Direct Systematic Phonics Instruction Proven Effective

Why Parents & Teachers Should Use Direct Systematic Phonics

The Key Components of Effective Reading Instruction

Why should parents and teachers use direct systematic phonics instruction in teaching their children or students to read?

All reading instructional approaches are NOT equal in effectiveness. Direct systematic phonologic based instruction is more effective than other approaches to reading instruction. This is not opinion. This is clearly revealed by 1) the neurobiological science of proficient reading as well as proven by 2) the validated evidence based research.

1. Neurobiological science reveals the importance of phonologic processing to proficient reading. We now know proficient readers develop and use phonologic processing pathways to convert print to sound. Struggling/dyslexic readers have difficulty turning print to sound and do not use phonologic processing pathways. The key to proficient reading lies in the development of phonologic processing neural pathways. The brain imaging research also has provided neurobiologic proof effective phonological based reading instructional programs that specifically taught letter-sound correspondence not only improved reading skills in struggling readers, but actually changed neural activity from incorrect neural pathways to ‘correct’ phonologic pathways used by good readers. This fascinating brain imaging research has literally given us the ‘map’ for developing proficient reading and shown how we can help students develop proficient reader phonologic processing pathways.

2. Valid evidence based research clearly demonstrates the effectiveness of systematic and explicit phonics instruction in helping students learn to read. The research (National Reading Panel) reveals “systematic and explicit instruction in phonics produces significant benefits for children from kindergarten through sixth grade and for children having difficulty learning to read”. Systematic and explicit phonics instruction is effective for children from various social and economic levels and is particularly beneficial for children who are having difficulty learning to read. Systematic and explicit phonics instruction significantly improves children’s reading comprehension. The research also clearly reveals systematic explicit phonics instruction was significantly more effective than non-systematic or no phonics instruction. Direct systematic phonics instruction was not only effective, it was more effective than other approaches to reading instruction. “Students taught phonics systematically outperformed students who were taught a variety of nonsystematic or non-phonics programs, including basal programs, whole language approaches and whole-word programs.”

We should use direct systematic phonics based instructional programs in teaching students to read because these programs give us the tools to directly develop the phonologic processing
necessary for proficient reading. To read proficiently, the student must develop phonologic neural processing pathways. If students fail to convert print to sound and develop phonologic processing pathways they face difficulty learning to read. Effective complete direct systematic phonics reading programs intentionally teach students to convert print to sound and directly help children acquire specific necessary skills and develop these proficient reader neural pathways. We have proof, both validated results based evidence and findings from the neural imaging studies, direct systematic phonics programs are effective in both helping young children learn to read proficiently and in helping struggling students (children and adults) overcome reading difficulty. Direct systematic phonics instruction provides the most effective approach for directly help students achieve reading success!

What are the key elements/components of effective direct systematic phonics programs?

All ‘phonics’ programs are not equal. Research shows the most effective programs include:

1. A phonologic based/ synthetic phonics approach: An effective instruction program explicitly teaches the student how to convert letters/letter combinations into sound and then how to blend the sounds together into words. A true ‘phonics based’ reading program is more than learning letter=sound knowledge in isolation. The student is explicitly taught not only their sounds but how to combine sounds together into words. Students learn to approach reading by ‘sounding out’ words. Remember phonics based instruction works because these programs intentionally and directly develop the phonologic processing pathways necessary for proficient reading.

2. Direct or explicit instruction: Effective programs directly or explicitly teach skills and knowledge to the student. Explicit instruction is proven to be more effective than embedded, implicit or analogy instruction. For example on phonemic code knowledge, explicit instruction clearly shows the student the printed letter(s) and directly teaches the corresponding sound to achieve direct print=sound instruction. In contrast analytic or embedded approaches do not clearly identify the letter-sound relationship and instead require the child to acquire this information from analyzing or extracting this information from known words or text within reading. Many children do not learn from implicit, embedded, analogy or analytic phonics approaches. Direct or explicit instruction is necessary.

3. Systematic presentation: Systematic instruction directly teaches necessary skills and knowledge a pre-planned organized and logical sequence. Systematic programs usually start simple, teach foundational skills and then add complexities methodically as skills develop. Pre-planning also ensures all skills/knowledge is covered. A critical feature of systematic phonics instruction is the carefully planned introduction of the complete phonemic code (See The Phonemic Code Explained). Instruction usually begins with a planned set of the simple letter=sound relationships. Complexities such as vowel combinations r-controlled vowel combinations need to be methodically added after basic knowledge is acquired. Systematic presentation allows the student time to practice and master individual skills before additional complexities are added. Systematic presentation is particularly critical for struggling/dyslexic readers.
Systematic presentation breaks the complex process of reading into manageable ‘bite-sized’ skills allowing the student to achieve success one step at a time as they build their way toward proficient reading. Systematic presentation helps students learn and succeed!

4. Complete: Reading is a complex learned skill. Correct phonologic processing requires the acquisition and integration of many different subskills including phonemic awareness, alphabetic awareness/knowledge of the complete phonemic code, smooth blending, proper tracking, and attention to detail. See the article Foundational Skills Necessary for Proficient Phonologic Processing. Complete programs include explicit instruction in each of these skills. It is also important that the student is directly taught the complete phonemic code (including consonant digraphs, vowel combinations, r-controlled vowel combinations, and other complexities).

5. Provide Practice: Effective phonics programs provide practice so the student can apply what they have learned about the letters and sounds to decoding/reading words. The student needs considerable practice reading decodable text in words, sentences and stories. When parents and teachers use a well organized systematic phonics program, they are able to easily develop decodable text based on their student’s code knowledge. See the article Decodable Text Explained for additional information. In addition, repeated practice of correct phonologic processing is essential to building fluency.

In quick summary, to achieve effectiveness, reading programs need to be strong phonics first, use direct/explicit instruction, and teach in a systematic and complete manner. Effective programs also provide opportunity for the student to practice applying the correct phonologic processing of print by reading words, sentences and stories.

Why should parents and teachers focus on one approach to reading instruction (direct systematic phonics) instead of utilizing multiple approaches when teaching children to read?

The evidence clearly shows that direct systematic phonics is more effective than other approaches. The research shows systematic phonics instruction is not only effective but it is significantly more effective than instruction that teaches little, unsystematic or no phonics. Systematic phonics is significantly more effective in helping prevent reading difficulties among at risk students and in remediating disabled readers.

“Students taught phonics systematically outperformed students who were taught a variety of nonsystematic or non-phonics programs, including basal programs, whole language approaches and whole-word programs.” (NRP Subgroup Report page 2-95)

The effectiveness is achieved with strong direct systematic synthetic phonics instruction. It is not achieved my mixing methods or by adding phonics activities to other nonsystematic programs. In fact, adding phonics workbooks and phonics activities to non-systematic/non-phonics programs was shown not only be ineffective but to actually confuse students.
Further, adding phonics workbooks or phonics activities to these programs of instruction has not been effective. Such "add-ons" confuse rather than help children to read.” (From page 17 of Put Reading First: The Research Blocks for Teaching Children to Read)

Proficient reading is complex; most children need direct systematic phonics instruction to insure they develop necessary phonologic processing pathways. This is especially true for the children at greatest risk for reading failure. The reason WHY direct systematic phonics programs are most effective is they directly and intentionally help the child develop the phonological neural processing pathways that are essential for proficient reading. When children are first learning to read, we can’t ‘see’ the neural processing pathways they are using. However, by teaching them with effective direct systematic phonics programs we can ensure they activate these proficient reader pathways. The downfall with other approaches to reading, while they may work for some children, is that they allow and even encourage many children to use incorrect alternate processing pathways. We help insure all students succeed when we use direct systematic phonics programs to intentionally develop proficient phonologic processing pathways.

An important point! These statements comparing methods of reading instruction relate strictly to the effectiveness and success in teaching students how to read. For example, the statement “direct systematic synthetic phonics is significantly more effective than non systematic ‘literature based’ approach to reading instruction” absolutely does not translate into reading literature to your child is somehow not beneficial or you need to avoid exposure to literature. Of course you need to read literature to your child and there are significant benefits from literature exposure. Just don’t use the instructional ‘literature based’ method to teach your child how to convert the black squiggles of print into language. The research clearly shows it is significantly more effective to use direct systematic phonics instruction. Teaching students ‘how to read’ with direct systematic phonics instruction is most effective in helping the child establish the foundation of phonologic processing that is essential for achieving proficient reading. (Please see the next section on complete and comprehensive reading programs)

Direct Systematic Phonics Programs are NOT Complete/Comprehensive Reading Programs!

Although direct systematic phonics instruction is highly effective in teaching students how to read, it does NOT constitute a complete curriculum or comprehensive reading program. Direct systematic phonics instruction is effectively conducted in k-1st, or 1st-2nd grades or as a direct intervention/remediation program for older students. A direct-systematic-phonics program establishes the essential foundation of accurate effortless decoding/correct phonologic decoding so the student is able to achieve the higher goals of reading. A comprehensive reading program goes beyond decoding and directly helps students achieve higher level skills.

Skilled reading requires the mastery, integration and application of numerous skills and knowledge. Parents and teachers absolutely need to help students develop higher level skills. In addition to requiring practice to build proficiency, a comprehensive reading program needs to include vocabulary, fluency and comprehension development. See Overview of
Advanced Skills for additional information. Other essential language curriculum areas in spelling, grammar, creative and technical writing, exposure to literature, appreciation and enjoyment of reading and writing, the ability to extract knowledge, critical analysis skills and ability to research information from multiple sources are absolutely essential to education. The importance of these educational elements is WHY you use direct systematic phonics instruction. Direct systematic phonics programs directly help students get on track to reading proficiency so they will be able to obtain these higher skills and greater objectives of reading/language instruction.

Selecting an Effective Direct Systematic Phonics Program

When selecting a reading program, remember the National Reading Panel did NOT give a blanket endorsement on effectiveness to all ‘phonics’ programs. To be most effective programs must be 1) a synthetic phonics approach, 2) use direct or explicit instruction 3) use systematic presentation 4) include instruction in complete information skills and 5) include opportunities to practice. The National Right to Read Foundation www.nrrf.org has information and lists programs that meet the criteria of effective direct systematic phonics.

Reference to Reading Research and the Neuroscience of Proficient Reading:

The information in this article is consistent with the research based findings of the National Reading Panel’s Teaching Children to Read: An Evidence Based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction. The findings of the National Reading Panel (NRP) listed below are well documented in publications including:

The NRP Report Teaching Children to Read: An Evidence-Based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction - Summary Report

The NRP Report Teaching Children to Read: Reports of the Subgroups

The NIFL publication Put Reading First: The Research Building Blocks for Teaching Children to Read

Key Points from the Reading Research Include:

The meta-analysis indicated that systematic phonics instruction enhances children’s success in learning to read and that systematic phonics instruction is significantly more effective than instruction that teaches little or no phonics. (NRP Summary Report p.9)

The meta-analysis revealed that systematic phonics instruction produces significant benefits for students in kindergarten through 6th grade & for children having difficulty learning to read. (NRP Summary Report p.9)
Systematic synthetic phonics instruction had a positive and significant effect on disabled readers’ reading skills. (NRP Summary Report p.9)

Moreover, systematic synthetic phonics instruction was significantly more effective in improving low socioeconomic status (SES) children’s alphabetic knowledge and word reading skills than instructional approaches that were less focused on these initial reading skills. (NRP Summary Report p.9)

Findings provided solid support for the conclusion that systematic phonics instruction makes a bigger contribution to children’s growth in reading than alternative programs providing unsystematic or no phonics instruction. (NRP Subgroup Report page 2-92)

This supports the conclusion that systematic phonics instruction is effective when delivered through tutoring, through small groups & through teaching classes of students. (NRP Subgroup Report page 2-93)

The conclusion drawn from these findings is that systematic phonics instruction is significantly more effective than non-phonics instruction in helping to prevent reading difficulties among at risk students and in helping to remediate reading difficulties in disabled readers. (NRP Subgroup Report page 2-94)

Students taught phonics systematically outperformed students who were taught a variety of nonsystematic or non-phonics programs, including basal programs, whole language approaches and whole-word programs. (NRP Subgroup Report page 2-95)

The conclusion drawn is that growth in word-reading skills is strongly enhanced by systematic phonics instruction when compared to non-phonics instruction for kindergartners and 1st graders as well as for older struggling readers. Growth in comprehension is also boosted by systematic phonics instruction for younger students and reading disabled students. These findings should dispel any belief that teaching phonics systematically to young children interferes with their ability to read and comprehend text. Quite the opposite is the case. (NRP Subgroup Report page 2-94)

“Non-Systematic Programs of phonics instruction: Some programs of instruction do not teach phonics explicitly and systematically.

- Literature-based programs that emphasize reading and writing activities. Phonics instruction is embedded in these activities, but letter-sound relationships are taught incidentally, usually based on key letters that appear in student reading materials.
- Basal reading programs that focus on whole-word or meaning-based activities. These programs pay only limited attention to letter-sound relationships and provide little or no instruction in how to blend letters to pronounce words.
• Sight-word programs that begin by teaching children a sight-word reading vocabulary of from 50 to 100 words. Only after they learn to read these words do children receive instruction in the alphabetic principle.

Further, adding phonics workbooks or phonics activities to these programs of instruction has not been effective. Such "add-ons" confuse rather than help children to read.”

(From page 17 of Put Reading First: The Research Blocks for Teaching Children to Read)

Additional principles and findings from the NRP that are incorporated into the Right Track Reading Program and Website Information and activities are listed below. These highlights are copied from the National Institute for Literacy’s (NIFL) Summary “Principles from the Reading Research”

“To become good readers, children must develop phonemic awareness (an understanding of the sounds that make up spoken language), phonics skills (an understanding of the sounds that letters and letter combinations make), the ability to read fluently and accurately, and the ability to comprehend what is read.”

“Systematic and explicit instruction in phonemic awareness directly causes improvement in children's reading and spelling skills.”

“Systematic and explicit phonics instruction produces significant benefits for children from kindergarten through sixth grade and for children having difficulty learning to read. Effective Phonics Instruction involves teaching a sequence of phonics elements, not just highlighting elements as they appear in a text.”

Highlights from the evidence-based research on phonics instruction include:

Systematic and explicit phonics instruction is more effective than non-systematic or no phonics instruction. The hallmark of systematic phonics instruction is the direct teaching of a set of letter-sound relationships in a clearly defined sequence. The set includes the major sound/spelling relationships of both consonants and vowels.

Systematic and explicit phonics instruction significantly improves kindergarten and first grade children's word recognition and spelling.

Systematic and explicit phonics instruction significantly improves children's reading comprehension.

Systematic and explicit phonics instruction is effective for children from various social and economic levels. It helps children from various backgrounds make greater gains in reading than non-systematic or no phonics instruction.

Systematic and explicit phonics instruction is particularly beneficial for children who are having difficulty learning to read and who are at risk for developing future reading problems.
Systematic and explicit phonics instruction is most effective when introduced early. Instruction should start in kindergarten and first grade.

Phonics instruction is not an entire reading program for beginning readers. Children should also be solidifying their knowledge of the alphabet, engaging in phonemic awareness activities, and listening to stories and informational texts read aloud to them. They should also be reading texts and writing letters, words, messages, and stories.

Phonics can be taught effectively to a whole class, small groups, or individual students.

The information contained in the Right Track Reading Programs, Website Information and Activities apply the research information and findings from University of Oregon’s Big Ideas in Beginning Reading http://reading.uoregon.edu/big_ideas/ including:

**Phonemic Awareness Instruction:**

“Phonemic awareness needs to be taught explicitly”.

“Teachers increase effectiveness when the manipulation of letters is added to phonemic awareness tasks. Phonemic awareness is an auditory skill, but once children start to become familiar with the concept, teachers can introduce letter tiles or squares and manipulate them to form sounds and words.”

“The sound units (phonemes) are not inherently obvious and must be taught. The sounds that make up words are "coarticulated;" that is, they are not distinctly separate from each other.”

**Alphabetic Principle Instruction:**

“Letter-sound knowledge is prerequisite to effective word identification. A primary difference between good and poor readers is the ability to use letter-sound correspondence to identify words (Juel, 1991).”

“Students who acquire and apply the alphabetic principle early in their reading careers reap long-term benefits (Stanovich, 1986).”

“Teaching students to phonologically recode words is a difficult, demanding, yet achievable goal with long-lasting effects (Liberman & Liberman, 1990).”

“The combination of instruction in phonological awareness and letter-sounds appears to be the most favorable for successful early reading (Haskell, Foorman, & Swank, 1992).”

“Good readers must have a strategy to phonologically recode words (Ehri, 1991; NRP, 2000).”

“During the alphabetic phase, reading must have lots of practice phonologically recoding the same words to become familiar with spelling patterns (Ehri, 1991).”
“Awareness of the relation between sounds and the alphabet can be taught (Liberman & Liberman, 1990).”

“Because our language is alphabetic, decoding is an essential and primary means of recognizing words. There are simply too many words in the English language to rely on memorization as a primary word identification strategy (Bay Area Reading Task Force, 1996:).

**Accuracy & Fluency Instruction:**

“Successful Readers…rely primarily on the letters in the word rather than context or pictures to identify familiar and unfamiliar words; process virtually every letter; use letter-sound correspondences to identify words; have a reliable strategy for decoding words; read words for a sufficient number of times for words to become automatic (Hasbrouck, 1998)”

The Science of Proficient Reading!

The neurobiological evidence on the process of proficient reading and dyslexia reveal the importance of phonemic awareness and phonologic processing to proficient reading. The neural research demonstrates the ability of effective phonologic based reading instructional programs to develop proficient reader pathways and improve reading skills. This research provides a wealth of information that can help us more effectively teach students how to read. Several sources of background information applied to the activities in this presentation include:

Overcoming Dyslexia: A New and Complete Science-Based Program for Reading Problems at Any Level by Sally Shaywitz, M.D. Copyright 2003

This book provides valuable information on the science of proficient reading. Dr. Shaywitz is a neuroscientist involved in the fascinating research on the process of proficient reading. In this book, she outlines what scientists are learning about the process of proficient reading and dyslexia (difficulty reading). The scientific evidence on the importance of phonemic awareness and phonologic processing provide a wealth of information that can help us more effectively teach students how to read. This book is available in many libraries and most bookstores.

Links to specific research articles and journal citations found on the National Library of Medicine - National Institute of Health web based literature retrieval search system PubMed:

- [Dyslexia-specific brain activation profile becomes normal following successful remedial training](https://www.ncbi.nlm.nih.gov/pubmed/16479623)
- [Functional disruption in the organization of the brain for reading in dyslexia](https://www.ncbi.nlm.nih.gov/pubmed/11204153)
- [Development of left occipitotemporal systems for skilled reading in children after a phonologically-based intervention](https://www.ncbi.nlm.nih.gov/pubmed/12564697)
• Brain mechanisms for reading in children with and without dyslexia: a review of studies of normal development and plasticity
• Intensive instruction affects brain magnetic activity associated with oral word reading in children with persistent reading disabilities
• Neural changes following remediation in adult developmental dyslexia
• The role of functional magnetic resonance imaging in understanding reading and dyslexia
• Dyslexia (specific reading disability)

Links to a few informative articles from the Georgetown University Medical Center:

• Clinical Study - Neural Changes Following Remediation in Adult Developmental Dyslexia (Shows how the Adult Dyslexic Brain Can Chang with Direct Phonologic Tutoring)

• Neurobiological Basis of Dyslexia - Georgetown University Slide/Handout Brochure (great visual display)

• Was Orton Right? A New Study Examines How the Brain Works in Reading: Offers Key to Better Understanding Dyslexia

In summary, parents and teachers should use direct systematic phonics to teach their children and student to read because direct systematic phonologic based instruction is more effective than other approaches to reading instruction. This is not opinion. This is clearly revealed by 1) the neurobiological science of proficient reading as well as proven by 2) the validated evidence based research.

Additional free information on teaching students to read using effective direct systematic phonics instruction is located at Reading Information and Information & Resources for Teaching Reading pages of the Right Track Reading website. If you are ready to acquire effective tools to help your child or student achieve reading success preview Right Track Reading Lessons and Back on the Right Track Reading Lessons.