pages 5-16 **Back on the Right Track Reading Lessons 2**nd **Edition** © 2013 Miscese R. Gagen ~ All Rights Reserved

PREFACE

Congratulations! This easy to use, direct-systematic-phonics program empowers you with information and highly effective tools to help a struggling reader build necessary skills, overcome difficulties, and get back on track to proficient reading.

While my passion for teaching children to read triggered the original 2004 *Right Track Reading Lessons*, my experiences successfully tutoring older struggling readers inspired the *Back on the Right Track* remedial reading program. As I worked with older struggling students, I found I had to adapt and develop instructional material to meet their unique needs. I published the original *Back on the Right Track Reading Lessons* in 2007. This 2013 updated and revised 2nd edition of *Back on the Right Track Reading Lessons* builds on the strength of the original program by expanding decodable word lists, clarifying instructions, adding illustrations, providing helpful tips, modifying activities to reflect insight gained from additional years of experience tutoring students, incorporating feedback from parents and teachers, and applying recent findings from neurobiologic research.

We have learned much from the neuroscience of proficient reading and the scientifically valid research on effective reading instruction. Research reveals the importance of phonologic processing to proficient reading and clearly demonstrates the effectiveness of explicit phonologic based instruction in developing proficient reader neurologic processing pathways and improving reading skills in struggling readers. This research provides us with the neural 'map' to proficient reading. We know we have to directly help struggling readers learn to convert print to sound and develop phonologic neural processing pathways. However, the key to success and challenge in helping struggling readers is to translate this research knowledge into concrete actions parents and teachers can actually use to help struggling students travel the path to proficient reading.

Back on the Right Track Reading Lessons program accomplishes this by providing easy-to-use, effective and affordable implementation tools to improve reading skills in struggling students. This complete step-by-step program specifically designed for remediating struggling readers in a one-on-one situation, utilizes explicit phonologic based instruction, effective multisensory activities, and structured techniques to translate the science into concrete actions. *Back on the Right Track Reading Lessons* is a strong direct systematic phonics program that explicitly teaches specific skills necessary for proficient reading. Carefully designed multisensory activities intentionally develop phonologic processing pathways needed for proficient reading. The program explicitly builds skills in phonemic awareness, knowledge of the complete phonetic code, proper tracking, smooth blending, careful attention to detail, and correct phonologic processing. In addition, this program teaches students how to handle multisyllable words and provides direct instruction in developing advanced skills in fluency, vocabulary, and comprehension. It also includes a section on spelling. The presentation and design of all activities in this solid direct systematic phonics program were developed working with older students who struggled with reading. Instructional techniques were deliberately designed to help these students overcome their difficulties and master essential skills. Importantly, this program is easy-to-use for individuals who have never taught reading before as well as for seasoned educators.

Direct intervention and remediation with this effective direct systematic phonics program absolutely can make a difference. I have witnessed the dramatic effectiveness of *Back on the Right Track Reading Lessons*. Time after time the program has been an effective tool to help struggling readers gain essential skills and develop proficient reading. Students struggle with reading because they lack specific skills. By directly teaching necessary skills, you can help a student advance their reading.

More than half of all children and adults in this country do not read proficiently. *Back on the Right Track Reading Lessons* empowers parents and teachers with an effective, affordable, and easy-to-use reading remediation program so they can help these struggling readers achieve success. We can improve reading proficiency rates in this country by helping one student at a time build necessary skills.

*Note: In this book sounds are indicated between slashes / /. For example, the letter **m** has the sound /m/.

OVERVIEW OF READING

A. Introduction

We want all students to be able to read proficiently. They need to be able to look at black squiggly marks on a page and translate this written code into our English language. Reading is the key that unlocks the door to the vast wealth of information and literature. Reading is critical to a successful education. If students struggle with reading, they suffer in other areas of education because they cannot easily access information contained in our written language.

Unfortunately, difficulty reading is a significant problem throughout our country. If a student struggles with learning to read, he or she is not alone. In 2009, 67% of the 4th graders in this country were NOT at a proficient level. Even more alarming, 33% of our nation's 4th graders were below the basic level. ¹

Many students in the United States struggle learning to read proficiently. While the various testing measures can be debated, the proof of this prevalent reading failure is reflected in adult literacy rates. Difficulty reading is greater than the limited scope of a student's ability to read stories, complete class assignments, or pass standardized tests. Limited literacy skills handicap an individual's educational potential, future employment opportunities, earning potential, and ability to function as a fully productive member of society. Approximately 93 million American adults have limited literacy skills. Literacy is measured by the adult's ability to perform three different real life literacy tasks; prose literacy (reading materials arranged in sentences & paragraphs such as newspaper articles), document literacy (reading tasks not organized in sentences such as bills, maps, bus schedules & prescription labels), and quantitative literacy (activities requiring simple calculations such as written checking statements or tax forms). In prose literacy, 43% of adults are either below basic (14%) or at basic level (29%). In document literacy 34% are at or below basic level. In quantitative literacy 55% of adults are at or below basic level.²

The purpose of this book is not to debate the challenges within our education system in teaching students to read or to discuss the serious consequences of poor literacy rates, but rather to provide parents and teachers effective tools to help a struggling individual learn to read. The bottom line is learning to read is difficult for many. It is critical to get these students on the "right track" to reading success. We can effectively help a student learn to read by intentionally building necessary skills in a direct, systematic, and complete manner. This program tackles and solves the literacy issue from the bottom up, by effectively helping one individual at a time learn skills needed for proficient reading.

B. Important Background Facts About the English Language

1. Written English is a phonetic system: English is a phonetic language. English words consist of various combinations of 44 sounds blended together. The alphabetic characters, the 26 different artificial black squiggly marks, are the way we show this phonetic language on paper. The printed letters and combinations of letters represent specific sounds. The linguistic fact is written English is a phonetic alphabet, not a pictograph or other symbolic writing system. In linguistic history, written phonetic alphabets replaced pictographs precisely because there were too many words to represent by pictures. Written English is a phonemic code. Consequently, we must address reading based on this reality. When the complete code is known, the vast majority of English words are decodable. In addition, even irregular words are mostly decodable. Written English is based on printed phonemic symbols representing sounds. To read, we must translate or decode these written symbols back into sounds that blend to form specific words.

2. Written English is NOT simple. It uses a complex code: Unfortunately, English phonetic writing is not limited to a simple one-to-one relationship between a single printed symbol and a unique sound. English contains numerous complexities. The 26 written symbols and combinations of these symbols represent 44 sounds. There is overlap where a single sound is represented by more than one symbol (/k/ can be written 'c', 'k', 'ck' or even with the Greek 'ch'). Specific symbols often represent multiple or alternate sounds (c=/k/ & /s/; o= /o/, /oa/ & /u/, y=/y/, /ee/, /ie/). Symbols combine in consonant digraphs and vowel combinations to represent different sounds than the individual components (t=/t/ h=/h/ but t=/th/; o=/o/ i=/i/ but 'oi'=/oy/). Many of the combinations of symbols represent multiple sounds (w=, w+o, a+).

¹ The 2009 National Assessment of Educational Progress (NAEP) Reading Report Card www.nces.ed.gov/nationsreportcard/reading

² The 2003 National Assessment of Adult Literacy US Department of Education National Center for Education Statistics http://nces.ed.gov/NAAL/

To top it off, the English language has assimilated components of Greek, Latin, German, French, Spanish, Native American, and other languages. While this diversity adds to the richness of English, it complicates reading. To read proficiently, the student needs to learn these complexities.

3. Reading is a complex artificial skill: Reading our complex artificial system of recording the English language on paper is absolutely NOT a part of natural biologic development. While speech is a natural biologic process, reading our man-made arbitrary system of artificial black squiggles is not innate. All components of writing and reading our language are contrived. For example, even the basic left-to-right directional processing of print is not natural. Think about it. In the natural world, the best way to gather information is to look all over. In contrast, to read English you must process the alphabetic symbols in an artificial, straight-line, left-to-right manner. Other languages apply up-to-down or right-to-left processing rules. While we use our biologic functions of vision and hearing to read, learning to read print is not a natural biological developmental process. Therefore, children do not necessarily acquire skills or biologically 'grow into' reading. Like all complex learned skills, reading is best taught step-by-step with practice and mastery of individual steps before moving on to advanced skills.

4. Children are naïve about how reading works and can easily end up on the incorrect track: Not only is reading unnatural, but children are also naïve about written language. Much of what skilled readers take for granted is *not* evident. From a child's point of view, print is abstract squiggles. Many are not aware of how our artificial alphabetic system functions with letters representing sounds blended into words. Many students fail to acquire necessary skills and may adopt incorrect strategies which lead to reading difficulty. While *some* students figure out the necessary process and become good readers, *many* do *not* learn when reading instructional programs are incomplete, include incorrect strategies, fail to teach all necessary skills, or teach skills using analytical, embedded, implicit and indirect instruction. When a student gets on the "wrong track" on his approach to reading, he faces serious and persistent difficulties. The reason some students do not succeed has nothing to do with intelligence or ability, but rather with how they process print. Students struggle with reading because they fail to acquire necessary skills. It is risky to leave it to chance for students to acquire the complex skills necessary for proficient reading.

5. To read English, students must decode the print: While 'reading' obviously is more than decoding, this ability to translate printed symbols into sounds of the words of our language is a necessary foundational skill. The decoding needs to be effortless and accurate so the student has mental energy left over to achieve comprehension, enjoyment, content learning, critical analysis, and the other higher level objectives of reading. Although proficient decoding is not the reason why we read, it is a foundational skill essential to reading success. To read written English, the student must learn how to decipher this complex phonemic code by translating or decoding the print to sound. The more advanced skills in fluency and comprehension are dependent on first mastering phonetic decoding. Try to read a puzzle where familiar letters are replaced with unknown symbols such as the simple sentence:

△∞兴фЏ⊡♋ 兴⊓ ♈⊓४◻€ँँँ८⊐ Ж€ф∞ Џ幻 ⊡€⊠ ∞兴幻ズ.

The importance of deciphering the code is clear. A child looking at unknown squiggles of the alphabet faces a comparable challenge as shown in this simple letter substitution cryptogram. To solve the 'puzzle' of reading, the student needs to learn the code. By the way, the solution to this simple sentence is "Reading an unknown code is not easy."

C. Biologic Process of Proficient Reading & Difficulty Reading/Dyslexia

The scientific research on neurological processes involved in proficient reading is fascinating. Scientific advances allow neuroscientists to view images of the brain as it reads and map out these neural functioning pathways. Researchers can actually see how the brain reads! We are learning much about the distinct neural processes involved with both proficient reading and difficulty reading. Sally Shaywitz describes this information in her book Overcoming Dyslexia A New and Complete Science-Based Program for Reading Problems at Any Level. ³ I highly recommend this book to learn more about the science of reading. In addition, a selection of informative research summaries and articles on neural imaging/phonologic processing, dyslexia and phonologic based reading can be found at www.righttrackreading.com/keyresearchfindings.html

³ Shaywitz, Sally. Overcoming Dyslexia A New and Complete Science-Based Program for Reading Problems at Any Level. New York: Alfred A Knopf, 2004.

1. Neuroscientists have learned proficient readers use phonologic pathways: Thanks to the extraordinary advances in science and functional MRI technology, scientists have actually mapped out neural functioning pathways involved in proficient reading. Researchers discovered proficient readers convert print to sound using phonologic processing pathways. In contrast, struggling readers have difficulty turning print to sound and aren't using phonologic processing pathways. We now have biologic proof that the key to proficient reading is phonologic processing. Scientists learned these neural processing pathways necessary for proficient reading first form in beginning readers. Scientists are also learning how fluent reading develops word by word and is dependent on accurate phonologic processing. While actual neural processing of print. By converting print to sound, the individual taps into the brain's natural systems for efficiently processing spoken language. Phonologic processing is literally the pathway to proficient reading. This fascinating brain imaging research has given us the 'map' to proficient reading. To read proficiently, the student must develop and use the brain's phonologic processing pathways and turn print into sound.

2. Neurobiologic discoveries on dyslexia/reading difficulties: Dyslexia is defined as a problem learning to read despite normal abilities and intelligence. In other words, it is when someone with no specific physical or mental limitations has persistent difficulty reading. Researchers determined these frustrating problems learning to read have nothing to do with intelligence or ability but rather with how the person processes print. Thanks to the scientific advances, we now have neurobiologic evidence of why individuals have difficulty reading. The researchers discovered dyslexic readers use different neural pathways than proficient readers, and these improper neural pathways form because the individual does not recognize the sound structure of words, and does not process print phonetically. *Dyslexics have problems turning print into sound* and consequently do not develop phonologic processing pathways necessary for skilled reading. Researchers are learning dyslexia is a disorder within the phonologic processing component of the language system. Brain imaging shows struggling/dyslexic readers fail to process print phonologically. This brain imaging shows literally struggling readers are on the "wrong track". If your student has been labeled 'dyslexic' or they face difficulties reading, read Sally Shaywitz's informative book. Many books on dyslexia only contain information on how to manage poor reading skills. In contrast, *Overcoming Dyslexia* provides specific information on the science of dyslexia and the ability to overcome reading difficulty.

3. Neural processing pathways form in beginning readers: Researchers determined neural processing pathways form in *beginning* readers. Children who convert print to sound are literally on the correct neural processing pathway for proficient reading. Conversely, individuals who fail to develop correct phonologic 'proficient' reading processing pathways in the beginning continue to face serious and persistent difficulties learning to read. This helps explain the evidence that most children who fall behind in reading never catch up. Students who fail to develop phonologic processing pathways in the beginning face persistent difficulty reading.

Sometimes students 'get by' with incorrect processing in the lower grades (K, 1st). The easy reading material, illustrations, context clues, oral directions, and limited depth of content disguise difficulty decoding print. For example, if a child looks at the picture or memorizes repetitive text, it appears he can 'read'. However, students who fail to develop necessary phonologic processing run into problems as vocabulary expands. Incorrect strategies of 'whole word' visual memorization, word guessing, context clues, and predictable text fail as reading level advances. This is why 'reading problems' often become evident in 2nd, 3rd or 4th grade. In reality, the 'difficulty' processing print existed from the beginning because the student never developed phonologic processing pathways.

4. Effective Phonologic Based Reading Programs Create Proficient Reading Neural Pathways: The most exciting element of the fascinating science of reading research is the neurobiologic proof direct-phonologic-based reading programs can actually develop neural pathways for proficient reading in both children and adults. The brain imaging studies have shown effective phonological based reading instructional programs that specifically taught letter-sound correspondence not only improved reading skills in struggling/dyslexic readers, but actually changed neural activity from incorrect neural pathways to 'correct' phonologic pathways used by good readers. We have scientific evidence we can use effective direct systematic phonics based reading instruction to intentionally build the necessary proficient reader phonologic processing pathways that 'wire' the brain for reading success.

D. Effective Reading Instruction Can Develop Proficient Reading

We have neurobiological proof development of phonologic processing pathways is necessary for proficient reading and effective direct-phonological-based reading instruction can develop these neural phonologic processing pathways. Effective programs that specifically taught letter-sound correspondence not only noticeably improved reading skills in struggling readers, but actually changed neural activity from incorrect neural pathways to the "correct" phonologic pathway. The proven ability of direct systematic phonics based reading instruction to actually develop correct proficient reader phonologic pathways in dyslexic individuals is a significant finding of the neurobiologic reading research. We can intentionally help students develop neural pathways for proficient reading.

The valid evidence based research clearly demonstrates the effectiveness of systematic and explicit phonics instruction in helping students learn to read. This research 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".⁴ 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." ⁵ Direct systematic phonics instruction helps students achieve reading success!

The valid results based evidence demonstrating the effectiveness of direct systematic phonics is supported by the neuroscience. The brain imaging research on dyslexia shows us *why* direct systematic phonics programs work. The neurobiologic details on proficient reading confirm the value of designing reading instruction to intentionally develop phonologic processing. Explicit systematic phonics programs directly teach the student to convert print to sound and intentionally develop these proficient processing pathways.

We have proof, both validated results-based evidence and findings from the neural imaging studies, direct systematic phonics programs can help young children learn to read proficiently and help struggling students overcome reading difficulty. Evidence clearly shows the specific program of reading instruction has a significant effect on rates of reading success. There is a "right way" to teach reading and to ensure the correct proficient reader neural pathways are activated. The brain research explains why many students fail to learn to read with the popular methods of reading instruction such as 'whole language', 'literature based', and 'balanced' approaches. These well intentioned methods allow and often encourage development of incorrect neural pathways or at best fail to intentionally develop correct pathways. If students fail to convert print to sound and form phonologic processing pathways, they face difficulty learning to read. Additional information is found in the article *Why Parents and Teachers Should Use Direct Systematic Phonics Programs* at **www.righttrackreading.com/directphonicsworks.html**

Back on the Right Track Reading Lessons is specifically designed to help students acquire necessary skills and develop proficient reader neural pathways so they get 'back on the right track' to reading success. The train track image and analogy represents the ability to directly help students develop correct phonologic neural processing pathways. Just as the correct track leads trains to their desired destination, the development of correct phonologic processing pathways literally gets students on track to the desired destination of proficient reading. The image of the railroad switch is included in the Back on the Right Track remediation program because railroad switches are necessary to move a train to a new track. In the same way, struggling readers need direct effective intervention to 'switch' them from incorrect processing to the 'right track' of correct phonologic neural processing pathways. Back on the Right Track Reading Lessons is an effective direct systematic phonics remediation program that gives you the tools to help struggling students develop proficient reading skills.

⁴ National Reading Panel's "Teaching Children to Read" Summary Report www.nationalreadingpanel.org/publications/summary.htm

⁵ National Reading Panel's "Teaching Children to Read" Summary Report www.nationalreadingpanel.org/publications/summary.htm

SKILLS NECESSARY FOR PROFICIENT READING

This section lists and describes individual skills and elements necessary for developing proficient reading. The student needs to master, integrate, and apply these skills in order to develop proficient reading. Reading is a complex learned skill. The most effective and efficient way to ensure a struggling student learns all complexities is to directly teach each necessary element to the student. Struggling students often lack one or more of these necessary skills or have not learned how to integrate and apply these skills in the process of proficient phonologic processing. Effective remediation directly helps the student develop missing skills. **Figure 1** on page 16 depicts the necessary skills and integration of these skills in the process of proficient reading.

The list of skills necessary for proficient reading was compiled from validated scientific research found in the National Reading Panel's "Teaching Children to Read" Summary Report (www.nationalreadingpanel.org/publications/ summary.htm), the University of Oregon "BIG IDEAS in Beginning Reading" (http://reading.uoregon.edu/), and various articles on the amazing neuroscientific research on how the brain functions in proficient reading. In addition, this list was supplemented by the author's experiences carefully observing students learning to read, evaluating specific errors struggling students made, and learning techniques to help students achieve reading success.

A. Fundamental Skills Necessary for Proficient Phonologic Processing

1. Phonemic Awareness: Phonemic awareness is literally 'sound' awareness. It is the ability to understand words are made up of sounds and to be able to hear, recognize, and manipulate individual sounds of a word. Phonemic awareness (PA) is an auditory skill of distinguishing and recognizing the sound structure of language. For example, PA is realizing the word 'puppy' is made up of the sounds /p/ /u/ /p/ /ee/ or the word 'shape' is formed by the sounds /sh/ /ay/ /p/. Phonemic awareness, or developing an 'ear for sounds', is critical to reading and spelling success.

Individuals vary greatly in their natural ability to hear sounds within words. Some individuals have a definite phonological weakness and do not realize the words they hear break apart into smaller chunks of sound. Hearing the individual sounds within a word *is* difficult because spoken language is seamless. When we speak, we naturally and effortlessly blend all the sounds together to say and hear the overall word. The natural ease of seamless speech hides the phonetic nature of spoken language. For example: The individual hears the word "puppy" as one seamless word /puppy/ and does not recognize or distinguish the separate sounds /p/ /u/ /p/ /ee/ making up the word.

Research shows students with poor phonemic awareness struggle with reading and spelling. Individuals who do not distinguish and recognize the sounds within spoken words have difficulty developing the necessary link between print and sound critical to proficient reading and spelling. It is important to realize, natural phonological abilities are not related to intelligence. Highly intelligent individuals can have phonological weakness that leads to reading difficulty. In addition, tendency for phonologic weakness may be an inherited trait as it appears to run in families. Phonemic weakness is a primary characteristic of the dyslexic population.

Although some individuals have a definite phonological weakness, the good news is phonemic awareness can be taught and learned. We have validated scientific evidence that PA instruction has a significant positive effect on both reading and spelling.⁶ You can directly help students develop the necessary phonemic awareness skills.

PA development /instruction should include the following specific skills:

- The ability to isolate and distinguish individual sounds (fish starts with /f/, 'cat' ends with /t/)
- The ability to identify phonemes ('bat' and 'boy' start with the /b/ sound, 'tall' & 'toy' start with the /t/ sound)
- The ability to categorize similar sounds and recognize phonemic patterns: this includes ability to recognize rhyming words (cat, mat & sat rhyme) and to recognize similarities/differences in a group of words (bake & bike start with the same sound but do not rhyme) or (in 'bug', 'run' and 'hug', the word 'run' is different)
- The ability to segment phonemes in a word (the word 'cat' is made of the sounds /k/ /a/ /t/)
- The ability to blend sounds together (the sounds /h/ /or/ /s/ put together make the word 'horse')
- The ability to delete phonemes. ('train' without the /t/ is 'rain' or 'mud' without the /d/ is /mu/)

⁶ National Reading Panel's "Teaching Children to Read" Summary Report www.nationalreadingpanel.org/publications/summary.htm

• The ability to manipulate phonemes making changes/substitutions (What would the word 'milk' be if it started with the /f/ sound instead of the /m/ sound? and the student can say '/filk/')

It is important to realize oral PA instruction alone is not sufficient. Research shows PA instruction is most effective when students are taught to manipulate sounds *with letters*. In other words, the greatest effectiveness in helping students learn to read occurs when oral PA training (recognizing the sounds) is linked directly to the printed letters. For example, the student needs to recognize the word 'fire' starts with the /f/ sound AND know this /f/ sound is represented by the printed letter 'f'. To read, the student must link oral PA skills directly to the printed phonemic code.

2. Knowledge of Complete Phonetic Code: The complete phonemic code is the entire set of printed symbol=sound relationships written English is based on. The student needs to acquire knowledge of the *complete* phonetic code. Knowing the basic alphabet is not sufficient to read our complex English language. The student needs to learn all the phonograms. Phonograms are the distinct printed letters or combinations of letters symbolizing specific sounds within written words. Depending on classification, there are between 70 to 80 distinct phonograms. In addition to 26 single letters of the alphabet, the student needs to learn the consonant digraphs (th, sh, ch, wh, ck...), vowel combinations (ee, oa, oe, ai, ay, oi, oy, ea, ow, ou...), r-controlled vowels (ar, or, ore, er, ur, ir, air...), the 'bossy' letters that modify adjacent sounds (w+a, a+l,...), the multiple or alternate sounds for many phonograms (s = /s/ & /z/ , ow = /ow/ & /oa/...), and other complexities (ph, igh, ough...). It is no surprise vowel combinations and complexities are frequently a source of reading and spelling difficulties. Many students lack necessary knowledge of the complete phonetic code. We often fail to teach these complexities or teach them in an indirect, incomplete or haphazard manner. Although it *is* complex, English is not random chaos. When *all* sounds are learned and patterns practiced, most words *can* be phonetically decoded.

To read proficiently, individuals must process print phonetically by converting printed letter(s) directly to sound. Students need to learn the sound the letter represents, not the letter name. For example, for the letter 'h' the sound is /h/ not the letter name /aych/. Correct pronunciation is also important. For example the letter 'd' has a quick sharp /d/ sound not a long /duh/. The student needs to accurately convert the printed phonograms directly to sound. Avoid indirect processing as it is inefficient and makes reading harder for the student. Indirect processing relates print to a known object or word, then extracts the sound from that word. For example, if you see 'oy' in 'destroy' and have to think 'oy' is in the word 'boy' and therefore determine indirectly the 'oy' must have the same /oy/ sound instead of directly processing 'oy'=/oy/. Other indirect approaches link printed letters to a word/object ('b' = book), or to a picture ('b' = 📖) instead of direct print to sound (b=/b/). Efficient processing requires a direct accurate print = correct sound knowledge.

The goal is for the student to automatically know the printed alphabetic character(s) sound association for the complete phonemic code. The student effectively learns this 'printed letter=sound' association through direct instruction and repeated practice. When a sound is automatic, the student does not have to expend effort consciously recalling the sound and can then concentrate on higher reading skills. It is comparable to learning how to type. In keyboarding, you learn the association of finger movement for a specific letter. At first, a beginner looks at both the keyboard and their hands. After drill, he can type without looking by concentrating on what finger to move. With additional direct practice, the typist improves in proficiency to the point where keyboarding is automatic. When you are no longer spending mental energy on remembering finger placement, all your concentration can then focus on the material. The same concept applies to reading. The objective is for the student to establish direct automatic print=sound code knowledge. The most effective way to ensure students acquire knowledge of the complete phonemic code. They frequently have gaps in the complexities. Trying to process print phonologically without knowledge of the complete code is similar to typing with missing keys on the keyboard. The student will face difficulty!

3. Directional Tracking: In English, we read and write from left-to-right. Proper directional tracking of looking at and processing all the letters *in order from left-to-right* is essential for reading success. Although this simple sub-skill may appear self-evident, many students do not apply this essential element. Scanning and processing information left-to-right in a straight line is *not* natural. Instinctively, looking all over is a superior way to gather information. Left-to-right processing is one of the arbitrary artificial components of written English students must learn and automatically apply. Knowing the individual sounds is not sufficient. For accurate reading, the student *must* process sounds *in order from left-to-right*. The following words demonstrate the importance of processing order: (stop-pots-tops) (thorn-north) (no-on) (miles-limes-smile) (step-pets-pest) (every-very) (felt-left). Poor readers frequently make errors processing letters out of

order. They often exhibit erratic eye movement as they jump around searching for 'whole words', familiar parts or word families. These incorrect tracking strategies contribute to reading difficulty. To read proficiently, the student must not only know the individual sound but must process all letters in order left-to-right. The most effective way to ensure student acquires this essential skill is to directly teach and require proper directional tracking. A detailed article on directional tracking is found at www.righttrackreading.com/tracking.html

4. Blending: To read proficiently, the student needs to learn to blend individual sounds smoothly together into words without choppy pauses between the sounds. For example, this is learning to read the word 'mast' with smoothly blended sounds /mmaasst/ instead of a choppy /m/.../a/..../s/..../t/. This essential blending skill does not come easily and automatically for some students. Some students' inability to blend smoothly creates a hurdle that blocks reading development. Students who segment or chop sounds apart frequently struggle combining sounds to 'smoothly' say words and build fluency. The student knows the sounds in isolation but is unable to 'hook' the sounds together. He may initially get by with short words but quickly runs into trouble with longer words containing four or more sounds. When sounding out it is essential the teacher demonstrates the correct blending skills of not stopping between the sounds. Teach smooth blending skills from the beginning and specifically work on this skill with any student that has difficulty blending smoothly. A detailed article on blending can be found at **www.righttrackreading.com/blending.html**

5. Attention to Detail: Attention to detail is carefully looking at all the letters/sounds in a word. The details are critical to accuracy. Skilled reading involves focus on the internal details of the word. The student must process all sounds in order, without skipping, adding or changing any sounds. Words are too similar (insist-insect-inspect) (stain-strain) (form-from) (tree-three-there) (then-than) (change-charge) (strange-strong-string). Only 26 letters make up over 250,000 distinct words. Listen to students who struggle with reading and you will quickly observe numerous errors because they fail to process details. Despite erroneous claims, the fact is students can*not* learn to read by only looking at the first and last letter. Skilled readers pay attention to the details. Not only are details critical for accurate reading, but attention to detail is also essential in forming the accurate neural model of the word that allows development of fast/fluent reading. Help students develop the attention to detail skill critical to reading success. Paying attention to detail is closely intertwined with proper tracking and correct phonologic processing.

B. Combining Fundamental Skills to Develop Correct Efficient Phonologic Processing

Correct phonologic processing is a complex process and requires integration of many different fundamental subskills. Students need to convert print to sound so they can tap into the brain's phonologic processors designed for effortlessly processing spoken sound. To do this efficiently, the student must recognize the sound structure of language (phonemic awareness), directly and automatically know the phonemic code including the complexities (knowledge of the complete phonemic code) and learn how to read by sounding out the word. The student needs to smoothly blend sounds together (blending), process print from left-to-right (tracking) and pay close attention to all the letters in the words (attention to detail). Learning the individual components in isolation is *not* sufficient. The student must not only master these individual skills but also integrate and automatically apply these skills when he or she reads. As with all learned skills, sufficient practice 'sounding out' words with correct phonologic processing is essential to developing proficiency. **Figure 1** on page 16 shows integration of these skills in the process of proficient reading

In summary, to become a skilled reader a student needs to develop a foundation of proficient phonologic processing. Parents and teachers can use effective instruction and targeted activities to directly help students acquire the necessary foundational skills, learn to convert print to sound, and intentionally build phonologic processing pathways. When working with struggling readers, it is imperative to directly help the student acquire skills and to provide sufficient practice applying these skills. Help the student establish a strong phonologic processing so he can advance to skilled reading.

C. Advancing to Skilled Reading

Obviously, proficient reading is more complex than simply establishing correct phonologic processing. While correct phonologic processing provides the essential foundation for accurate and effortless decoding, this is only the beginning. Students must also develop higher level skills in fluency, handling multisyllable words, expanding vocabulary, and improving comprehension. Students need to acquire these higher level skills to advance from the beginner level to skilled or proficient reading. The most effective way to ensure a student acquires important higher level skills is to establish a strong foundation of correct phonologic processing and then directly teach and develop the specific advanced skills. See **Figure 1** "Overall Processes Required for Proficient Reading" on page 16.

1. Fluency: Fluency is 'fast' or 'automatic' reading. Fluent readers are able to read quickly and accurately without effort. Fast oral reading with proper expression is a trademark of fluent reading. Fluency is critical to skilled reading and comprehension. By appearances, the student knows words instantly and reads the 'fast way' without slowly sounding out the word. It seems by 'knowing' the words the individual reads easily and quickly. However, it is important to realize appearances do **not** reveal the actual process involved in fluent reading. To help students become fluent readers, we need to study the specific process of fluent reading and understand how fluent reading is developed. The necessary information lies in the amazing field of modern neuroscience.

The remarkable advances in neural imaging research allow scientists to examine the process of fluent reading and how fluent reading is developed. Researchers are learning fluent or 'fast' reading utilizes a neural 'expressway' to process words. This 'fast reading area' of fluency is different from the slow phonologic processing pathways used by beginning readers. With fluent reading, a quick look at the word activates a stored neural model that allows not only 'fast' reading but also includes correct pronunciation and understanding of the word.

Importantly, neuroscientists are learning how fluency is developed. Fluent reading is established after the individual reads the word *at least* four times using accurate phonologic processing (slow accurate sounding out). Fluency is build word by word and entirely dependent on repeated, accurate, sounding out the specific word. Fluency is *not* established by 'memorizing' the appearance of a word but rather by developing a correct neural-phonologic model of a word. Therefore, reading a word over and over will *not* develop fluency *unless* the student is processing the print phonologically. The initial process of repeated sounding out 'engraves' a neural model of the word that then is stored in the 'fast reading area' available for rapid retrieval. Fluency is not visually recognizing an entire word but rather the retrieval of the neural model created by proper repeated phonologic processing. Neuroscience has revealed the initial stage of repeated accurate 'sounding out' is the essential precursor for developing the advanced 'fast' neural pathways of fluent reading.

Neuroscientists also discovered dyslexic readers have not developed these fluent or 'fast reading' systems. Struggling readers who do not convert print to sound using phonologic processing fail to develop the 'fast' or fluent reading pathways. Because they don't sound out words, the neural phonologic 'engraving' of the word is never made and fluent reading is not developed. This is why struggling readers can see a word hundreds of times and never develop fluency on that word. *Fluency is completely dependent on phonologic processing*. Without express reading pathways, reading remains slow and laborious. These students may work hard and eventually learn to read accurately but they will not achieve the quick and almost 'effortless' process of skilled reading.

Effective reading instruction can directly help a student develop fluent neural pathways. First, intentionally establish the essential foundation of phonologic processing. Then, provide guided practice so the student repeatedly sounds out individual words consequently expanding his storehouse of neural models available for rapid retrieval. Fluency is developed word-by-word and is absolutely dependent on repeated accurate print to sound (phonologic) processing.

In summary, a strong phonologic processing base is essential to develop the advanced skill of 'fast' fluent reading. Neural research shows fluent reading is built word by word and based on repeated correct phonologic processing. Without the essential process of correct phonologic processing (sounding out) the student will never develop 'fast' reading/ fluent reading pathways. Students who do not develop and use phonologic processing may work hard and eventually learn to read but they will not achieve the quick and almost 'effortless' process of skilled reading. **For additional information, see Section 8 - Building Fluency.**

2. Skill in handling multisyllable words: Multisyllable words are harder to read than single syllable words. The majority of English words are multisyllable so it is critical students learn to read them effectively. Syllables are the chunks of sound within a spoken word said with a single puff of air. Every syllable has at least one vowel sound with or without surrounding consonant sounds. Multisyllable words are made up of a combination of these distinct sound chunks. To read multisyllable words the student has to break the word down by distinguishing and clumping appropriate sounds to form the correct syllables and then smoothly combine these correct sound chunks with the adjacent syllables into one fluid word. The student needs to capture *all* the appropriate sound chunks in the word without missing one or adding one that should not be there. It is tricky and takes application of proper strategies and practice to master this complex skill.

Some individuals automatically develop proper strategies for reading multisyllable words but many do not. Handling multisyllable words is a complex skill and many struggling readers have difficulty with multisyllable words. Also, some students with a strong reading base run into problems with higher reading levels as they begin to encounter many multisyllable words. These students need to learn strategies for handling multisyllable words. The general rule of thumb is 1st graders need to easily read 1-syllable words, 2nd graders 2-syllable words, 3rd graders 3-syllable words and 4th graders need to easily handle four & more syllables. It is also important to realize, this more advanced skill of reading multisyllable words cannot be proficiently mastered until *after* the student is able to automatically decode and blend the individual sounds. You can help a student develop proficiency in reading multisyllable words with direct instruction in strategies to handle these longer words and by providing guided practice in reading multisyllable words. **For additional information, see Section 6 - Handling Multisyllable Words**.

3. Vocabulary: Vocabulary knowledge is important to reading development. Expanding a student's knowledge-bank of words he understands impacts reading comprehension. The greater the student's vocabulary, the easier it is to make sense of and understand text. Vocabulary refers to understanding individual words where 'comprehension' refers to understanding larger parts of text. Vocabulary and comprehension are interrelated.

Vocabulary knowledge is distinct from the skill of decoding print. A student can fully understand words he is not able to read/decode. For example a five year old has a much larger speaking and understanding vocabulary than a printed reading vocabulary. He may not be able to decode the printed words 'gorilla', 'vacation' or 'chocolate' but has the vocabulary knowledge to understand exactly what these words mean. In contrast, a student may be able to correctly decode a new word perfectly and not know what it means. For example, a student may correctly decode the words 'kelp', 'placid' or 'leviathan' but have no idea what these words mean. This lack of understanding is a vocabulary knowledge issue. Of course for comprehension, the student needs to both accurately decode the word *and* know what the word means. Expanding a student's vocabulary knowledge is important to reading development. For additional information, see Section 10 - Expanding Vocabulary Knowledge.

4. Comprehension: Comprehension is deriving meaning from the text. Comprehension goes beyond decoding the text to actually thinking about, relating to, and understanding what the text means. Obviously, comprehension is vital to the development of skilled reading. Comprehension is an active process requiring thoughtful interaction between the reader and text. Comprehension is the goal of reading instruction.

Remember, to achieve comprehension, the student must *first* develop accurate phonological decoding skills and build fluency. Fluency and accuracy are critical to reading comprehension. If a student struggles with accurate fluent decoding, this inability to easily convert print into language will limit reading comprehension. If decoding takes significant effort, the student has little energy left to devote to thinking about what he is reading. Easy, accurate, and fluent decoding of printed text allows the student to focus energy on higher level comprehension skills.

Reading comprehension is a complex higher level skill that needs to be developed. It is important for students to develop comprehension strategies. Comprehension strategies focus on teaching students to understand what they read. While readers acquire some comprehension strategies informally, explicit or formal instruction in the application of comprehension strategies has been shown to be highly effective in enhancing understanding.⁷ In other words, you *can* take specific actions to help students develop comprehension strategies and skills. For additional information, see Section 9 - Developing Reading Comprehension Skills.

⁷ National Reading Panel's "Teaching Children to Read" Summary Report www.nationalreadingpanel.org/publications/summary.htm

D. Summary of Skilled Reading

Skilled reading requires the mastery, integration, and application of numerous skills and knowledge. The student needs to establish the strong foundation of phonologic processing and then build advanced skills in fluency, handling multisyllable words, vocabulary and comprehension. An effective direct-systematic-phonics program explicitly teaches the student to convert letters into sounds and blend the sounds into words to develop proficient phonologic processing of print. However, it does *not* constitute a complete curriculum or entire reading program. A direct-systematic-phonics program provides the essential foundation of accurate effortless decoding so the student can begin to achieve higher goals of reading. In addition to requiring practice to build proficiency, a comprehensive reading program needs to include vocabulary, fluency, and comprehension development. Other essential language curriculum areas in spelling, grammar, creative and technical writing, exposure to literature, appreciation of writing, and ability to research and extract information from multiple sources are essential to education. The importance of these educational elements is *WHY* you must *first* get *all* students on the right track to reading proficiency. With the help of this effective direct systematic phonics remediation program, you can get struggling readers back on the right track to reading proficiency so they will be able to obtain the higher skills and greater objectives.

In summary, to become a skilled reader, the student needs to develop proficient phonologic processing pathways. To develop these proficient phonologic processing pathways, the student needs to integrate and apply individual skills in phonemic awareness, knowledge of the complete phonemic code, directional tracking, blending, and attention to detail in correct print to sound processing. When remediating struggling readers, it is imperative you directly help the student develop these correct phonologic processing pathways. The most effective and efficient method of insuring your student develops proficient reading pathways is to directly teach the student necessary skills. Parents and teachers can use targeted activities to extinguish incorrect techniques, directly build necessary skills, and intentionally develop correct phonologic processing pathways.

Figure 1 on the following page visually represents the necessary skills and integration of these skills in the process of proficient reading

Overall Processes Required for Proficient Reading (Figure 1)



For illustration purposes, this diagram simplifies the complex process of reading. Skills are not isolated tasks. The foundational skills must be mastered, integrated, applied and PRACTICED! The correct phonologic processing of print is an essential foundation. The advanced skills in fluency, multisyllable words, vocabulary, and comprehension are also critical to developing skilled proficient reading.