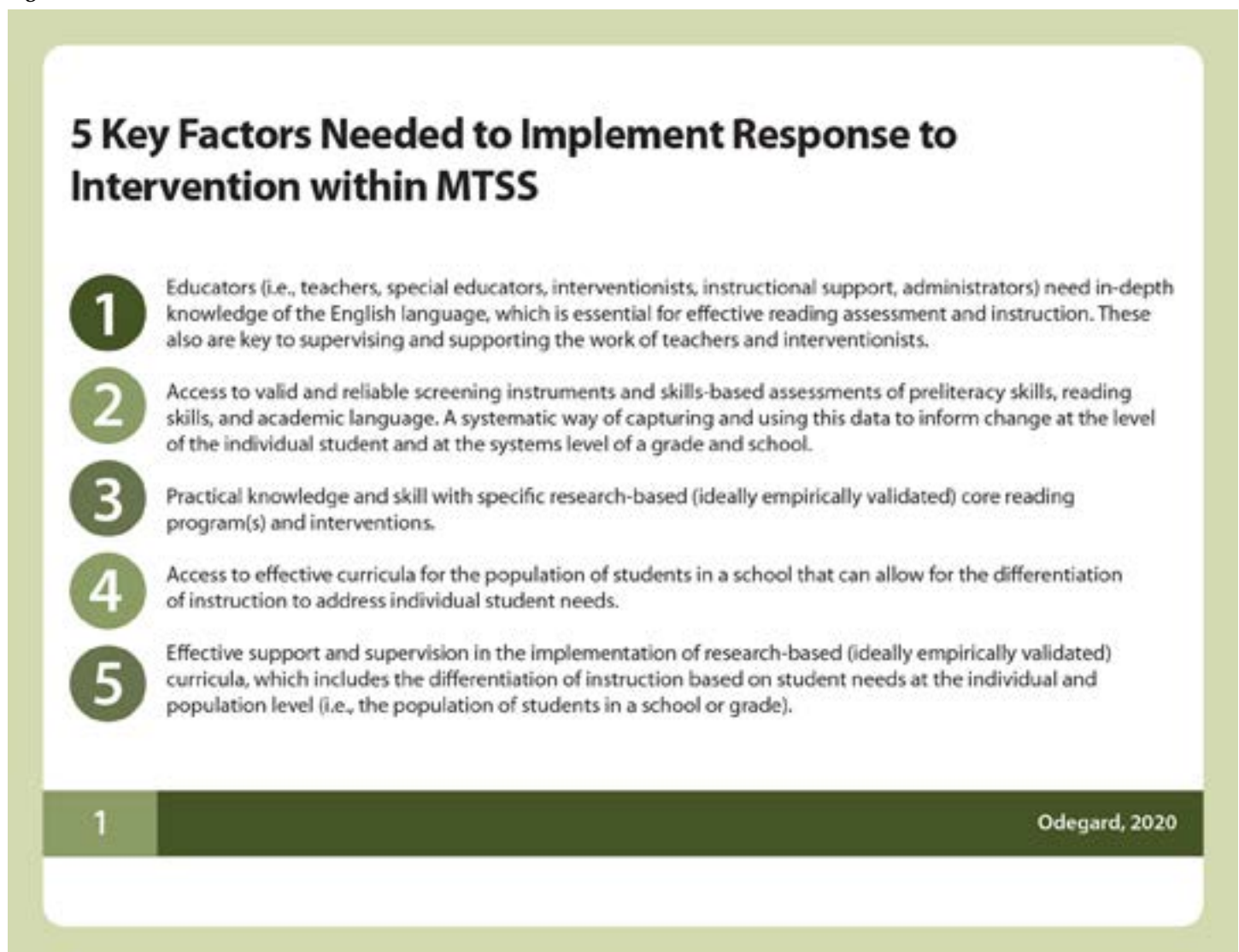
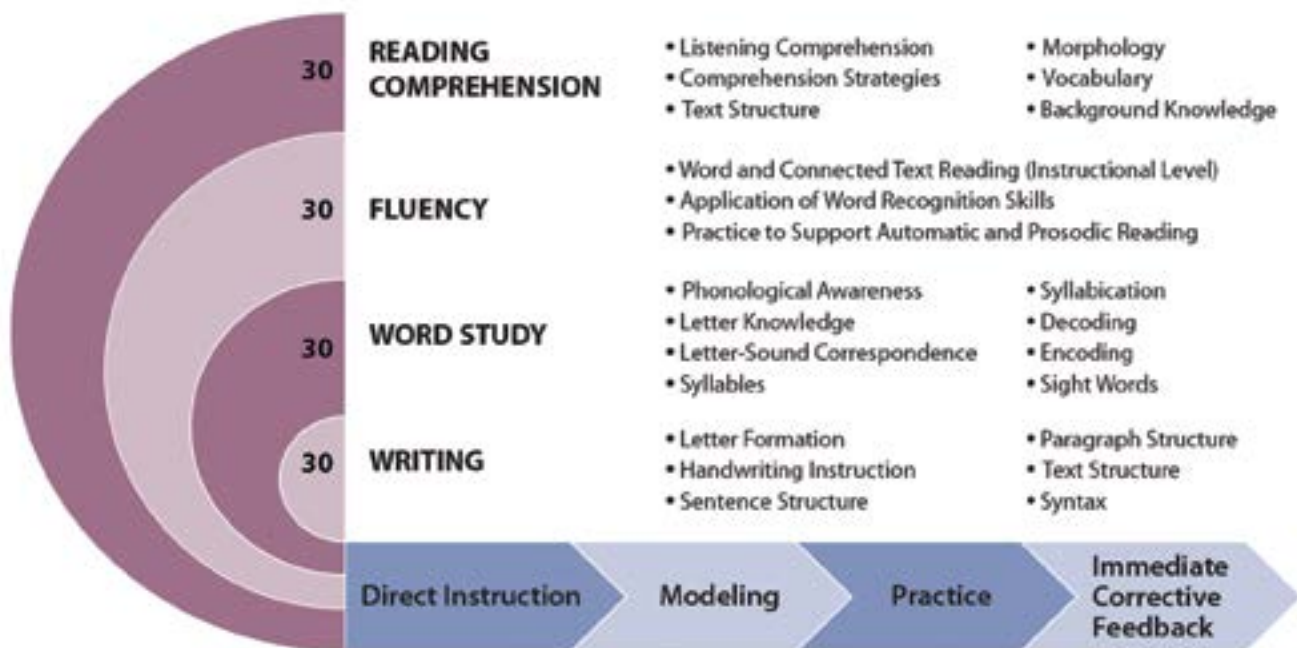


Figure 2.

Tier 1 Reading Instruction



The most widely adopted systems-based approach to supporting literacy for all learners is a Multi-tiered System of Support (MTSS) framework. Assessment, instruction, and intervention are central components of this data-driven MTSS approach (Wanzek et al., 2019).

The goal of MTSS for literacy is to identify risk early through universal screening and then use the data to prevent the development of pervasive and entrenched literacy deficits. Its effective implementation relies on rapid, reliable, and valid assessments to gauge students' future risk (i.e., universal screening), document current level of achievement (i.e., progress monitoring), and identify instructional targets (i.e., diagnostic assessment) to provide and differentiate research-validated instruction and intervention (i.e., Structured Literacy).

With this framework, all students receive quality, empirically validated core English

Language Arts instruction from knowledgeable teachers (Tier 1 reading instruction).

Quality, Structured Literacy instruction should be delivered from day one of kindergarten by teachers with knowledge of both the structure of the English language and how to teach it to students. Implementing Structured Literacy in this way helps meet the needs of most students and prevents high rates of written language deficits that only increase over time (Porter et al., 2023).

When high-quality, Structured Literacy is well implemented as part of Tier 1 instruction and paired with universal screening and monitoring progress, learners who start to fall behind expectations can be more easily identified as soon as they struggle in learning essential literacy skills. When identified, these students should be triaged to receive additional intensified instruction as part of Tier 2 instructional support using

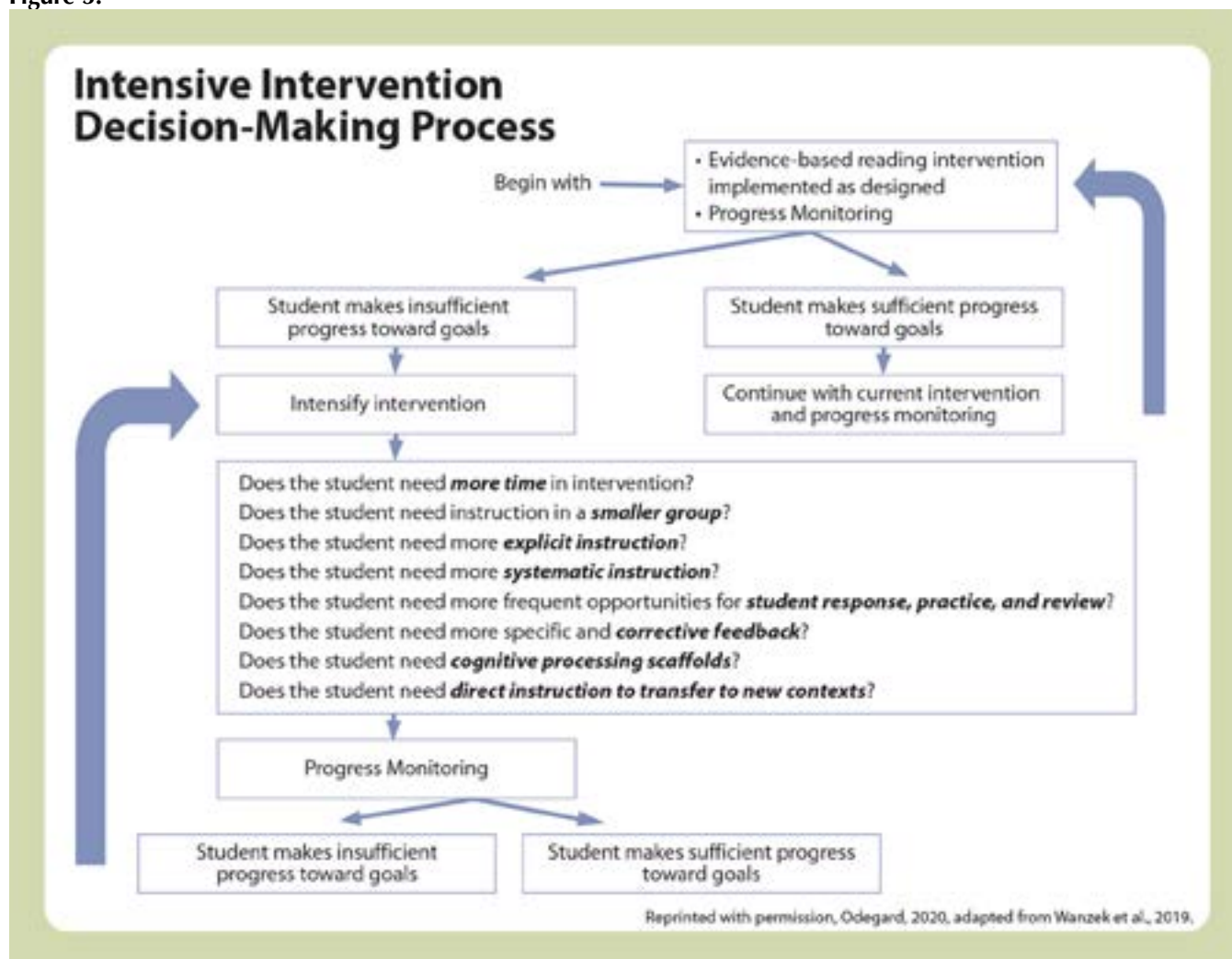
Structured Literacy. This instruction should be aligned and coordinated to maximize student learning.

Instruction delivered in Tier 2 is commonly intensified using organizational (e.g., more time) and instructional intensifiers (e.g., more explicit instruction and practice opportunities; Wanzek et al., 2019). A student's response to intensified Structured Literacy instruction as part of Tier 2 is monitored using frequent assessments to gauge the learning rate. Those students whose rate of learning in response to Tier 2 Structured Literacy instruction (e.g., 30 minutes, 5 days a week) does not reach proficiency and meet grade-level expectations will need even more intensive intervention.

This type of intervention is often achieved through additional time to provide students with the dosage of intervention they will need to achieve academic success as part of Tier 3. In addition, a highly qualified instructor with deep knowledge of the English language and demonstrated instructional skill at delivering Structured Literacy is critically important.

The need for additional duration and frequency of instruction with a highly qualified instructor is particularly great for learners who fit the profile of dyslexia and have pronounced decoding, word reading, and spelling deficits who have been resistant to instruction (Fletcher et al., 2019). These students respond best to a sustained,

Figure 3.



multi-component Structured Literacy intervention (Hall et al., 2023). The duration of the intervention these students will require has been documented to be multiple years (Middleton et al., 2021; Odegard et al., 2008). Research studies have demonstrat-

The beauty and power of Structured Literacy is the intricate weaving together of critical reading-related skills through direct and comprehensive instruction.

ed a high rate of response when students were provided with intensive, research-validated intervention delivered by a highly qualified interventionist. Persistently poor responders to an intensive, Structured Literacy intervention were relatively few but even they made educationally meaningful gains. Unfortunately, they had yet to bring their reading and spelling abilities up to grade- and age-level expectations. Yet, all students were learning, and most achieved grade-level abilities.

Research is clear—success with students identified with dyslexia is most assured when Structured Literacy interventions demonstrated as effective through research are implemented as intended with fidelity and adherence to all instructional components (Hall et al., 2023; Middleton et al., 2021). It is also most assured when these learners receive an instructional minimum dosage of 45-60 minutes per lesson, five days a week, for multiple years. Equally important, success is most assured when the

intervention is delivered by an individual who is highly qualified with deep knowledge of the English language, and who has demonstrated adherence to fidelity and competency in delivering the intervention to a student with dyslexia under expert supervision. The need to elevate educators' knowledge and abilities in these areas is great (Porter et al., 2021).

Structured Literacy should be the backbone of a robust literacy ecosystem.

- Universal screening, progress monitoring, and diagnostic assessment become effective when students are then provided with a Structured Literacy approach to instruction that is validated by research.
- Structured Literacy informs what all students are taught and how they are taught.
- Informed and well-trained teachers across all Tiers provide a Structured Literacy approach to instruction, directly and systematically teaching the domains of language.
- Structured Literacy delivered within an MTSS framework informs how highly knowledgeable and skilled educators can differentiate instruction in intervention by using instructional and organizational intensifiers based on the information provided through assessments.
- For students with dyslexia, it is necessary for a highly qualified individual, with proven competency, to provide more individualized and intensive instruction.

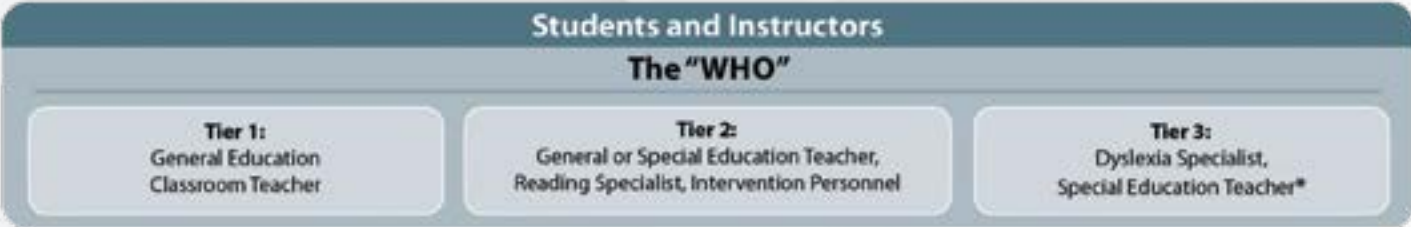
With such a robust literacy ecosystem in place, all students can achieve the literacy goals they deserve.

Structured Literacy for English Learners:

A Bridge to Equity



By Elsa Cárdenas-Hagan



Every student deserves to learn to read. There is no question of its importance for learning and contributions to one's personal and academic goals. There are more than five million English learners attending public schools in the United States (NCES, 2023). They represent a fast-growing population who may receive instruction in their home language and English or primarily in English. This diverse population of students must also learn to read proficiently and should have the opportunity to learn from highly qualified professionals who are prepared to teach language and literacy skills using a comprehensive and evidence-based approach. Literacy is the bridge to equity and students who are linguistically diverse are deserving of the right to read.

Literacy rates need to improve for all students in the United States. According to the Nation's Report Card, approximately 63% of fourth-grade students in the United States read at or above a basic proficiency level (NAEP, 2022). In comparison, students who are learning English as an additional language face even greater challenges since they are learning to read in multiple languages. When children develop early reading skills, they have more opportunities for print exposure and tend to develop stronger reading automaticity skills. They also show more progress in vocabulary and comprehension strategies when compared with poor early readers (Mol et al., 2011). Early opportunities for learning to read can and will make a difference in literacy outcomes. This diverse population of students needs to have access to achieving literacy.

Research Highlights Structured Literacy Benefits for English Learners

A panel of biliteracy experts reviewed the reading research for students described as English learners. *The Report of the National Literacy Panel on Language-Minority Children and Youth* (2006) describes language proficiency as having a significant impact on literacy development for English learners. The key components of phonological awareness, phonics, fluency, vocabulary, and comprehension are described as beneficial for English learners, with adjustments made for the language proficiency levels of English learners.

Language proficiency is related to reading because reading is a language-based skill. That is, the centers of the brain related to language are also activated for reading. In all the languages of the world, it is fascinating to observe the centers of the brain related to sounds, word meanings, and orthographic processing activated for reading (Kovelman, 2008). Individuals must be able to translate the written symbol into speech for reading. They must also comprehend what was read and be able to express information through written language. The good news is that students who are learning a second language can make connections and transfer their first language and literacy knowledge for the development of a second language literacy (August & Shanahan, 2006). A Structured Literacy approach to literacy instruction, described below, is particularly beneficial for these students.

Instructional Considerations for Early Literacy Skills

Structured Literacy is an approach to teaching literacy. It emphasizes highly explicit and systematic teaching of all the components of literacy. These components include both foundational skills such as phonics and higher-level literacy skills such as reading comprehension. Structured Literacy also emphasizes oral language abilities essential to literacy development, including phonemic awareness, sensitivity to speech sounds in oral language, and the ability to manipulate those sounds (IDA, 2019). English learners can benefit from Structured Literacy, and even more so, when cross-language connections are addressed within each lesson, as described below.

Phonological Awareness

When teaching English learners, it is important to consider the home language and how it applies to the second language. In a language such as Spanish, there are approximately 19 sounds that directly transfer into English. Teachers can address these sounds during instruction and thus make connections across languages (Cárdenas-Hagan, 2020).

Phonological awareness skills transfer from the home language to English (Brannum-Martin, 2006; Durgunoglu, 2002; Shakkour, 2014). Structured Literacy emphasizes phonemic awareness, the ability to be aware of and consciously think about individual speech sounds (phonemes) in spoken words (IDA, 2022). When teaching phoneme awareness skills such as blending and segmenting, it is helpful to address the meaning of words. This is necessary be-

Table 1: Spanish sounds that transfer.

Letter	Sound
b	/b/
c	/k/
c	/s/
d	/d/
e	/ē/
f	/f/
g	/g/
k	/k/
l	/l/
m	/m/
n	/n/
o	/o/
p	/p/
s	/s/
t	/t/
v	/v/
w	/w/
x	/ks/
y	/y/

Adapted from Cárdenas-Hagan (2010).

cause English learners may not understand the meaning of the word that is formed. In short, teachers can apply language skills while teaching foundational skills for reading among English learners.

Phonics

Phonics is a system to teach reading in an alphabetic language whereby letters and their sound correlations are taught, so individuals can read words and sentences accurately and fluently. When teaching phonics, it is helpful to address the patterns of the English language which includes the syllable patterns. Understanding the syllable patterns assists English learners in producing and reading the vowel sounds within words. For a Spanish speaker learning to read in their native language, syllable types

are not part of instruction because the vowel sounds do not change. However, teachers can make connections across languages, such as demonstrating the similar vowel and consonant syllable patterns that exist. For example, in Spanish the vowel sound does not change when followed by a consonant, but in English the vowel sound changes and is produced as a short vowel when followed by at least one consonant. This is an example of making a connection from Spanish to English. These adjustments

are important considerations within Structured Literacy lessons for English learners.

Fluency

English learners can develop fluency skills. One of the important considerations for this population of students is to note that as fluency increases, the student’s language proficiency must increase to positively affect reading comprehension (Crosson & Lesaux, 2010). English Learners can benefit from additional practice in the phrasing

Table 2: English and Spanish syllable patterns.

English Syllable Patterns	Spanish Syllable Patterns
Closed Syllable den	Closed syllable den
Open Syllable me	Open Syllable mi
Vowel-Consonant-E Syllable dame	Vowel-Consonant-E Syllable dame
Vowel-R Syllable mover <u>er</u>	Vowel-R Syllable mover <u>er</u>
Vowel Pair Syllable pie	Vowel Pair Syllable pie
Final Stable Syllable ador <u>able</u>	Final Stable Syllable ador <u>able</u>
<i>Words look similar but have different pronunciations and meanings. Vowel sounds do not change in Spanish.</i>	

Table 3: English prefixes, roots, and suffixes and their Spanish correlations.

	English Word	Spanish Word
Common Prefix	predict	predecir
Common Root	transport	transportar
Common Suffix	artist	artista
Common Suffix	nation	nación

and cadence of the language. However, it is important to remember that they must also understand the words, as this is a factor for reading comprehension.

Vocabulary

When teaching Structured Literacy to English learners it is essential to incorporate vocabulary instruction. Many words are similar in meaning and spelling across languages. These words are known as *cognates*. Some examples include *train/tren* and *stomach/estómago*. Teaching cognates assists students in understanding how their home language can apply to learning vocabulary in the second language.

Another important vocabulary strategy includes morphological awareness. Teaching English learners the small meaning units within words, known as *morphemes*, across languages is an evidence-based strategy (Siegel, 2008). Some examples include *telephone/teléfono*, *visible/visible*. Making connections across languages can increase the vocabulary levels of English learners.

Comprehension

The goal of Structured Literacy includes reading comprehension. It will be import-

ant to expand background knowledge, vocabulary, and familiarity with text structures to assist English learners' comprehension skills. The evidence-based practices include vocabulary development through morphological and cognate awareness, background knowledge development, as well as text structure analysis so students can become active and strategic readers. Culturally relevant text facilitates reading comprehension among English learners and should be considered during instruction (August & Shanahan, 2006).

Structured Literacy Benefits All Students

Structured Literacy is an evidence-based approach. It is beneficial for all students including English learners. Teachers must be prepared to advance language proficiency and incorporate cross-language connections to increase the effectiveness of Structured Literacy. Students can achieve biliteracy when taught by highly qualified teachers who are prepared to teach SL. Literacy is the bridge to equity and this diverse population deserves access to Structured Literacy.

References & Acknowledgements

We stand on the shoulders of giants. Generations of interdisciplinary researchers have contributed to a substantive body of knowledge about dyslexia, language, and literacy. The references below relate to the articles in this issue of *Perspectives*.

- August, D., and & Shanahan, T. (2006). *Developing literacy in second-language learners: Report of the National Literacy Panel on language-minority children and youth*. Center for Applied Linguistics, Lawrence Erlbaum Associates.
- Archer, A., & Hughes, C. (2011). *Explicit instruction: Effective and efficient teaching*. Guilford.
- Berko Gleason, J. (2005). *The development of language* (6th ed.). Pearson Education.
- Boyer, N., & Ehri, L. C. (2011). Contribution of phonemic segmentation instruction with letters and articulation pictures to word reading and spelling in beginners. *Scientific Studies of Reading*, 15(5), 440–470.
- Branum-Martin, L., Mehta, P. D., Fletcher, J. M., Carlson, C. D., Ortiz, A., Carlo, M., & Francis, D. J. (2006). Bilingual phonological awareness: Multilevel construct validation among Spanish-speaking kindergarteners in transitional bilingual education classrooms. *Journal of Educational Psychology*, 98(1), 170–181.
- Cárdenas-Hagan, E. (2010). Response to intervention: Implications for Spanish-speaking English Language learners. *Perspectives on Language and Literacy*, 36(2), 24–29.
- Cárdenas-Hagan, E. (2020a). *Literacy foundations for English learners: A comprehensive guide to evidence-based instruction*. Brookes Publishing.
- Cárdenas-Hagan, E. (2020b). Teaching literacy skills to English learners. In E. Cardenas-Hagan (Ed.), *Literacy foundations for English learners: A comprehensive guide to evidence-based instruction* (pp. 3-30). Brookes Publishing Co.
- Crosson, A.C., & Lesaux, N.K. (2010). Revisiting assumptions about the relationship of fluent reading to comprehension: Spanish-speaker's text-reading fluency in English. *Reading and Writing*, 23, 475–494.
- Durgunoglu, A. Y. (2002). Cross-Linguistic Transfer in Literacy Development and Implications for Language Learners. *Annals of Dyslexia*, 52, 189-204.
- Ehri, L. C. (2014). Orthographic mapping in the acquisition of sight word reading, spelling memory, and vocabulary learning. *Scientific Studies of Reading* 18(1), 5–21.

- Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M. A. (2019). *Learning disabilities: From identification to intervention* (2nd ed.). Guilford Press.
- Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., Furgeson, J., Hayes, L., Henke, J., Justice, L., Keating, B., Lewis, W., Sattar, S., Streke, A., Wagner, R., & Wissel, S. (2016). *Foundational skills to support reading for understanding in kindergarten through 3rd grade* (NCEE 2016-4008). National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. Retrieved from the NCEE website: <http://whatworks.ed.gov>
- Gillon, G. T. (2004). *Phonological awareness: From research to practice*. Guilford Press.
- Graham, S. (2009/2010). Handwriting still counts. *American Educator*, 33, 20–27.
- Hall, C., Dahl-Leonard, K., Cho, E., Solari, E.J., Capin, P., Conner, C. L., Henry, R., Cook, L., Hayes, L., Vargas, I., Richmond, C. L. & Kehoe, K.F. (2023), Forty years of reading intervention research for elementary students with or at risk for dyslexia: A systematic review and meta-analysis. *Reading Research Quarterly*, 58, 285–312. <https://doi.org/10.1002/rrq.477>
- Hennessey, N. L. (2021). *The reading comprehension blueprint: Helping students make meaning from text*. Brookes Publishing Co
- Hosp, M. K, Hosp, J. L., & Howell, K. W. (2007). *The ABCs of CBM*. Guilford.
- International Dyslexia Association. (n.d.). *Educator preparation program accreditation*. Author. Retrieved from [Educator Preparation Program Accreditation - International Dyslexia Association \(dyslexiaida.org\)](https://dyslexiaida.org/educator-preparation-program-accreditation)
- International Dyslexia Association. (2019). *Structured Literacy: An introductory guide*. Author.
- International Dyslexia Association. (2022). *Building phonemic awareness: Know what matters* [Fact sheet]. Author. Retrieved from [Building Phoneme Awareness: Know What Matters - International Dyslexia Association \(dyslexiaida.org\)](https://dyslexiaida.org/building-phoneme-awareness-know-what-matters)
- International Dyslexia Association. (2023). *Structured Literacy: Grounded in the science of reading* [InfoMap]. Author. Retrieved from [IDA Structured Literacy InfoMap – International Dyslexia Association](https://dyslexiaida.org/structured-literacy-infomap)
- Kamil, M. L., Borman, G. D., Dole, J., Kral, C. C., Salinger, T., & Torgesen, J. (2008). *Improving adolescent literacy: Effective classroom and intervention practices: A practice guide* (NCEE #2008-4027). National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc>
- Kovelman, I., Baker, S.A., & Petitto, L.A. (2008). Bilingual and monolingual brains compared: An fMRI investigation of syntactic processing and a possible “neural signature” of bilingualism. *Journal of Cognitive Neuroscience*, 20(1), pages 153–169.

- Lyon, G. R. (2023). 10 Maximins: What we've learned so far about how children learn to read. *Reading Universe*. Retrieved from [Reading Universe | 10 Maxims: What We've Learned So Far About How...](#)
- Mathes, P. G., Denton, C. A., Fletcher, J. M., Anthony, J. L., Francis, D. J., & Schatschneider, C. (2005). The effects of theoretically different instruction and student characteristics on the skills of struggling readers. *Reading Research Quarterly*, 40(2), 148-182.
- Middleton, A. E., Farris, E. A., Ring, J. J., & Odegard, T. N. (2021). Predicting and evaluating treatment response: Evidence toward protracted response patterns for severely impacted students with dyslexia. *Journal of Learning Disabilities*, 55(4), 272-291. <https://doi.org/10.1177/00222194211047633>
- Mol, S. E., & Bus, A. G. (2011). To read or not to read: A meta-analysis of print exposure from infancy to early adulthood. *Psychological Bulletin*, 137(2), 267-296.
- Moll, K., Landerl, K., Snowling, M. J., & Schulte-Körne, G. (2019). Understanding comorbidity of learning disorders: Task-dependent estimates of prevalence. *Journal of Child Psychology Psychiatry and Allied Disciplines*, 60(3), 286-294.
- National Center for Education Statistics. (2023). *English learners in public schools. Condition of education*. U.S. Department of Education, Institute of Education Sciences. Retrieved September 5, 2023 from <https://nces.ed.gov/programs/coe//cgf>.
- National Clearinghouse for English Language Acquisition. (2023, February). *Top languages spoken by English learners in the United States*. U.S. Department of Education, Retrieved August 16, 2023 from <https://ncela.ed.gov/resources/fact-sheet-the-top-languages-spoken-by-english-learners-in-the-united-states-february>
- Oakhill, J., Cain, K., & Elbro, C. (2015). *Understanding and teaching reading comprehension: A handbook*. Routledge.
- Odegard T. N., Ring J., Smith S., Biggan J., & Black J. (2008) Differentiating the neural response to intervention in children with developmental dyslexia. *Annals of Dyslexia*, 58(1), 1-14. <https://doi.org/10.1007/s11881-008-0014-5>
- Pearson, P. D., & Gallagher, M. C. (1983). The instruction of reading comprehension. *Contemporary Educational Psychology*, 8(3), 317-344.
- Porter, S. B., Odegard, T. N., Farris, E. A., & Oslund, E. L. (2023, June). Effects of teacher knowledge of early reading on students' gains in reading foundational skills and comprehension. *Reading and Writing*. Available from: <https://link.springer.com/article/10.1007/s11145-023-10448-w>
- Rosenthal, J., & Ehri, L. C. (2008). The mnemonic value of orthography for vocabulary learning. *Journal of Educational Psychology*, 100, 175-191.

- Scarborough, H. S. (2001). Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice. In S. Neuman & D. Dickinson (Eds.), *Handbook for research in early literacy* (pp. 97–110). Guilford Press.
- Shakkour, W. (2014). Cognitive skill transfer in English reading acquisition: Alphabet and logographic languages compared. *Open Journal of Modern Linguistics*, 4(4), 544–562.
- Siegel, L. (2008) Morphological awareness skills of English language learners and children with dyslexia. *Topics in Language Disorders* (28)1, 15–27.
- U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP). *The Nation's report card: 2022 reading assessment*. [NAEP Reading: National Achievement-Level Results \(nationsreportcard.gov\)](https://nationsreportcard.gov)
- Vaughn, S., Gersten, R., Dimino, J., Taylor, M. J., Newman-Gonchar, R., Krowka, S., Kieffer, M. J., McKeown, M., Reed, D., Sanchez, M., St. Martin, K., Wexler, J., Morgan, S., Yañez, A., & Jayanthi, M. (2022). *Providing reading interventions for students in grades 4–9* (WWC 2022007). National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education.
- Wanzek, J., Al Otaiba, S., & McMaster, K. (2019). *Intensive reading interventions for the elementary grades*. Guilford Press.
- Wilson, B. A. (2018). *Wilson Reading System instructor manual. Steps 1-6* (4th ed., p. 417). Wilson Language Training Corp.

We thank members of IDA's *Perspectives* Editorial Board!

David P. Hurford, Ph.D., *Editor-in-Chief*
 Linda Siegel, Ph.D., *Immediate Past Editor-in-Chief*
 Theme Editors (Vol. 50, No. 1): Barbara Wilson & Jessica Hamman
 Carolyn D. Cowen, *Executive Editor-in-Chief, IDA Board*

Nancy Chapel Eberhardt
 Margie Gillis, Ed.D.
 Terri Hessler, Ph.D.
 Michelle Keiper

Monica Gordon Pershey, Ed.D., CCC-SLP
 Dale W. Webster, Ph.D.
 Nancy Cushen White, Ed.D.

For invaluable assistance developing “IDA’s Structured Literacy InfoMap & Wheel,” we thank Fact Sheet Editor-in-Chief, Sue Hegland and members of IDA’s **Fact Sheet Editorial Board** (Christie Cavanaugh, Ph.D.; Pamela Hook, Ph.D.; Elsa Cárdenas-Hagan, Ed.D.; Barbara Wilson, Ed.D.; Nancy Cushen White, Ed.D.), as well as members of IDA’s **Multimedia Workgroup** (Chair, Jessica Hamman, M.A.; Elsa Cárdenas-Hagan, Ed.D.; Nancy Eberhardt; Dale W. Webster, Ph.D.; Margie Gillis, Ed.D.; Theresa Kaska; Barbara Wilson, Ed.D.). We also thank Amy Blessington for help with graphics, Angela Penfold for editorial assistance, and JoAnn Thorstenson for assistance with proofreading and references. Finally, we thank Henry Sinclair Sherrill for bringing this 75th Anniversary Issue of *Perspectives* to life.



Perspectives Magazine

Congratulations on the publication of your 50th issue:
Structured Literacy: Grounded in the Science of Reading

Boon Philanthropy and *VIM Magazine* are honored to have collaborated with IDA to design and publish this issue, providing *Perspectives* readers with the ultimate guide to best practices in reading instruction.

boonphilanthropy.org

Boon

Ending Our National Reading Crisis

JOIN OUR CAMPAIGN TO IMPROVE LITERACY EDUCATION FOR ALL CHILDREN!

At the International Dyslexia Association (IDA), we're committed to revolutionizing reading instruction through Structured Literacy (SL) and the Science of Reading (SoR).

We believe every child deserves the opportunity to become a proficient reader, regardless of background or circumstance. The most prevalent and preventable cause of reading failure is ineffective instruction—which is especially harmful for children with risk factors, such as dyslexia. That's why we're dedicated to ensuring that Structured Literacy becomes the cornerstone of literacy education for every child in every classroom across the nation and around the world.

We're calling upon you to join our mission:

- ✓ Share this groundbreaking publication with educators, administrators, parents, and advocates in your network.
- ✓ Spread awareness about the transformative power of Structured Literacy.
- ✓ Stand with us in advocating for Structured Literacy for every child in every classroom, everywhere.
- ✓ Watch for our next issue of *Perspectives*, which will delve even more deeply into the how of Structured Literacy.

Together, we can break down barriers to literacy and empower every child with the tools they need to thrive. Join IDA today, because we are stronger together.

Join IDA → [DyslexiaIDA.org](https://dyslexiaida.org)

Our Vision:

Structured Literacy
for every child
in every classroom
across the nation
and around the world

