Structured Literacy Supports All Learners: Students At-Risk of Literacy Acquisition – Dyslexia and English Learners

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Abstract

Learning to read is a complex endeavor that requires developing brain connections. The brain connections for reading written words begins forming during the development of oral language. The maturing of oral language and reading instruction continue the growth of the necessary brain connections to read and write. Structured Literacy instruction helps to develop and strengthen brain connections for reading and processing written language. Structured Literacy encourages educators to teach the essential literacy foundational skills during the preschool and primary school years, so students have a better chance of achieving and maintaining proficiency in literacy.

Keywords: *Instructional Principles, Foundational Literacy Skills, Structured Literacy Instruction, Dyslexia, Scaffolding,*

We are not born prewired to read and process written language (Moats, 2014; Pugh, 2013, Wolf, 2018). The neural circuitry system for reading needs to be developed to process written language. For example, the visual function needs to communicate with the lexicon function of the brain, and the word encoding function needs to collaborate with the word processing function of the brain. The energy necessary to develop a complex, interconnected system to read and write is different for each individual, as both student genetics and environment play a role in the development of brain circuitry. Some students will develop the brain circuitry system easily, while others will struggle. Students with developmental dyslexia typically work twice as hard to develop an accurate reading circuitry system, as their brain is genetically wired differently (Pugh, 2013; Shaywitz, 2003). Students learning English typically work twice as hard as they often enter the classroom "with limited world knowledge and limited exposure to reading" (Cárdenas-Hagan, 2011, p. 606). Student oral language skills often predict student ability to move from speech to print comprehension (Marks et al., 2019). Learning how to process written literacy is a complex activity that can be softened with the use of a Structured Literacy model (International Dyslexia Association, 2019).

Structured Literacy

Structured Literacy is a fairly new label developed by the International Dyslexia Association (IDA) to better prepare teachers for literacy instruction. Structured Literacy is an instructional model that focuses on building and developing the foundational literacy skills of phonemic awareness, letter-sound correspondences, syllables, morphology, syntax, and semantics using explicit, systematic

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instructional principals (Cowen, 2016; IDA, 2018;). Structured Literacy is a blueprint for effective literacy instruction based on the Knowledge and Practice Standards for teachers of reading developed by the IDA in 2010 and updated in 2018 to better prepare educators to meet the instructional needs of students for literacy acquisition. Structured Literacy instruction can be effective for students learning English as a second language, as well as students at-risk for literacy acquisition (Baker et al., 2014; Gersten et al., 2009). Students who receive explicit, systematic literacy instruction are more likely to become biliterate (Cárdenas-Hagan, 2011). Research supports that over 60% of students in the regular classroom need to receive literacy instruction in a Structured Literacy format (Young, 2018). Structured Literacy has shown to be effective for teaching all students how to read and write (Moats, 2019; Young, 2018,).

Six Foundational Pillars

Structured Literacy instruction features six crucial pillars necessary to develop a solid foundation of literacy (Cowen, 2016). The pillars should be taught in sequential pattern, beginning with pillar one. Each pillar is dependent on the previous pillar. Some pillars can be taught side-by-side, as language development becomes more complex. The pillars become more interdependent to process written language-reading, comprehending, using read information, and writing. Foundational Pillar One of Structured Literacy is the study of phonology, the rules of how sounds are encoded (Cowen, 2016; Hennessy, 2019). Students should have the ability to hear, identify, and manipulate individual sounds of spoken language or phonemes, before learning how to read written words. Student oral language skills usually predict literacy achievement (Hennessy, 2019; Marks et al., 2019). “Children’s ability to learn to read depends critically on a range of oral language skills that develop in the preschool years before they to learn to read” (Lervåg et al., 2009, p. 764). Formal education of learning how to read often begins with the study of phonological awareness, which is umbrellaed under the study of phonology. This is the ability to process and manipulate letter sounds, rhyming words, and segmenting of sounds within words. Students who possess a higher knowledge of phoneme awareness will have an easier time of building connections or a relationship between the visual and auditory regions of the brain (Preston et al., 2015). The second foundational pillar of Structured Literacy is sound-symbol correspondences or the relationship(s) between phoneme(s) and grapheme(s) that comprise words (Cowen, 2016). This is learning the name of a printed letter and the possible sound(s) that the letter can produce within written words. For example, the written letter B represents the phoneme /b/, the written letter K represents the phonemes /c/, /k/, /ch/, /-ck/, /-que/. These are predictable, constant rules of sound-symbol correspondences found in written language. Teachers often call letter-sound correspondence instruction “phonics.” Studies continue to support student knowledge of alphabetic principal as a predictor of later reading abilities (Lervåg et al., 2009). The third pillar of Structure Literacy is syllable knowledge, the understanding of the different types of syllables (Cowen, 2016). There are six common syllables in the English language—CVC, final e, open, vowel diagraph, r-controlled, and constant-le. Syllable knowledge increases student ability to encode and decode words. Syllable knowledge also increases student ability to comprehend and pronounce written words. Syllable knowledge may increase student ability to analysis words for morphemes (Donah & White, 2017). The fourth pillar of Structured Literacy is morphology, the study of the smallest units of meaning or morphemes (Cowen, 2016). These are the suffixes, prefixes, and roots of words. Morphology focuses on how smaller units of meaning are encoded to form words and new meaning. Teachers often use word analysis exercises to teach students the meanings of different parts of words. Word analysis usually

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increases student lexicon and comprehension abilities (Donah & White, 2017). Research suggests that morphological analysis may ease the transition from Grade 3 to Grade 4 in relation reading comprehension (Levesque et al., 2018). Morphology should be introduced during the primary grades to increase student knowledge of spelling, vocabulary, and reading to improve written composition and reading comprehension (Castles et al., 2018; Henry, 2019). The fifth pillar of Structured Literacy is syntax, the study of sentence structure—mechanics, grammar, and variation of words (Cowen, 2016). This includes the rules that dictate the sequence and function of words to form comprehendible meaning in written language. This also includes the types of punctuation that are necessary to comprehend written sentences. The sixth and final foundational principle of Structured Literacy is semantics, the study of the meaning(s) of words, symbols, and units of words (Cowen, 2016; Hennessy, 2019). The study of semantics involves different aspects of meaning, such as morpheme and syntax information to comprehend the written passage (Moats, 2000). Student lexicon or dictionary stores meaning(s) of words and their environment supports the development of their lexicon. Students often attach pictures to a word or groups of words. Each individual may derive at a different conclusion of a passage based on their past history. Semantics assist in attaching inferred meaning to written and oral verbiage.

Instructional Principals

Parallel in nature to the foundational principles, the instructional principles of a Structured Literacy model provide a blueprint of the most effective ways to provide instruction for students learning how to read and write (IDA, 2019, 2018). The instructional principles better ensure students are receiving the right instruction to develop the most effective brain connections to process literacy. The first instructional principle of Structured Literacy is learning the foundational or prerequisite skills of the current lesson (IDA, 2019, 2018). For example, students should know the sounds of letters before encoding letters into words. The second principle is systematic instruction or teaching skills in a logical order (IDA, 2019, 2018). Instructional lessons should move from simple to more complex, building on prior knowledge (Cowen, 2016). The third instructional principle of Structured Literacy is teaching students through explicit, direct instruction (IDA, 2019, 2018). Instruction should include teacher modeling of the task using clear, easy to understand steps of completion. Vygotsky (1934/2002) believed that for learning to occur in the classroom, teachers need to constantly model and explain tasks. Explicit instruction often includes scaffolding instruction to student(s) needs (Archer & Hughes, 2011). The fourth principle of Structured Literacy is scaffolding instruction to meet student abilities (IDA, 2019, 2018). This means providing the exact temporary support for task completion that is just beyond student unassisted abilities (Vygotsky, 1934/2002). Scaffolding is a process that includes contingency, fading, and transfer of responsibility (Van de Pol et al., 2010). Contingency is responsiveness, which is tailored, adjusted, and differentiated during instruction (Van de Pol et al., 2010). Responsiveness to increase the control when students are failing and to decrease the control when students are succeeding (Van de Pol & Elbers, 2013). The zone of proximal development is the ideal place of instruction (Vygotsky, 1934/2002), this where contingency should place.

Contingency, fading, and transfer of responsibility were observed during a research study titled, *Tier 2 Intervention for Students in Grades 1-3 Identified as At-Risk in Reading.* The findings from this research revealed the following types of the first finding was that teachers asked students specific questions using "who, why, what, where and how questions to determine student understanding" (Ray, 2017, p.

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129). A second finding was that the teacher and students used contingency during a teacher led discussion about "the similarities and differences related to "mp" words," such as "camp," "bump," and "limp", by providing bits of information and asking leading questions about the word patterns to better understand how the letters formed similar sounds, using similar letters (p. 129). A third finding was teacher modeling of "how students could use their fingers to mark words, say words, and highlight the vowel sound of the word" and "how to sound out words when students asked how to spell a word" (p. 128). A fourth finding was that a teacher wrote words using different colors to signify the difference between vowels and constants (Ray, 2017). It is important to note that teachers "moved back and forth between contingency and fading, depending on the student's ability to complete the task" (p. 129).

Fading is defined as "gradual withdrawal of the scaffolding" or contingency support (Van de Pol et al., p. 275, 2010). The following examples of fading were observed:

- "asking students to create a new word by changing the vowel sound, and providing positive feedback to students about their sentences" (Ray, 2017, p. 129)
- "asking students to correct their use of space on the lined writing paper, spelling and punctuation errors, and line spacing as they wrote their paragraphs" (p. 130)
- "asking students to either write their own sentences or to copy her modeled sentences" (p. 130).

Transfer of responsibility is the completion of the fading stage when students can independently process the task. The following examples were observed. The teacher "asking students to independently find and highlight the base for words with prefixes", and "asking students to independently sound out words using arm movements" (Ray, 2017, p. 129). Another observed example of transfer of responsibility was the teacher "asking students to independently highlight vocabulary words and words that had similar meanings" to the vocabulary words (p. 130).

The fifth instructional principle of Structured Literacy instruction is interactive discussions about the assignment (IDA, 2019, 2018). Concerning the meaning of collaboration, Vygotsky (1934/2002) emphasized that teacher and student need to work together in order to solve a learning problem. Vygotsky also emphasized the need to have students explain assignments to help them develop the ability to ask questions and explain concepts. This can include discussions about the steps necessary to complete the assignment. This can also include discussions about the material or focus of the lesson. The sixth principle of Structured Literacy is allowing students to practice the new skill (IDA, 2019, 2018). Students need to see, process, and work through the steps of a task several times before claiming ownership of the skill, having the ability to teach the skill to someone else. The last instructional principle of Structured Literacy is monitoring student progress through observation, interaction, and formal assessment (IDA, 2019, 2018). Antidotal notes may give validity to a short monitoring probe (Snowling et al., 2011). The process of monitoring should be short and reveal what pieces of the task or lesson students know and which pieces need to be retaught.

Instructional Method

A method that can increase the effectiveness of the Structured Literacy instruction is the response to intervention (RTI) model (Birsh, 2011; IDA, 2018; Moats, 2017). This model of instruction is a mandated (ESSA, 2015, IDEA, 2004, NCLB, 2002) tool that may increase the implementation and effectiveness of Structured Literacy instruction. The RTI model is a system within the educational system of an individual school mandated to identify students at-risk in

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literacy to provide instructional supports based on their literacy acquisition needs to increase literacy achievement (ESSA, 2015, IDEA, 2004, NCLB, 2002, Ray, 2017). Each school model is developed and modified to serve the students present. Each model usually includes a grade level universal screener beginning in the primary grades that uses short literacy probes to determine students "at-risk for grade-level literacy acquisition" (Ray, 2017, p. 30). RTI models have at least three tiers of instruction, some have more (Fuchs et al., 2012; Kashima, 2009; Ray, 2017). Tier 1 is differentiated research-based instruction that should reach 80% of all students. Tier 2 instruction is for students struggling or not showing growth at Tier 1 (Kashima et al., 2009; Ray, 2017). Tier 2 instruction is usually taught in small groups focused on student learning needs. This instruction may take place in the regular classroom or in a pull-out situation. Tier 3 instruction is for students not showing growth at Tier 2. Tier 3 is usually one-on-one group instruction and may include special education students, depending on the school model. Each tier of instruction should include scaffolding of instruction and progress monitoring (Kashima et al., 2009; Moats, 2017; Ray, 2017).

The Structured Literacy model requires delicately interwoven instruction to build the foundational literacy skills necessary to effectively speak, read, and write. "Young children need writing to help them learn about reading, they need reading to help them learn about writing, and they need oral language to help them learn about both" (Roskos et al., 2003, p. 3). Many individuals were not taught how to read and write using an explicit, direct, systematic instructional model that included the phonology sounds system. This concept is often a weak introduction within a teacher preparation program that should be strengthened through on-going professional development (IDA, 2018; Moats, 2014; Neuman, 2020). Educators can find more information about where individuals can learn the knowledge and skills necessary to teach Structure Literacy at dyslexiaida.org. The organization also has information about the different curriculum programs that meet the Structure Literacy model guidelines.

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