IV. Critical, Evidence-Based Components of Dyslexia Instruction

> *Although dyslexia affects individuals over the life span . . . reading skills can be increased with the right early intervention and prevention programs . . . It is clear from the consensus of scientifically based reading research that the nature of the educational intervention for individuals with reading disabilities and dyslexia is critical.* (pp. 21–22)
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> — Birsh, J. R. Connecting Research and Practice, 2018

Effective literacy instruction is essential for all students and is especially critical for students identified with dyslexia. High-quality core classroom reading instruction can give students identified with dyslexia a foundation upon which intervention instruction can have a more significant impact.

Texas Education Code §38.003(b) states, "in accordance with the program approved by the State Board of Education, the board of trustees of each school district shall provide for the treatment of any student determined to have dyslexia or a related disorder." SBOE rules in 19 TAC §74.28 require that each school must provide an identified student access at his/her campus to an instructional program that meets the requirements in SBOE rule and to the services of a teacher trained in dyslexia and related disorders. While the components of instruction for students with dyslexia include good teaching principles for all teachers, the explicitness and intensity of the instruction, fidelity to program descriptors, grouping formats, and training and skill of the teachers are wholly different from core classroom instruction and must be considered when making individual placement decisions.

Standard Protocol Dyslexia Instruction

For the student who has not benefited from the research-based core reading instruction, the components of instruction will include additional focused intervention as appropriate for the reading needs of the student with dyslexia. Standard protocol dyslexia instruction provides evidence-based, multisensory structured literacy instruction for students with dyslexia. A standard protocol dyslexia instructional program must be explicit, systematic, and intentional in its approach. This instruction is designed for all students with dyslexia and will often take place in a small group setting. Standard protocol dyslexia instruction must be—

- evidence-based and effective for students with dyslexia;
- taught by an appropriately trained instructor; and
- implemented with fidelity.

Instructional decisions for a student with dyslexia must be made by a committee (Section 504 or ARD) that is knowledgeable about the instructional components and approaches for students with dyslexia. It is important to remember that while dyslexia instruction is most successful when provided as early as possible, older children with reading disabilities will also benefit from focused and intensive remedial instruction.

In accordance with 19 TAC §74.28(e), districts must purchase or develop an evidence-based reading program for students with dyslexia and related disorders that incorporates **all** the components of instruction and instructional approaches described in the sections below. As is the case with any instructional program,

differentiation that does not compromise the fidelity of a program may be necessary to address different learning styles and ability levels and to promote progress among students receiving dyslexia instruction. While districts and charter schools must implement an evidence-based instructional program for students with dyslexia that meets each of the components described in this chapter, standard protocol dyslexia instruction provided to students may focus on components of the program that best meet the student's needs. For example, this may occur when a student with dyslexia who has participated in standard protocol dyslexia instruction in the past, but continues to need remediation in some, but not all of, the components (e.g. fluency, written expression).

For students with dyslexia who have been determined eligible for and who are receiving special education services, specially designed instruction must also address the critical, evidence-based components described in this chapter. Specially designed instruction differs from standard protocol dyslexia instruction in that it offers a more individualized program specifically designed to meet a student's unique needs.

Critical, Evidence-Based Components of Dyslexia Instruction

- **Phonological awareness**—"Phonological awareness is the understanding of the internal sound structure of words. A phoneme is the smallest unit of sound in a given language that can be recognized as being distinct from other sounds. An important aspect of phonological awareness is the ability to segment spoken words into their component phonemes [phonemic awareness]." (Birsh, 2018, p. 26).

- **Sound-symbol association**—Sound-symbol association is the knowledge of the various speech sounds in any language to the corresponding letter or letter combinations that represent those speech sounds. The mastery of sound-symbol association (alphabetic principle) is the foundation for the ability to read (decode) and spell (encode) (Birsh, 2018, p. 26). "Explicit phonics refers to an organized program in which these sound symbol correspondences are taught systematically" (Berninger & Wolf, 2009, p. 53).

- **Syllabication**—"A syllable is a unit of oral or written language with one vowel sound. Instruction must include the six basic types of syllables in the English language; closed, open, vowel-consonant-e, r-controlled, vowel pair (or vowel team), and final stable syllable. Syllable division rules must be directly taught in relation to the word structure" (Birsh, 2018, p. 26).

- **Orthography**—Orthography is the written spelling patterns and rules in a given language. Students must be taught the regularity and irregularity of the orthographic patterns of a language in an explicit and systematic manner. The instruction should be integrated with phonology and sound-symbol knowledge.

- **Morphology**—"Morphology is the study of how morphemes are combined to form words. A morpheme is the smallest unit of meaning in the language" (Birsh, 2018, p. 26).

- **Syntax**—"Syntax is the set of principles that dictate sequence and function of words in a sentence in order to convey meaning. This includes grammar, sentence variation, and the mechanics of language" (Birsh, 2018, p. 26).

- **Reading comprehension**—Reading comprehension is the process of extracting and constructing meaning through the interaction of the reader with the text to be comprehended and the specific purpose for reading. The reader's skill in reading comprehension depends upon the development of accurate and fluent word recognition, oral language development (especially vocabulary and listening comprehension), background knowledge, use of appropriate strategies to enhance comprehension and repair it if it breaks down, and the reader's interest in what he or she is reading and motivation to comprehend its meaning (Birsh, 2018, p.14; Snow, 2002).

- **Reading fluency**—"Reading fluency is the ability to read text with sufficient speed and accuracy to support comprehension"(Moats & Dakin, 2008, p. 52). Fluency also includes prosody. Teachers can help promote fluency with several interventions that have proven successful in helping students with fluency (e.g., repeated readings, word lists, and choral reading of passages) (Henry, 2010, p. 104).

In addition, other areas of language processing skills, such as written expression, which require integration of skills, are often a struggle for students with dyslexia. Moats and Dakin (2008) posit the following:

> *The ability to compose and transcribe conventional English with accuracy, fluency, and clarity of expression is known as basic writing skills. Writing is dependent on many language skills and processes and is often even more problematic for children than reading. Writing is a language discipline with many component skills that must be directly taught. Because writing demands using different skills at the same time, such as generating language, spelling, handwriting, and using capitalization and punctuation, it puts a significant demand on working memory and attention. Thus, a student may demonstrate mastery of these individual skills, but when asked to integrate them all at once, mastery of an individual skill, such as handwriting, often deteriorates. To write on demand, a student has to have mastered, to the point of being automatic, each skill involved* (p. 55).

Both the teacher of dyslexia and the regular classroom teacher should provide multiple opportunities to support intervention and to strengthen these skills; therefore, responsibility for teaching reading and writing must be shared by classroom teachers, reading specialists, interventionists, and teachers of dyslexia programs.

Delivery of Dyslexia Intervention

While it is necessary that students are provided intervention in the above content, it is also critical that the way in which the content is delivered be consistent with research-based practices. Principles of effective intervention for students with dyslexia include **all** of the following:

- **Simultaneous, multisensory (VAKT)**—"Teaching is done using all learning pathways in the brain (visual, auditory, kinesthetic, tactile) simultaneously in order to enhance memory and learning" (Birsh, 2018, p. 26). "Children are actively engaged in learning language concepts and other information, often by using their hands, arms, mouths, eyes, and whole bodies while learning" (Moats & Dakin, 2008, p. 58).

- **Systematic and cumulative**—"Multisensory language instruction requires that the organization of material follow order of the language. The sequence must begin with the easiest concepts and most basic elements and progress methodically to more difficult material. Each step must also be based on [elements] already learned. Concepts taught must be systematically reviewed to strengthen memory" (Birsh, 2018, p. 26)**.**

- **Explicit instruction**—"Explicit instruction is explained and demonstrated by the teacher one language and print concept at a time, rather than left to discovery through incidental encounters with information. Poor readers do not learn that print represents speech simply from exposure to books or print" (Moats & Dakin, 2008, p. 58). Explicit Instruction is "an approach that involves direct instruction: The teacher demonstrates the task and provides guided practice with immediate corrective feedback before the student attempts the task independently" (Mather & Wendling, 2012, p. 326).

- **Diagnostic teaching to automaticity**—"The teacher must be adept at prescriptive or individualized teaching. The teaching plan is based on careful and [continual] assessment of the individual's needs. The content presented must be mastered to the degree of automaticity" (Birsh, 2018, p. 27). "This teacher knowledge is essential for guiding the content and emphasis of instruction for the individual student"(Moats & Dakin, 2008, p. 58). "When a reading skill becomes automatic (direct access without conscious awareness), it is performed quickly in an efficient manner" (Berninger & Wolf, 2009, p. 70).

- **Synthetic instruction**—"Synthetic instruction presents the parts of the language and then teaches how the parts work together to form a whole" (Birsh, 2018, p. 27).

- **Analytic instruction**—"Analytic instruction presents the whole and teaches how this can be broken into its component parts" (Birsh, 2018, p. 27).

As appropriate intervention is provided, students with dyslexia make significant gains in reading. Effective instruction is highly-structured, systematic, and explicit, and it lasts for sufficient duration. With regard to explicit instruction, Torgesen (2004) states, "Explicit instruction is instruction that does not leave anything to chance and does not make assumptions about skills and knowledge that children will acquire on their own" (p. 353).

In addition, because effective intervention requires highly structured and systematic delivery, it is critical that those who provide intervention for students with dyslexia be trained in the program used and that the program is implemented with fidelity.