

The Collection is a periodic and themed publication of curated articles from the Virginia State Literacy Association. Look for our next edition in early Spring 2022.

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Dear Fellow Educators.

Welcome to the first edition of VSLA's newest publication, The Collection. The Collection is an electronic and focused publication that the Virginia State Literacy Association has launched for members and other friends of the organization. This intensely focused and timely publication is dedicated to the needs of the classroom teacher. Not long ago, we asked ourselves how we could contribute to furthering the understanding of important topics that are fundamental to teaching today. While we continue to offer our well-loved annual journal, Reading in Virginia, we decided that we needed to take a deeper dive into subject matter that is pertinent to educators today.

With the launch of this first edition of The Collection, we embark on a three-edition journey into the Science of Reading. Thematically tied, the selection of articles speaks to this important approach to reading. A total of three planned editions are planned for 2022. The plan is to share these publications widely with the education community with the belief that these articles in this and future editions will inform educators of current practices and research in the field of literacy.

Articles for each edition will feature different subject matter in the Science of Reading space. They have been reviewed and approved by VSLA with a singular focus on this important and timely topic. All of the articles are written specifically for the classroom teacher. As a companion to The Collection, we are writing a glossary of terms that will be accessible to all who receive this series. Look for that electronic document very soon.

I wish to thank the authors, the editorial, peer review committee and the Board of VSLA for their efforts as we launch our first edition. I wish also to thank the sponsors of The Collection- Benchmark, Curriculum Associates, Heggerty and Houghton Mifflin Harcourt for your generosity and support of this endeavor through grants to VSLA.

Finally, we want to hear from you. Please let us know what you think. We wish to dedicate this series to you, the educators whose work revolves around the mission of bringing literacy to everyone everywhere.

Sincerely, Tamara Williams, President, VSLA info@vsra.org **MARCH 17-19, 2022**

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The Discussion Begins

The Science of Reading 5 Popular Questions Answered

Tiffany Brocious, Ed.D., NBCT Specialized Instructional Facilitator of Reading, Loudoun County Public Schools

Recently, Science of Reading is a term that has propelled to the front of the literacy world. The term is based on how the brain works to learn to read. The various areas of the brain need to be stimulated and neural networks between the areas must be created for students to learn to read; no part of the brain works in isolation from another and the entire brain is used when learning to read. The Science of Reading stresses that students read one letter at a time and that all readers read all letters of all words; therefore, students must be taught letters, letter sounds, and letter patterns in an explicit, systematic, multisensory manner with numerous opportunities for students to read (encode) and spell (decode) words in isolation and within text prior to moving to learning a new concept (Moats and Tolman, 2019).

The purpose of this article is to provide answers to five popular questions most often asked by those interested in learning about the Science of Reading. Although not all comprehensive, the answers supplied will give readers a foundation for discussion as school districts begin to examine and evaluate their current literacy practices.

What is the Science of Reading?

The term, Science of Reading, evolved over several decades ago when scientists began studying dyslexia. During that time, hundreds of cognitive scientists, linguists, and neuroscientists began researching how the brain makes sense of words on a page, and thousands of studies sought to find the answers (Loewus, 2019). One very popular neuroscientist and pathologist in the 1920's was Samuel Torey Orton. Many educators best know his name through Orton-Gillingham Methodology, or OG, which is a multisensory, explicit, direct, sequential, and diagnostic approach to reading (Orton-Gillingham Academy, 2021). His research, back in the early 1900's, focused on adults with brain damage in the left hemisphere causing "word blindness." He worked with psychologist Grace Fernald who had found great success in teaching adults to read using a kinesthetic and auditory

approach of writing letters in the air while simultaneously naming their sounds. He wrote his original book in 1937 and later, Orton worked with Anna Gillingham, a psychologist, who developed and published materials that incorporated a multisensory approach to teaching students the 44 phonemes and morphemes (Reading Horizons, 2021). Gillingham then collaborated with Bessie Stillman, a teacher, to write the Gillingham-Stillman manual in 1935. This manual became known as the Orton-Gillingham Model and contained a multisensory approach to directly and explicitly teaching reading and spelling to students with dyslexia (Swarthmore College Bulletin, 2019). The roots of the International Dyslexia Association (IDA) can be traced back to the Orton Society which was created by Samuel Orton's wife following his death in 1949 (International Dyslexia Association, 2021).

Today, numerous programs utilize the Orton-Gillingham (OG) Methodology. Programs such as the Wilson Reading Program, Barton Reading, S.P.I.R.E. Reading, LiPS by Lindamood-Bell, Alphabetic Phonics, and the Spaulding Approach among many others utilize a multisensory approach to teaching reading and not just traditional phonics instruction (Learning Abled Kids, 2021). The OG Approach utilizes a hands-on tactile approach to teaching the rules and patterns of words. This approach specifically involves saying, spelling, tracing, reading, and writing the phonemes and graphemes in words. It also incorporates phonological awareness activities, letter-sound correspondences, blending sounds, syllable types, spelling rules, and morphology (the meaning of words). This specific teaching of phonological awareness and phonics in the Orton-Gillingham methodology led to the inclusion of these two areas in the "Big 5" named by the National Reading Panel in their Report in 2000. The other three areas were vocabulary, fluency, and comprehension (Nicholson, 2011).

What are the key components of the Science of Reading?

The Science of Reading is not a philosophy, a political agenda, or a specific phonics program. It is scientifically-evidenced research about how reading is developed and processed and effective instructional practices that support learning to read. Brain researchers have spent decades learning about how different parts of the brain process information and how the neural networks between these different areas must work together for successful reading to occur. There are separate areas in the brain that process speech, print, meaning, sounds, and language. All of these areas must be stimulated as students are learning to read (*The Reading League*, 2021).

There are 5 key components addressed in the Science of Reading. First, matching letters to print is not a natural skill; it is acquired through direct instruction. Students must have the speech and visual processing centers of their brains developed and have knowledge of phonological awareness before learning to read. Second, instruction must be systematic with a defined scope and sequence of concepts taught from easy to more difficult. This is important especially because of the number of exceptions to the English language and the varied patterns used in spelling and reading words. Third, the process of reading incorporates both decoding ability and aural comprehension ability. Without both of these areas present, reading is not fluent. Fourth, students must have a strong sense of phonemic awareness and understand how sounds work in words and be able to manipulate those sounds within words. Fifth, orthographic mapping is necessary for students to learn how to map graphemes (letters) to the phonemes (sounds) they hear in words. When students spell words in the air and form the letters in their minds, they are able to process and attribute spelling patterns to the sounds heard in words (Breaking the Code, 2021).

The Science of Reading is not a philosophy, a political agenda, or a specific phonics program. It is scientifically-evidenced research about how reading is developed and processed and effective instructional practices that support learning to read.

How does the multisensory approach fit into the Science of Reading?

Listening, speaking, writing, and reading are the four language processes used for communication. These receptive and productive language processes include phonology, semantics, grammar, and pragmatics, all of which are important to reading and spelling (MacWhinney, 2021). Multisensory instruction not only supports experiences with the language processes, it is also championed in the Science of Reading. Activities that include visual, auditory, and kinesthetic approaches to reading stimulate the neural pathways in the brain thus building an understanding of the language processes and growth as a reader and writer. Touching, tracing, air-writing, clapping, visual gesturing, repeating, and physically moving are all examples of activities that can be integrated into instruction (Center for Reading Instruction, International Dyslexia Association, 2016). Multisensory instruction engages the various senses into learning which energizes the brain to build strong connections between reading and writing (Speech and Language Development Australia, 2021).

What is structured literacy?

Structured literacy is explicit, systematic, cumulative, and diagnostic. Explicit instruction is teacher-led with no assumption that a student will know the information from a single or minimal exposure (Spear-Swerling, 2021; Cowen, 2016). The I Do; We Do; You Do Model is utilized while teaching students. This model is a gradual release of responsibility from teacher to learner where the student is explicitly taught a strategy step-by-step (Killian, 2021). Systematic instruction is organized in a sequential pattern where students learn basic skills well before moving onto more difficult skills. Cumulative instruction denotes that each skill is built on another skill in a systematic and structured manner. Structured literacy focuses on reading and spelling processes simultaneously and strategies such as decodable texts are used when introducing and teaching the specific scope and sequence of concepts. In this manner, reading and spelling complement each other and students make connections between the two entities. Only concepts that have been taught are included in the instruction, so as students learn more concepts, the reading level will also increase because more concepts are used to create more words; therefore, this leads to higher independent reading levels. Additionally, structured literacy is diagnostic where the instructor is able to both formally and informally assess students' abilities to read and spell both real and nonsense words. Based on the results, the instructor can individualize instruction to meet students' needs in learning a new concept (Spear-Swerling, 2021; Cowen, 2016).

Which reading models best explain the Science of Reading?

There are two specific models of reading that are cited time and time again in the Science of Reading. The first model is The Simple View of Reading introduced in 1986 by Gough and Turner. The second model is known as Scarborough's Reading Rope developed by Hollis Scarborough in 2001. This model was more elaborate and defined each of the eight subsets of language and decoding needed for effective reading comprehension, but both models focus on the need to strengthen these skills (Really Great Reading, 2021). The Simple View of Reading explains that both decoding and language comprehension are both needed in order for reading comprehension to occur. If one or both of these processes are not existent, then reading comprehension will not be the result; therefore, educators must know how to diagnose weaknesses in both decoding and language comprehension in order to provide accurate intervention strategies (Farrell et al., 2019). Scarborough's Reading Rope also identifies language and decoding skills necessary for comprehension. This model breaks both of these skills down to even more specific sub skills so that the eight strands of a rope represent the proficiency needed in each to comprehend text. In this model, there are five strands that are part of the language process: Background Knowledge, Vocabulary, Language Structures, Verbal Reasoning, and Literacy Knowledge. Students who are strong in the language process exhibit strengths in printed concepts, syntax, semantics, inference and print concepts. The decoding skill has three sub skills attached to it: Sight Recognition, Decoding, and Phonological Awareness. Students who are strong in decoding known sight words, have a firm grasp of letter-sound correspondence, and recognize syllables and phonemes (Really Great Reading, 2021).

Conclusion

The Science of Reading term is currently at the forefront of literacy instruction even though it has existed for several decades. Many educators and parents have researched the topic to understand how it is different from traditional Balanced Literacy programs. Information shared in this article provides a foundation for discussions on the best literacy practices for our students.

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A Teacher's Perspective

Making My Peace with the Reading Wars

Marilyn Miner North Springfield Elementary School, Fairfax County Public Schools

Structured Literacy refers to the diagnostic, explicit, sequential and cumulative teaching of decoding skills that relate to phonology, phonics, morphology, syllable types, syntax, and semantics in the English language.

Balanced Literacy refers to the strategic actions readers use within text, about text, and beyond text. Teachers prompt students to attend to meaning, structure, and visual aspects of the text. Students predict text using a balance of cues to check for understanding.

The Reading Wars are personal for me. My teaching career (23 years) has been a microcosm of the thrust of this debate concerning the best way to teach students to read. Like you, I want to be an effective teacher. Perhaps the Reading Wars have also challenged your thinking as teachers of language, reading, and writing and caused you to seek answers. Which voices should we be listening to?

What are the Reading Wars?

Central to the so-called Reading Wars is the question, "How do human beings learn to read?" At the risk of oversimplifying, proponents of *Structured Literacy* (sometimes referred to as the Science of Reading, SOR) emphasize how the brain works with the building blocks of language, i.e., phonemic awareness, phonological awareness, vocabulary, high frequency words, and spelling to facilitate effective reading. Advocates of *Balanced Literacy* encourage students to "lead with meaning" in learning to read by examining picture cues, syntactical structures, and visual cues. They emphasize the strategic actions used by readers to comprehend texts before, during, and after reading.

The debate is heating up again as we face the effects of interrupted schooling due to the pandemic and the trend toward lower test scores. Teachers are facing unprecedented challenges.

My Reading Story

Let me tell you a bit of my story as a reader. Some might say I had little chance of becoming a reader. I have no memories of being read to, owning my own books, or spending any time with books before I went to school. We did not frequent the public library. My parents were daily readers of *The Washington Post*, but I did not see my mother taking time to read books until I was in the 5th grade. I may not have been raised in a print-rich environment, but I was raised in a language-rich environment with lots of neighborhood play and daily dinner-time conversation.

At school, I learned to read with Dick and Jane (what is known as the Look-Say Method) and somehow succeeded. I clearly remember one day, the text I stared at matched what I heard, "Run, Spot, run!" I was sitting in the 2nd desk from the front on the right side of the room when the magic happened. I was reading!

My Professional Path Led to Questions

In my professional development, I traversed a wide range of learning theories, approaches, and methods. When I began my teacher certification and M.Ed. program, my professor was all in for whole language and highlighted new texts being created for children which were engaging, fun, and sure to produce readers. Whole language teaching encouraged text-related, fun activities to put Art, Music, Science, Math, and Social Studies into Language Arts. My own children were being instructed using the whole language approach in public school. They flourished with the creative opportunities they were given to respond to literature. I was excited for the time when I would become a teacher and use these fresh ideas and beautiful picture books in my classroom.

However, in that M.Ed class there was an experienced first grade teacher who argued endlessly in favor of teaching phonics over whole language. I remember her saying, "Yes, but HOW are they going to learn to read?" She was ready to do battle. Her arguments were countered with, "How is 'The fat cat sat on the mat' ever going to *engage* young readers?" and "Kids who can **do** phonics don't **need** phonics." These exchanges got my attention. The debate was intense and gave me a lot to ponder.

Later, I added a certification for teaching English for Speakers of Other Languages and for the next 12 years worked to support language development and reading growth with students speaking up to 27 different languages. A new challenge arrived with the demands of NCLB (No Child Left Behind). All students were tested in reading and writing even if they were very new English learners. How could I help students with such diverse needs pass the tests?

I observed that among my students I often had a group of students who could decode anything put in front of them but were unable to tell you anything about what they read. Conversely, there were others who rapidly gained vocabulary and could talk about a variety of subjects but struggled mightily to decode the words on the page. I often heard, "I hate English," or "Why is English so weird?" I knew that I needed more professional knowledge and a more systematic sequence of lessons for students having difficulty with decoding text.

One year, I was asked to help support a 3rd grade student who had difficulties decoding text. Over and over, his mother asked us **how** we teach students to approach multisyllablic words. At the time, we told her what we knew: activate background knowledge, visualize, ask questions, infer, determine importance, synthesize which are all excellent thinking skills when reading. But we didn't really have an

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action plan for teaching him to decode multisyllable words. I knew she was disappointed and frustrated by our responses. Her question stayed with me. HOW?

In Reading Recovery training, I added more tools to my toolkit for teaching readers who struggle. In the 1:1 setting, I was able to closely observe students and refine my prompting for successful reading. I had the freedom to customize instruction for each student on my caseload. I remember thinking, "Now I know how to teach reading." But did I really?

Over the next nine years as a Reading Specialist, I balanced my time between coaching teachers, supporting grade level teams, and intervention groups. Our school district supports Balanced Literacy methodology advocated by leaders in the field such as Fountas and Pinnell and Lucy Calkins. We have a standards-based curriculum with a planning and pacing guide for the important concepts to be taught at each grade level.

My interventions were successful for most students who were able to get small group instruction as a double dose of reading (outside of the Language Arts block), but there were always a few students whose difficulties went beyond what I knew how to remediate. What was I missing in my professional development?

Finding Answers to the Questions

Then, during the 2019-2020 school year, I was accepted and participated in the *Virginia State Structured Literacy Pilot Project*. This initiative aimed to train teachers in the practice of structured literacy. Some people call it Orton-Gillingham training; others call it the Science of Reading. This training gave me a structure for lesson planning, knowledge of English alphabetic principles, syllable types, a sequence of skills to teach, and multisensory approaches to strengthen learning.

It was through applying this training and practice that I felt I was finally making progress with those students who had the most difficulty learning to decode text. Some of the students were English Language Learners (ELLs), others were native English speakers.

As part of my training, I worked with a group of 4th graders reading on a first-grade level. I told them that I was learning to teach them skills that would help them progress if they were willing to work with me. We would occasionally be observed by a supervisor who would be helping me be a better teacher. I could see their shoulders relax and their efforts increase. Here was a safe place where they came to trust their own abilities to decode. The 45 minutes flew by each day.

We practiced letter sounds, learned syllable types, played with words, and read decodable texts. Small successes led to more successes as some of the mysteries of English spelling patterns became clearer. They were patient with each other as we worked together. I taught them to write in cursive which was surprisingly motivating. For some, learning cursive gave them a leg up, so to speak, by removing b/d confusion and giving them something to show their peers who had not been taught cursive yet.

These 4th graders soon began to take interest in books on my shelves and asked to borrow them. When they listened to audiobooks, they were more able to follow the text. I saw confidence soar in students who were previously anxious, often hiding their struggles by disruptive behavior or lack of participation.

Making My Peace with the Reading Wars

In my mind, the answer to how best to teach children to read is a "Yes, AND" to both sides of the debate. Yes, to explicit teaching with decodable texts, AND yes, to engaging readers with books to spark imagination and deep thinking. Lessons for diverse student needs require thoughtful decision-making and acceptance that no single curriculum has all the answers.

In my intervention practice, I use primarily decodable texts as students develop specific word knowledge. We work at the word level, the sentence level, and story level. I also dip into leveled texts periodically for the motivation and engagement those texts offer. Our reading diet is heavily structured with emphasis on learning phonics principles and patterns of English in reading and writing. Spelling (orthographic mapping) is an integral part of our reading lessons.

As learners, we all need times of explicit teaching, times of guided practice, and times of independent practice. *Targeted practice* based on the Science of Reading (or structured literacy) gave students confidence and necessary tools to use when confronted with new words and texts as they developed phonemic awareness, phonological knowledge, vocabulary, high frequency words, fluency, and spelling. Breaking down reading skills to component parts which can be practiced until mastered builds a lasting and reliable circuitry in the brain.

Random practice provided to students when independently reading self-selected books or leveled texts in guided reading groups was necessary to consolidate learning and accelerate progress. Creating engaging environments where students fall in love with characters and story is essential to every classroom. Every child deserves access and time with

the gorgeous print materials available today.

Either/or thinking among professionals who place themselves on one side of the Reading Wars or the other does not serve children well. Instead, we reach all students by embracing the work of balanced literacy leaders AND structured literacy leaders. Perhaps it comes down to time and place. In the beginning, students are served well by skills taught in structured literacy settings. As they progress, the richness of balanced literacy strategies expands their reading world; however, access to Swonderful books is not possible for the student who can't get the words off the page.

I'm at peace now, knowing that literacy instruction can be both structured and balanced. I'm grateful I have expertise gained from both sides of the Reading Wars which I can use to support the children in front of me as they become readers for life. Isn't that what we all want?

For further reading:

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Blog - The Literacy Nest

https://www.thedyslexiaclassroom.com/



Listen to the Research

How Does the Science of Reading Inform Early Literacy Screening?

Christa H. Biel, Carlin Conner, Tashia Abry, Beth S. Williams, Lisa Tyree, Rainey Blackwell-Bullock, & Emily J. Solari

The importance of being able to read cannot be overstated. High literacy rates have been tied to improved life expectancy, higher rates of employment, higher levels of education, and better physical and mental health (Gilbert, Teravanin, Clark, & Shaw, 2018). Conversely, individuals with low reading and writing abilities are more likely to drop out of high school, earn lower wages, and experience challenging health and family situations (Dugdale & Clark, 2008).

Financial support for education has increased rapidly over the past two decades, however, reading achievement has not followed suit (Morrison, Bachman, & Connor, 2018). Most recent results from the National Assessment of Education Progress (NAEP) show that just over one third of students tested met proficiency standards for reading, a decrease from two years prior (NAEP, 2019). Nationally, reading proficiency scores have not shown significant improvement over the past two decades (NAEP, 2019).

Reading achievement for students in Virginia reflects national trends, with only 38% of fourth grade students meeting the proficiency benchmark (NAEP, 2020). Of specific concern are the discrepancies between subgroups of students highlighted in the VA literacy scores. The 2019 assessment reported a 28-point gap in performance scores based on socioeconomic status. This gap mirrors that of minority groups, in which African American and Hispanic students fall 24 and 21 points lower, respectively, than their White peers on the same measure. In other words, 6 out of 10 White students demonstrated reading proficiency, while only 4 of 10 of the students who were part of a marginalized group did so. Data indicate these gaps have persisted instead of closing over the past twenty years (NAEP, 2019).

While NAEP assessment data can be used to understand overall literacy trends in the late primary and secondary grades, these assessments are first given in 4th grade and do not measure early foundational reading skills. Foundational reading skills, that develop in the earliest grades are essential to later reading achievement, refer to the develop-

ment of phonemic awareness, letter sound correspondence, and decoding or word reading. Understanding their development alongside the development of language and identifying students who are having difficulties in these areas is a core tenant of an early reading instruction model that is robust and preventative of later reading difficulties. A key element to this system is early universal literacy screening which measure both foundational skills and language development. This paper will discuss the how to use our knowledge of how reading develops from the earliest grades to guide early literacy screening practices.

There is a Science Behind Reading Instruction

Researchers across fields (e.g., cognitive psychology, neuroscience, educational psychology, and linguistics) have studied teacher behaviors, learner characteristics, and the feedback and scaffolding support needed for students to achieve mastery of new skills. Together, they have converged on a set of skills and instructional practices which are critical to improving reading ability. Collectively, this knowledge of how students learn to read, and research-based instructional practices is referred to as the science of reading.

What is the Science of Reading?

Children develop language skills quite naturally, often only dependent upon models within their environment. In contrast, children are not 'wired' to read. Rather, reading skills must be taught explicitly, with one skill building one upon another. Teaching children to read requires explicit, sequenced, systematic instruction paired with ample opportunities for practice and cumulative review. According to the expert-authored and extensively research-based What Works Clearing House (WWC) guide on developing essential skills to support reading comprehension, teaching reading for understanding includes instruction in four key skill areas:

(1) academic language, (2) segmenting sounds, including how sounds link to letters, (3) decoding, analyzing, and writing words, and (4) reading text with an emphasis on accuracy, fluency, and rate of reading (Foorman et al., 2016). The Science of Reading literature teaches us what, when, and how to teach students effectively and efficiently so they become successful and fluent comprehenders of text.

The Science of Reading Should Inform Screening Practices

We can use the same science that informs instructional practices to inform screening practices. It is essential that an early literacy screener collects precise and relevant data that is predictive of later reading outcomes and aligned with the most current scientific evidence base. The Simple View of Reading (SVR; Gough & Tumner, 1986) is an empirically developed framework that explains how reading comprehension develops as the product of word recognition (decoding ability) and language comprehension. Comprehensive early literacy screening, that is aligned with the science of reading and grounded in the SVR, should assess both early foundational skills in decoding, such as phonemic awareness, alphabet knowledge, and letter sounds, as well as skills related to language, such as semantics, vocabulary, morphology, and linguistic knowledge.

The National Reading Panel (2000) emphasized the need for explicit instruction in the areas of phonological awareness, phonics, vocabulary, and fluency to improve reading comprehension skills. Performance in these areas and their associated subskills (e.g., knowledge of the alphabetic principle, word identification, decoding) has been tied to later gains in oral reading fluency, a skill predictive of later reading proficiency (Clemens, Shapiro, Thoemmes, 2011; Goffreda, Diperna & Pedersen, 2009). Therefore, an effective early literacy screener must measure performance in word recog-

Universal screeners, when implemented with fidelity, can assist in identifying students who may be at risk for future reading difficulties. They do so through target scores that if not met, indicate a level of proficiency lower than what would be anticipated for the student's age or grade level.

nition and language comprehension (i.e., both sides of the SVR).

Screeners Should Guide Instructional Practices

There are several different uses of assessment in education. most commonly beginning with assessments for screening purposes (Gersten et al., 2008; Fuchs & Fuchs, 2007a; Fuchs & Fuchs, 2007b; St. Martin et al., 2020). Screening measures are commonly used with all students within a grade level to identify specific students at risk for poor outcomes. Screeners are often accompanied by benchmark cut points-scores that indicate a student as more likely to be at-risk for a specific skill (Hosp, Hosp, & Howell, 2016; Fuchs, Fuchs & Compton, 2004). Progress monitoring assessments are then administered to students who test as at-risk during the screening process and given frequently thereafter to evaluate student growth in response to intervention (McIntosh & Goodman, 2016). Finally, diagnostic assessments are used to document the specific strengths and areas of intervention needed for individual students who are not responding to intervention based on progress monitoring scores (Pentimonti et al., 2019).

Universal screeners, when implemented with fidelity, can assist in identifying students who may be at risk for future reading difficulties. They do so through target scores that if not met, indicate a level of proficiency lower than what would be anticipated for the student's age or grade level. Additionally, screeners can identify specific strand(s) of reading development (i.e., phonemic awareness, phonics, fluency, vocabulary, comprehension) that intervention should targeted for individual students (Hosp, Hosp, & Howell, 2016; St. Martin et al., 2020). Screeners, typically implemented at the Tier 1 (classroom) phase in a multi-tiered systems of support (MTSSS) framework, identify which students are at need for enhanced support and progress monitoring, which is implemented in the Tier 2 phase of the MTSS framework (McIntosh & Goodman, 2016).

Students' performance on measures of early literacy skills have been shown to accurately predict their mastery of later, more complex reading skills (Missall et al., 2019). Identifying and intervening early in foundational skills that need strengthening can provide the necessary groundwork for more advanced skills such as fluency. As such, screening assessment data provide teachers with valuable information for making instructional decisions (Good & Kaminski, 1996). When classroom instructional practices are aligned with scientifically based reading instruction, teachers use screening data to identify groups of students with common areas of need for intervention, allowing them to increase

the intensity and explicit nature of their instruction. Additionally, screening results allow teachers to act proactively with students meeting minimal scores on benchmarks, providing them increased opportunities for practice in those skill areas.

When adopting a screener, it is important to consider its quality. First, the screener should assess key skills for reading development (i.e., phonemic awareness, phonics, vocabulary, fluency, comprehension). Second, the screener should have strong evidence of reliability and validity (including predictive validity). Third, because the screener will help determine a student's risk for specific difficulty, it must be developmentally, age, and grade appropriate. Additionally, screeners should be developed and tested using a representative sample of students to ensure scoring and benchmarks reflect a diverse population, representative of the national population (Pentimonti, Fuchs, & Gandhi, 2019; St. Martin et al., 2020).

Progress monitoring measures, including screeners, should be implemented at multiple timepoints throughout the school year and across grade levels to track improvement (Pentimonti et al., 2019; St. Martin et al., 2020). Criterion referenced progress monitoring can provide data regarding a student's mastery of skills taught in the intervention. If the student does not appear to be mastering the skills taught, then norm-referenced progress monitoring can be implemented. Norm-referenced assessments are those with standardized procedures and often require training to administer and interpret outcomes. These assessments are typically used with students who do not respond to intervention and can assist in informing adaptations to intervention implementation. It is also important that progress monitoring forms are vertically aligned so that if the assessment is implemented regularly, beginning as early as Pre-kindergarten, growth in skill areas over time can be adequately assessed

(i.e., across grades) (Pentimonti et al., 2019; St. Martin et al., 2020).

The Future of Virginia Early Literacy Screening

Preventing reading difficulties is critically important for students and for society. To best improve reading achievement, educators must know which students are at risk of developing reading difficulties. The earlier students are identified and provided with research-based intervention, the greater the likelihood of success. Indeed, current data trends underscore the importance of assessment and early screening, especially to effectively pinpoint and prevent reading difficulties. Virginia is fortunate to have a state-supported early literacy screening system as it provides early literacy data before students reach third grade, when reading achievement assessments typically begin.

The UVA Team is currently working to revise, expand, and update the current early literacy screener commonly used across the Commonwealth. The new screener will better align with research-informed assessment and instructional principles and will be grounded in the Simple View of Reading. As such, it will include subtests that focus on both decoding and language comprehension, in addition to subtests that assess print concepts (an important element of Pre-kindergarten and early kindergarten literacy development) and processing skills. Items that assess decoding skills include those that measure phonological awareness, alphabet knowledge, word level reading, and oral reading fluency. Language comprehension will be assessed through items that measure both listening comprehension and expressive language, including semantic and syntax development. See Figure 1 for an image that includes the constructs and domains assessed through the new screener.

Item-level analyses are being conducted to ensure the as-

Figure 1 The Science of Reading and the Revised Literacy Screener

Construct	Domain
Language Comprehension	Listening Comprehension
	Expressive Language
Decoding	Phonological Awareness
	Alphabet Knowledge
	Word Level Reading/Spelling
	Oral Reading Fluency
Processing Skills	Rapid Automized Naming
Print Concepts	Knowledge of text features
	Relationship between print and speech
	Knowledge of book parts

sessment is vertically scaled to capture growth. Additionally, the new assessment will expand items to measure skills of students in Pre-kindergarten (age 3) through third grade, including a parallel version in Spanish. A new data entry and scoring system will also be in place, giving teachers greater access and improved ways to view and use student-level assessment data. Most importantly, this new screener is grounded in the latest literacy research. With these revisions, instructors across the Commonwealth will have a shared reliable and valid way to identify gaps in student skills, group students based on abilities, and target instruction to meet the needs of individual students.

Virginia continues to make important investments in early literacy that will impact students now and well into the future—an effort for which we can all be proud.

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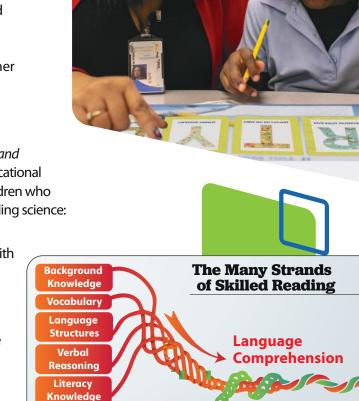
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