Volume 48 • Number 1 • 2012

New England Reading Association JOURNAL

Developmental Literacy Instruction with Struggling Readers Across Three Stages

Donald R. Bear
University of Nevada, Reno, NV
Sarah Negrete
Great Basin College, NV
Sharon Cathey
University of Nevada, Reno, NV

What do you do when you notice a student struggling to learn to read and write? The answer is axiomatic: spend more time teaching the student; there is no other way. Struggling readers, even students with primary, organic, brain-related learning difficulties, follow a developmental trajectory and can make significant progress with a developmental, engaging and intense literacy program. In this paper, we reach into three stages of literacy development to discuss key recommendations to teach struggling readers. Case studies of students with language-related learning difficulties are discussed to illustrate students' learning in the first three stages of development.

Stages of literacy development have been described by Chall (1996), Wolf (2007), and Henderson (1981) and his students (Bear, Invernizzi, Templeton, & Johnston, 2012). Intervention activities and planning are discussed here within the context of the first three of five stages of literacy development: emergent, beginning and transitional reading, and the parallel stages of spelling, the emergent, letter name – alphabetic and within word pattern stages of spelling, respectively. We hope that the descriptions of students' learning and the recommendations that follow for students in each stage will inform your teaching with struggling readers.

Emergent Literacy: Concept of Word in Text, Prosodic Structures, and Rhythmic Activities

The developmental skill we want to discuss for the emergent stage is Concept of Word in text or COW, a watershed event in reading. The implications for students who do or do not have a COW are profound. Having a COW constitutes the difference in children who can and cannot acquire sight words and phonics. First we describe COW and then we look at a small group of students who seem to have a hard time acquiring a COW. Finally, we share Arturo's development from an emergent to a beginning reader. The discussion of Arturo is a good example of how we teach children who are acquiring a COW.

COW: What It Is and How to Assess It

COW is observed in students' attempts to fingerpoint read a familiar text. Students who have acquired a COW have followed the cascade of language from the oral phrase to the written word. At the earliest level, children who have a COW can fingerpoint read accurately to the words of a familiar, brief text they have memorized even when there are two-syllable words to throw them off. Watch a child read the line "One two buckle my shoe" and see if she can fingerpoint read it accurately after memorizing the ditty. Children who get thrown off in their pointing, particularly to the two-syllable word *buckle*, do not have a COW; see Figure 1. Children may point to *buckle* while saying

"buckle my," or point to *my* while saying the second syllable of *buckle.* Harper Lee described COW perfectly in *To Kill a Mockingbird*, chapter two, when Scout tried to recall the moment she learned to read: "I could not remember when the lines above Atticus's moving finger separated into words, but I had stared at them all the evenings of my memory, ..." (Lee, 1960, p.24.)

Figure 1
Child Fingerpoint Reads a Familiar Poem to Assess Concept of Word

Emergent learners who do not have a COW are found most of the year in preK. By the eighth month in most kindergarten classes or by the second month of first grade there may be only a few students who do not have a stable COW. We are most concerned about children who do not have a COW by this time, especially if they are expected to learn sight words and phonics.

There are standardized measures of COW (i.e., Invernizzi, Meier, Swank & Juel, 1999) as well as formative assessments of COW. The beauty of the assessment of COW is that the way COW is assessed is also the way it is taught (Flanigan, 2007; Morris, Bloodgood, Lomax, & Perney, 2003). Language-experience and guided reading activities like choral, support, and partner reading are effective ways to teach students COW (Bear et al., 2012). The child tracking in Figure 1, and matching of words to the sentence strip illustrated in Figure 2, portray activities to teach children the one-to-one correspondence between what they say and what they see in the text.

Perceiving Rhythmic Structures as a Precursor to COW

Learning about phrasal rhythmic structures may be a precursor to COW. Instruction following the temporal flow of rhythmic structures is like going upstream to find

Figure 2
Children Practice Tracking by Placing Words on a Sentence Strip

the correct developmental level of language analysis for our students, and may be a way of starting interventions early and holistically.

There are a few children who have particular difficulties and experience serious delays in acquiring a COW. We think that some children who do not acquire a COW at an average pace may have also been delayed in acquiring some earlier language skills. Before there is the prosodic segmentation of syllables into beginning and ending sounds, or onset and rime, in English, first, children acquire the prosodic understanding of the syllable within the phrase. As we follow the language cascade back a ways, there are children who take more time and need more support to discern the prosodic or rhythmic structures of language. We see this in a number of ways both in our experience and in research.

One way to observe students' phrasal prosody is to sing with students and observe how they follow rhythmic phrasing especially when there are shifts in the rhythm as lyrics change. For example, when we sing the first verse of Driver on the Bus, *"Driver on the bus says move on back, move on back, move on back,"* a few times, we change to another verse with four syllables, like *"The driver on the bus says lift your feet up, lift your feet up, lift your feet up."* Children who cannot make these rhythmic shifts are less developed in their COW. Children at this level are much like the preK children on the rug in Figure 3; they are proximal partners showing each other how to track a text from left to right.

Another way to examine children's developing prosodic knowledge and the ability to manage phrasal and rhythmic levels is to observe children tapping, clapping and beating in rhythm. In a study of 59 kindergarteners, we noticed that children's ability to repeat the teacher's tapping of a 4-beat and a 7-beat rhythmic phrase was related to their acquiring a COW (Cathey, 1991).

Figure 3
Preschool Children Fingerpoint Read Together

Studies in neurolinguistics bear out the utility of these informal assessments. In similar ways, researchers have examined the relationship between students' ability to reproduce or recognize prosodic structures and their literacy learning (Corriveau & Goswami, 2009; Goswami, 2011; Goswami, Gerson, Danielle, & Astruc, 2010; Wolff, 2002). These studies indicate that for some students with reading or language difficulties, there are predictive relationships among prosodic awareness, phonological knowledge, and reading and spelling achievement.

Part of a preK and kindergarten early intervention is to begin instruction further up the language stream where the language filter is at a phrasal and rhythmic level where children can tap into syllables at a higher level than the word. In a study of children's speech perception, one conclusion was that "(r)hythm awareness helps infants with syllabic segmentation" (Goswami et al., 2010, p. 1014). And in a study of language impaired children it is suggested that "(s)imple activities such as singing to music or playing a drum in time with the stressed syllables in nursery rhymes (HUMP-ty DUMP-ty SAT on a WALL) may have previously unsuspected benefits for the development of language, phonology and literacy" (Corriveau & Goswami, 2009, p. 129).

Arturo Acquires a COW "Swinging Through the Trees"

Arturo left tutoring, held up the book he was taking home, and pointed to the title as he proclaimed with special emphasis on the word *the*: "THE dog, THE dog." Arturo was learning about words in text! A month earlier, Arturo joined us having missed most of kindergarten recovering from surgery. He was assertive, endearing and avoided reading. He had not acquired a COW, and he had not learned the alphabet. In school, he was asked to learn some phonics and sight words, and he was frustrated by his lack of success.

In tutoring, we stepped back to a higher level of linguistic analysis and had him recite rhythmic and memorable language to help him acquire a COW. We read picture books to him, and found language in the stories or of his own that he liked, and we used these two- to four-line texts as reading materials. Arturo also sang the alphabet song, matched letters and sorted pictures by beginning sounds. The very able tutors found ways to motivate and engage Arturo with the rhymes and language experiences.

One series of lessons involved singing, and moving to *Five Little Monkeys* (cf. Templeton & Bear, 2011). The first two lines are so memorable and so concrete: "Five little monkeys / Swinging through the trees." Arturo and his tutor paired with other children, singing the two lines as they galloped down the hall swinging their arms, often holding papers of their own of the two lines typed in 26-point decorated with a picture of the five monkeys. The children also had a copy of the two lines in their Personal Readers (Bear et al., 2012), and they took a typed copy of the ditty home. Over several sessions in tutoring, Arturo danced as he recited, and then would stop to try to point to the words using his finger, a pointer, or holding on to his tutor's guiding finger. This is a practice we demonstrate with parents when they visit, or at family nights at school, we show parents how to dance and sing with their children, and to track these familiar texts. The movement, the singing and practice tracking are all essential literacy activities that can begin quite early in life.

Beginning Reading and Letter Name – Alphabetic Spelling: Articulation and How Sounds Feel in the Mouth

Students who are in this stage of reading are quite easy to identify. They are word-by-word readers, they fingerpoint read, they are monotonic, staccato, and disfluent in their reading. They have a COW, and collect just a few sight words from repeated reading of an easy text. They are learning to read single-syllable words and they are learning about beginning consonants, then digraphs and blends, short vowel families, and then the CVC syllable pattern. Beginning readers in the letter name stage of spelling are found in first and second grades, and the beginning readers in third grade are usually involved in an intensive intervention, often described as a tier three intervention.

The Role of Articulation

The caveat we want to highlight for this stage is that articulation, the way sounds feel in the mouth as they are pronounced is important information for students to learn phonics. The prosody of the phrase and the syllable analyzed in the emergent stage is now linked to a letter name strategy and the alphabetic principle to analyze letter-sound correspondences. Over the last 36 years,

beginning with Read (1975), research has revealed that the way sounds are made in the mouth gives learners important information about phonics (Templeton, 2011). Students in this spelling stage use how the letters feel in the mouth to spell. During this stage, students match the articulatory gestures, the phonotactics, and the letter names to spell consonants and vowels. For example, in this stage children often spell *drive* as JRIF. This is because in articulation, JR, a nonpalatal affricate is close in articulation to the difficult to pronounce *dr* sound, an alveolar ridge affricate. The F is close to *v* and previously in English, they were the same sound, but today they differ in voicing. The same principle applies to vowels: students use the letter names of the vowels and how they feel in the mouth to spell short vowels. Consider the short i: the word *sit* may be spelled SET because the letter name *e*, pronounced *eee*, feels closest in articulation to the way short i feels in the mouth.

Implications for Instruction

During this stage, there are several ways that teachers use this natural strategy of using articulation in phonics.

Say the words when sorting. Students need to say the words as they sort; this engages the articulatory gestures. We teach them how to use a 2-inch voice so as not to disturb others. In addition, saying the words aloud is built into the word study games; e.g., students must say the words aloud as they move around a gameboard.

Dialects and articulation. Students who speak some dialects may not articulate all the sounds in words; they may drop final sounds. This may be true for students who speak African American Vernacular of English. For some English learners, some sounds in English do not exist in their primary languages. For example, s-blends do not exist in Spanish, and the s-blends may be difficult for some students to perceive. Likewise, students from Asian language backgrounds may not perceive differences in words that end with an *n*, *ng*, and *nd*. Similarly, they may not perceive differences in words that end with an *l* or an *r*. Picture and word sorts can draw students' attention to articulatory and spelling differences. For example, students might sort pictures of words that begin with different s-blends to help students to perceive these new sounds. Pictures of a *sled*, *stamp*, and *spot* may be pictures at the top of the columns for sorting; with repeated practice, these sound differences become evident.

Coordination with speech and language specialists. Speech pathologists, language specialists, and classroom teachers can coordinate services in the study of articulation (Templeton & Bear, 2000). Often, the sounds the speech and language specialists want students to explore can be examined in picture and word sorts in both the classroom and in sessions with the speech-language specialist. For example, students who say *with* as "wif," may spell *with* as WIF or WEF. These students benefit from sorting pictures by the *th*, *t*, and *h* beginning sounds, and they can practice the sort on their own. By saying these pictures as they sort they practice producing these different sounds many times. (See Figure 4).

Figure 4
Two Children Sort Beginning Consonant Digraphs and Record the Words in Their Word Study Notebooks

Transitional Reading and Within Word Pattern Spelling: From Approaching Fluency to Fluency

Transitional readers make reading "sound like language" (Stahl & Kuhn, 2002, p. 582). At the beginning of this stage, students are *approaching* fluency; they are not fluent yet. They read in some phrases and they can read most single and many two-syllable words correctly. They begin this stage with a blend of oral and silent reading. With adequate reading accuracy, reading rates or fluency continue to increase over the course of this stage. Students take on silent reading as their preferred mode; this occurs as students read over 100 words per minute. Silent reading rates begin to outstrip oral reading rates and if the materials are at students' instructional level, fingerpointing drops away.

As the name of the stage implies, within word pattern spellers experiment with the spelling of vowel patterns within words. They have already mastered the basic beginning and ending sounds of words, including most consonant blends and digraphs, along with CVC short vowel pattern. Throughout this stage within word pattern spellers become comfortable with the vowel patterns within words, including long vowel patterns (e.g., *oa, igh, i-e*), less common VCC patterns (i.e., *told*), and ambiguous vowel patterns (i.e., the *ou* in *mouth, cough, trough,* and *through*). Another indication that students are in this stage of spelling development is that they are able to think about words by sound and pattern simultaneously.

Prosody is Like a Good Sauce

As students progress over the course of the transitional stage, reading expression begins to convey comprehension. By the later part of this stage, word recognition is automatic enough for readers to plan how they layer expression onto their oral reading. Their sight vocabularies allow them to read more complex text, and if there is the will and background to comprehend, students concoct a prosodic sauce as they read. We can listen and measure these nuances of understanding in their use of prosodic ingredients like changes in stress, pitch, and amplitude, syllable lengthening and pausing, to name several measures. When we conduct an IRI we mark pauses, short and long, place an *E* above words that students *emphasize* by some combination of the prosodic ingredients or features, and we mark with an arrow text where we hear rises and falls in intonation.

To become comfortable and successful in their reading, transitional readers require wide reading in appropriate texts (Chall, 1996). With plenty of time reading each day, students learn new sight words and vocabulary. They grow more confident in their reading and ability to comprehend as they read. Up to this point, the demands for comprehension of early primary reading texts have rested mostly on word recognition and reading the pictures. Middle and late transitional readers can read longer texts in phrases and the texts they read have fewer pictures than the materials at the beginning reader level. More ideas are presented in the texts students read, and they read with greater attention to comprehension. Reading aloud or subvocalizing, transitional readers may use the suprasegmental, prosodic features to aid comprehension. For the reader, and to paraphrase Hood (1799-1845), prosody is like a parapet to a bridge, it does not propel the reader across but holds the reader up for understanding (as quoted in Zeiger, 1947, p. 366).

Who Are Transitional Readers?

Most students will reach the transitional stage in grades two or three, around age seven or eight (Chall, 1996). Some readers take longer than others to pass through this stage and unfortunately, there are many intermediate and secondary struggling readers who never climb out; the stage can seem like a black hole. In a study of 274 within word pattern spellers in grades two through five in a high poverty school, nearly 70% of the fourth graders and slightly over 50% of the fifth graders were within word pattern spellers. The word recognition in isolation, the reading accuracy in context, and reading rates of these fourth and fifth graders were not significantly different from their second and third grade counterparts (Negrete, 2010). In this sample, 64% of the second through fifth grade within word pattern students were of limited English proficiency (LEP), and there were no significant differences in their reading rates and those of the native English speakers. In secondary classrooms, there may be 15% to 30% of the students in high poverty schools who are in the transitional stage of reading or who are within word pattern spellers (Kiernan, 2012; Townsend, Bear, & Burton, 2012).

Two Older Struggling Transitional Readers Illustrate (With Language Difficulties)

Given the prevalence of intermediate and secondary struggling readers in this stage, we present two case studies; the first is a case study of a fifth grader, who was on the cusp of beginning and transitional reading, and the second study is a sixth grader on the cusp developmentally between this and the intermediate stage. Both students had been assessed much earlier with specific language impairments, and had received speech and language services. These case studies illustrate the premise we noted at the beginning of this article: spending more time with students provides the insights teachers need in their teaching and assessing.

The recommendations for instruction for these students are similar in several ways, and are categorized in two ways: recommendations to improve students' literacy development, and recommendations for success in school. Recommendations for success in school lay on a continuum of support and scaffolding that include teaching study skills, critical thinking, and flexible reading styles. These activities also apply to stage readers but can be implemented with less support. We present parts of Jim's and Brian's learning histories, and some discussion of our assessment and teaching. Next, we present the recommendations for instruction for these students that address the need for students of all ability levels to be able to participate fully in class activities.

Jim's Limited Orthographic Knowledge

Jim visited our center for an in-depth literacy assessment. He was born with a chromosome anomaly and was assessed as a preschooler with severe language difficulties. When we met Jim, he was a fifth grader being homeschooled, and he had received a variety of learning and language services over the years. The family support was exceptional in that the learning program was consistent, experiential, and intensive. We administered an informal reading inventory, and beginning with word recognition scores, some of the essential aspects are described here.

His instructional level word reading was at second to third grade level. Jim only recognized one word correctly on an untimed presentation of the words on the fourth and fifth grade lists. Though a large drop between third and fourth grade is often observed, there is a startling drop-off in the fourth and fifth grades. Jim misarticulated some of the words, including words with glides, some medial vowels, and ending consonants; this is consistent with the results of his speech and language

Word Recognition in Isolation		
Level	Flashed	Untimed
PP	95%	100%
P	80	95
1	90	95
2	65	80
3	65	75
4	-	5
5	-	5

assessments. Misarticulations were also evident in some of his misspellings as noted below.

Jim had learned many sight words evident in the flashed presentation, including high frequency words *like, their, on, would, then, who, both, another, which.* Beginning in first grade and through the second grade word list, Jim misread single-syllable words (*should* as *"shout," these* as *"there," change* as *"child"* and *"chain"*). He read *morning, family, different, write,* and *together* correctly, and read *story* as *"store," draw* as *"dow"* and *"drou," money* as *"mommy," street* as *"steal,"* and *leave* as *"leo."*

As an assessment of rapid automatized naming (RAN), Jim read a series of five letters arranged in random order. He read the 40 letters in 33", a speed that was acceptable for his developmental level, and twice as slow as a skilled reader's rate.

On an elementary spelling inventory, Jim spelled most short vowel words correctly (*fan, pet, dig, rob, gum,* and *sled).* He did omit the final consonant blend in *stick* (STIK). Jim was unable to spell most of the single-syllable, long vowel words correctly. He spelled *shine* correctly, *dream* as DREM and then as DREEM, *blade* as BLAD and BLAED, *wait* as WATE, *hope* as HOPP, *coach* as COCH, *fright* as FRIT. He omitted the *w* sound in *crawl* and *growl* (CROL, GROLL). He also omitted the preconsonantal nasal in *camped* (CAPT), and spelled *third* more like the way he pronounced it (THORD). These spellings are in synchrony with his performance on the WRI. Spelling is a conservative measure of word knowledge; reading is a little ahead of spelling and what we can spell we can read. His spelling indicates that he was learning about the structure of long vowel patterns; occasionally, he used but confused long vowel patterns. In terms of word study it was recommended that teachers help Jim refine his knowledge of the short vowel CVC pattern, and then move to the easy CVCe pattern for long vowels (i.e., *name, file, hope).*

Jim read several expository passages orally. The first-grade passages were about air and the brain. Comprehension was 75% and 100% for the passages. His reading rates were 53 and 56 words per minute with an 88% accuracy on the first and 96% accuracy on the second first-grade passage. He read a second-grade passage about the differences between whales and fish at 48 words per minute (4'05"), with 22 errors and 89% accuracy. His comprehension of this second grade passage was unacceptable as would be expected with this level of accuracy and his level of weariness at this point. He showed great stick-to-it-ness in spending four minutes reading this passage with so many reading errors. On a listening comprehension measure toward the end of testing, when Jim was pretty well spent, Jim listened to a fourth grade passage about early railroads, and while he provided a gist of the passage, he lacked a recall of the details.

With some prompting over seven minutes, Jim wrote five lines about a hobby of his, and was pleased to read what he had written to the examiner. His punctuation and capitalization were limited and spelling errors were consistent with the errors on the primary inventory (TAKE and TAK for *tank,* omitting the preconsonantal nasal, SHORK for *shark,* PONS for *pounds,* OV for *of,* CLAN for *clown,* DOLOS for *dollars,* WOKING for *working*). These errors reflect some of his difficulties in pronunciation. Jim's writing was large, in manuscript form, and not particularly neat.

We determined that Jim was an early transitional reader and an early within word pattern speller. Instructional level reading was between a late first and second grade level even though his word recognition was a bit more advanced. Jim will need a great deal of support to learn grade level content. Therefore, all of the recommendations that follow the discussion of the second case, Brian, will be useful for Jim to succeed in learning grade level content.

Brian Burps and Reads with Partial Cues

Brian was a sixth grader in the transitional reading stage attending tutoring in the literacy center. Our informal and formal testing indicated that he was reading at a third grade level and his listening comprehension was at grade level. On the Woodcock-Johnson III test, his broad reading grade equivalent score was 3.3. His grade level reading comprehension subtest score was 4.5, but the word attack score was 2.7. This disparity between word reading and comprehension was also observed in his daily activity in tutoring.

Like many older transitional readers, Brian was trying to build fluency in reading; however, his word knowledge may have held him back from more fluent reading (Flanigan et al., 2011). Listening to Brian trying to speed up, he often misread words he could probably read with slightly better attention (e.g., "great" for *giant*), and he often skipped over or misread functor words (e.g., "a" for *the* and "then" for *there*). Brian's reading was labored, and as he tried to speed up as he read aloud, it often sounded like he was burping as he read.

In tutoring, he was reading materials at a level M, and he was studying long vowel patterns in his word

study. Brian could read materials written at a level M or ~600 lexile with good accuracy and understand the gist of what he read. However, his reading was disfluent with too many reading errors, and in discussing texts in detail, it was apparent that he was reading with *partial cues*; he could understand the major ideas at this level, but deep understanding of what he read was wanting. Brian often skipped over difficult words and used his good intelligence to comprehend to make up for what he could not read. For example, in a discussion of a chapter we were reading titled *The Invention Convention*, he said that he had skipped the title because he could not read the words and went on to explain that he thought he could figure it out later. This is not a bad strategy on a limited basis, but we are afraid this was the norm for Brian given his word knowledge.

To take a closer look at his orthographic knowledge, Brian was administered the elementary spelling inventory (Bear et al., 2012) presented in Figure 5. Brian was in between the within word pattern and the syllables and affixes stages of spelling. This is what we would expect given his third grade instructional reading level, but for his grade level, students are expected to be in the derivational relations stage of spelling. He could spell most single-syllable words, and his misspellings of other vowel patterns are typical of students in the within word pattern stage when students show a mastery of short vowel patterns and are learning the patterns of long and complex vowels as in his spelling of *float* as FLOUT, and *spoil* as SPOL. He omitted the *r* in *serving*, and he spelled *chewed* as CHUD. He spelled several two-syllable words correctly, and his errors are typical of students in the syllables and affixes stage of spelling when they experiment with syllable junctures and inflected endings, as in BOTTEL for *bottle*, SELER for *cellar*, and FAVAR for *favor*. Perhaps with his years in school he had memorized the spelling of words like *shopping*, *carries*, *marched*, and *shower*—words that students in the within word pattern stage often misspell.

Figure 5
Brian's Spelling. From the Primary Spelling Inventory (Bear et al., 2012)

Elementary Spelling Inventory

1. bed	14. carries
2. ship	15. marched
3. when	16. shower
4. lamp	17. battel
5. flout	18. faver
6. train	19. riper
7. place	20. seler
8. drive	21. plever
9. bright	22. fachanit
10. shopping	23. confudent
11. spol	24. sivlies
12. seving	25. opuvstan
13. chud	

Recommendations for Remediation and Success in School for Older Transitional Readers

We turn to recommendations for remedial instruction and activities for success in school. Jim and Brian became involved in similar activities commensurate with their development, with Jim in the early and with Brian in the later part of the transitional stage.

Recommendations for Remedial Instruction

The predominant remedial literacy activities discussed here are *Read With* and *Word Study* activities (cf., Helman, Bear, Templeton, Invernizzi, & Johnston, 2011). *Writing* and *Read To* activities were conducted in heterogeneous groups whereas Read With activities involved instructional level reading with various levels of support with an emphasis on fluency and comprehension. Word study involved phonics, vocabulary and spelling activities.

Read With activities. There were not many materials written at his second grade instructional level that as a fifth grader Jim could read with interest. Therefore, we conducted reading activities that included repeated, echo, and support reading. This allowed us to incorporate more difficult materials as long as the teacher was there to support read with him for several initial rereadings. After these rereadings, Jim practiced reading the materials on his own. Timed repeated reading was also a regular activity and Jim enjoyed seeing how his reading rate improved as his reading errors decreased.

Brian was also involved in similar repeated reading activities with more difficult materials. He also spent more time reading slightly easier materials than the ones his tutors were using in his remedial instruction. He also spent more time reading slightly easier material at a level J or ~400 lexile level. In this way, he could experience what fluency was like and he could read with greater integrity for accuracy and comprehension.

We also conducted content dictation activities for both students as a way of creating interesting reading materials that allowed the students to study more complex texts and ideas. This is a type of language-experience activity in which the teacher reads interesting or content

related materials to the student. Conducted with one or two students, we read to them and instruct them to stop us "when your brain is full." The teacher then takes a dictation and types what the student remembers from the selection. Generally for transitional readers, this process goes on until the student has dictated several paragraphs for rereading. This material serves as a way to familiarize the student with content vocabulary and may make it easier for the student to read harder materials (Helman et al., 2011).

Word study. Both students benefited from developmental word study. Both students were involved in word sorts and word study games; they played word study games, and collected words by patterns in their word study notebooks.

Jim began his word study by becoming familiar with the CVC short vowel patterns, and beginning and final consonant blends and digraphs. The study of short vowel patterns would serve him well later in the study of open and closed syllables (e.g., *platform* and *pilot*, respectively). He sorted pictures by sound for these elements and then used words. He quickly moved on to the study of long vowel patterns beginning with the CVCe pattern.

For a brief period, Brian studied short vowels by sound and pattern, and then moved on to the basic long vowel patterns including the CVCe, CVVC, and CVV patterns as well as the less frequent patterns like *–ight (bright)*, and *–ind (find)*. Brian then went on to study complex single-syllable words with *ou*, *oo*, *ew*, *au*, and words with *r*-influenced vowels as words like *serve* and *charm*.

Their teachers also had the students examine the vocabulary in their content areas not so much for their spelling patterns but for word meanings. Both students kept charts of content related interesting words: for Jim, words related to keeping salt water fish, and for Brian, words related to his world history and science studies. Both students also examined easy prefixes and suffixes for their meanings, and when interest and school studies required, they studied easy roots and their meanings; e.g., *aqua*, *astro*, and *geo*. They developed *interesting word* pages in their word study notebooks and created charts of related words and affixes; e.g., a list of words that began with the prefix *un-* as well as content related words; for Jim this included words related to his study of the geography of the United States and for Brian, words related to the different countries he was studying in social studies.

Recommendations for Success in School

The Common Core State Standards challenge teachers to create instructional opportunities for remedial readers to be active participants with classmates who are functioning at least at grade level in grade level activities in spite of their difficulties in reading and writing (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010). There are several recommendations for transitional readers and writers to help them to be successful in school. These "success in school" activities are tactical and help students to cope in an environment where the materials are likely at a frustration level. We have encouraged the families of these and other students to pursue a 504 designation that would build these types of coping activities into their instructional programs. We list eleven recommendations for your consideration with the knowledge that each option requires coordination among educators and families to be implemented successfully.

- Develop *book sets* with content materials at various reading levels.
- Teach students word processing skills that they use regularly for writing.
- Have voice recognition software installed on computers and other devices for remedial readers to use for small group participation and some writing activities; Dragon SpeakNaturally is widely available (http://www.nuance.com/dragon/index.htm).
- Have recorded books and content related recorded materials available, including materials from Learning Ally (http://www.learningally.org).
- Use scan and read software to convert books and other texts to onscreen texts that read the texts to students; e.g., Kurzweil 3000, (http://www.kurzweiledu.com).
- Do not grade first draft writing for correctness.
- Provide extra time at school and home to complete written assignments.
- Give students extra time to take tests.
- Encourage students to ask for help reading class tests, or record tests.
- Develop strategic partnering, and show students how to work together.
- Differentiate spelling lists for students' developmental levels with words that address students' specific word study needs.

Conclusion

This paper has examined developmental instruction with struggling readers. We have concentrated on the first three stages of literacy learning to show how we help students advance their reading and writing. One of the greatest difficulties in providing remedial literacy instruction is ensuring that students have consistent, sufficiently intensive and developmentally appropriate literacy instruction (cf. Scanlon, 2011). If we keep our eye on the ball instructionally, and carefully observe students' development, we see that they learn to read in much the same way, and that nearly all children can learn to read well. We began this article by saying

that a key ingredient to teach struggling readers is to spend more time with them. The classroom teacher is the key literacy educator given that the majority of the students' day is spent with this teacher. We hope that this discussion of development and instruction can assist classroom teachers to teach students efficaciously.

References

Bear, D.R., Invernizzi, M., Templeton, S., & Johnston, F. (2012). *Words their way: Word study for phonics, spelling, and vocabulary.* (5th ed.). Boston: Pearson/ Allyn & Bacon.

Cathey, S. (1991). *Emerging concept of word: Exploring young children's abilities to read rhythmic text.* (Unpublished doctoral dissertation). University of Nevada, Reno.

Chall, J.S. (1996). *Stages of reading development.* (2nd ed.). New York: McGraw-Hill.

Corriveau, K.H., & Goswami, U. (2009). Rhythmic motor entrainment in children with speech and language impairments: tapping to the beat. *Cortex, 45*(1), 119-130.

Flanigan, K. (2007). A concept of word in text: A pivotal event in early reading acquisition. *Journal of Literacy Research, 39*(1), 37–70.

Flanigan, K., Hayes, L., Templeton, S., Bear, D.R., Invernizzi, M., & Johnston, F. (2011). *Words their way with struggling readers: Word study for reading, vocabulary, and spelling instruction.* Boston: Pearson/Allyn & Bacon.

Goswami, U. (2011). Educational neuroscience: Developmental mechanisims: Towards a conceptual framework. *NeuroImage, 57*, 651-658.

Goswami, U., Gerson, D., & Astruc, L. (2010). Amplitude envelope perception, phonology and prosodic sensitivity in children with developmental dyslexia. *Reading and Writing, 23*, 995-1019.

Helman, L.A., Bear, D.R., Templeton, S., Invernizzi, M.A., & Johnston, F. (2011). *Words their way with English learners: Word study for phonics, vocabulary, and spelling instruction* (2nd ed.). Boston: Pearson/ Allyn & Bacon.

Henderson, E.H. (1981). *Learning to read and spell: The child's knowledge of words.* DeKalb, IL: Northern Illinois Press.

Invernizzi, M.A., Meier, J.D., Swank, L., & Juel, C. (1999). *PALS: Phonological awareness literacy screening.* Charlottesville, VA: The Rector and The Board of Visitors of The University of Virginia.

Kiernan, D. (2012). *The orthographic knowledge of secondary English learners.* (Unpublished doctoral dissertation). University of Nevada, Reno.

Lee, H. (1960). *To kill a mockingbird.* New York: J.B. Lippincott.

Morris, D., Bloodgood, J.W., Lomax, R.G., & Perney, J. (2003). Developmental steps in learning to read: A longitudinal study in kindergarten and first grade. *Reading Research Quarterly, 38*(3), 302-328.

National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common core state standards: English language arts.* Washington, DC: National Governors Association for Best Practices and Council of Chief State School Officers.

Negrete, S. (2010). *Oral reading and orthographic development of transitional readers and within word pattern spellers in grades 2–5.* (Unpublished doctoral dissertation). University of Nevada, Reno.

Read, C. (1975). *Children's categorizations of speech sounds in English* (Research Report No. 17). Urbana, IL: National Council of Teachers of English.

Scanlon, D.M. (2011). Response to intervention as an assessment approach. In A. McGill-Franzen & R.L. Allington (Eds.), *Handbook of reading disability research* (pp. 139-148). New York: Routledge.

Stahl, S.A., & Kuhn, M.R. (2002). Making it sound like language: Developing fluency. *The Reading Teacher, 55*, 582-584.

Templeton, S. (2011). Teaching spelling in the English/ language arts classroom. In D. Lapp & D. Fisher (Eds.), *The handbook of research on teaching the English language arts* (3rd ed.). IRA/NCTE: Erlbaum/ Taylor Francis.

Templeton, W.S., & Bear, D.R. (2011). Phonemic awareness, word recognition, and spelling. In Rasinksi, T. (Ed.), *Developing reading instruction that works* (pp. 121–146). Bloomington, IN: Solution Tree Press.

Templeton, S., & Bear, D.R. (2000). What is the role of the speech-language pathologist in assessing and facilitating spelling skills? *Topics in Language Disorders, 20*, 88-93.

Townsend, D., Bear, D.R., & Burton, A. (2012). Windows into adolescents' academic language: Orthographic and morphological awareness of academic vocabulary. Submitted for publication.

Wolf, M. (2007). *Proust and the squid: The story and science of the reading brain.* New York: Harpercollins.

Wolff, P.H. (2002). Timing precision and rhythm in developmental dyslexia. *Reading and Writing, 15*, 179-206. doi:1023/A:1013880723925.

Zeiger, A. (1947). *Encyclopedia of English* NY: Laxton House, Inc.