EPS®

Literacy and Intervention

Research-Based Reading

PREVENTING ACADEMIC FAILURE

By Julie M. Wood

Introduction

At least one-third of children in the United States experience difficulty in learning to read (Adams, 1990). What makes this statistic especially troubling is the fact that children who have difficulty reading at grade level by the end of third grade rarely catch up with the good readers in their class, even when they receive extra help. Specifically, according to literacy researcher Connie Juel (1988), children who are below-average readers in first grade have a 88% liklihood of remaining poor readers by the end of fourth grade. Wagner and Ridgewell (2009) conclude that children who struggle to learn the code may often fail to catch up with their peers. Because of their lack of decoding skills, they are likely to suffer comprehension problems, as well. In contrast, more able readers are better decoders, read more, and thereby gain more information from texts; in general, they can look forward to achieving academic success in all subject areas.

The Common Core State Standards (CCSS) have been designed to ensure that at every grade level, students learn what they need in order to become college and career ready by the end of grade 12. The Foundational Skills set forth in the initiative are particularly important in achieving this goal, as they lay the groundwork for literacy. The Foundational Skills are described as "...necessary and important components of an effective, comprehensive reading program designed to develop proficient readers with the capacity to comprehend texts across a range of types and disciplines" (CCSSI, p.15). The standards set goals for all students, including those needing intervention, stating: "The Standards set grade-specific standards but do not define the intervention methods or materials necessary to support students who are well below or well above grade-level expectations"(p. 6). Likewise, the CCSS recognize the importance of the teacher's professional judgment in choosing these interventions, stating, "Teachers are thus free to provide students with whatever tools and knowledge their professional judgment and experience identify as most helpful for meeting the goals set out in the Standards (CCSSI, p. 4).

Educators need to ensure that all students become proficient readers; they must identify students who are at risk of falling behind early in the primary grades and provide them with a systematic, research-based intervention. *Preventing Academic Failure (PAF)* is based on the Orton-Gillingham hallmarks of direct instruction, multisensory teaching, and careful pacing of instruction that offers adequate review, which makes it a perfect fit to help early readers in RTI Tiers 1, 2, and 3.

PAF, a multisensory curriculum, is an Orton-Gillingham based program for teaching reading, spelling, and handwriting in the elementary grades.

Preventing Academic Failure (*PAF*)

PAF, a multisensory curriculum, is an Orton-Gillingham based program *for* teaching reading, spelling, and handwriting in the elementary grades. *PAF* can be used as the primary reading program in a general classroom, or Tier 1, setting to *prevent* reading problems from occurring. After many years of using the Orton-Gillingham approach to teach reading in resource room settings, the authors of *PAF* set out to offer this same instruction for all students. An entire class benefits from the parts of the program that focus on decoding, handwriting, spelling, and fluency. A majority of students can then work on comprehension in grade level material.

The instructional approach spans the simplest units of written language—sound/letter associations—to the most complex—reading connected text in multiple genres.

To help children make associations with what they see, hear, and write, the visual, auditory and kinesthetic modalities must be used simultaneously, maintained Orton.

In Tiers 2 and 3, *PAF* can be appropriate as an intervention or special education program for students who have not been successful with other reading methodologies. These students with learning differences benefit from its multisensory instruction, the controlled, decodable text of the Merrill Readers and the comprehension and vocabulary instruction that accompanies them.

The *PAF* curriculum was established over 30 years ago with strong support from teachers in the White Plains, New York Public Schools that still exists today with materials used regularly as an early intervention program in regular classes for at-risk students. School districts use *PAF* both preventively and as a remedial program, depending upon students' needs and the educational philosophy of the school.

PAF is designed as a four-year sequence of language skills. The instructional approach spans the simplest units of written language—sound/letter associations—to the most complex—reading connected text in multiple genres. Thus, over time, children progress from learning individual sounds to building syllables, then words, and eventually reading sentences as part of a systematic hierarchy of skills.

One of the key features of *PAF* is its multisensory approach. Specifically, children are instructed to draw upon three modalities in learning to read: *visual* (learning graphic symbols), *auditory* (discriminating among sounds) and *kinesthetic* (learning motor patterns for writing symbols). This integrated approach ensures that children develop associations among phonemes, graphic symbols, and the motor patterns for writing these symbols. For further reinforcement of multisensory associations, teachers demonstrate how reading and spelling work as reciprocal processes. That is, children learn to read a word and then to spell it as part of an integrated lesson. Weiser and Mathes (2012), after reviewing studies of the effects of spelling instruction on literacy performance, found that systematic instruction in encoding has lasting positive effects on not just spelling, but also on reading.

PAF can be used as an effective beginning reading program for differentiated instruction in regular or inclusion classrooms, or as an intervention program for at-risk learners. Components include a manual with detailed teaching instructions, keyword picture cards with illustrations of words corresponding to the sounds of 80 phonograms, alphabet picture cards, cursive alphabet cards, four books that build fluency with comprehension, and a handwriting program for right-handed and left-handed students. Derived from the latest research on how children learn to write, the handwriting program includes workbooks for print, cursive, and numerals.

The Orton-Gillingham Approach

Samuel T. Orton, a pioneer in the field of dyslexia, was a neuropsychiatrist and pathologist who focused on the neurological backgrounds of language disability in the 1920s and 1930s. Orton believed that the treatment for dyslexia was educational (Orton, 1937); children should begin learning to read and write with the basic elements of language (*i.e.,* sounds and letters). To

help children make associations with what they see, hear, and write, the visual, auditory and kinesthetic modalities must be used simultaneously, maintained Orton. This multimodal approach helps novice readers retain what they learn.

In the 1930s and 1940s, Orton began a professional relationship with psychologist Anna Gillingham. Gillingham and her colleague Bessie Stillman followed Orton's principles to organize specific teaching materials that incorporated a synthetic, systematic, multisensory approach to reading. What became known as the Orton-Gillingham approach was completed in 1936 and has been revised and updated over the years (Gillingham and Stillman, 1997). Three hallmarks of the evidence-based Orton-Gillingham instructional approach follow:

Direct Instruction refers to the sort of explicit, systematic teaching students thrive on—teaching that is specifically tailored to their needs. While research shows that some children learn to read without overt instruction (Durkin, 1966), at-risk students in particular respond well to direct, intensive interaction when it is provided by a skilled teacher (Clark and Uhry, 1995).

Multisensory Teaching requires that students are stimulated in their learning through a variety of modalities. They not only *see* a word, they *hear* it read aloud, *pronounce* the words themselves, and *manipulate* word/letter cards and/or *write* target words from a given lesson. In this way, children engage all their senses as they learn to read for maximum effect (Shaywitz, 2003).

Careful Pacing That Allows for Review helps students solidify what they have learned and apply new knowledge to increasingly advanced word recognition tasks. That is, instruction is paced with an eye toward creating a balance between presenting new information and reviewing what students have already learned. This type of balance is critical if children are to be challenged, but not frustrated, as they learn to read.

Put Reading First, the Common Core, and *PAF*

PAF addresses the five essential components of literacy as described by the National Reading Panel in their meta-analysis of the reading research literature (2000). These components are phonemic awareness, phonics, fluency, vocabulary, and reading comprehension strategies. Note that these same components of literacy are addressed as equally important by the more recent CCSS Initiative (2010). The Foundational Skills describe Phonological Awareness, Phonics and Word Recognition, and Fluency (CCSSI, pp. 15–17); and the Reading Standards for Literature K–5 (CCSSI, pp. 11–12) and Informational Text (CCSSI, pp. 13–14) describe a variety of Comprehension and Vocabulary skills, which are covered in *PAF*.

Phonemic Awareness begins with Phonological Awareness, which serves as a precursor to learning phonics (Stahl, 2001). Phonological awareness is the ability to identify and manipulate spoken language features (rhymes, words, syllables, onsets and rimes, and phonemes). These features may be taken apart, put together, deleted, and substituted to form new words. As Burns, Griffin, and Snow (1999) explain, children who are phonologically aware can demonstrate their knowledge by perceiving and producing rhymes (*fan, tan, man,* etc.); by dividing words into their syllables (*hel/i/cop/ter*) and smaller components (*sn/ake*), and putting them back together; by noticing that groups of words have the same beginning (*star, story*), middle (*bag, cat*) or ending (*pinch, lunch*) (p. 46).

Children who develop phonological awareness by the time they enter school are well on their way to becoming proficient readers; it is a precursor to learning phonics (Stahl, 2001).

Three hallmarks of the Orton-Gillingham approach, clearly evident in *PAF*, are

- **Direct instruction**
- **Multisensory teaching**
- **Careful pacing that allows for review**

Children who develop phonological awareness by the time they enter school are well on their way to becoming proficient readers.

Phonemic awareness, a more advanced stage of phonological awareness, focuses specifically on the sequences of phonemes, or sounds, that make up spoken words, and the ability to identify and manipulate them. The connection between these understandings and the ability to read are obvious. Children who can isolate the first part of a word (say /b/, the first sound you hear in *bike*); recognize rhyming patterns in songs or poems; clap the number of syllables they hear in a word; categorize objects according to their initial sounds; and blend phonemes to make words (as in "t —ea—m" makes *team*) have a strong foundation that will serve them well as novice readers (Burns, Griffin, and Snow, 1999). Although few children develop phonemic awareness spontaneously, activities that focus on these understandings have proven effective with young children (Juel, 1991; Chall, 1967).

Thus, an effective phonics program calls for attention to skills that promote phonemic awareness (Brady, 2012; NRP, 2000; Stahl, 1998; Yopp, 1992; Adams, 1990). The reason is clear. Children can be taught to associate specific letters and sounds, but if they do not yet understand oral language structure, they may experience difficulty learning to read and spell words (Gaskins, 1996/7).

In sum, the National Reading Panel determined that phonemic awareness training was particularly beneficial for children at risk as a precursor to learning to read and spell. *PAF* addresses phonemic awareness through direct instruction, as shown in Table 1.

Phonics is a key skill area for novice readers on the way to becoming sophisticated readers. Literacy expert Jeanne Chall's *Learning to Read:*

Table 1: Phonemic Awareness

Instructional Goals	How Addressed in *PAF*
Recognizing which words in a set of words begin with the same sound: "Bell, bike, and boy all have /b/ at the beginning."	Alphabet Picture Cards and Keyword Picture Cards offer many opportunities to engage in auditory activities focused on particular concepts (e.g., T card with illustration of a tiger; sh- card with illustration of a ship).
Isolating and saying the first or last sound in a word: "The beginning sound of dog is /d/." "The ending sound of sit is /t/."	Alphabet Picture Cards and Keyword Picture Cards offer many opportunities to engage in auditory activities focused on particular concepts (e.g., T card with illustration of a tiger; sh card with illustration of a ship).
Combining or blending the separate sounds in a word to say the word: "/m/ /a/ /p/ — map."	Teachers can use the Keyword Picture Cards to model the blending of separate sounds into a word.
Breaking, or segmenting, a word into its separate sounds: "*up* — /u/ /p/."	The words on the Keyword Picture Cards can be segmented into their key sounds by learning the target sounds and noting the letters preceding and/or following (e.g., segmenting *feet* into these separate sounds: f-ee-t).

The Great Debate (1967), an extensive review of classroom, laboratory, and clinical research, emphasized the efficacy of a direct, explicit, systematic teaching of decoding skills. Chall concluded that code emphasis programs such as *PAF,* produced better results "not only in terms of the mechanical aspects of literacy alone, as was once supposed, but also in terms of the ultimate goals of reading instruction—comprehension and possibly even speed of reading" (p. 307).

Even as new understandings about learning and teaching have evolved in the years since the publication of Chall's landmark book, many researchers have reconfirmed her findings (Bond and Dykstra, 1967; Chall, 1983; Adams, 1990; National Reading Panel, 2000). For example, the National Reading Panel (2000) concluded that for children between kindergarten and grade 6, systematic phonics instruction enhanced reading, spelling, and comprehension

Table 2: Phonics

Instructional Goals	How Addressed in *PAF*
Helps children learn the relationships between the letters of written language and the sounds of spoken language.	Alphabet Picture Cards (print and cursive) that stress exemplar words; *First Steps In Reading* and *Stepping Up In Reading* provide practice opportunities.
Phonics instruction is important because: It leads to an understanding of the alphabetic principle—the systematic and predictable relationships between written letters and spoken sounds.	Emphasis on alphabetic principle throughout; also calls attention to words that are not phonetically regular (designated as "red words").
Phonics programs are effective when they are: Systematic—the plan of instruction includes a carefully selected set of letter-sound relationships that are organized into a logical sequence. Explicit—the programs provide teachers with precise directions for the teaching of these relationships.	*PAF* draws upon the scope and sequence of Orton-Gillingham approach. Lesson plans offer teachers detailed directions for explicit instruction
Effective phonics programs provide: Ample opportunities for children to apply what they are learning about letters and sounds to the reading of words, sentences, and stories.	Keyword Picture Cards offer practice opportunities with phonograms. *First Steps In Reading* and *Stepping Up In Reading* books offer practice at the word, phrase, and sentence level. Decodable stories and nonfiction selections are offered through the *Merrill Reading Program*, available through EPS. Teachers can supplement *PAF* with *Explode The Code* series, published by EPS.

Consistent with the National Reading Panel's findings, *PAF* uses a word-analysis approach in which children are explicitly taught phonics and spelling. Moreover, they learn how to use this knowledge to become proficient readers and spellers who can concentrate on the meaning of text.

skills, particularly for those in the primary grades. These results were especially pronounced in the case of struggling readers and children who are economically disadvantaged.

Consistent with the National Reading Panel's findings, *PAF* uses a word-analysis approach in which children are explicitly taught phonics and spelling. Moreover, they learn how to use this knowledge to become proficient readers and spellers who can concentrate on the meaning of text. Specifically, children are taught the sounds of the letters and how to write them (alphabetic code), the sounds of letter combinations and word families (orthographic code), and syllable types, including roots and affixes (morphologic code). In addition, word lists that contain the new sounds and facilitate the development of accuracy, blending, and word recognition follow the spelling dictations.

Beyond that, children learn to read decodable texts, which help them reinforce new knowledge by applying it to connected texts. For example, after reading word lists, children read stories and nonfiction selections from the *Merrill Reading Program,* which present the words according to sound patterns. For extra practice, children can apply their new phonetic knowledge independently, using the *Explode The Code* series. See Table 2 for further analysis of *PAF* and how it addresses the Put Reading First guidelines for phonics.

Fluency is a literacy skill that has finally received the attention it deserves. The ultimate goal of skilled reading is an understanding of the printed page. To be able to do so requires that a reader's decoding skills are automatic, occurring instantly and without effort. As Adams (1990) elaborates, "It is their overlearned knowledge about the sequences of letters comprising frequent words and spelling patterns that enables skillful readers to process the letters of a text so quickly and easily" (p. 410). As words are initially processed, readers make connections between graphemes and phonemes, which form access routes to memory. Continuous encounters with words reinforce the access to memory and meaning until simply seeing the word accesses pronunciation and meaning (Ehri, 1991). Conversely, poor readers, who have not developed this level of automaticity, also typically have difficulty understanding what they read.

Table 3: Fluency Instruction

Instructional Goals	How Addressed in *PAF*
Students read and reread a text a certain number of times or until a certain level of fluency is reached.	Repeated reading practice is an integral component of *PAF*. A goal is set at 95% reading accuracy through reading and rereading texts. Decodable texts can be found in the *First Steps In Reading* and *Stepping Up In Reading* books.
Oral reading fluency is increased through the use of audiotapes, tutors, and peer guidance.	Tutors and/or peers can supplement oral reading practice using the *Merrill Readers*. Modeling and feedback are integral to the program.
Students engage in repeated oral reading techniques with carefully designed feedback to guide the reader's performance.	Students read aloud daily from the *Merrill Reader*s, with an emphasis on fluency and expression.

Table 3 shows how *PAF* aligns with the fluency goals outlined in Put Reading First.

Vocabulary knowledge is essential if students are to make meaning from the printed page; numerous studies reveal that word knowledge and comprehension are inextricably linked. Even students who are skilled in phonics will read with diminished comprehension after third grade unless they are exposed to a wide range of vocabulary words (Chall, Jacobs, and Baldwin, 1990).

The National Reading Panel found that students benefit from discussing new vocabulary words before they encounter them in text. Children also benefit from repeated exposure to new words in a variety of contexts (Juel and Roper/ Schneider, 1995).

Fortunately, the literacy field has amassed a robust body of research on effective practices in vocabulary instruction. Put Reading First has synthesized this research and created instructional guidelines, as demonstrated in Table 4.

In brief, the *Merrill Skills Books* contain language activities that further enhance vocabulary acquisition, such as studying multiple meaning words, pronoun referents, and signal words. Similarly, skills such as categorizing, understanding figurative language, using synonyms, and understanding roots and affixes are key components of the *Stepping Up In Reading* books.

Comprehension is described by literacy expert Durkin (1993) as "the essence of reading." *PAF* helps children develop comprehension skills

Table 4: Vocabulary Instruction

Instructional Goals	How Addressed in *PAF*
Indirect Vocabulary Learning Students engage in daily oral language. Students listen as adults read to them. Students read extensively on their own.	Indirect vocabulary learning is built into the *Merrill Readers*. ***PAF* encourages teachers to read aloud to students from texts that have more challenging vocabulary than students can master on their own. Teachers are also encouraged to draw upon a range of text genres.** Independent reading is an integral component of *PAF*, through engaging children in daily practice that includes reading trade books..
Direct Vocabulary Learning Students are explicitly taught individual words. Students are taught word learning strategies.	Vocabulary learning in the *Merrill Readers* is cumulative; words are used repeatedly for multiple exposures. *Stepping Up In Reading* books emphasize these skills: categorizing, understanding figurative language, and using synonyms. Explicit instruction on roots and affixes supports strategic reading.

Table 5: Comprehension Instruction

Instructional Goals	How Addressed in *PAF*
Students are taught to be purposeful readers. They have a goal for reading texts in multiple genres.	The *Merrill Readers* provide a full range of comprehension strategies.
Students are taught to be active readers. They use their experience and knowledge of the world, their knowledge of vocabulary and language structure, and their knowledge of reading strategies (or plans). They are taught to monitor their understanding of a text.	The nonfiction selections in the *Merrill Readers* offer opportunities for students to engage in a range of comprehension strategies, including • self-monitoring • self-questioning • predicting • re-telling • summarizing • note-taking • using graphic organizers

through direct instruction while reading stories and nonfiction selections from the *Merrill Readers.* See Table 5 for a summary of how *PAF* addresses the comprehension goals of Put Reading First.

Conclusion

The techniques and the sequence in which reading, spelling, and writing skills are taught in the *PAF* program have been carefully designed to ensure that at-risk readers succeed. *PAF* is consistent with Orton-Gillingham, the National Reading Panel, and the Common Core frameworks. In essence, *PAF's* main goal for at-risk readers is to help them develop a solid foundation in phonics that will allow them to read fluently, gain lexical knowledge, and understand what they read. As for at-risk writers, *PAF* helps students develop automatic language skills so then can focus on what they want to express and get their ideas on paper.

Julie M. Wood, Ed.D. is an educational consultant. A long-time educator, she has taught elementary school for over a decade and has developed educational products, both print and media-based, for teachers and children. While Director of the Jeanne Chall Reading Lab at the Harvard Graduate School of Education, Wood researched ways to accelerate children's literacy development by adding telecommunications tools to their instructional program. Wood is the author of numerous articles including the "The Teaching of Vocabulary by Computer Software: A Content Analysis," in *Language Learning & Technology*, an online professional journal at polyglot.cal.msu.edu/llt. She has also co-authored a chapter that appears in *Better Teaching and Learning in the Digital Classroom* (Harvard Education Publishing Group).

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