Research Foundation Paper

# System 44 and READ 180:

Research-Based Literacy Instruction for English Language Learners



# System 44 and READ 180: Research-Based Literacy Instruction for English Language Learners

### Table of Contents

Introduction
System 44 and READ 180 Instructional Models
Research Foundations
Academic Language and Vocabulary11
Oral Language Development
Phonemic Awareness, Phonics, and Decoding
Spelling and Word Study
Oral Reading Fluency and Word Recognition
Reading Comprehension Skills and Strategies
Diverse Texts
Writing and Grammar
Comprehensive Assessment and Reporting
Motivation and Structured Engagement
Mental Model Development for Text Comprehension33
Multisensory Support
Adaptive Technology
Differentiated Instruction
Summary
References

### **INTRODUCTION**

Schools across the United States have become increasingly diverse in the last decade, with students bringing a variety of backgrounds, cultures, ethnicities, and languages to the educational environment. English language learners represent one of the fastest growing groups of students in America's school-aged population. As of 2006, there were more than 5 million English language learners in Grades K-12 (NCELA, 2007). It is estimated that by 2015, up to 30% of the nation's public school children will be English language learners (Francis, Rivera, Lesaux, Kieffer, & Rivers, 2006). While Spanish is the predominant home language (spoken by 79% of ELLs), more than 400 different home languages are represented (NCELA, 2001). The academic and linguistic needs of English language learners vary widely based on factors such as their level of schooling prior to arrival in the United States, their level of proficiency in their home language, and the length of time they have been in the United States.

Many English language learners face a difficult challenge as they strive to succeed in U.S. schools: they must simultaneously develop English language proficiency, learn to read and write in English, and build a knowledge base in the content areas. Many are able to thrive academically despite these challenges. At the same time, a significant proportion of English language learners—even those who may be proficient in conversational English—struggle with academic language, text, and content. These students need research-based literacy instruction that reflects best practices for serving older English language learners who are struggling readers—practices that also serve to enrich instruction for all students.

Scholastic has created two intensive intervention programs, *System 44* and *READ 180*, to help accelerate academic achievement for struggling readers, including struggling English language learners. *System 44*, created by Dr. Marilyn Adams and Dr. Ted Hasselbring, addresses the foundational elements of the English language, providing a strong base in phonemic awareness, phonics, decoding, morphology, and orthography. For struggling readers who can read at approximately a 1.5 grade level and demonstrate facility with phonics and decoding, *READ 180*, also created by Dr. Hasselbring, offers guidance in mastering writing and grammar skills, oral reading fluency, academic language, and text comprehension.

System 44 and READ 180 have been designed to meet the needs of students and teachers, incorporating consideration for the needs of English language learners throughout. Both programs leverage the power of adaptive technology to motivate students, customize instruction to the needs of individual learners, and consistently monitor students' progress.

In addition, Scholastic has developed a research-based, supplemental resource for *READ 180* to extend and further support readers with limited English proficiency. The *READ 180 LBook*, created by Dr. Kate Kinsella and Tonya Ward Singer, focuses on oral and academic language development and writing. The *LBook* is

specifically designed to aid English language learners using *READ 180* in meeting the difficult challenge of having to simultaneously develop proficiency, literacy skills, and content knowledge in the English language.

System 44 and READ 180 grew out of seminal research on cognition and technology, as related to the development of literacy skills, conducted by Dr. Hasselbring at Vanderbilt University. The programs were further enhanced through collaboration between Dr. Hasselbring and other leading researchers, including System 44 co-author Dr. Adams, author of the influential work Beginning to Read: Thinking and Learning about Print; and rBook authors Dr. Kinsella, an expert in academic language and adolescent English learners, and Dr. Kevin Feldman, an authority on how to support teachers on implementing best practices for English learners in the areas of vocabulary and fluency.

This report provides a detailed description of how *System 44*, *READ 180*, and the *LBook* support English language learners. It shows how important findings from research studies and best practices in reading and literacy education with English language learners have been translated into curriculum, program design, and instructional support elements that are at the heart of *System 44*, *READ 180*, and the *LBook*.

### **SYSTEM 44 AND READ 180 INSTRUCTIONAL MODELS**

System 44 is designed to be used as a stand-alone intervention or to fit into any intervention model, including the READ 180 instructional model featured below. Program implementation can be flexibly adapted depending on the amount of time, number of students, and number of computers available. For best results, the System 44 classroom should be organized to allow students to benefit from use of each of the following:

- Instructional Software which is adaptive and delivers research-based instruction and practice based on the proven FASTT (Fluency and Automaticity through Systematic Teaching with Technology) algorithm;
- Small-Group Differentiated Instruction, using the System 44 Teaching Guide and 44Book;
- Modeled and Independent Reading, using practice materials, including the System 44 library, Decodable
  Digest, and 44Book practice pages.

The *READ 180* instructional model is a research-based design for explicit, direct instruction and classroom organization for intensive intervention for struggling readers. As shown below, each day's session begins and ends with whole-group, teacher-directed instruction. In between, students break into three small groups for differentiated instruction that includes practice, reinforcement, and reteaching to build English language proficiency. This instructional model enables the acceleration of English language learners toward mastery of the English language through a proven balance of direct instruction, small-group differentiation, and individual practice.

The *LBook* is used within the *READ 180* instructional model to ensure that all students, especially English language learners, are able to access the academic language, word learning strategies, and grammar required to participate in accelerated instruction toward grade-level standards. *LBook* lessons can be incorporated into whole-group and small-group instruction.



The table below details the major components of the System 44 and READ 180 instructional designs:

	Whole Group		Small-Group Rotations	
	Whole Group Instruction	Small Group Teacher-Led Instruction	Instructional Software	Modeled and Independent Reading
System 44				
Instructional Component Purpose	Direct instruction to build community, review previous learning, and launch the day's instruction.	Direct skill and strategy instruction, differentiated to meet student needs based on progressmonitoring and SAM reports.	Individualized, leveled adaptive skills instruction and practice.	Guided practice in skills the student is learning through the use of software and teacher-led lessons.
Resources	✓ System 44 Teaching Guide	✓ System 44 Teaching Guide ✓ 44Book ✓ Flip Chart ✓ Magnetic Tile manipulatives ✓ Sound and Articulation DVD	✓ System 44 Software	✓ Decodable Digest ✓ 44Book practice pages ✓ System 44 Library and Audiobooks ✓ Teaching Resources
READ 180				
Instructional Component Purpose	Direct instruction before and after small-group rotations to launch and conclude the day's lesson.	Targeted and differentiated instruction in vocabulary, academic language, comprehension, writing, and grammar.	Individualized, leveled adaptive skills instruction and practice.	Modeled and independent reading and writing to build fluency and comprehension skills, as well as reading stamina.
Resources	✓ rBook Teacher's Edition ✓ rBook Anchor DVD ✓ LBook Teaching Guide ✓ Newcomer Book	✓ rBook Teacher's Edition ✓ rBook ✓ LBook Teaching Guide ✓ LBook ✓ Resources for Differentiated Instruction ✓ Newcomer Book	✓ READ 180 Topic Software ✓ Teaching Resources	✓ READ 180 Paperbacks and Audiobooks ✓ Teaching Resources

### **Overview of Core Program Components**

System 44 and READ 180 provide intensive interventions for older struggling readers, including English language learners. The programs consist of comprehensive and explicit instructional materials; adaptive, leveled software; multicultural and diverse paperbacks and audiobooks; and other program materials including Scholastic Achievement Manager (SAM), validated and actionable assessments, and embedded professional development and training.

The core components of each program, described below, have been designed to address literacy and language problem areas for intensive, accelerated, and extensive English-language development.

### System 44

System 44 was designed for the most-challenged older readers. Many of these students are demotivated and disenfranchised from school as a result of years of academic failure. Intentionally metacognitive, System 44 helps students understand that the English language is a finite system of 44 sounds and 26 letters that can be mastered. The program invites students to unlock the system and join the community of readers. System 44 provides educators with a comprehensive set of tools to meet this challenge.

The System 44 Direct Instruction scope and sequence, designed by renowned phonics instruction expert Dr. Marilyn Adams, systematically integrates lessons on sounds, sound-spellings, high-utility sight words, and strategies for unlocking multisyllabic words, providing deep instruction and systematic, adaptive practice. Assured of mastery, English language learners then apply their learning of these building blocks to new words and decodable text. This allows English language learners to immediately begin building toward fluency and develop their ability to access diverse texts with increasing success.

System 44 Direct Instruction provides English language learners with teacher-led phonics instruction building on phonemic awareness and moving to letter-sound correspondence, blending, word building, dictation, and spelling. Teachers can focus on vocabulary, sound articulation, and language transfer with differentiated resources provided in the program. The System 44 Teaching Guide and 44Book provide daily decoding and word-strategy lessons through direct, explicit, systematic instruction on the 44 sounds of the English language, syllable strategies, morphology, sight words, and more. The System 44 Teaching Guide provides teachers with scaffolds to help students build metacognitive understanding of the English language through S.M.A.R.T. (Strategies for Metacognition, Academic Language, Reading, and Thinking) lessons that present essential concepts, teach academic vocabulary, and build background for learning, as well as guidance on when and how to teach these lessons. The 44Book provides students with written practice for all sound-spelling correspondence patterns in a sequential design, and with short fiction and nonfiction reading passages for practice, application, and reinforcement of skills.

System 44 Technology is innovative foundational reading software for students at different language proficiency levels. System 44 Software provides systematic, scientifically based phonics instruction through state-of-the-art software to teach the phonological, morphological, syntactical, and semantic structures of English. The adaptive technology helps students learn letter-sound relationships of the English language, as well as segmentation and blending. System 44 Software also provides individualized practice in spelling and decoding and builds knowledge of syllable patterns, word structure, and morphemes. System 44 Software provides multiple points of entry to allow English language learners to work at the appropriate level based on their performance on the Scholastic Phonics Inventory (SPI), and rapidly progress toward English language proficiency.

The System 44 library and the Decodable Digest provide students with opportunities to apply their decoding skills to motivating, relevant texts. The paperback library is a collection of high-interest, age-appropriate texts that target specific decoding skills and strategies and aid in building academic vocabulary. The accompanying audiobooks present recordings that include a Reading Coach, who introduces each book, and a Narrator, who models fluent reading of the text. The Decodable Digest provides age-appropriate and engaging decodable passages for fluency practice and includes a list of high-frequency words and sound-spelling correspondences.

### **READ 180**

READ 180 is an intensive reading intervention program designed to meet the needs of students whose reading achievement is below the proficient level. The program directly addresses individual needs through adaptive and instructional software, high-interest literature, and direct instruction in reading and writing skills.

The *rBook* Teaching System is the cornerstone of *READ 180*. The *rBook* Teacher's Edition incorporates proven teaching routines that develop high-utility academic vocabulary, comprehension, and writing, and instructional content that engages students as they work alongside the teacher in the *rBook* Pupil's Edition. Designed to provide a clear instructional path for teachers to use in whole- and small-group direct instruction, the *rBook* Teacher's Edition provides direct teaching, teacher modeling, guided and independent practice and application, and opportunities for preteaching and reteaching. Best practices, structured engagement routines, and preteaching engage all students in concept-building, using academic language, and generating and sharing ideas.

The instructional routines include the following:

- Teaching Vocabulary, a step-by-step way to make new academic words meaningful;
- Oral Cloze, a research-based technique for active and accountable shared reading;
- Think (Write)-Pair-Share, a strategy that encourages cognitive growth through social interaction and increases the quality of student responses by allowing time to digest a question or task and prepare a response;
- Idea Wave, a structured method for students to share ideas in response to a focused question or task before or after reading;

### **Overview of Core Program Components (cont.)**

- Numbered Heads, a cooperative-learning routine that structures small groups for discussions or for tasks;
- The Writing Process, a series of steps that may be used in the course of developing a piece of writing;
- Peer Feedback, a writing revision strategy in which two students work together to evaluate the content and organization of their drafts and to offer suggestions for improvement.

**READ 180 Technology** is "intelligent software" that provides individualized practice for a range of English language learners, collecting data based on individual responses and adjusting instruction to meet each student's needs at his or her level, accelerating his or her path to English language acquisition. As students interact with the Software, they:

- · Build background knowledge;
- Develop mental models that help to build comprehension;
- · Develop, practice, and apply word recognition and reading fluency;
- Master key vocabulary;
- Practice and apply comprehension strategies;
- · Develop, practice, and apply spelling; and
- Practice and apply proofreading skills.

The READ 180 library provides students with daily opportunities for modeled and independent reading, with high-quality fiction and nonfiction materials, in order to transfer and reinforce skills, develop reading fluency, and build reading stamina. Leveled libraries offer students age-appropriate, relevant books that they can read with success. Audiobooks give English language learners the opportunity to hear good reading models while accessing authentic grade-level literature.

The *READ 180 LBook*, developed to work alongside the *rBook*, prepares and supports students for the age-appropriate, motivating, and leveled content in the *rBook*. The *LBook* also extends the *rBook* instruction through additional practice. The *LBook* ensures English language learners at different language proficiency levels are able to access the academic language, word learning strategies, and grammar required to participate in accelerated instruction. Specifically, the *LBook*:

- Preteaches and supports English language learners with the academic and oral language development, comprehension, writing, and grammar skills required for *rBook* content;
- Supports English language learners by addressing skills that are transferable from their primary language to English, including grammar, sound-spellings, the use of cognates that relate to academic vocabulary, morphology, and prefixes/suffixes;
- Reteaches and extends rBook instruction by scaffolding English language learners' access to text through
  multiple readings, and by providing them opportunities to practice and apply newly acquired vocabulary
  and comprehension skills.

The *LBook* instructional routines, classroom-tested and validated by Dr. Kate Kinsella and Tonya Ward Singer, provide explicit systematic methods for teaching different levels of English language learners who have not yet attained full proficiency in English. Specifically, the *LBook* Teaching Guide provides teachers with the tools and instruction to:

- Develop English language learners' oral communication, listening, and speaking skills.
- Engage English language learners in structured academic discussion with classmates to develop and organize their academic oral language proficiency to express and report ideas.
- · Activate and build background and concepts around content and academic skills and standards.
- Explicitly teach high-use vocabulary that helps students access texts in all subject areas.
- Help English language learners increase their vocabulary through instruction in multiple-meaning words, structural analysis, academic base words, and meaningful word parts, as well as by giving them tools to recognize and use new, related words.
- Scaffold English language learners through a metacognitive process of reflecting on their learning, assessing their own development, and helping them take ownership of their learning.
- Provide the steps for English language learners to use context clues to determine the meaning of new vocabulary.
- Guide English language learners to understand and apply principles of English grammar and sentence structure when reading and writing.
- Provide guidance for linguistic contrastive analysis for new or difficult sounds.
- · Differentiate instruction for beginning, early intermediate, and intermediate levels of English learners.
- Structure corrective feedback, recast and change the mode of instruction as appropriate, and provide multiple opportunities for reteaching.
- Facilitate structured social interaction that increases the quality of English language learners' responses and fosters a classroom of active, engaged, and motivated learners.

A Newcomer Book is also available to support newly arrived English language learners. The Newcomer Book provides additional resources that teachers can use to customize instruction for the varying needs of students who are beginning English speakers, including:

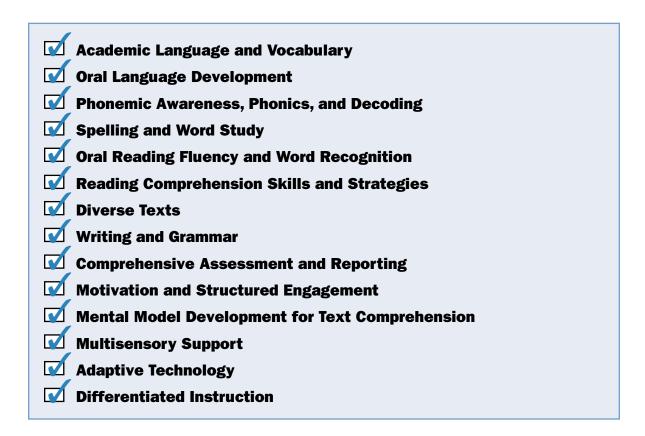
- Survival vocabulary and language;
- Language for obtaining necessities, making requests, and understanding instructions;
- Acquisition of basic academic vocabulary;
- · Acquisition of basic grammar structures of English'
- Teaching Resources available as a download from the Scholastic Achievement Manager (SAM).

The above summary is included as a guide to the program components that will be referenced in the following section.

### **RESEARCH FOUNDATIONS**

This section shows how *System 44*, *READ 180*, and the *LBook* support English language learners. In the following section, for each curriculum and instructional element of the program included in Table 1, relevant information from the research base and about best practices is presented in the left column; and summary descriptions of how research foundations have been translated into the curriculum, program design, or instructional support are presented in the right column.

Table 1. System 44, READ 180, and the LBook: Curriculum and Instructional Elements





System 44, READ 180, and the LBook provide the critical components of a comprehensive vocabulary development program, including: 1) direct teaching of individual words; 2) teaching independent word learning strategies; and 3) wide reading of fiction and nonfiction texts (Feldman & Kinsella, 2005). Knowledge of both conversational and academic vocabulary is strongly related to reading comprehension (Baker, Simmons, & Kame'enui, 1995; Beck, McKeown, & Kucan, 2002), and is a particularly important predictor of reading achievement for English language learners (Francis, Rivera, Lesaux, Kieffer, & Rivera, 2006a).

### **Research and Best Practices**

# • A common misconception in K–12 education is that teaching vocabulary means teaching formal dictionary definitions. Instead, for both English language learners and native English speakers, vocabulary should be taught through direct instruction that actively involves students and provides multiple exposures to vocabulary words (Marzano et al., 2002; Stahl & Fairbanks, 1986).

- System 44 provides systematic, direct instruction in word meanings tied to lessons on decoding and sight words. For example, every direct instruction lesson in System 44 includes the preteaching of vocabulary words that students will see in the lesson—particularly important for English language learners who may be encountering many English words for the first time. On the technology, students are exposed to new words, both decodable and sight, cumulatively over time. The amount of words presented is monitored, ensuring that English language learners and other students are not overwhelmed and have multiple opportunities to practice and master the new words.
- In the *READ 180 rBook*, high-utility academic vocabulary is taught through a research-based instructional routine, promoting understanding and the use of words that English language learners will encounter in all subject areas. Recursive vocabulary in *rBook* reading selections encourages frequent review, practice, and reinforcement of targeted words.
- Vocabulary support for English language learners is extended in the *LBook*. The *LBook* preteaches key vocabulary found in the *rBook* and provides multiple opportunities to practice and apply the vocabulary in each *rBook* Workshop. In addition, words that have more than one meaning can be confusing for English language learners. Every *LBook* workshop includes direct instruction and practice with the most common, high-utility meanings of multiple-meaning words that appear in *rBook* readings. The *LBook* also includes direct instruction and practice with idioms from the *rBook* readings or related to the *rBook* topic.

### **Academic Language and Vocabulary (cont.)**

Research and Best Practices	System 44, READ 180, and the LBook
• English language learners benefit from learning vocabulary with visual clues to help them understand word meaning (Ybarra and Green, 2003).	• System 44 includes additional vocabulary supports that are beneficial to English language learners. For example, every new word in the technology is linked with a picture and a context sentence, both of which help English learners commit the word meaning and underlying concept to memory. The System 44 Teaching Guide provides further resources that can be used to extend word study instruction and further develop the vocabulary concepts for English language learners who need targeted help.
• Vocabulary development should begin with direct instruction in specific categories of words and progress to word learning strategies such as recognizing the relationships between words and using the structural features of words (such as prefixes and affixes) to determine word meaning (Beck, McKeown, and Kucan, 2002).	• System 44 and READ 180 include instruction in morphological awareness. For example, System 44 Software and teacher-led lessons provide direct, explicit instruction about splitting words into meaningful parts to help students recognize words and learn their meanings. The rBook provides explicit and systematic instruction in word-learning strategies and in the phonological, morphological, syntactical, and semantic structures of English. These lessons help provide English language learners with the tools they need to learn new words independently.
<ul> <li>Vocabulary acquisition through wide reading is critical to long-term vocabulary development (Cunningham &amp; Stanovich, 1998).</li> </ul>	• Through System 44's rich collection of decodable books and READ 180's Audiobooks and leveled Paperbacks, English language learners are gradually exposed to increasingly advanced vocabulary in the context of wide reading. All System 44 library books preteach key vocabulary that will be encountered in the book. READ 180's Audiobooks include a Reading Coach who models vocabulary strategies using "thinkalouds."

### **Academic Language and Vocabulary (cont.)**

### **Research and Best Practices**

 Wide reading is particularly important for English language learners, who benefit from learning word meanings in context rather than as separate lists of words (Au, 1993).

### System 44, READ 180, and the LBook

• READ 180 introduces students to context-relevant vocabulary words before each passage, and provides at least three reading practice activities using these words. As students practice, they receive definitions, context sentences, and decoding tips for each word—crucial supports that can help English language learners acquire vocabulary as they read.



READ 180 Software's Vocabulary Builder

- English language learners need significant, structured opportunities to engage in both conversational and academic discourse (Francis, Rivera, Lesaux, Kieffer, & Rivera, 2006a; Gersten & Baker, 2000).
- Direct instruction in oral and written academic language for English language learners is critical; academic language proficiency is related to achievement in reading and writing (Biancarosa & Snow, 2004; Gersten & Baker, 2000).
- System 44 and READ 180 provide English language learners with consistent, structured opportunities to engage in academic discussion with classmates. The programs use research-based instructional routines to provide front-loading of academic vocabulary before the lesson and guide students in reflecting on a question or task, brainstorming, and discussing their ideas with peers.
- The *LBook* provides extended instruction in academic language for English language learners. Additional instructional routines scaffold English language learners' peer discussions and written communication—for example, by providing academic sentence starters as prompts. English language learners may have difficulty understanding when and how to use multiple forms of academic words. The *LBook* authors carefully chose academic word families (e.g., assist, assistance; remain, remainder) from the *rBook* readings for explicit instruction. Throughout the *LBook*, these Study Words appear recursively in the practice exercises, paragraphs, and passages. In addition to hearing and reading Study Words, students are required to use the Study Words during academic

### **Academic Language and Vocabulary (cont.)**

Research and Best Practices	System 44, READ 180, and the LBook
	discussions and in writing. The <i>LBook</i> also helps English language learners understand comprehension and instructional vocabulary (e.g., topic, main idea, suffix) that they will encounter in the <i>rBook</i> and across the content areas.
• Newcomer English language learners, in particular, need dedicated instruction in academic language to improve their text comprehension and overall school success (Francis, Rivera, Lesaux, Kieffer, & Rivera, 2006b).	• A READ 180 Newcomer Book is also available. This book provides vocabulary instruction specifically for newcomers, including basic academic vocabulary needed to make progress quickly to on-grade-level success.
• For Spanish native speakers, explicit instruction in Spanish-English cognates is an effective method of facilitating the acquisition of English—both conversational and academic—and developing reading comprehension across the content areas (Calderón, 2007).	• The <i>LBook</i> provides direct, explicit instruction in cognates and cognate strategies to help Spanish native speakers learn and recognize words in English. <i>System 44</i> and <i>READ 180</i> Software vocabulary support features also include Spanish translations and cognates.

# ✓ Oral Language Development

System 44, READ 180, and the LBook provide a systematic approach to developing listening and speaking skills and strategies. Listening and speaking are essential components of language and literacy development; well-developed oral proficiency is directly linked to reading and writing proficiency (August & Shanahan, 2006; Biemiller, 1999). English learners need to continuously develop and hone their oral language skills in parallel with reading and writing skills. It is particularly important to provide English language learners with specific instruction in using academic language, which is significantly different from conversational speech (Shefelbine, 1998). System 44, READ 180, and the LBook provide frequent, meaningful, and structured opportunities for all students—and English language learners in particular—to hear and practice both conversational and academic language.

Research and Best Practices	System 44, READ 180, and the LBook
• Kinsella and Feldman (2005) note that "academic language is strikingly different from everyday conversation. It includes the language of text in diverse fields of study and the conventions of various genres." In order to gain proficiency with academic language, English language learners must both hear it spoken and produce it themselves through writing and speaking (Beck, McKeown, & Kucan, 2002; Biemiller, 1999).	• System 44 provides multiple resources and activities that can help English language learners master English sounds and articulation. In the System 44 Software, students have access to audio and video models of accurate articulation. In the Software lessons, students record words, check their recordings against a fluent model, and rerecord if necessary—a feature that allows English language learners to rehearse proper pronunciation in private. Teacher-led S.M.A.R.T. lessons include resources for scaffolding students'

### **Oral Language Development (cont.)**

### **Research and Best Practices**

- Educators need to differentiate Standard Classroom English from nonacademic English and teach the standards used in written and spoken academic English (Thompson, Craig, & Washington, 2004).
- All students benefit from mentoring in language strategies to achieve communicative goals in formal settings such as the classroom or workplace (Kinsella & Feldman, 2005). However, for English language learners, opportunities for speaking and listening require structure and planning if they are to support second-language development (Florez, 1997).

### System 44, READ 180, and the LBook

use of academic oral language, such as sentence starters and academic vocabulary related to the lesson.



System 44 Sound and Articulation DVD

- Throughout READ 180, students have daily opportunities to practice listening to and speaking academic and conversational English. The rBook and the LBook include carefully scaffolded routines and teacher-mediated activities to specifically guide English language learners in using the syntax of academic discussion. For example, the Think (Write)-Pair-Share routine has students discussing their ideas with partners before sharing them with the class. Additional *LBook* routines and activities further scaffold English language learners' oral language development. For instance, in whole-group and smallgroup discussions, English language learners complete sentence starters in the LBook that include highutility academic words (e.g., identify, consist, specific, interpret) and practice responses with partners before expressing ideas to the class.
- Using prompts, such as an outline to take notes, helps students identify key vocabulary and record essential information (Kame'enui, Carnine, Dixon, Simmons, & Coyne, 2002).
- The *LBook* provides explicit instruction in effective note taking, scaffolding English language learners in identifying key vocabulary and recording essential information as they listen to and watch the Anchor Videos. Follow-up activities support students in using their notes to focus and practice their speaking skills.

# Phonemic Awareness, Phonics, and Decoding

System 44, READ 180, and the LBook provide students with a strong foundation in phonemic awareness, phonics, and decoding through systematic, explicit instruction and individualized practice. Research shows a strong and consistent relationship between reading competence and phonemic awareness, phonics, and decoding fluency (Adams, 1994). In order to read, students must be able to hear and manipulate individual speech sounds, develop a correspondence between these sounds and letters, and be able to blend these lettersound correspondences together to read and write words.

### **Research and Best Practices**

- · Phonemic awareness, or the understanding that spoken words are composed of separate speech sounds, is "both a prerequisite and a consequence of learning" to read" (Yopp, 1992). The development of phonemic awareness skills enhances the ability to identify speech sounds, which improves spelling, word recognition, and vocabulary development (Moats, 2001).
- · While individual speech sounds often map from first language to second language (Gersten & Geva, 2003; Quiroga et al., 2002), some English language learners may still need early, explicit, and intensive instruction in phonological awareness and phonics in order to build decoding skills (Francis, Rivera, Lesaux, Kieffer, & Rivera, 2006a).
- Francis et al. (2006) note that although about the same proportion of English language learners and native speakers have difficulty with phonemic awareness skills, schools often delay providing intensive intervention to English language learners because schools attribute the problem to deficiencies in oral language acquisition.
- In order to develop skills in connecting sounds and symbols, and in blending and segmenting to decode whole words, students need systematic, step-by-step instruction followed by multiple practice opportunities (Adams, 1990). More specifically, students benefit from a thoughtful approach that introduces sounds according to their stability, frequency, and utility in a language (Carnine et. al., 1990).
- Research with older struggling readers reveals that segmentation and blending of graphemes to create new sounds reinforces phonemic awareness (Adams, Treiman, and Pressley, 1998).

- For students who demonstrate challenges with letter naming and letter-sound association, the System 44 Teaching Guide provides phonemic-awareness instruction with the following research-based practices: rhyming and alliteration, oddity tasks, oral blending, oral segmentation, and phoneme manipulation. In addition, and for all students, phonemic awareness skills are systematically reinforced with the System 44 Software.
- System 44 provides the targeted, systematic phonics instruction that many English language learnersespecially those who lack basic literacy skills in their native language—need as a foundation for higherlevel reading comprehension instruction. System 44's adaptive technology provides training in letter-sound relationships that is skillfully organized according to the stability, frequency, and utility of sounds. Further, the scope and sequence systematically integrates lessons on sounds and spellings with strategies for unlocking multisyllabic words.



Phonics Instruction in System 44 Software

# Phonemic Awareness, Phonics, and Decoding (cont.)

Research and Best Practices	System 44, READ 180, and the LBook
	<ul> <li>As students begin mastering decoding skills, the <i>System 44</i> Software builds decoding automaticity by requiring students to demonstrate accuracy and speed with sound-letter correspondence before moving on to new material. The Word Strategies lessons further build decoding skills through instruction and guided practice with word-analysis strategies, including syllabication and identifying morphemes that help students "chunk" words and determine their meanings.</li> <li>In <i>READ 180</i> Software, extensive phonics instruction is provided through modeled practice in structural analysis and continued work on articulation. Modeled examples of correct pronunciation are further presented in <i>READ 180</i> Audiobooks and during teacher-led instruction.</li> </ul>
<ul> <li>In addition, many English language learners need to acquire new phonemes or orthographic patterns as well as new matches between phonological segments and orthographic patterns (Durgunoglu &amp; Hancin-Bhatt, 1993).</li> <li>For older readers, the proportion of students who demonstrate serious problems reading words in text will vary from location to location. A recent study of older struggling readers in urban schools showed that "up to 65% of the students performed at very low levels on multiple measures of reading proficiency, including basic word-reading skills" (Hock, Deshler, Marquis, &amp; Brasseur, 2005, as cited in Torgesen et al., 2007)</li> </ul>	<ul> <li>Through System 44, English language learners gain metacognitive knowledge that can help them quickly "crack the code" of the English language. For example, teacher-led S.M.A.R.T. lessons, as described on Page 6, build conceptual knowledge related to decoding by directly teaching foundational phonics principles and essential concepts.</li> <li>Contrastive analysis information and action plans in the System 44 and LBook Teaching Guide direct teachers to scaffold phonemic awareness and phonics instruction for the needs of English language learners whose first language is Spanish, Vietnamese, Cantonese, Haitian Creole, Hmong, or Filipino.</li> </ul>



System 44, READ 180, and the LBook provide a systematic, comprehensive approach to teaching spelling. Because awareness of phonemes and of letter-sound correspondences are fundamental to spelling proficiency for both English language learners and native speakers (Chiappe, Siegel, & Wade-Woolley, 2002; Honig, Diamond, & Gutlohn, 2000; Moats, 1997), the programs help students draw connections between spelling (translating sound to symbol) and decoding (translating symbol to sound). The programs further enhance students' spelling memory by building knowledge of syllable patterns, word structure, and meaningful word parts, or morphemes.

### **Research and Best Practices**

- Students who are taught to analyze speech sounds in words and relate them to their spellings progress faster in spelling and reading (Moats, 1995). Thus, for native speakers and English learners alike, spelling is highly correlated with reading accuracy (Chiappe, Siegel, & Wade-Woolley, 2002; Honig, Diamond, & Gutlohn, 2000).
- The process of acquiring orthographic knowledge begins with learning individual letters, followed by learning within-word patterns and patterns that span several syllables (Moats, 1997).

- In *READ 180* and *System 44*, there are explicit connections between spelling and reading. Both *System 44* and *READ 180* Software include a Spelling Zone that provides explicit instruction in spelling patterns—key knowledge for those English learners who may be new to English orthography.
- Each teacher-led *System 44* lesson begins with instruction that focuses students' attention on the specific spelling pattern they will encounter in that day's lesson. Every teacher-led *System 44* lesson ends with dictation, providing students an opportunity to practice the spelling patterns they have learned.
- \*Throughout System 44 and READ 180, spelling and decoding are taught as reciprocal skills. For example, System 44 small-group instruction uses Elkonin boxes to teach students about segmenting, which is a foundational skill for both decoding and spelling. Both System 44 and READ 180 teach spelling words in the context of related activities. In System 44, the spelling words for each lesson are related to the phonics and word strategies lessons. For example, a student working with the ow phoneme would learn to spell the sound and practice common words with this spelling pattern. In the READ 180 Software, students learn and practice spelling words drawn from the leveled passages in related fluency and word-recognition activities.

# Spelling and Word Study (cont.)

Research and Best Practices	System 44, READ 180, and the LBook
	(% 1. all % 2. an % 3. and % 4. animals % 5. as % 6. away % 7. barefoot % 8. bc 9. 10. Spelling Activity in READ 180 Software
	• Resources for Differentiated Instruction, Book 1, provides teachers with additional lessons and resources for working with students, including English learners, who need extra help with discrete spelling patterns.
Effective spelling instruction limits the amount of new vocabulary words presented at one time (Moats, 1995).	• After students are assessed, the technology presents instruction and practice for three spelling words at a time to minimize overload on students' attention and working memory. The assessment/instruction/practice cycle is repeated until students show mastery of the words in their passage. Limiting the number of words presented at once helps ensure that English language learners are not overwhelmed and have multiple opportunities to practice new words.
• Research shows that older struggling readers specifically benefit from learning to analyze graphosyllabic units in multisyllabic words. This helps students remember the spellings of long words and decode new words (Bhattacharya & Ehri, 2004).	• The Word Strategies strand and S.M.A.R.T. lessons in <i>System 44</i> include instruction in the six syllable types. Direct instruction in these English syllable patterns supports the reading and writing development of English language learners.
	• READ 180 Software includes Spelling Zones and Word Zones to aid students in word study. In the Word Zone, words are broken down into word parts to highlight common phonemic elements and provide word analysis strategies. The Spelling Zone models for students how to identify the important parts of the words, such as blends, inflectional endings, diagraphs, and common phonograms.
	• Resources for Differentiated Instruction, Book 1, includes specific lessons on syllabication for students who need additional, targeted instruction.

### Spelling and Word Study (cont.)

### **Research and Best Practices** System 44, READ 180, and the LBook • To help students move to more advanced levels of • System 44 Software and teacher-led lessons provide spelling, it is important to build their understanding direct, explicit instruction about splitting words into of word structure, morphemes, and the relationships meaningful parts to help students recognize words and among different words (Moats, 1997). learn their meaning. • The *LBook* provides direct instruction for English language learners about the structural features of words, in which students analyze meaningful groups of letters and learn their relationships to actual words. The LBook also includes instruction in academic word families. Spelling instruction is most effective when students • When students spell a word incorrectly in the *System* receive immediate corrective feedback when they make 44 or READ 180 Software, they receive immediate errors. Error imitation and modeling is a validated corrective feedback—including feedback for English strategy that involves the teacher reproducing language learners customized to specifically correct the student's spelling error and then correcting it, problems of transference from the student's first highlighting the difference between the incorrect and language to English. All software spelling activities correct spellings (Gerber, 1986; Moats, 1995). continually assess students' proficiency and collect data on their most common errors. Data are reported through the Scholastic Achievement Manager and is linked to resources, available both electronically and in Resources for Differentiated Instruction, Book 1, for additional practice and review. The System 44 and READ 180 Software's corrective feedback uses modeling to help students identify their spelling errors by comparing their spelling to the correct spelling. In the process, students are first explicitly shown their errors, then they see a model of the correct spelling, and finally they practice the correct spelling.



# **✓** Oral Reading Fluency and Word Recognition

System 44, READ 180, and the LBook systematically support students in developing oral reading fluency, which has been shown to be highly correlated with reading comprehension (Fuchs, Fuchs, & Maxwell, 1988). To become fluent readers, students must be able to decode text effortlessly so their minds are free to make meaning (Moats, 2005b). The programs provide frequent, repeated practice with phonics and decoding to help students build automaticity in decoding and recognizing words.

Research and Best Practices	System 44, READ 180, and the LBook
Research shows that when a reader focuses solely on decoding words, there is little room left for comprehending. Once decoding and word recognition skills improve, the student's mental energy can be freed	• System 44, READ 180, and the LBook include multiple opportunities for English language learners to practice word recognition and build fluency. For example, the System 44 scope and sequence systematically integrates

### **Oral Reading Fluency and Word Recognition (cont.)**

### **Research and Best Practices**

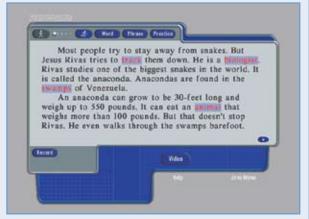
up for comprehending (Freedman & Calfee, 1984; LaBerge and Samuels, 1974, cited in Blevins, 1998).

- Technology is a particularly effective method of fostering decoding automaticity because it affords students repeated opportunities to systematically practice new skills until they are mastered (Hasselbring & Goin, 2004).
- For English language learners in particular, decoding skills and reading fluency can be improved through "increased practice reading text that is at their instructional level (can be read with 90% accuracy), with the goal of developing deeper representations and more efficient access (lexical, syntactic, semantic) to the words and their meaning(s) in varying contexts" (Francis, Rivera, Lesaux, Kieffer, & Rivera, 2006a).

### System 44, READ 180, and the LBook

lessons on sound and spellings, high-utility sight words, and strategies for unlocking multisyllabic words. Students then apply their learning as soon as these building blocks are mastered. This allows English language learners to immediately begin building toward fluency and developing their ability to access diverse texts with increasing success.

- The *System 44 Decodable Digest* provides further opportunities for English language learners to practice decoding, with over 9,000 words of decodable text passages that allow students to apply word attack strategies and improve their automaticity.
- READ 180 Software is built on the FASTT (Fluency and Automaticity through Systematic Teaching with Technology) algorithm developed at Vanderbilt University. FASTT is a research-proven way to accelerate fluency development by systematically moving new information from short-term memory to permanent retrieval. In addition, leveled passages in the READ 180 Software allow English language learners at all levels of language proficiency to practice word recognition and further build fluency.



Reading Passage in READ 180 Software

### **Oral Reading Fluency and Word Recognition (cont.)**

### **Research and Best Practices**

- Repeated reading of the same text has been shown to be an effective technique for building automaticity (National Reading Panel, 2000).
- English language learners in particular benefit from repeated reading using both print texts and audiobooks (Blum, Koskinen, Tennant, Parker, Straub, & Curry, 1995; De la Colina, Parker, Hasbrouck, & Lara-Alecio, 2001).
- Oral cloze is an effective method of modeling fluent reading. It engages students in a concrete reading task and promotes comprehension development (Kinsella, 2005).
- English language learners benefit from explicit instruction in characteristics of oral reading such as expression and intonation. Phrase-cued reading, in which teachers and students practice reading whole phrases together, is one proven method of directly teaching English prosody (Moats, 2005b).
- Captioned video provides both visual and print contexts and has been shown to increase word recognition in English language learners (National Captioning Institute, 2008).

• Instruction in using morphemic analysis helps students develop more advanced word recognition strategies. When students understand the meaning of component morphemes and are able to quickly pronounce them as parts of longer words, the speed and accuracy of their reading improves (Nagy et al., 2006).

- Repeated reading is a central component of each *READ 180* Workshop. Every passage in the *rBook* and *LBook* is read at least 3 times, using instructional routines such as oral cloze. This research-based technique models fluent reading and prosody for English language learners and engages them through focused, accountable reading practice.
- System 44 and READ 180 Audiobooks allow English language learners to read and reread text while listening to examples of fluent reading, pronunciation, and phrasing.
- The *READ 180* Software guides students through repeated readings of connected text with varying levels of audio support and varying speeds. These repeated readings build English language learners' word recognition skills, reading fluency, and comprehension.
- Whole-group and small-group lessons in *READ 180* provide frequent opportunities for English language learners to read aloud or listen to the teacher model fluent reading. *System 44* direct instruction lessons further provide specific resources for instruction in reading with fluency, expression, and proper intonation.
- In both System 44 and READ 180 Software, students make their own recordings of text passages and study words, receiving the hands-on practice with reading fluency that is so critical to English language learner success. Students subsequently match the study words with an announcer's reading of each word, allowing them to measure the accuracy of their word recognition and monitor their expression and intonation. Audiobooks also provide English language learners with models of fluent reading and prosody.
- \*The System 44 and READ 180 Software and LBook lessons contribute to English language learners' fluency through morphological awareness lessons focusing on affixes and roots. Students are introduced to high-frequency morphemes and learn strategies for breaking unfamiliar multisyllabic words into smaller parts in order to determine meaning.



# Reading Comprehension Skills and Strategies

System 44, READ 180, and the LBook provide direct, explicit instruction in comprehension skills and strategies before, during, and after reading. The program reflects research showing that effective adolescent literacy interventions utilize multiple approaches to comprehension instruction, including comprehension strategies, teacher modeling, and scaffolded instruction, and provide students opportunities to apply comprehension strategies across a variety of text genres and content areas (Biancarosa & Snow, 2004).

Research and Best Practices	
-----------------------------	--

### English language learner newcomers need direct, explicit instruction to support their comprehension of challenging texts (Francis, Rivera, Lesaux, Kieffer, & Rivera, 2006b).

- The *rBook* Teacher's Edition provides English language learners with crucial support in developing reading comprehension, through whole-group and small-group direct, explicit instruction in comprehension skills and strategies and scaffolded practice with a wide range of expository and narrative texts.
- The *LBook* extends comprehension instruction to help English language learners improve their understanding of text in the *rBook* and provide them with the tools they need to transfer to texts in other subjects.
- · Before reading, English language learners benefit from previewing new concepts and skills that they will encounter while reading. Front-loading involves strategically preteaching the vocabulary and language forms needed to comprehend and generate the language appropriate to an upcoming lesson (Dutro & Moran, 2002).
- Research shows that English language learners' reading comprehension improves when teachers activate and draw upon students' background knowledge in relation to the story (Saunders, 1998; Schifini, 1994; Ulanoff & Pucci, 1999).
- · During reading, English language learners, like their classmates, need to learn strategies for monitoring their own comprehension (Francis et al., 2006).
- Think-alouds and summarization are comprehension strategies that have been shown to help students monitor their understanding of texts as they read (Duke & Pearson, 2001; Gersten & Jiménez, 2002).

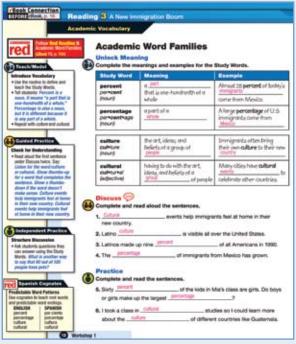
- System 44 and READ 180 use Anchor Videos in both the technology and teacher-led lessons to help students activate prior knowledge and build mental models of new concepts before reading.
- System 44 library books prepare students for reading by helping them set a purpose for reading and by highlighting key words. The READ 180 Teacher's Edition includes lessons for building background knowledge before students read Independent Reading books.
- The rBook and the LBook further support language preparation for English language learners' reading and writing by preteaching vocabulary and grammar skills.
- System 44 and READ 180 are organized to systematically bolster students' comprehension of text during reading, providing supports that can help English language learners experience success as they read. For example, each rBook Workshop consists of three passages that build on each other to ensure that students gain increased understanding of the topic as they read. Throughout each passage, students are consistently prompted to summarize to check their understanding. System 44 and READ 180 Software also include supports to aid English language learners' understanding of text—for example, by allowing them to access the meaning of specific words as they read.

### **Reading Comprehension Skills and Strategies (cont.)**

### **Research and Best Practices**

### Direct, explicit teaching of word meanings is also effective for improving students' comprehension during reading (Biancarosa & Snow, 2004).

- System 44 and READ 180 also build comprehension support into students' independent reading. Prompts to check for understanding are incorporated throughout System 44 library books, and the books are highly illustrated to further support understanding. READ 180 Audiobooks include a Reading Coach who helps English language learners and other students independently apply their learning by explicitly modeling and explaining the use of comprehension strategies in context.
- The *LBook* extends comprehension support for English language learners. Direct instruction in text analysis strategies guides English language learners in using text structures, sentence context, and dictionary definitions to understand and build meaning of unfamiliar words and concepts as they read *rBook* passages.



Academic Language Development in LBook

- After reading, peer-assisted learning has been proven to be an effective method of helping students reflect on and make sense of their reading (Gersten, Fuchs, Williams, & Baker, 2001; Saenz, Fuchs, & Fuchs, 2005).
- *READ 180* includes scaffolded activities and research-based instructional routines to assess and reinforce comprehension after reading. In the *READ 180* Software, each topic ends with a series of activities, such as identifying discrepancy passages, to check students' comprehension of the preceding passages in the lesson. Instructional routines in the *rBook* and

### **Reading Comprehension Skills and Strategies (cont.)**

Research and Best Practices	System 44, READ 180, and the LBook
	LBook guide all students, and English language learners in particular, in working together to summarize and discuss readings, make connections across texts, and express their ideas to their peers. Students also discuss their independent reading with peers and respond to the books orally and in writing. These activities provide further opportunities for English language learners to strengthen their comprehension and to practice using academic language.

# **Diverse Texts**

System 44, READ 180, and the LBook provide a variety of text types, including: narrative, expository, and descriptive genres; multicultural representation; diverse academic content; and multiple reading levels. Exposure to diverse texts gives struggling readers multiple opportunities to practice the necessary skills to become proficient readers (Biancarosa & Snow, 2004), while providing them a mirror to reflect on their diverse experiences and opening a window to the acquisition of language and knowledge.

### **Research and Best Practices**

### Reading instruction in K–12 classrooms must equip English language learners with strategies and knowledge to comprehend and analyze challenging narrative and expository texts (Francis, Rivera, Lesaux, Kieffer, & Rivera, 2006).

### System 44, READ 180, and the LBook

• The nonfiction genres represented in *rBook* and LBook readings, System 44 and READ 180 Software, and independent reading books and Audiobooks include: news articles, historical fiction, biography, informational texts, and notes. READ 180 places a particular emphasis on nonfiction reading, with careful scaffolding and explicit instruction to develop students' ability to comprehend these challenging texts and learn across the curriculum. In fact, 80% of rBook passages are nonfiction science and social studies selections, and 40% of Paperbacks and Audiobooks are nonfiction.



READ 180 Paperbacks

• READ 180 materials also include a wide range of literary texts, including classic literature, contemporary fiction, poetry, plays, graphic classics, and suspense.

### **Diverse Texts (cont.)**

### **Research and Best Practices**

- To ensure success for English language learners, Coady et al. (2003) suggest texts that 1) are comprehensible, 2) are reader friendly, and 3) make links to students' prior knowledge and experience.
- As students relate what they are reading to their personal experiences, they become better connected with the characters and content of the materials they read and, therefore, are more motivated to read (CREDE, 1999).
- An effective literacy intervention should include texts on a wide variety of different topics and subject areas (Biancarosa & Snow, 2004).
- Second-language acquisition increases with contentbased language instruction, because students learn language best when there is an emphasis on relevant, meaningful content (Grabe & Stoller, 1997).

- The multicultural content found across all components of *System 44* and *READ 180* reflects ethnic, cultural, and linguistic diversity, helping English language learners find a sense of belonging in their new environment. Readings in *System 44* and *READ 180* are age-appropriate and focus on engaging topics such as careers, music, heroes, relationships, health, and family, so English language learners and their classmates feel they are reading about their interests and what motivates them.
- System 44 and READ 180 help prepare English language learners to comprehend text across the content areas, by including readings related to social studies, science, social sciences, and contemporary social issues.
- The *rBook* provides direct, explicit, and systematic vocabulary instruction connected to reading, including academic vocabulary from social studies and science content standards.



rBook Vocabulary Builder

- To ensure that students have successful reading experiences, it is important to provide them with texts that match their reading level—not too easy and not too hard (Gambrell, Palmer, & Coding, 1993). As Biancarosa and Snow (2004) note, "Highinterest, low-difficulty texts play a significant role in an adolescent literacy program and are critical for fostering the reading skills of struggling readers and the engagement of all students."
- System 44 and READ 180 use the Lexile Framework to both determine student reading level and determine the difficulty of texts. All independent reading books and software passages are assigned Lexile scores based on their level of difficulty. Thus, English language learners are consistently matched to high-interest texts appropriate for their particular level of English language proficiency, thereby promoting fluency and preventing frustration.



System 44, READ 180, and the LBook provide daily, rigorous writing instruction that moves from simple sentences to essays. Although reading skills and writing skills complement and reinforce each other, dedicated, daily writing instruction in addition to reading instruction is necessary for students to become proficient in writing for school and beyond (Biancarosa & Snow, 2004; Graham & Perin, 2007). Research has identified three major thinking processes that good writers use recursively: planning the writing, translating words into text, and reviewing and changing drafts (Moats, 2005b). In READ 180, writing instruction systematically scaffolds students through each step of this writing process and prepares them to meet the demands of academic writing.

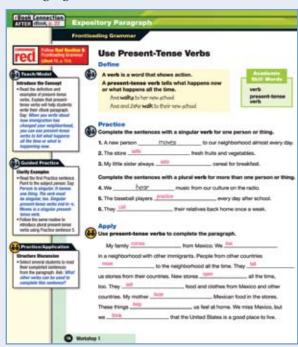
Research and Best Practices	System 44, READ 180, and the LBook	
• Writing instruction should build on the reciprocal relationships among writing, reading, listening, and speaking. The act of writing requires students to employ phonological, orthographic, meaning, and context knowledge, while simultaneously drawing on language, memory, attention, and executive functions (Moats, 2005b).	• READ 180 emphasizes writing in the service of reading and writing with a purpose. Writing and grammar instruction are integrally linked to reading through content, text structure, and vocabulary.	
<ul> <li>Scaffolded writing instruction helps struggling readers recognize the key features necessary to structure the content and organization of their writing, positively impacting their skills in both reading and writing (Moore, 1995; Troia &amp; Graham, 2002).</li> <li>For English language learners and native speakers alike, structured approaches to teaching writing are more effective than free-writing in enhancing the quality of student work (Gómez, Parker, Lara-Alecio, &amp; Gómez, 1996; Shanahan &amp; Beck, 2006).</li> </ul>	• The <i>rBook</i> scaffolds instruction for struggling writers and English language learners through research-based techniques, including graphic organizers, sentence starters, and writing frames. The <i>rBook</i> presents this carefully scaffolded instruction in the four key types of writing: narrative, descriptive, expository, and persuasive. Functional writing and literary response are also included. Through the consistent use of these scaffolds, English language learners are guided to internalize common organizational structures and conventions of English writing.	
<ul> <li>English-language newcomers must receive intensive instruction in writing for academic purposes (Francis, Rivera, Lesaux, Kieffer, &amp; Rivera, 2006b).</li> <li>A process writing approach is a particularly effective method of writing instruction (Graham &amp; Perin, 2007).</li> </ul>	<ul> <li>READ 180 writing instruction incorporates the writing process. Students are carefully guided in organizing their ideas and planning their writing, composing a draft, and revising for clarity, conventions, and purpose. In the rBook and the Resources for Differentiated Instruction, Book 2, writing is shared through peer feedback and a variety of publishing opportunities. This systematically scaffolded writing process provides English language learners the opportunity to practice academic language and try out newly acquired vocabulary in a nonthreatening way.</li> <li>Explicit and structured writing instruction throughout the LBook specifically scaffolds the writing process for English language learners and provides strategies such as sentence starters and essential academic vocabulary to help them develop competency in writing for academic purposes.</li> </ul>	

### **Writing and Grammar (cont.)**

### **Research and Best Practices**

- The accurate use of grammar is more critical in academic writing than in everyday conversations (Scarcella, 2003).
- Teaching grammar and vocabulary as it is used in specific genres prepares English language learners to succeed with academic writing tasks (Schleppegrell, 1998).

- Throughout *READ 180*, grammar usage and mechanics are taught systematically and in context, providing English language learners with extensive practice in identifying and correcting the most common errors. Proofreading practice helps English language learners apply writing, grammar, and mechanics skills to student models and to their own work as well.
- The *LBook* provides additional resources to support grammar instruction for English language learners. *LBook* lessons preteach the grammar and vocabulary necessary for each *rBook* writing assignment. Teachers use model texts to highlight authors' vocabulary and grammatical choices, to help English language learners use language effectively in their own writing. The modeling, clear definitions, and structured oral and written practice in the *LBook* provide English language learners with multiple opportunities to learn and apply the target grammatical skill.



LBook Sentence Structure and Grammar Instruction

- Teachers should analyze and use student writing to guide further instruction and application of academic language features and conventions (Spandel, 2000; Spandel & Lane, 2003).
- Throughout *READ 180*, writing and grammar are assessed through multiple modes, including rubrics for peer and self-assessment, teacher assessment, and writing tests. Assessment is linked to materials for additional writing instruction and practice available electronically through the Scholastic Achievement Manager and in *Resources for Differentiated*

### **Writing and Grammar (cont.)**

Research and Best Practices	System 44, READ 180, and the LBook
	Instruction, Book 2. These multiple opportunities for feedback help English language learners gain confidence and independence with English grammar and writing for academic purposes.

# Comprehensive Assessment and Reporting

System 44, READ 180, and the LBook include powerful assessment tools designed to provide actionable data and information for teachers and students. Research shows that an effective assessment system for English language learners focuses on multiple skills and includes different sources of information, each serving a distinct purpose (Garcia & Nagy, 1993). System 44 and READ 180 offer built-in diagnostic assessment, placement and exit assessments, and sophisticated technology that monitors student progress in critical reading and literacy skills. In addition, a placement, assessment, and reporting guide offers teachers detailed assistance on how to use the reports generated by the programs.

Research and Best Practices	System 44, READ 180, and the LBook
• Effective classroom instruction for English language learners begins with systematic assessment of students' strengths and needs (Francis, Rivera, Lesaux, Kieffer, & Rivera, 2006b).	<ul> <li>At the beginning of the school year, students in READ 180 complete assessments to determine their specific areas of need and their placement in the program. Students begin the program by taking the Scholastic Reading Inventory (SRI), a scientifically based and validated test that assesses student reading levels. Students are then matched to appropriate text and placed at the correct level in the technology. The SRI is also used throughout the year for progress monitoring.</li> <li>The Scholastic Phonics Inventory (SPI), a scientifically based and validated test, is an integral part of System 44. This diagnostic screening assessment identifies students in need of foundational reading instruction and identifies an appropriate point of entry for each student within the continuum of decoding instruction.</li> </ul>
Monitoring student progress and ongoing assessment that informs instruction are key components of a language arts program (Torgesen et al., 2001; Torgesen, 2002).	<ul> <li>The System 44 Software conducts gap analyses that can help teachers diagnose English language learners' instructional needs and show exactly what needs to be addressed during small-group or one-on-one lessons.</li> <li>READ 180 Software also continually monitors student progress, collecting data that reflects student abilities, strengths, and weaknesses. The software data are presented through actionable reports that can provide teachers with meaningful data on students' progress and link to relevant resources for differentiating</li> </ul>

### **Comprehensive Assessment and Reporting (cont.)**

# **Research and Best Practices** System 44, READ 180, and the LBook instruction, allowing them to tailor instruction to the specific needs of English language learners. • The *rBook* includes checkpoints for differentiated instruction throughout each workshop, and the rSkills Tests produce reports that link to relevant resources for review, reteaching, and additional practice. Book quizzes and related reports monitor student progress and success with independent reading, helping teachers keep track of English language learners' progress toward English proficiency and grade-level academic achievement. • The *LBook* includes additional routines to support English language learners in monitoring their own learning. For example, the Workshop Reflections routine guides students through a metacognitive process of reflecting on their learning. This process encourages English language learners to take ownership over their learning. · Once the student has begun working on the System 44 or READ 180 Software, it provides ongoing reports of student achievement that can be used to identify English language learners' needs, determine instructional grouping, and inform instruction. The program's reporting and assessment tools provide teachers and school officials with a detailed understanding of student strengths and weaknesses, enabling resources to be focused to help English language learners in need of extra assistance well before annual state and local exams. tervention Grouping Report

**SRI Intervention Grouping Report** 



# Motivation and Structured Engagement

Torgesen et al. (2007) identify engagement and motivation as one of the critical factors underlying reading proficiency. System 44, READ 180, and the LBook have been designed to increase student motivation and engagement. Both extrinsic and intrinsic motivators are used. Materials and activities that are both rigorous and relevant to students' lives generate and sustain student interest. Motivation is also achieved by enhancing opportunities for learning and providing appropriate feedback.

### **Research and Best Practices**

- Motivation is one of several personality factors that influence success or difficulty of acquiring basic literacy skills. This is especially true for striving readers, including many English language learners (Avalos, 2006).
- Students gain academic confidence and increased motivation when they experience daily academic success (Pressley et al., 2006).

- The adaptive technology in System 44 and READ 180 customizes instruction and practice according to the student's levels, providing continual opportunities for English language learners to experience success and demonstrate progress, motivating them to excel. System 44 and READ 180 Software includes on-screen hosts who provide patient feedback and encouragement that is private and respectful of students—important for English language learners who may by self-conscious about their English literacy skills.
- First-language support features in the technology (e.g., vocabulary word translation, pronunciation suggestions in Spanish, and content summaries in Spanish) bolster English language learners' confidence by helping them successfully transfer foundational reading skills.
- System 44 and READ 180 Paperbacks, the 44Book, and the *rBook* provide engaging reading selections that are matched to students' abilities. For the many System 44 and READ 180 students who may never have finished a book on their own, the experience of success raises their confidence and enjoyment of reading. In addition, Paperbacks and Audiobooks in both programs represent a variety of genres and topics that are of high interest to students.
- Setting clear goals and expectations increases motivation by encouraging student involvement in and responsibility for their own learning (Ames, 1992).
- System 44 and READ 180 are designed to involve students in monitoring their own progress toward clearly defined goals. The System 44 and READ 180 Software give students control over how fast or slowly they proceed through the systematic, scaffolded lessons. The technology rewards students' efforts as they complete each series of lessons. In addition, as the smart technology tracks individual student progress, students are able to view their progress on on-screen charts and printed reports, making success a visible and measurable experience. For example, in System 44 students can review and track their growing vocabulary

### **Motivation and Structured Engagement (cont.)**

Research and Best Practices	System 44, READ 180, and the LBook
	through the software's My Words feature, and see the books they have read through the My Books feature.
	• A gradual release approach, in which scaffolded instruction moves students from full support to independent work, is used throughout each program, giving English language learners and their classmates increased responsibility for their own learning.
• Anchors are motivating, authentic situations, usually presented in video formats, that enable students to practice noticing and resolving problem situations (Bransford, Sherwood, Hasselbring, Kinzer, & Williams, 1990).	• The System 44 and READ 180 Software begin each reading with an engaging Anchor Video to help students build background knowledge—especially important for engaging English language learners and improving their comprehension. The software also presents age-appropriate instruction and practice at reading levels that allow students to experience a sense of accomplishment.
	One Giant Leap  One Giant Leap  One Giant Leap Video in READ 180 Software
• Giving English language learners a voice in the classroom increases opportunities for teachers to get to know them and assess their readiness to learn.  Teachers can thus empower English language learners to be successful in the classroom (Avalos, 2006).	• Structured engagement routines used throughout System 44 and READ 180 encourage participation and accountability. For example, the Think (Write)—Pair-Share routine, used in the rBook and LBook, is a flexible strategy that creates a classroom of active, engaged, and motivated learners by facilitating reflective discussion and peer interaction. The LBook's Workshop Reflections routine helps students recognize their progress and take responsibility for their own learning.



# Mental Model Development for Text Comprehension

System 44, READ 180, and the LBook makes systematic and extensive use of mental models to help readers and listeners build background knowledge and improve comprehension. Research shows that teachers can activate and build students' background knowledge through the use of mental models such as "pictures, objects, demonstrations, and graphic organizers" (Williams, 2001). By providing visual and audio aids to help learners imagine what scenes in a story might look like and how they change during the story, the programs assists learners in constructing good mental models to enhance comprehension (Hasselbring, 2005).

### **Research and Best Practices**

- Researchers have found that in order to achieve comprehension, students need to be able to mentally visualize the text. Activating background knowledge helps students create images or mental models for improved comprehension. Given the cultural differences and academic vocabulary gaps among some English learner students, background knowledge is especially important (Williams, 2001).
- · In a report on English-Language Development, Frederickson (1999) writes, "Unless teachers assist English Language Learners in explicitly realizing what they already may know about an upcoming lesson, these students may not be able to draw upon this very essential prior knowledge."

- System 44 and READ 180 provide English learners with multiple supports to help them develop mental models for better comprehension. The READ 180 Software and rBook workshops include engaging Anchor Videos and related text passages that together develop content area background and academic vocabulary to help students form a mental model. In the System 44 Software, direct instruction videos use images and animation to help students grasp new concepts and word meaning. With the background information necessary to understand the text and develop a mental picture of what they are reading, student comprehension improves. This combination of video and vocabulary support is especially helpful for English learner students who may have gaps in context information and/or academic language.
- The READ 180 Resources for Differentiated Instruction, Book 3, aligned with the TESOL Standards (Teachers of English to Speakers of Other Languages), also promotes mental model development. Each lesson provides teachers with tips and information to build background knowledge during whole-group rotations.

### **Mental Model Development for Text Comprehension (cont.)**

### **Research and Best Practices**

### System 44, READ 180, and the LBook

• Throughout *System 44* and *READ 180*, specific instructional routines prepare students for reading, for example by asking student pairs to generate *how*, *what*, or *why* questions that they expect the text to answer. The *LBook* includes additional activities to specifically help English language learners activate background knowledge. For example, *LBook* lessons preteach key content words from the *rBook* Anchor Videos to make them more accessible to English language learners. The Give-One Get-One *LBook* routine guides students in brainstorming and using academic language to discuss new concepts prior to reading.



# Multisensory Support

System 44, READ 180, and the LBook incorporate a variety of learning activities and opportunities for students to engage their visual, auditory, and tactile senses—both as receivers and producers. Studies show that students involved in multisensory learning experiences achieved greater gains than did students taught with merely a visual or an auditory approach (Farkas, 2003; Maal, 2004). According to Birsh (1999), practitioners have learned that parsing language into small pieces with the aid of multisensory experiences, along with direct, systematic, sequential, and cumulative teaching, allows struggling students, including English language learners, to learn basic language skills.

### **Research and Best Practices**

- The Center for Applied Special Technology (CAST) has identified "multiple means of representation," or giving students a variety of ways to learn, as one of the central facets of a curriculum designed to support all learners (Rose & Meyer, 2000).
- English language learners need a variety of language experiences. They need to hear language, write language, speak language, and read language (Ybarra & Green, 2003).
- Multisensory strategies have proven effective to help English language learner students make connections between content and language, and to support their communication and social interactions (Facella, Rampino, & Shea, 2005).

### System 44, READ 180, and the LBook

• The multisensory approach in *System 44* includes software that provides digital content with audio and visual support, Audiobooks, several different types of print components, and manipulatives, thus offering multiple entry points for all learners to access and learn the content. The content in *System 44* is also represented in various ways, with images and graphics, sounds, and electronic text that are accessible to different types of learners, including English language learners.



System 44 Word Building Kit

• READ 180 offers a multisensory instructional approach that combines video software, Universal Access provisions, Audiobooks, and printed text in one classroom session. Thus, English language learners have daily opportunities to view, listen, speak, record, and write.

#### **Multisensory Support (cont.)**

Research and Best Practices	System 44, READ 180, and the LBook		
	• System 44 Technology includes features that make use of a variety of models to aid comprehension. For example, mouth position videos give English language learners visual and aural models of accurate phoneme articulation.		
	• All components of <i>System 44</i> and <i>READ 180</i> have software-based and print-based assessments to offer students multiple alternatives to show what they know.		
	• The <i>LBook</i> offers further opportunities for English language learners to engage their senses as they develop foundational reading skills. For example, the Viewing with a Purpose Red routine supports English language learners in developing focused		
	listening, speaking, viewing and writing skills. As a result, as they watch a video, English language learners build background knowledge, develop content-area vocabulary, become better listeners and speakers, and organize notes effectively.		

## Adaptive Technology

At the heart of System 44 and READ 180 is technology that combines learning theory, pedagogical principles, and the power of integrated media technology in a unique way (Hasselbring & Goin, 2005). The net effect of this singular invention is the ability of the program to assess student knowledge and skills, respond to individual student differences, differentiate and scaffold instruction, provide corrective feedback, monitor student progress, and offer teachers data to guide students to become proficient readers and learners.

#### **Research and Best Practices**

- · According to Kamil (2003), "Computer-assisted instruction can offer students the opportunity to receive customized support, learn at a comfortable pace, and encourage the active processing of [appropriately leveled] text," as well as receive immediate feedback.
- English language learners may be uncomfortable having their struggle with language exposed and benefit from the private assistance that technology offers (Dukes, 2005).
- · Alvermann (2002) finds that there is promising evidence, especially among populations of second-language learners, demonstrating the effectiveness of literacy instruction that integrates print and visual texts.

#### System 44 and READ 180

• System 44 and READ 180 Software offer consistent and targeted support to English language learners through individualized coaching, corrective feedback, data to inform instruction, and an engaging medium.



**Students Using Adaptive Technology** 

### **Adaptive Technology (cont.)**

Research and Best Practices	System 44 and READ 180			
	• READ 180 and System 44 adaptive technology includes several components with a variety of purposes:			
	<ul> <li>The Scholastic Phonics Inventory (SPI) assesses foundational reading skills and is used to determine the appropriate point of entry into the program.</li> <li>The Scholastic Reading Inventory (SRI) uses reading passages and accompanying questions to determine</li> </ul>			
	a student's Lexile score or reading level.  • FASTT (Fluency and Automaticity through Systematic Teaching with Technology) technology helps students move information from working to long-term memory.			
	<ul> <li>The Scholastic Achievement Manager (SAM) provides data-based reports and resources. Reports can be used to diagnose and remediate discrete skills.</li> <li>Summative Assessments are provided to measure whether students have mastered content and met standards.</li> </ul>			
	<ul> <li>System 44 and READ 180 Software each presents a comprehensive scope and sequence of individualized instruction, practice, and application, including:</li> <li>Direct instruction with modeling, visual animations, and numerous examples;</li> </ul>			
	<ul> <li>Scaffolded guided practice with corrective feedback;</li> <li>Word-meaning development through context sentences, images, and multiple repetitions of words;</li> <li>Adaptive instruction and practice in phoneme</li> </ul>			
	manipulation, word recognition, vocabulary, spelling, comprehension, and fluency;  • Spanish support, including translations, cognates, and pronunciation support.			



## **☑** Differentiated Instruction

System 44, READ 180, and the LBook have been designed to meet the needs of groups of students and individual students, with specific support for English language learners at beginning, early intermediate, and intermediate levels of language proficiency. Differentiated and individualized instruction are achieved by the integration of multiple assessments, adaptive computer technology, and targeted instructional materials and strategies. Teachers can thus create learning environments for multiple purposes.

#### **Research and Best Practices**

- Differentiated instruction aims to optimize learning opportunities and outcomes for all students by tailoring instruction to meet their current level of knowledge and prerequisite skills (Bickel, 1998; Bos and Vaughn, 2002; Simmons, Kame'enui, Coyne, and Chard, 2002).
- To differentiate instruction is to recognize students' varying background knowledge, readiness, language, and preferences in learning, and to react responsively. The intent of differentiating instruction is to maximize each student's growth and individual success by meeting each student where he or she is, and assisting in the learning process (Hall, 2003).
- Teachers that rely mostly on whole-group instruction do not adequately meet the individual needs of students who need extra literacy support, including many English learners (Avalos, 2006).

#### System 44, READ 180, and the LBook

- The adaptive technology of System 44 and READ 180 allows English language learners to work at their own pace. Software lessons are customized based on the student's performance, allowing for differences in the student's prior knowledge and learning styles. In System 44, two distinct tracks—Standard and Fast-Track—further individualize instruction with adaptive pacing, allowing English language learners to skip content for which they already show mastery and focus more closely on their specific areas of need.
- System 44 and READ 180 Software also provide differentiated instruction through continuous assessment. As English language learners' reading levels increase, the content level changes accordingly. Additionally, the supportive coaching and immediate, corrective feedback help ensure that students do not feel uncomfortable about not mastering specific skills as quickly as their classmates.
- System 44 and READ 180 include differentiated support lessons for small-group reinforcement with vocabulary, language transfer, articulation, and fluency. The programs also include paperback books that focus on topics relevant to students' interests. These leveled paperbacks and audiobooks further ensure that teachers are reaching each English language learner at his or her particular level.
- The LBook provides intensive, accelerated, and extensive instruction for English language learners at students' precise level of English language proficiency. Specific differentiated instruction related to each rBook lesson is provided for students scoring in the lowest three language acquisition levels: Beginning, Early Intermediate, and Intermediate. These three levels of lessons extend *rBook* instruction for targeted skills such as listening and speaking, vocabulary, writing, or comprehension. This feature ensures that English language learners at all three levels are able to access

#### **Differentiated Instruction (cont.)**

Research and Best Practices	System 44, READ 180, and the LBook		
	the same content and accelerate their acquisition of English. <i>READ 180</i> also provides instructional recommendations for English language learners who progress rapidly and need material at the early advanced proficiency level.		
	• In addition, the <i>LBook</i> includes differentiated instructional support for Spanish native speakers to build English vocabulary through explicit, systematic instruction of Spanish-English cognates.		
	<ul> <li>The Newcomer Book provides additional resources that teachers can use to customize instruction for the varying needs of English language learners, including:</li> <li>Survival vocabulary and language;</li> </ul>		
	<ul> <li>Language for obtaining necessities, making requests, and understanding instructions;</li> <li>Acquisition of basic academic vocabulary;</li> </ul>		
	<ul> <li>Acquisition of basic grammar structures of English.</li> <li>The System 44 Teacher's Guide and the LBook Teaching Guide offer professional development information and a detailed contrastive analysis of phonological and grammar issues to help teachers customize instruction for English language learners whose first language is Spanish, Vietnamese, Cantonese, Haitian Creole, Hmong, or Filipino.</li> </ul>		

#### **Summary**

As shown above, *System 44*, *READ 180*, and the *LBook* are grounded in a rich base of research on best practices for helping older English language learners acquire the literacy skills that are key to their academic success. For English language learners having difficulty mastering foundational reading skills, *System 44* delivers intensive phonemic awareness, phonics, and decoding instruction, including techniques and content for building background, conceptual understanding, and academic vocabulary. For English language learners who struggle with fluent reading and comprehension, *READ 180* provides explicit, systematic instruction in reading comprehension, fluency, writing, and academic language development, with software support and differentiated lessons for English language learners and their teachers integrated throughout the program. The *LBook* supports and extends *READ 180* instruction to prepare all students, especially English language learners, with the comprehension, writing, grammar, and academic and oral language skills to successfully access *rBook* content. Together, *System 44* and *READ 180* with the *LBook* offer a complete solution for accelerating English language learners to grade-level reading mastery.

#### **REFERENCES**

Adams, M.J. (1990). Beginning to read: Thinking and learning about print. Cambridge, MA: MIT Press.

Adams, M. J., Treiman, R., & Pressley, M. (1998). Reading, writing, and literacy. In I.E. Sigel & K.A. Renninger (Eds.), *Handbook of child psychology*, (5th ed., Vol. 4, pp. 275–355). New York: Wiley.

Alvermann, D. (2002). Effective literacy instruction for adolescents. *Journal of Literacy Research*, 34(2), 189–208.

Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology*, 84, 261–271.

Au, K. (1993). Literacy instruction in multicultural settings. Fort Worth, TX: Harcourt Brace Jovanovich College.

August, D., & Shanahan, T. (Eds.) (2006). Developing literacy in second-language learners: Report of the National Literacy Panel on Language-Minority Children and Youth. Mahwah, NJ: Erlbaum.

Avalos, M.A. (2006). No two learners are alike: Learners with linguistic and cultural differences. In J.S. Schumm (Ed.), *Reading assessment and instruction for all learners* (pp. 59–86). New York: Guilford Press.

Baker, S.K., Simmons, D.C., & Kame'enui, E.J. (1995). *Vocabulary acquisition: Synthesis of the research*. (Tech. Rep. No. 13). Eugene, OR: University of Oregon, National Center to Improve the Tools of Educators.

Beck, I.L., McKeown, M.G., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York: Guilford Press.

Bhattacharya, A. & Ehri, L. (2004). Graphosyllabic analysis helps adolescent struggling readers read and spell words. *Journal of Learning Disabilities*, 37(4), 331–348.

Biancarosa, G., & Snow, C.E. (2004). Reading next—A vision for action and research in middle and high school literacy: A report from Carnegie Corporation of New York. Washington, DC: Alliance for Excellent Education.

Bickel, W. (1998). The implications of the effective schools literature for school restructuring. In C.R. Reynolds & T.B. Gutkin (Eds.), *Handbook of School Psychology* (3rd ed., pp. 959–983). New York: Wiley.

Biemiller, A. (1999). Language and reading success. Cambridge, MA: Brookline Books.

Birsh, J.R. (Ed.) (2000). Multisensory teaching of basic language skills. Baltimore: Paul H. Brookes Publishing.

Blum, I.R., Koskinen, P.S., Tennant, N., Parker, E.M., Straub, M., & Curry, C. (1995). Using audiotaped books to extend classroom literacy instruction into the homes of second-language learners. *Journal of Reading Behavior*, 27(4), 535–565.

Bos, C.S., & Vaughn, S. (2002). Strategies for teaching students with learning and behavior problems (5th ed.). Boston: Allyn & Bacon.

Bransford, J.D., Sherwood, R.S., Hasselbring, T.S., Kinzer, C.K., & Williams, S. M. (1990). Anchored instruction: Why we need it and how technology can help. In D. Nix & R. Spiro (Eds.), *Advances in computer-video technology*. Hillsdale, NJ: Erlbaum.

Calderón, M. (2007). Teaching reading to English language learners, grades 6–12: A framework for improving achievement in the content areas. Thousand Oaks, CA: Corwin Press.

Carnine, D., Silbert, J, & Kame'enui, E.J. (1990). Direct Reading Instruction (2nd ed.), Toronto, Ontario: Merrill.

Chiappe, P., Siegel, L., & Wade-Wooley, L. (2002). Linguistic diversity and the development of reading skills: A longitudinal study. *Scientific Studies of Reading*, 6, 369–400.

Coady, M., Hanann, E., Harrington, M., Pacheco, M., Pho, S., & Yedlin, J. (2003). *Claiming opportunities: A handbook for improving education for English language learners through comprehensive school reform* (No. d100404). Providence, RI: Brown University Northeast and Islands Regional Educational Laboratory.

CREDE (Center for Research on Education, Diversity & Excellence) (1999). *Promoting successful transition to the mainstream: Effective instructional strategies for bilingual students*. Santa Cruz: University of California at Santa Cruz.

Cunningham, A.E., & Stanovich, K.E. (1998). What reading does for the mind. *American Educator*, 22 (1–2), 8–15.

De la Colina, M.G., Parker, R.I., Hasbrouck, J.E., & Lara-Alecio, R. (2001). Intensive intervention in reading fluency for at-risk beginning Spanish readers. *Bilingual Research Journal*, 25(4), 503–538.

Duke, N., & Pearson, D. (2002). Effective practices for developing reading comprehension. In A. Farstrup and S. Samuels (Eds.), *What research has to say about reading instruction* (pp. 205–242). Newark, DE: International Reading Association.

Durgunoglu, A., Nagy, W.E., & Hancin-Bhatt, B.J. (1993). Cross-language transfer of phonological awareness. *Journal of Educational Psychology*, 85, 453–465.

Dutro, S. (2006). Providing language instruction. Aiming High Resource. Sonoma County Office of Education.

#### References (cont.)

Dutro, S., & Moran, C. (2002). Rethinking English language instruction: An architectural approach. In G. Garcia (Ed.), *English learners: Reading the highest level of English literacy* (pp. 227–258). Newark, DE: International Reading Association.

Facella, M.A., Rampino, K.M., & Shea, E.K. (2005). Effective teaching strategies for English language learners. *Bilingual Research Journal*, 29(1).

Farkas, R.D. (2003). Effects of traditional versus learning-styles instructional methods on middle school students. *Journal of Education Research*, 97(1).

Feldman, K., & Kinsella, K. (2005). Narrowing the language gap: The case for explicit vocabulary instruction. New York: Scholastic.

Florez, M.A.C. (1997). *The adult ESL teaching profession*. (ERIC Document Reproduction Service No. ED413794). Washington, DC: ERIC Clearinghouse for ESL Literacy Education.

Francis, D., Rivera, M., Lesaux, N., Kieffer, M., & Rivera, H. (2006). *Practical guidelines for the education of English language learners: Research-based recommendations for instruction and academic interventions*. Portsmouth, NH: RMC Research Corporation, Center on Instruction.

Freedman, S.W., & Calfee, Robert, C. (1984). Understanding and comprehending. *Written Communication*, 1(4), 459–490.

Frederickson, J. (1999). English language development theory and practices: Background information for 'EE' providers. Washington, DC: US Environmental Protection Agency. Available online at: <a href="http://www.plt.org/curriculum/eldforee1099.pdf">http://www.plt.org/curriculum/eldforee1099.pdf</a>

Fuchs, L.S., Fuchs, D., & Maxwell, L. (1988). The validity of informal reading comprehension measures. *Remedial and Special Education*, *9*, 20–28.

Gambrell, L.B., Palmer, B., & Codling, R.M. (1993). *Motivation to read*. Washington, DC: U.S. Department of Education, OERI.

Garcia, G.E. & Nagy, W.E. (1993). Spanish-English bilingual students' use of cognates in English reading. *Journal of Reading Behavior*, 25(3), 241–260.

Gerber, M. (1986). Generalization of spelling strategies by learning disabled students as a result of contingent imitation/modeling and mastery criteria. *Journal of Learning Disabilities*, 19, 530–537.

Gersten, R., & Baker, S. K. (2000). What we know about effective instructional practices for English Language Learners. *Exceptional Children*, 66(4), 545–571.

Gersten, R., Fuchs, L.S., Williams, J.P., & Baker, S. (2001). Teaching reading comprehension strategies to students with learning disabilities: A review of research. *Review of Educational Research*, 71(2), 279–319.

Gersten, R., & Geva, E. (2003). Teaching reading to early language learners. Educational Leadership, 60(7), 44-49.

Gersten, R., & Jiménez, R. J. (2002). Modulating instruction for English-language learners. In E.J. Kame'enui et al. (Eds.), *Effective teaching strategies that accommodate diverse learners* (2nd ed., Chap. 3). Upper Saddle River, NJ: Merrill.

Gómez, P., Parker, R., Lara-Alecio, P., & Gómez, L. (1996). Process versus product writing with limited English proficient students. *Bilingual Research Journal*, 20(2), 209–233.

Grabe, W., & Stoller, F. L. (1997). Content-based instruction: Research foundations. In M.A. Snow & D.M. Brinton (Eds.), *The content-based classroom: Perspectives on integrating language and content* (pp. 5–21). New York: Longman.

Graham, S., & Perin, D. (2007). Writing next: Effective strategies to improve writing of adolescents in middle and high schools—A report to Carnegie Corporation of New York. Washington, DC.: Alliance for Excellent Education.

Hall, T., Strangman, N., & Meyer, A. (2003). *Differentiated instruction and implications for UDL implementation*. Wakefield, MA: National Center on Accessing the General Curriculum.

Hasselbring, T. (2005). Enhancing comprehension through the development of accurate mental models. 49th Annual International Reading Association Convention, Reno, NV.

Hasselbring, T., & Goin, L. (2004). Literacy instruction for older struggling readers: What is the role of technology? *Reading and Writing Quarterly*, 20(2), 123–144.

Hasselbring, T., Goin, L., Taylor, R., Bottage, B., & Daley, P. (1997). The computer doesn't embarrass me. *Educational Leadership*, 55(3), 30–33.

Hitchcock, C., & Stahl, S. (2003). Assistive technology and universal design for learning: Improved opportunities. *Journal of Special Education Technology*, 18(4).

Honig, B., Diamond L., & Gutlohn, L. (2000). *CORE teaching reading sourcebook for kindergarten through eighth grade*. Novato, CA: Arena Press.

Kame'enui, E.J., Carnine, D., Dixon, R., Simmons, D.C., & Coyne, M.D. (2002). *Effective teaching strategies that accommodate diverse learners* (2nd ed.). Columbus, OH: Merrill Prentice Hall.

#### References (cont.)

Kinsella, K. (2005). Focus on English-language learners. Red research foundations (p. T66). READ 180 rBook teacher's edition, stage A. New York: Scholastic.

LaBerge, D., & Samuels, S.J. (1974). Toward a theory of automatic information processing in reading. *Cognitive Psychology*, 6, 293–323.

Maal, N. (2004). Learning via multisensory engagement. Association Management, 56(11), 61.

Marzano, R.J., Pickering, D., & Pollock, J.E. (2002). *Classroom instruction that works: Research-based strategies for increasing student achievement*. Alexandria, VA: Association for Superintendents of Curriculum Development (ASCD).

Moats, L.C. (1995). Spelling: Development, disability, and instruction. Baltimore: York Press.

Moats, L.C. (1997). How children learn to spell. New York: Scholastic.

Moats, L.C. (2001). When older kids can't read. Educational Leadership, 58(6), 36.

Moats, L.C. (2005a). Getting up to speed: Developing fluency. Language essentials for teachers of reading and spelling: Module 5. Longmont, CO: Sopris West Educational Services.

Moats, L.C. (2005b). Teaching beginning spelling and writing. Language essentials for teachers of reading and spelling: Module 9. Longmont, CO: Sopris West Educational Services.

Moore, S. (1995). Focus on research: Questions for research into reading-writing relationships and text structure knowledge. *Language Arts*, 72(8), 598–606.

Nagy, W., Berninger, V., & Abbott, R. (2006). Contributions of morphology beyond phonology to literacy outcomes of upper elementary and middle school students. *Journal of Educational Psychology*, 98(1), 134–137.

National Reading Panel (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction (NIH Pub. No. 00-4769). Washington, DC: National Institute of Child Health and Human Development.

NCELA (National Clearinghouse for English Language Acquisition). (2002). Language backgrounds of limited English proficient (LEP) in the U.S. and outlying areas, 2000–2001. Retrieved May 29, 2008 from http://www.ncela.gwu.edu/stats/4\_toplanguages/languages.html.

NCELA (National Clearinghouse for English Language Acquisition). (2007). *The growing numbers of limited English proficient students:* 1995/96 – 2005/06. Retrieved May 29, 2008 from http://www.ncela.gwu.edu/stats/2\_nation.htm.

Papalewis, R. (2002). A study of the intensive academic support program and READ 180 in the Los Angeles Unified School District. Program evaluation report. Sacramento, CA.

Policy Studies Associates (2006a). *Improving student literacy in the Phoenix Union High School District 2003–04 and 2004–05*. Program evaluation report. Washington, DC.

Policy Studies Associates (2006b). *Improving student literacy in the Phoenix Union High School District 2005–2006*. Program evaluation report. Washington, DC.

Pressley, M., Gaskins, I., Solic, K., & Collins, S. (2006). A portrait of benchmark school: How a school produces high achievement in students who previously failed. *Journal of Educational Psychology*, 98(2), 282–306.

Quiroga, T., Lemos-Britton, Z., Mostafapour, E., Abbott, R.D., & Berninger, V.W. (2002). Phonological awareness and beginning reading in Spanish-speaking ESL first graders: Research into practice. *Journal of School Psychology*, 40(1), 85–111.

Rose, D.H., & Meyer, A. (2000). Universal design for learning. Journal of Education Technology 15(1): 67-70.

Rubenstein-Avila E., (2003). Facing reality: English-Language Learners in middle school classes. *English Education 35(2)*, 122–137.

Saenz, L.M., Fuchs, L.S., & Fuchs, D. (2005). Peer-assisted learning strategies for English language learners with learning disabilities. *Exceptional Children*, 71(3), 231–249.

Saunders, W., O'Brien, G., Lennon, D., & McLean, J. (1998). Making the transition to English literacy successful: Effective strategies for studying literature with transition students. In R. Gersten & R. Jiménez (Eds.), *Promoting learning for culturally and linguistically diverse students: Classroom applications from contemporary research* (pp. 99–132). Belmont, CA: Wadsworth.

Scarcella, R. (2003). *Academic English: A conceptual framework* (Tech. Rep. No. 2003-1). Santa Barbara: University of California, Linguistic Minority Research Institute.

Schifini, A. (1994). Language, literacy, and content instruction: Strategies for teachers. In K. Sprangfenberg-Urbschat & R. Pritchard, *Kids come in all languages: Reading instruction for ESL students* (pp. 159–179). Newark, NJ: International Reading Association.

Schleppegrell, M. (1998). Grammar as resource. Research in the Teaching of English, 32(2), 182–211.

Shanahan, T., & Beck, I. (2006). Effective literacy teaching for English-language learners. In D. August and T. Shanahan, *Developing literacy in second-language learners: Report of the national literacy panel on language minority children and youth* (pp. 415–488). Mahwah, NJ: Lawrence Erlbaum Associates.

#### References (cont.)

Shefelbine, J. (1998). *Academic language and literacy development*. Paper presented at the Reading and English-Language Learner Forum, Sacramento, CA.

Simmons, D.C., Kame'enui, E.J., Coyne, M.D. & Chard, D. (2002). Effective strategies for teaching beginning reading. In E.J. Kame'enui, D.W. Carnine, R.C. Dixon, D.C. Simmons, & M.D. Coyne (Eds.), *Effective teaching strategies that accommodate diverse learners* (2nd ed., pp. 53–92). Columbus, OH: Merrill.

Spandel, V. (2000). Creating writers through 6-trait writing assessment and instruction (3rd ed.). Boston: Allyn and Bacon.

Spandel, V., & Lane, B. (2003). Creating young writers. Boston: Allyn and Bacon.

Stahl, S.A., & Fairbanks, M.M. (1986). The effects of vocabulary instruction: A model-based meta-analysis. *Review of Educational Research*, 56, 72–110.

Sullivan, Lisa. Personal interview and data from Desert Sands Unified School District provided on 22 February 2008.

Thompson, C., Craig, H., & Washington, J. (2004). Variable production of African American English across oracy and literacy contexts. *Language, Speech, and Hearing Services in Schools*, 35(3), 269–283.

Torgesen, J.K., Alexander, A., Wagner, R., & Rashotte, C. (2001). Intensive remedial instruction for children with severe reading disabilities. *Journal of Learning Disabilities*, 34(1), 35–58.

Torgesen, J.K. (2002). Lessons learned from intervention research in reading: A way to go before we rest. In R. Stainthorpe (Ed.), *Learning and Teaching Reading* (pp. 89–103). British Journal of Educational Psychology Monograph. London: British Psychological Society.

Torgesen, J.K., Houston, D. D., Rissman, L. M., Decker, S. M., Roberts, G., Vaughn, S., Wexler, J., Francis, D. J., Rivera, M. O., & Lesaux, N. (2007). *Academic literacy instruction for adolescents: A guidance document from the Center on Instruction*. Portsmouth, NH: RMC Research Corporation, Center on Instruction.

Troia, G., & Graham, S. (2002). The effectiveness of a highly explicit, teacher-directed strategy instruction routine. *Journal of Learning Disabilities*, 35(4), 290–305.

Ulanoff, S.H., & Pucci, S.L. (1999). Learning words from books: The effects of read-aloud on second-language acquisition. *Bilingual Research Journal*, 23, 409–422.

Williams, J.A. (2001). Classroom conversations: Opportunities to learn for ESL students in mainstream classrooms. *The Reading Teacher*, *54*(8), 720–757.

Ybarra, R., & Green, T. (2003). Using Technology to Help ESL/EFL Students Develop Language Skills. The Internet TESL Journal, 9(3). Available online at: <a href="http://iteslj.org/Articles/Ybarra-Technology.html">http://iteslj.org/Articles/Ybarra-Technology.html</a> Yopp, H.K. (1992). Developing phonemic awareness in young children. The Reading Teacher, 45, 696-703.

# Research Foundation Paper



Scholastic Inc. 557 Broadway New York, NY 10012