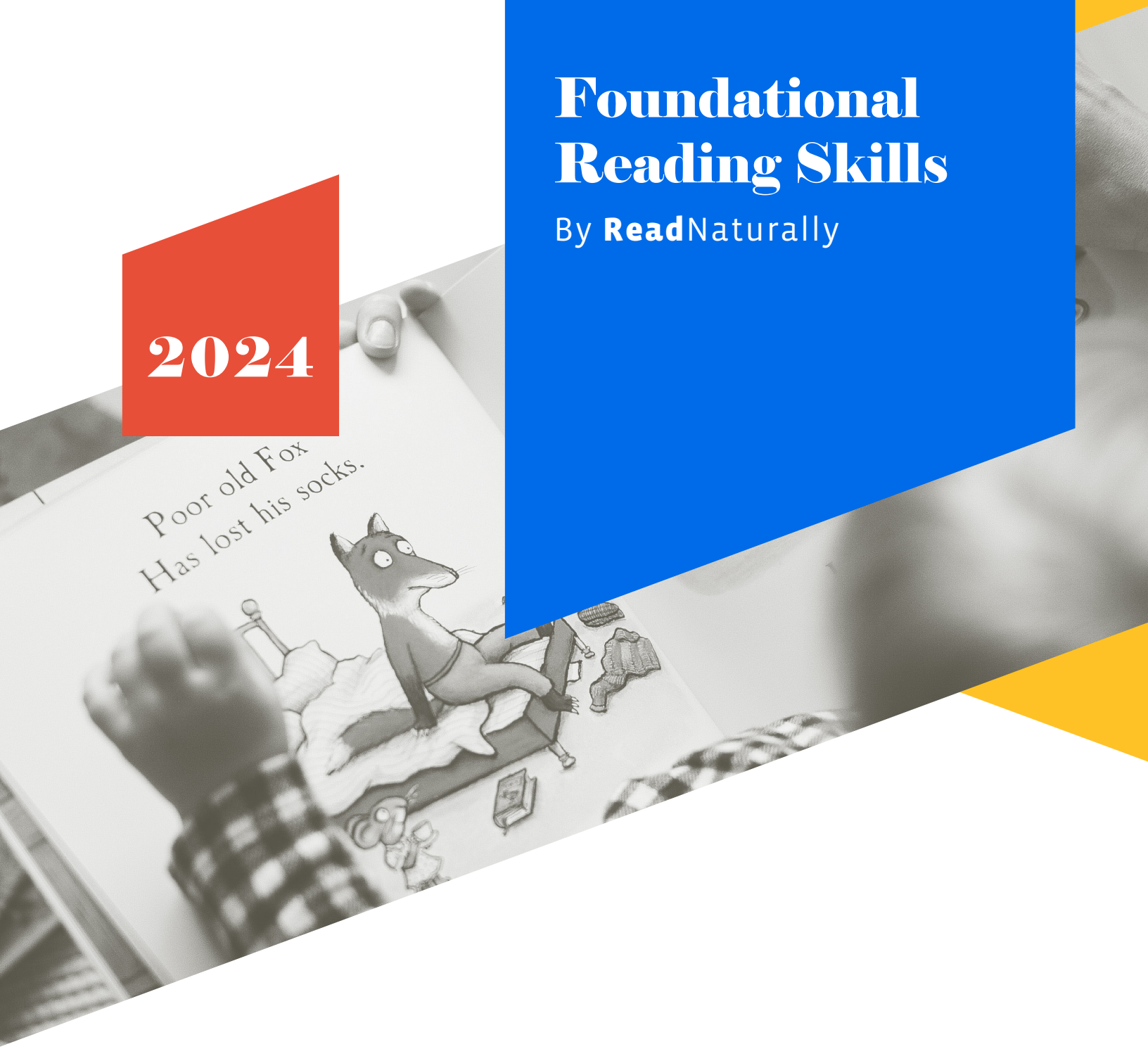
WHITE PAPER

Foundational Reading Skills

By **Read**Naturally

2024



ReadNaturally®

Published by:

Read Naturally, Inc.
Saint Paul, Minnesota

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Version 1.1

“

Reading is essential for those who seek to rise above the ordinary.

Jim Rohn

”

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Introduction

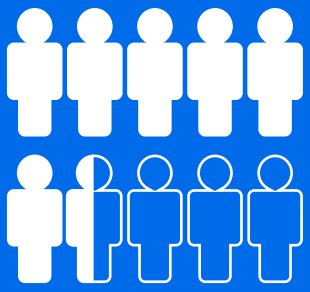
According to the Children's Reading Foundation, the ability to read and comprehend impacts students' success in all academic areas, because over 85% of school curriculum is taught through reading (The Children's Reading Foundation).

As students progress through elementary school, the instructional focus shifts from learning to read to reading to learn. Students in upper-elementary grades are expected to read and understand complex texts in all subject areas, including mathematics. But what happens when a student arrives in a fourth- or fifth-grade classroom and cannot read grade-level texts? Only 33% of fourth-grade students performed at or above the proficient level on the most recent national reading assessment. These students will likely struggle in all subject areas. According to the same assessment, 31% of eighth-grade students scored at or above the proficient level (NAEP, 2022). These struggling readers are often at greater risk of dropping out of school.

"Students who struggle with reading typically have lower grades across all their classes, high levels of truancy and decreased self-esteem and self-efficacy. They [may] also exhibit disruptive [and] challenging...behaviors" (Blaunstein & Lyon, 2006).

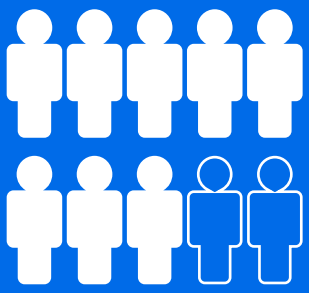
Many parents and early childhood teachers assume that children will learn to read if they are exposed to books early in life. However, research shows that 20% of elementary school students struggle to learn to read, and at least another 20% are considered at-risk (Moats, 2020). Early elementary educators are responsible for ensuring that their students have the necessary basic reading skills. In order to teach these skills, teachers need an understanding of how students learn to read and what these skills include. Surprisingly, just over 50% of elementary teacher preparation programs in the United States offer courses in scientifically based reading methods (Moorer, 2020). If teachers don't understand how their students learn to read or what skills are needed, how can we expect our children to be proficient readers?

4th Grade



66% of fourth graders performed below a "Proficient" level on the most recent national reading assessment.

8th Grade



69% of eighth graders performed below a "Proficient" level on the most recent national reading assessment.

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The Science of Reading

Just as budding doctors learn how the body performs its complex processes, beginning teachers should receive instruction in how the brain processes language as children learn to read.

The Science of Reading is known as the comprehensive body of reading research gathered over decades of study. This collective knowledge reflects the contributions of many disciplines, including psychology, education, and neuroscience, and seeks to answer two broad questions:

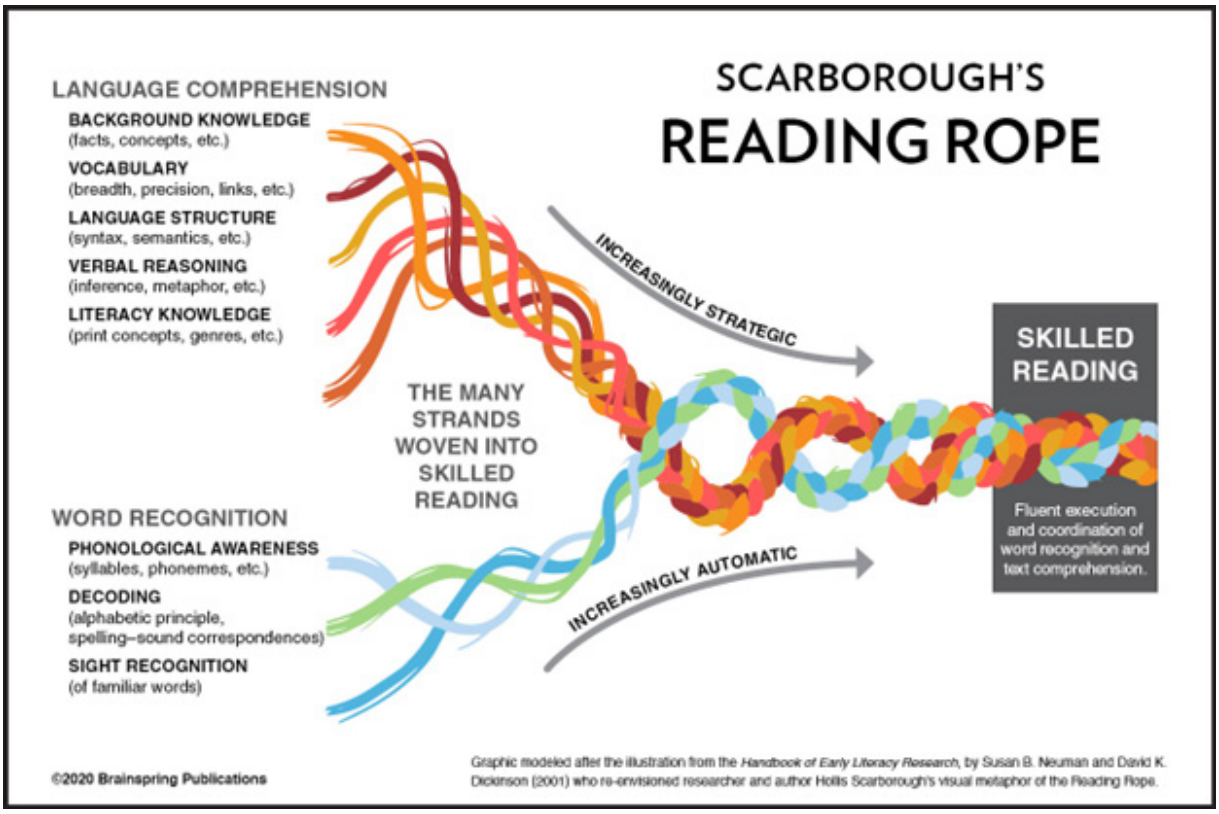
1. What knowledge and cognitive processes are necessary for an individual to read proficiently?

2. What are the best ways to teach those essential building blocks to beginning readers and to prevent and mitigate reading difficulties?

Research compiled in the Science of Reading provides information on what skills are involved in the process of reading, how they work together, and which parts of the brain are responsible for reading development (Ordetx, 2021).

The goal of reading is to understand what is read. A skilled reader is able to integrate different types of knowledge and skills in order to understand texts.

The illustration below is an effective representation of what happens as we read.



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How Do Children Learn to Read?

While children learn to swallow, grasp, walk, and talk with minimal effort from their caretakers, the act of reading is different. Infants' brains are not "wired" to read. Connections between the parts of the brain that process print, speech sounds, language, and meaning, which are essential for reading, must be built.

Combining the research-based conclusions of the Science of Reading and the graphic illustration of Scarborough's Reading Rope enables teachers to develop a better understanding of the process of reading. Effectively teaching reading requires breaking it down into manageable steps. Before students can understand what they read, they need to be able to decode and understand the words presented on the page.

The process of learning to read is divided into three stages, which correlate to the foundational reading skill guidelines recommended by most state and national standards:

1. A student learns to identify letters and their corresponding sounds. This ability is essential for beginning readers to be able to decode unfamiliar words.

2. A student develops phonological awareness. They understand that words are made of sounds, and they learn to manipulate those sounds. Most experts agree that these skills should be directly taught to students through first grade and practiced through third grade.

3. A student learns to decode unfamiliar words using their knowledge of letters and sounds. The process that occurs in a student's brain as they make connections between what a word sounds like (phonemic awareness) and the sequence of a word's letters is known as orthographic mapping. This is how a student develops their bank of known words (sight words) and the ability to retrieve words accurately and automatically. Most students are able to mentally perform this task in second and third grade (Sedita, 2022).

Before readers can build a bank of sight words, they must be confident in identifying letters and sounds and manipulating those sounds to make different words. All early elementary students, but especially struggling readers, should have time to practice decoding skills and apply those skills to texts.

Fortunately, researchers estimate that 95% of students can be taught to read proficiently by the end of first grade if provided with highly effective instruction (Kilpatrick, 2015; Moats, 2020). Additionally, evidence shows that most reading difficulties can be mitigated in older students with repeated reading practice and explicit instruction in phonemic awareness and phonics.

Definition:

Alphabetic Principle

The **alphabetic principle** is the understanding that both individual letters and groups of letters (together known as graphemes) are used to represent the smallest sounds in written language.

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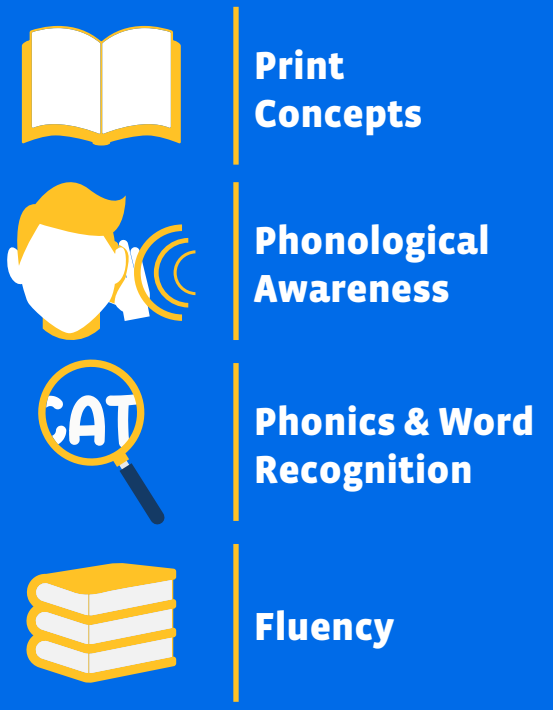

Foundational Reading Skills

In 2009, governors and educational leaders from 48 states began an effort called the Common Core State Standards Initiative to make sure that all students graduated from high school prepared for college, careers, and life. Teachers and experts from across the country collaborated to define the essential skills that students need in order to be successful citizens (Timeline for the Development of College- and Career-Readiness Standards and K-12 Standards).

In the area of English/Language Arts, the Common Core State Standards Initiative defined foundational reading skills as "necessary and important components of an effective, comprehensive reading program designed to develop proficient readers..." (English Language Arts Standards).

If we want to develop readers who can comprehend texts across a range of types and disciplines, they need to have a solid foundation in these basic skills:

- **Print Concepts:** Understanding the organization and basic features of print
- **Phonological Awareness:** Understanding spoken words, syllables, and sounds
- **Phonics and Word Recognition:** Decoding and reading words
- **Fluency:** Reading with a high level of accuracy, at an appropriate rate, and with some expression to support comprehension

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Print Concepts

Print concepts develop as a child is introduced to books and the process of reading. Print is everywhere, and some children have a lot of exposure to books growing up; their families and caregivers model how to handle a book, where on a page to begin reading, and that printed symbols communicate meaning. In school, teachers use print referencing while reading books aloud to their students. Print referencing is one way to teach print concepts.

Some of the components of print concepts are:

- **Book Concepts:** Identifying the front and back of a book and the title
- **Directionality Concepts:** Identifying where to begin reading, reading direction, and where to go at the end of a line
- **Reading Concepts:** Pointing to and tracking words one-to-one
- **Concept of Letter and Word:** Finding the first and last word on the page and the first and last letter in a word
- **Punctuation Marks:** Identifying capital and lowercase letters, periods, question marks, exclamation marks, commas, and quotation marks
- **Letter Knowledge:** Identifying upper- and lowercase letter shapes, and associating shapes with letter names

Studies show that this early exposure to print and vocabulary impacts children's later success in school (Loewenberg, 2015; Pullen & Justice, 2003).

Read Naturally Word Warm-ups Level 1 reviews letter/sound correspondences and explicitly teaches the blending of sounds to form one-syllable words.

BIG IDEA

A student's ability to identify the letters of the alphabet by name is one of the **best predictors** of how readily that child will learn to read. It's almost as accurate as an entire reading assessment in making this prediction (Adams, 1990; Treiman, Kessler & Pollo 2006).

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Foundational Reading Skills
White Paper

Phonological Awareness

Phonological awareness is the conceptual understanding of the units of oral language:

- Individual sounds
- Onsets and rimes
- Syllables
- Words

Many children enter school with an understanding of these components already in place, gained through the typical developmental acquisition of oral language and through environmental interactions with songs, nursery rhymes, stories read to them, or educational programs (Stai, 2020).

Phonemic awareness is a critical component of phonological awareness and represents the understanding that spoken words are made up of the smallest units of sound in a language, known as phonemes. In order to develop phonemic awareness, a student must learn to notice, consider, and manipulate the sounds that make up spoken words.

Why Is Phonemic Awareness Important?

After reviewing over 50 studies specifically focused on phonemic awareness instruction, the National Reading Panel concluded that instruction in phonemic awareness leads to higher achievement in spelling, word recognition, and reading comprehension (NICHD, 2000). Children found to be lacking in phonemic awareness show significant risk of future delays or failure in reading (King, 2005). In fact, the International Reading Association contends that "phonemic awareness abilities in kindergarten (or in that age range) appear to be the best single predictor of successful reading acquisition" (1998, p. 3).

"Research indicates that, without direct instructional support, phonemic awareness eludes roughly 25 percent of middle class first graders and substantially more of those who come from less literacy-rich backgrounds. Furthermore, these children evidence serious difficulty in learning to read and write" (Adams et al., 1998, p. 1).

Phonemic awareness does not develop naturally without modeling (Morais et al., 1986, Morais et al. 1979). Based on this research, it is crucial that educators provide direct instruction of phonemic awareness skills during early reading instruction.

The National Early Literacy Panel (NELP) found that early, code-focused reading intervention significantly and positively impacts the development of phonemic awareness. All beginning readers, especially those who were not exposed to a variety of texts before entering school, benefit from explicit, systematic instruction in phonemic awareness skills, such as sound blending and segmentation. This type of instruction can also be helpful for older students who struggle with phonemic awareness skills (NELP, 2008).

Definition:

Phonemic Awareness

Phonemic awareness is "the ability to examine language independently of meaning and to manipulate its component sounds" (Griffith & Olson, 2004, p. 1).

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How Can Read Naturally Programs Help?

Read Naturally and Read Naturally Live programs are based on research from the Science of Reading and deliver measurable results for struggling and developing readers of all ages. Phonemic awareness is built into all Read Naturally programs. The web-based intervention program Read Naturally Live and its print/audio CD alternative, Read Naturally Encore II, both include phonics series for students who need extra support in developing phonemic awareness. For students who need more intensive intervention in phonemic awareness, Word Warm-ups Live explicitly teaches letter-sound correspondence and sound blending, guiding students through a sequence of exercises to build automaticity in decoding. Read Naturally GATE+ is a scripted program designed for small group or whole class (K-1) instruction that provides phonemic awareness exercises.

Additionally, Read Naturally offers a specific phonemic awareness program, **Funēmics**.

ReadNaturally *offers:*

funēmics®

a phonemic awareness program

Funēmics® is a **systematic phonemic awareness program** that teaches students the six outcomes of phonemic awareness—word recognition, syllable recognition, rhyme recognition and production, and phoneme recognition and manipulation—meeting all of the Phonological Awareness Common Core State Standards. Funēmics breaks the phonological awareness continuum down into simple steps to teach a child: a sentence is made up of words, words are made up of syllables, syllables are made up of sounds (phonemes), and sounds can be manipulated to make new words. This teacher-led program uses nursery rhymes, songs, and interactive display books that are designed in a colorful, whimsical, and child-friendly format. Funēmics engages children with simple scripts, illustrations, and interactive widgets (Research Basis for Funemics).

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Phonics and Word Recognition

Phonemic awareness and phonics are not the same, but instruction in phonemic awareness and phonics tends to overlap. As students begin to transition to phonics, they learn the relationship between a phoneme (sound) and grapheme (the letter[s] that represent the sound in written language).

There is an important distinction between phonemic awareness and phonics. "Phonemic awareness is the ability to hear and manipulate the individual sounds within words. . . . Phonics instruction teaches students to use the relationship between letters and sounds to translate printed text into pronunciation" (Shanahan, 2006, pp. 6, 11). Phonemic awareness is an understanding of auditory concepts, and instruction in phonemic awareness does not need to involve words in print.

Phonemic awareness instruction improves phonics skills, and phonics skills improve phonemic awareness; the relationship is reciprocal (Lane & Pullen, 2004). In fact, they are so closely connected that the most common cause of poor phonics and word recognition skills involves weak phonological knowledge and skills (Torgesen, 2002).

Phonics instruction is the explicit, systematic teaching of the grapheme-phoneme correspondences of a language. In other words, students learn that letters make sounds, and sounds are combined to make words.

Why Is Phonics Important?

Direct phonics instruction is effective in preventing and remediating reading difficulties (NELP, 2008), making it important for educators to recognize the early signs of reading disabilities in their students. According to Galuschka and other researchers, "... [phonics instruction] is the only approach whose efficacy on reading and spelling performance in children and adolescents with reading disabilities is statistically confirmed" (2014). Many learners with dyslexia never achieve reading proficiency without ongoing, intensive phonics instruction (Stai, 2020).

BIG IDEA

Systematic phonics instruction makes a bigger contribution to children's growth in reading than programs providing unsystematic or no phonics instruction (National Reading Panel, 2000).

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Definition: Sight Word

A sight word is a word with either regular or irregular spelling that is recognized automatically and immediately "on sight" without the need to decode it.

What Is Word Recognition?

Word recognition is a reader's ability to recognize a word accurately with minimal effort. Words may be identified through the process of sounding them out (decoding) or retrieval of words known by sight. Word recognition involves two types of words: regular words (the words students can decode by sounding them out) and irregular words (the words students cannot completely decode by sounding them out). In the beginning stages of phonics instruction, an irregular word can also be a word that the student does not yet have the specific phonics skills to read (Carnine et al., 2006). Once a student has learned to pronounce an irregular word, it becomes part of the student's lexicon of known words.

According to research, only 13% of English words are not decodable. Teaching beginning readers phonics rules and patterns enables them to decode the large majority of words they will encounter (Moats & Tolman, 2009).

In order to read text fluently, a student must be able to decode words accurately and automatically. Most phonics programs teach students to decode accurately, but learning phonics does not guarantee that students are able to decode words automatically. Often students who can decode words accurately sound them out slowly. This slow decoding prevents them from reading fluently.

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How Can Read Naturally Products Help?

Word Warm-ups Live is an interactive, online program with visual and auditory prompts that guide students through the steps of this powerful phonics intervention, while the software stores performance data. Students build mastery and automaticity in phonics and decoding with explicit, systematic phonics instruction and multiple opportunities to decode and encode words in the various steps of each lesson. Audio-supported phonics lessons allow for individualization and enable students to work independently. Teachers place their students in the program using a phonics assessment and monitor student progress using the online platform and generating reports.

- **Word Warm-ups Live Level 1** reviews letter/sound correspondences and explicitly teaches the blending of sounds to form one-syllable words.
- **Word Warm-ups Live Level 2** provides more instruction and practice in applying phonics skills to decode two-syllable words and introduces the syllable patterns.
- **Word Warm-ups Live Level 3** provides instruction and practice in applying phonics skills to read syllables in longer words with multiple affixes.

In Word Warm-ups Live, students practice decoding words with the featured phonics or syllable patterns until they can recognize the patterns easily and read the words rapidly. Then, to apply their automatic decoding skills, the students read a list of challenge words that contain the featured patterns, as well as a story that uses several words with the featured patterns (Research Basis for Word Warm-ups).

Additionally, both **Read Naturally Live** and **Read Naturally Encore** build phonics skills in a variety of ways. The Phonics Series of these programs is a specific collection of levels designed to teach and reinforce phonics skills. Each phonics level in the series provides:

- an explicit phonics lesson with every nonfiction passage.
- word lists for practice with the featured phonics sound(s), including many words within word families.
- stories to provide practice with decoding skills and to reinforce orthographic mapping.

Read Naturally GATE+ accelerates reading achievement by combining the research-proven strategies of teacher modeling, repeated reading, and progress monitoring to teach phonics, develop fluency, and provide support for phonemic awareness, comprehension, vocabulary, and encoding. Teachers present scripted phonics tutoring lessons and lessons for other foundational skills to small groups or a whole class. Students respond as they interact with letters, key words, and stories in the teacher's guide/display book. As the teacher guides the group through the steps of each lesson, the students master letter sounds, decodable words, high-frequency words, and a nonfiction story. Students track progress on their graphs.

Read Naturally® Live

Word Warm-ups® Live

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Fluency

Fluency is the ability to read with a high level of accuracy, at an appropriate speed, and using proper expression when reading aloud.

Fluent readers read text the way they speak, at a conversational rate, with expression and few errors.

Struggling Readers Often Have Difficulty With Fluency

A non-fluent reader reads word-by-word, in a halting, slow and laborious manner. Over 30 years of research indicates that fluency is one of the critical building blocks of reading, because fluency development is directly related to comprehension (Reschly et al., 2009). Many researchers have proven the connection between reading fluency and reading comprehension and have found fluency to be a strong predictor of later reading achievement (Armstrong, 1983; Breznitz, 1987; Fuchs et al., 2001; Good et al., 2001; Hintze & Silberglitt, 2005; Knupp, 1988; Pinnell et al., 1995; Stage & Jacobsen , 2001).

Why Are Reading Fluency and Reading Comprehension So Highly Correlated?

Dr. S. Jay Samuels, a professor and researcher well known for his work in fluency, explains the correlation between fluency and reading comprehension via a theory called the automaticity theory (1997). According to Dr. Samuels, people have a limited amount of mental energy. In order to become proficient at a complex task such as reading, students first need to master the component tasks so they can do them automatically. For example, a reader who must focus attention on decoding words may not have enough mental energy left over to think about the meaning of the text. However, a fluent reader can automatically decode the words on a page and give full attention to comprehending the text.

BIG IDEA

To become proficient readers, students need to become automatic with text so they can pay attention to the meaning.

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Some students can learn to read fluently without explicit instruction. For others, however, fluency doesn't develop in the course of core classroom instruction. Consequently, teachers need to find ways to intentionally develop their students' fluency.

Offering More Independent Reading Time Is Not the Solution for Struggling Readers

Research analyzed by the National Reading Panel suggests that just encouraging students to read independently is not the most effective way to improve reading achievement (National Institute of Child Health and Human Development, 2000). Too often, simply encouraging at-risk students to read doesn't result in increased reading on their part.

During independent reading time, at-risk students often do not read. They cannot or will not independently read the books in classroom libraries. When asked to read quietly, they sometimes pretend to read or just look at the pictures. Often these students are not able to read the basal textbooks and anthologies in use in their classrooms.

Poor fluency is a self-perpetuating problem. Struggling readers read so few words during their instructional and independent reading time that the gap between the number of words they read and the number of words their peers read continually widens. Struggling readers need targeted help to achieve fluency.

Did you know:

In 10 minutes of independent reading time

a fluent reader might read **2000 words**

while a struggling reader might read only **500 words**

Equal Practice Time

Equal Practice

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How Can Read Naturally Programs Help?

Struggling readers need a supportive, structured, and highly motivating opportunity to read on a daily basis. Research supports teacher modeling, repeated reading, and progress monitoring as ways to involve struggling readers in the act of reading, improve their fluency, and accelerate their reading achievement (Hudson et al., 2005).

Read Naturally Live is an online reading program that accelerates reading achievement by combining the research-proven strategies of teacher modeling, repeated reading, and progress monitoring. At the beginning of the program, the teacher listens to each student read aloud and places each student in an appropriate level. A student works through each lesson at their own pace guided by text and audio prompts. First, the student reads a story along with an audio recording, then practices the story until they can read it fluently and answer comprehension questions about the story. At the end of each lesson, the teacher listens to each student read aloud again and reviews the student's progress, which is automatically tracked in the program. Teachers can monitor student progress at any time using reports via the online platform.

One Minute Reader Live allows students to practice fluent reading independently in an online environment. The student works at their own pace in an appropriate level of material as the motivating program guides the student through the steps. The student masters a story by reading along with audio and then practicing the story until they can read it fluently and with comprehension. The program automatically tracks the student's progress.

Read Naturally GATE+, a teacher-directed intervention for small group or whole-class instruction, uses the stories and word lists from the Read Naturally Phonics series. Students practice reading word lists, decodable sentences, and stories along with the teacher and then practice the word lists and stories until they can read them fluently. Each student completes a booklet of activities for each story to develop word automaticity and passage fluency.

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> Reading is the gateway for children that makes all other learning possible.
>
> **Barack Obama**

Conclusion

Any adult who has attempted to learn a second language understands the challenges inherent in mastering this difficult skill. Our preschool and kindergarten students face a similar challenge when they are learning to read. Even students who enter a formal school setting equipped with robust vocabularies and an understanding of print concepts can struggle with the act of creating meaning out of letters and words on a page.

Read Naturally's programs utilize the body of research found in the Science of Reading to systematically guide students through the process of learning to read. Read Naturally programs support students in every stage of their development to becoming successful readers, from word recognition to language comprehension. Funēmics, Word Warm-Ups Live, Read Naturally Live, Read Naturally Encore II, and Read Naturally GATE+ intentionally and systematically provide robust opportunities for students to master the foundational reading skills. The skills taught are interwoven through programs that provide appealing activities and interesting non-fiction passages (Whaley, 2021). Students remain engaged and motivated as they move through a research-based, step-by-step process that prepares them to read independently.

As students become more fluent in reading, they start to understand the material, and they begin to enjoy reading. This builds their confidence and self-esteem. Progressing through mastery of the foundational reading skills, from print concepts to phonics to fluency, enables students to be successful in school and beyond.

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