



Essential Learning Systems' Correlation to

# THE DYSLEXIA HANDBOOK:

PROCEDURES CONCERNING DYSLEXIA AND RELATED DISORDERS



Learning Solutions that are key to making a difference!™



The Dyslexia Handbook: Procedures Concerning Dyslexia and Related Disorders defines dyslexia and related disorders, describes their characteristics, establishes screening requirements, and lists the procedures for evaluating and identifying students with dyslexia. The Handbook also outlines the components that are critical to dyslexia instruction and addresses frequently voiced concerns about implementing dyslexia programs.

In November 2018, the Texas Education Agency (TEA) published a revised version of the Handbook. This version replaces all previous editions and reflects legislative actions, including statutory requirements, from the 84th and 85th sessions of the Texas Legislature. These actions include:

- + outlining the curriculum requirements for teacher preparation programs
- + mandating continuing education requirements for educators who teach students with dyslexia
- + establishing guidelines measuring academic achievement or proficiency of students with dyslexia
- + requiring students to be screened or tested, as appropriate, for dyslexia and related disorders at appropriate times in accordance with a program approved by the State Board of Education (SBOE)
- + requiring the TEA to develop an annual list of dyslexia training opportunities that satisfy continuing education requirements
- + requiring TEA to establish a committee that will develop a plan for integrating technology into the classroom to help accommodate students with dyslexia
- + requiring school districts and open-enrollment charter schools to report the number of enrolled students identified as having dyslexia
- + requiring TEA to provide accommodations for persons with dyslexia who take licensing examinations

For over 30 years, Creative Education Institute® (CEI®) has been a leader in providing learning solutions for dyslexics of all ages. Throughout this time, the company's Essential Learning Systems™ (ELS™) has been the dyslexia program of choice of thousands of schools. One reason for ELS' success with dyslexia students is that CEI staff members continuously review the latest research findings on how to treat dyslexia effectively, and we continually update or enhance the program to reflect those findings. The following pages outline how our most recent ELS update correlates to the TEA's latest version of the Handbook and adheres to the instructional components the agency deems critical to dyslexia instruction.





## I. Definitions and Characteristics of Dyslexia

### TEA Handbook

The definition of dyslexia has not changed since the earlier handbooks. However, TEA has added its own definition. The current definition is accepted by both the International Dyslexia Association (2002) and the National Institutes of Health (2002):

*Dyslexia is a specific learning disability that is neurological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.*

The Texas Education Code (TEC) §38.003 includes definitions for dyslexia and its related disorders:

- + *Dyslexia means a disorder of constitutional origin manifested by a difficulty in learning to read, write, or spell, despite conventional instruction, adequate intelligence, and sociocultural opportunity.*
- + *Related disorders include disorders similar to or related to dyslexia such as developmental auditory imperception, dysphasia, specific developmental dyslexia, developmental dysgraphia, and developmental spelling disability. (<http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.38.htm#38.003>)*

The TEA Dyslexia Handbook goes on to say that students identified as having dyslexia typically exhibit difficulties in certain skills:

- + *Phonological awareness — phonemic awareness and manipulation, single-word reading, fluency, and spelling*
- + *Reading and spelling — segmenting, blending, manipulating sounds, letter recognition, phonological memory, rapid recall and naming*
- + *Reading comprehension*
- + *Written expression*
- + *Vocabulary*

### Essential Learning Systems (ELS)

Essential Learning Systems is an adaptive, technology-based reading and learning program that addresses all the difficulties mentioned in Section I of the TEA Handbook. ELS incorporates several researched-based methods to provide systematic, direct instruction, including elements of mastery learning models. It includes phonemic awareness activities, auditory feedback, letter recognition, phonics, alphabetic principles, decoding practice, vocabulary development, fluency, spelling, writing, and comprehension tasks and assessments.

Instructional strategies include total individualization and differentiation, multi-sensory processing, chunking/ clustering, time-on-task, and adequate and varied practice activities to build fluency and mastery. The program helps a variety of student populations, including those who are dyslexic, to learn how to learn and to learn how to read.

Research indicates that dyslexics also, almost invariably, have difficulties in certain areas of mathematics. The areas that are likely to cause learners to struggle include mathematics vocabulary, decoding words in word problems and numeric and non-numeric symbols, fact fluency (both rapid and accurate), sequencing, direction, and position. Solutions to these mathematics issues can be found in CEI's Mathematical Learning Systems™ (MLS™), which is designed similarly to ELS.



## II. Screening

### TEA Handbook

Previously, the State Board of Education encouraged screening all students for dyslexia, but testing wasn't legally mandated unless students exhibited difficulties or did not respond to evidence-based reading instruction. The 2018 edition of the Dyslexia Handbook mandates testing, specifically for younger students, and outlines several new requirements for screening and evaluation:

- + All kindergarten and first-grade public school students must be screened for dyslexia and related disorders
- + Only trained and qualified individuals may conduct the evaluations
- + Each public school district must administer a reading instrument to all kindergarten, first-, second-, and third-grade students to diagnose their reading development and comprehension.
- + Each district must report the results of their reading development/comprehension assessments to its board of trustees, the TEA, and the parent or guardian of each student. Additionally, districts must notify the parent or guardian of students determined to be at-risk for dyslexia.
- + Public school students who did not demonstrate reading proficiency on the sixth-grade state reading assessment must be re-screened at the beginning of seventh grade.
- + The commissioner of education must create a list of reading diagnostic instruments for districts to use.

### Essential Learning Systems (ELS)

Because Essential Learning Systems is not solely a dyslexia intervention, the program does not include any dyslexia screening instruments. CEI provides a third-party standardized test, the Diagnostic Screening Test: Reading (DST:R), to give teachers a baseline for measuring growth in basic reading skills and comprehension at the end of the school year.

Additionally, because many initiatives do require pre- and post-testing, we created an Assessments tab in the CEI Learning Manager (the data management system for ELS). The Assessments tab allows teachers to maintain records of student performance on a variety of standardized assessments. Many of those assessments appear on the Commissioner's List of Reading Instruments, but users may enter results from any test they choose. Once they have completed data entry, teachers may print an ELS Assessment Report, which provides a summary of all assessments added to the CLM.

## III. Procedures for the Evaluation and Identification of Students with Dyslexia

### TEA Handbook

On January 11, 2018, the U.S. Department of Education Office of Special Education Programs (OSEP) released a final monitoring report in which it found that the Texas Education Agency (TEA) failed to comply with certain requirements in the Individuals with Disabilities Education Act (IDEA). OSEP specifically noted that some children in Texas who were suspected of having a disability and needing special education and related services under the IDEA were not referred for an evaluation under the IDEA. These students were instead evaluated and provided services under Section 504 of the Rehabilitation Act of 1973. Similarly, OSEP identified that some students receiving services under Section 504 who were suspected of needing special education services were either not referred for evaluation or not referred in a timely manner. These scenarios appeared to be particularly common when the suspected or identified disability was dyslexia or a related disorder.

### Essential Learning Systems

Again, Essential Learning Systems does not come with dyslexia screening instruments. However, the program does correlate with the major federal programs serving low-performing, economically disadvantaged, limited-English proficient, and special education learners:

- + Title IA Schoolwide Projects and Targeted Assistance Programs
- + Title IB Reading First Programs



- + Title IF Comprehensive School Reform Programs
- + Title III Programs for Limited-English Proficiency Students
- + Programs for Section 504 Disabilities
- + IDEA Programs for Special Education

As a result, districts can use ELS to serve multiple student classifications and be assured they are meeting the guidelines of the federal program under which the student receives services.

## IV. Critical, Evidence-Based Components of Dyslexia Instruction

According to the Handbook, effective dyslexia instruction is a combination of several factors. The following pages include excerpts of the Dyslexia Handbook definitions for these factors and descriptions of their corresponding ELS components.

### A. Standard Protocol Dyslexia Instruction

#### TEA Handbook

*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.*

#### Essential Learning Systems

- + **Evidence-based, effective instruction** — CEI has taken care to document the scientific research that grounds each and every component of the program content, lesson design, instructional strategies, and implementation features for ELS. Why ELS Works: Its Scientific, Theoretical, and Evaluation Research Base is available for download from CEI's online resource library, <https://www.ceilearning.com/key-resources/resource-library/>. This paper reports the research behind each of the "Components of Instruction" required by TEA and demonstrate how ELS delivers and assesses mastery of each of the components.
- + **Training** — CEI consciously and deliberately designed its programs in ways that require the active engagement of a dedicated, trained, and caring teacher. Because we serve students of all ages, in all levels of education, we don't provide dyslexia-specific training. We do, however, conduct professional development sessions, so all teachers working with CEI will know how to implement the program and operate the software. Partners who implement ELS can also receive a complimentary orientation for administrators, faculty, and parents. Our orientation sessions provide information on program design, learning theory, diagnostics, and other aspects of our programs.
- + **Implementation with fidelity** — CEI focuses its entire service program on supporting implementation. We provide principals and other instructional leaders an Implementation Toolkit, which features information, suggestions, and encouragement for leading an effective implementation. We partner with the teachers by providing ongoing professional development; follow-up coaching; online, telephone, and e-mail support; and webpage and social media information. We include several electronic resources to support learning, motivate students, and involve parents in the educational process. We also listen to our partners' feedback and incorporate their suggestions and recommendations into the software and supplementary materials.





## B. Evidence-basis and effectiveness for students with dyslexia

### 1. Phonological awareness

#### TEA Handbook

*"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).*

#### Essential Learning Systems

ELS reinforces phonological awareness by presenting a balance of print-based and other supplemental activities. In ELS, exercises employing multi-sensory learning strategies implant phonemes, the basic units of sound, and graphemes, the symbols that represent those phonemes, in the brain so that it can retrieve and combine the phonemes to produce words. Each lesson enhances phonemic awareness by featuring words of minimal phonemic contrast (for example, cat, rat, fat, mat, sat). For teachers who are using ELS to supplement their table-top instruction, ELS includes a Dyslexia Support Track (Levels 7 through 13). The Dyslexia Track lessons correlate to any Orton-Gillingham based program and allow the teacher to individualize which phonemes and word patterns each student studies.

Depending on the teacher's preferences, the lesson may begin with a Phoneme Introduction screen that introduces the phonemes that the students will work on throughout the lesson. If the teacher selects Read Instructions Aloud as a parameter, the computer voice reads each introduction so that students can hear the pronunciations of the phonemes and become more phonologically aware of the patterns they are learning.

ELS also offers a Teacher Echo task to help strengthen the student's auditory discrimination and phoneme blending skills. During Teacher Echo, the teacher voices each word, and the student repeats it. Comparing the two pronunciations helps the student hear whether she is blending the phonemes correctly as she says each word.

To supplement the ELS program, CEI offers several resource manuals, including the Lesson Manual, the Phoneme Awareness manual, and the Dyslexia Track Tapping Manual.

- ✚ The Lesson Manual exercises phonological awareness by providing words that are made up of a variety of sound units for each lesson in ELS.
- ✚ The Phoneme Awareness manual shows the phonemic makeup—in both segmented and blended formats—for every lesson word in ELS. CEI recommends that students use their index finger to track each phoneme as they say it aloud.
- ✚ The Dyslexia Track Tapping Manual shows the phonemic makeup of each word in the Dyslexia Track lessons. Using their non-dominant hand, students tap a finger on the dot below each phoneme while saying its sound.

### 2. Sound-symbol association

#### TEA Handbook

*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).*

#### Essential Learning Systems

Depending on the teacher's preferences, each lesson may begin with a Phoneme Introduction screen that introduces the phonemes that the students will work on throughout the lesson. If the teacher selects Read Instructions Aloud as a parameter, the computer voice reads each introduction so that students can hear the pronunciations of the sound-symbol association.



For teachers who are using ELS to supplement their table-top instruction, ELS includes a Dyslexia Support Track (Levels 7 through 13). The Dyslexia Track lessons correlate to any Orton-Gillingham based program and allow the teacher to individualize which word patterns each student studies. Dyslexia Track lessons not only include the Phoneme Introduction; they also present rules that help dyslexic students understand how the sounds and symbols come together in special circumstances.

ELS continues its sound-symbol instruction in the SHARE exercises, which employ multi-sensory learning strategies. During these exercises, the computer teaches students whole words and then breaks the words down into letters. The computer voice says each letter aloud as the student types it. Repetition of the letter-sound relationships helps students learn to read, spell, and recognize the words both instantly and accurately.

Students begin blending sounds and spellings in the SHARE task, See Say. During See Say, students simply read each lesson word aloud to the teacher. Once students complete the SHARE portion of each lesson, they move on to the supporting tasks, many of which help strengthen auditory discrimination and phoneme blending skills:

- ✚ **Echo** — During Echo, the computer sets the pace by saying and flashing each word. The student, matching that pace, speaks each word either before or after the computer.
- ✚ **Teacher Echo** — During Teacher Echo, the teacher voices each word, and the student repeats it. Comparing the two pronunciations helps the student hear whether she is blending the phonemes correctly as she says each word.
- ✚ **Copy-Write** — Much like a spelling test, Copy-Write requires students to recall and write each lesson word. The computer voice reads a sentence that includes the word, says the word in isolation, and prompts students to write the word on paper. CEI recommends that students repeat the entire sentence prior to writing each word.
- ✚ **Quick Talk** — Quick Talk flashes the words without speech, and the student speaks the word after the computer flashes it.

### 3. Syllabication

#### TEA Handbook

*"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).*

#### Essential Learning Systems

For teachers who are using ELS to supplement their table-top instruction, ELS includes a Dyslexia Support Track (Levels 7 through 13). The Dyslexia Track lessons correlate to any Orton-Gillingham based program and allow the teacher to individualize which word patterns each student studies. Those individualized patterns include the six types of syllables: closed, open, vowel-consonant-e, r-controlled, vowel pair (or vowel team), and final stable syllable. Dyslexia Track lessons also include introductions which model the syllabication and teach the rules behind each type of syllable.

To supplement the ELS program, CEI offers several resources in the ELS Facilitator Toolkit. One of those resources is The Long and Short of It. This handout includes 100 larger words that feature smaller ELS lesson words in their syllabic makeup. Since ELS begins by forming words with simple patterns and then moves to more complex patterns, this handout helps students understand the importance of learning small words before progressing to larger, multi-syllable words.

### 4. Orthography

#### TEA Handbook

*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.*



### Essential Learning Systems

For teachers who are using ELS to supplement their table-top instruction, ELS includes a Dyslexia Support Track (Levels 7 through 13). The Dyslexia Track lessons correlate to any Orton-Gillingham based program and allow the teacher to individualize which word patterns each student studies. Dyslexia Track lessons not only include the Phoneme Introduction, which explicitly introduces the sight-sound patterns of the words; they also present rules and exceptions that help dyslexic students understand how the sounds and symbols come together in special circumstances.

Explicit and systematic instruction of the patterns continues as the student works on the primary tasks of each lesson. Students work with orthographic representations when moving from the See Hear Spell activity to Hear Spell. In See Hear Spell, students see a word on the computer screen and then type, highlight, or write the word pattern that appeared. Hear Spell, which removes the on-screen word prompt, provides targeted instruction and stimulates the brain's ability to visualize the letter symbols in words.

ELS' Long Term Recall exercise is a systematic method of regularly checking the transfer of orthographic patterns to long-term memory. Twenty-one days after students complete a non-mastery lesson, the computer prompts them to complete LTR. Without rehearsal, students must correctly pronounce each word in the lesson within seven seconds. Positive LTR results assure students that their memory skills are improving. Consistent difficulty indicates the student needs more practice and repetition of the patterns.

## 5. Morphology

### TEA Handbook

*"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).*

### Essential Learning Systems

The ELS program includes several tasks to help the students understand both lesson and non-lesson words in context. The lesson words are often components of larger non-lesson words. The lesson word "at," for example, serves as part of larger words like "atom," "attach," and "attendance." Through repeated exposure to the lesson words, children learn to identify regular and irregular words quickly, accurately, and effortlessly. Lesson words are grouped into sound families, allowing students many opportunities to transfer and generalize learning from the specific lesson words to other similar words.

To supplement the ELS program, CEI offers several resources in the ELS Facilitator Toolkit. One of those resources is The Long and Short of It. This handout includes 100 larger words that feature smaller ELS lesson words in their syllabic makeup. Since ELS begins by forming words with simple patterns and then moves to more complex patterns, this handout helps students understand the importance of learning small words before progressing to larger, multi-syllable words.

## 6. Syntax

### TEA Handbook

*"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).*

### Essential Learning Systems

ELS introduces syntax through its Copy-Write and Clues tasks, which allow students to see and hear the lesson word within a context sentence. Much like a spelling test, Copy-Write requires students to recall and write each lesson word. The computer voice reads a sentence that includes the word, says the word in isolation, and prompts students to write the word on paper. CEI recommends that students repeat the entire sentence prior to writing each word. During Clues, the screen presents a sentence with the lesson word missing, and the students selects one of three words to correctly complete the sentence.

Students get more practice in writing letters, words, messages, and stories through the Quick Tales and CEI Journal (available upon request). These tasks require students to use language in a particular context. Quick Tales are short stories that incorporate the words from each lesson. After students read a story and answering





five multiple choice questions, the computer presents a bonus question. The bonus question is an open-ended writing prompt in which the student types his answer.

CEI Journal jump-starts the writing process by having students focus on a written or picture prompt and write for a set amount of time. The Quick Tales bonus question and CEI Journal both help students to overcome their fear of putting thoughts on paper and to become more fluent writers. As an added benefit, the students' answers provide teachers some additional information they can use to assess skill development informally.

CEI also holds an annual Creative Writing Contest. For this contest, students create short stories based on the words in a lesson or cycle of lessons they completed. Parents and teachers may help students with spelling, but the students must come up with their own ideas and complete all of the work. Once they have finished, they submit their stories to CEI, where they are reviewed by a panel of educators. Basing their decisions on originality, creativity and use of lesson words, these educators award winners for each grade level and student classification.

## 7. Reading comprehension

### TEA Handbook

*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).*

### Essential Learning Systems

ELS focuses is on the development of basic or foundational skills. Unless a learner has the foundational and prerequisite comprehension skills, he or she will never be able to perform more advanced tasks like comprehension. While ELS does not explicitly teach comprehension strategies beyond the sentence level, the program does advance and accelerate comprehension by strengthening word recognition and decoding, developing vocabulary and listening skills, and reinforcing prior knowledge.

- + Word recognition and decoding:** ELS develops fluency in myriad ways—through multi-sensory processing strategies that facilitate the movement of learning into long-term memory, through repetition and practice in the diverse and plentiful ELS tasks, in the built-in repetition of lessons until students achieve mastery, and through specific ELS tasks—such as See Say, Echo, Quick Talk, Fluency Passages, and Long Term Recall.
- + Vocabulary:** Through its Look Listen See Say task, ELS directly teaches more than 2,000 words and their definitions. Tasks like Word Match and Clues and their corresponding worksheets indirectly teach the meanings of several thousand non-lesson words. Upon request, CEI also offers Creative Crosswords puzzles that feature the words and definitions students have learned in their lessons.
- + Background knowledge:** ELS' illustrations (Look Listen See Say, Word Match, and CEI Journal) help students make connections to previously learned information.

In addition to teaching foundational comprehension skills, ELS provides practice with longer texts. At the end of each lesson, the program presents Quick Tales. This activity requires students to either read short selections independently or listen while the story is read aloud. At the end of the story, each passage includes questions to help students increase their comprehension abilities. These activities, plus the emphasis on vocabulary and fluency development found throughout ELS, result in consistent accelerated gains in reading comprehension.



## 8. Reading Fluency

### TEA Handbook

"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).

### Essential Learning Systems

ELS provides students several opportunities for fluency training:

- + **Echo:** During Echo, the computer sets the pace by saying and flashing each word. The student, matching that pace, speaks each word either before or after the computer.
- + **Teacher Echo:** Teacher Echo follows similar principles as Echo, except the teacher's pronunciation takes the place of the model sound file.
- + **Quick Talk:** Quick Talk is also like Echo, but it flashes the words without speech. The student then speaks each word after the computer flashes it.
- + **Long Term Recall:** Long Term Recall checks the transfer of patterns to long-term memory. Twenty-one days after students complete a non-mastery lesson, they must correctly pronounce each lesson word, without rehearsal, within seven seconds.
- + **Fluency Passages:** Fluency Passages are simple sentences that incorporate the lesson words. Students recognize and read the lesson words in short sentences and learn how word meanings change in different contexts.

## C. Delivery of Dyslexia Intervention

According to the Handbook, principles of effective intervention for students with dyslexia include the following:

- + *Simultaneous, multisensory (VAKT)*
- + *Systematic and cumulative*
- + *Explicit instruction*
- + *Diagnostic teaching to automaticity*
- + *Synthetic instruction*
- + *Analytic instruction*
- + *Implementation with Fidelity*

The following pages include excerpts of the Dyslexia Handbook definitions for these principles and descriptions of their corresponding ELS components.

### 1. Simultaneous, multisensory (VAKT)

#### TEA Handbook

"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).

#### Essential Learning Systems

A substantial part of ELS is multisensory instruction, which strengthens various skills through kinesthetic and tactile stimulation in conjunction with visual and auditory modalities. All lessons within ELS are multi-sensory and enhance memory and learning by requiring the student to use all pathways in the brain.



Students receive information through one sense, recall the information through a second sense, and then respond using a third sense. For example, a child will see the word (visual), say the word (auditory), and respond either kinesthetically (writing on paper or standing and moving to a different station) or tactilely (highlighting or typing). This specifically patterned, forced linking creates a permanent change in the student's ability to retain and retrieve information and an increased aptitude for learning.

Practice sessions are plentiful, and the input, recall and response modes are varied, so students are always actively engaged.

## 2. Systematic and cumulative

### TEA Handbook

*"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).*

### Essential Learning Systems

ELS uses skill level mastery rather than grade level mastery, so each student works on lessons that address his or her individual needs. Lessons consist of a matrix of sight-sound combinations necessary for spoken and written English. All levels teach a sequence of phoneme/grapheme, or sound/letter combinations. The first six levels group the lessons according to sound patterns, beginning with the simplest patterns and moving in the way that speech naturally develops. ELS also includes a Dyslexia Support Track, seven more levels teachers can use to supplement an Orton-Gillingham based program. The Dyslexia Track allows the teacher to select lessons that correspond to their small group dyslexia instruction.

ELS divides the tasks into primary and supporting tasks. The primary tasks—SHARE and Echo—appear at the beginning of each new lesson, and the supporting tasks follow. As a result, all new concepts are tied to previously learned information.

The program also includes reviews and checks to ensure students don't progress to more difficult concepts until they have mastered current patterns and transferred them to long-term memory. If a student doesn't achieve mastery (87.5%) on a cycle's Post-Test, the program provides a systematic review called "recycling," which requires him to review the lessons in the cycle until he does achieve mastery. Similarly, if a student has trouble recalling a lesson's patterns in Long Term Recall, the program will have him complete a condensed review of that lesson.

## 3. Explicit instruction

### TEA Handbook

*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).*

### Essential Learning Systems

There are two ways schools can implement ELS. Students can follow the traditional order and progress numerically, or the teacher can determine the lesson order using the Dyslexia Support Track.

Using the traditional order, students start at the beginning of ELS and work their way through the program in number order. The program will present a Pre-Test for the first lesson cycle. Students who demonstrate mastery on the Pre-Test will bypass the lessons in that cycle and proceed to the Pre-Test for the next cycle. Students who do not demonstrate mastery on the Pre-test will complete the three lessons in the cycle and then take a Post-test to determine whether they have mastered the content.



For teachers who are using ELS to supplement their table-top instruction, ELS includes a Dyslexia Support Track (Levels 7 through 13). The Dyslexia Track lessons correlate to any Orton-Gillingham based program and allow the teacher to individualize which word patterns each student studies.

Theoretically, the Dyslexia Track would likely allow for more direct, explicit instruction and guided practice from the teacher. However, when students progress through the lessons numerically, the teacher can modify the sequences and parameters to accommodate each student's individual growth and ensure that each learner is performing in his or her "zone of proximal development" (Vygotsky). For example, Student A can work on Level 1, Lesson 1 at one station while Student B works on Level 2, Lesson 15 at a different station. Additionally, many of the 30 ELS tasks provide guided feedback on screen, and all tasks provide immediate corrective feedback.

It is also important to note that regardless of the implementation, ELS was designed to emphasize the teacher's role in delivering instruction, monitoring progress, coaching and encouraging, diagnosing needs, and adapting the program as required for student success. Experience has shown us that successful implementations are a result of engaged, reflective teachers, who never turn responsibility for all the content, instruction, monitoring, assessment, or decision-making over to the computers. These teachers allow the technology to facilitate lesson individualization, so they can spend more time monitoring students as they work, address additional higher-ordered skills, and provide the necessary immediate and specific feedback to students to ensure that they are maximally successful. They continuously adapt sequences and parameters and think about ways to move student learning forward. They also supplement the software instruction with whatever is needed to ensure an individual student's success.

#### 4. Diagnostic teaching to automaticity

##### TEA Handbook

*"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).*

##### Essential Learning Systems

With ELS, observation and continuous progress monitoring allow the teacher to ensure each student has an individual therapeutic prescription for success. Using the traditional numeric progress, the teacher observes the students for a period and then determines the lesson sequence and parameters that will best suit each child's needs. Students then progress through well-planned tasks and exercises with adequate and varied practice opportunities to ensure automaticity and mastery.

Teachers who are using the ELS Dyslexia Support Track to supplement their table-top instruction have the flexibility of spending more one-on-one time working with and observing the students who need it while those who are ready can move on to the computer to practice what they've learned.

For inexperienced teachers or teachers of larger groups of students, the CEI Learning Manager includes a Continuous Progress Monitoring (CPM) Framework and automated parameter settings that ensure students are not only working on the appropriate levels and lessons, but also using the parameter settings to meet their individual needs. The CPM framework also systematically recycles students until they achieve mastery.

Whether individualization is achieved by observation or continuous progress monitoring, students get the practice and repetition they need to build the exact neural representations, automaticity and fluency they need to be successful readers. By the time a student completes a session of ELS, he or she will have done dozens of specifically patterned exercises that inundate the brain with stimuli and strengthen/develop the neural pathways in the brain necessary for reading success. Like all good direct instruction models, ELS incorporates rapid-paced instruction in order to maintain student attention and increase the amount of material that each lesson covers.



## 5. Synthetic instruction

### TEA Handbook

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

### Essential Learning Systems

Many teachers use their table time to teach students to synthesize or blend sounds to create words. They can then use the ELS Dyslexia Support Track to reinforce their language instruction. The ELS Facilitator Toolkit, downloaded to the desktop during installation, includes a Scope and Sequence that shows the patterns for each ELS lesson.

Synthetic instruction also occurs in the ELS supplementary materials:

- + Each ELS lesson can include a Phoneme Introduction that introduces the basic word patterns the student will be learning and describes how the smaller parts synthesize to form whole words.
- + The Phoneme Awareness manual shows the phonemic makeup—in both segmented and blended formats—for every ELS lesson word. The subtitle for each lesson covers what syllables are introduced on the lesson.
- + The Word Building worksheet is a tool that helps students choose from several word beginnings and endings and blend them together to create a whole word.
- + The Quick Tales comprehension questions provide practice with morphemes, and some of the multiple-choice vocabulary questions require students to determine the meanings of base words. To select the correct answer, students must understand how the components blend together to form the words.
- + The Long and Short of It handout features 100 larger words that include smaller ELS lesson words in their syllabic makeup.
- + For young students and students who are learning English as a second language, ELS also features a Letter Recognition™ (LR™) component that teaches letter names and letter sounds. The program uses whole words as examples of the individual sounds, so students can see how the smaller components blend together to form the whole.

## 6. Analytic instruction

### TEA Handbook

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

### Essential Learning Systems

Many teachers use their table time to work on segmentation of words. They can then use the ELS Dyslexia Support Track to reinforce their language instruction. The ELS Facilitator Toolkit, downloaded to the desktop during installation, includes a Scope and Sequence that shows the patterns for each ELS lesson.

Analytic instruction also occurs in the ELS supplementary materials:

- + Each ELS lesson can include a Phoneme Introduction that introduces the basic word patterns the student will be learning and the smaller components that make up those words.
- + The Phoneme Awareness manual shows the phonemic makeup—in both segmented and blended formats—for every ELS lesson word. The subtitle for each lesson covers what syllables are introduced on the lesson.





- + The Word Building worksheet is a tool that helps students choose from several word beginnings and endings to create words. To select the correct beginning or ending, students must understand how the whole words are broken down into smaller parts.
- + The Quick Tales comprehension questions provide practice with morphemes, and some of the multiple-choice vocabulary questions require students to determine the meanings of base words. To select the correct answer, students must break the words down into their components.
- + The Long and Short of It handout features 100 larger words that feature smaller ELS lesson words in their syllabic makeup.
- + For young students and students who are learning English as a second language, ELS also features a Letter Recognition component that teaches letter names and letter sounds. The program uses whole words as examples of the individual sounds, so students become more familiar with taking the whole and breaking it into component parts.

## 7. Implementation with Fidelity

### TEA Handbook

*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.*

### Essential Learning Systems

A major strength of CEI is the quality and intensity of its professional development program. At CEI, we share our clients' goal of achieving the greatest results. We do that by offering quality, state-of-the-art learning solutions enhanced by the industry's finest support program ... a program that is unique to the field of education and virtually unheard of in most business situations. CEI is committed to forming a partnership with each of our clients — a partnership that not only helps those with educational differences achieve academic, social, and professional success, but also gives our clients the best support for their development dollar. Staffed with professional analysts, trainers, and support personnel, CEI offers the following benefits as just part of our multifaceted service agreement:

- + Customized in-services and staff development presentations — In the same way our programs focus on the students' individual needs, CEI concentrates on the individual needs of our labs. When a campus experiences issues that could benefit from one of our programs or from the experiences of our staff, CEI conducts staff in-services and development presentations to address our partners' concerns.
- + Faculty and parent orientations — Partners who implement ELS or MLS can receive a complimentary orientation for administrators, faculty, and parents. These sessions provide information on program design, learning theory, diagnostics and other aspects of our programs.
- + Ongoing Coaching — CEI assigns your lab a trained, professional Educational Consultant (EC) who visits the lab (either on-site or virtually) and provides ongoing coaching. In addition, the EC helps your facilitators tailor the program to meet your students' individual needs. Upon completion of the visit, the Educational Consultant provides your lab supervisor and the lab personnel a summary of the topics discussed during the visit, suggestions or recommendations for improving student performance in the lab, and details about any upcoming events or contests.
- + Professional training — Experienced educators conduct courses to prepare all staff members who will be working with students on the ELS program. Participants will learn how to prepare their labs for daily operation as they acquire the knowledge and skills they need to begin working with students who use ELS.
- + ELS Facilitator Toolkit — Your ELS software installer automatically places an ELS Facilitator Toolkit on the desktop of the teacher workstation. This toolkit contains a wealth of information, including an implementation guide; a professionally written, research-based teacher manual; worksheet masters; and supplementary materials to reinforce concepts and provide carryover opportunities. The



toolkit also provides a plan for conducting student orientation and motivation ideas from some of our most successful partners.

- + Resource library — The CEI website, [www.ceilearning.com](http://www.ceilearning.com), provides 24/7 access to our research publications and correlations and your school's statistical data.
- + Technical and Educational Support — Experienced CEI staff also provide information about computer specifications, assist with software deployment, and answer questions about how to individualize the program to meet campus and student needs.

## D. Providers of Dyslexia Instruction

### TEA Handbook

*In order to provide effective intervention, school districts are encouraged to employ highly trained individuals to deliver dyslexia instruction. Teachers, such as reading specialists, master reading teachers, general education classroom teachers, or special education teachers, who provide dyslexia intervention for students are not required to hold a specific license or certification. However, these educators must at a minimum have additional documented dyslexia training aligned to 19 TAC §74.28(c) and must deliver the instruction with fidelity. This includes training in critical, evidence-based components of dyslexia instruction such as phonological awareness, sound-symbol association, syllabication, orthography, morphology, syntax, reading comprehension, and reading fluency. In addition, they must deliver multisensory instruction that simultaneously uses all learning pathways to the brain, is systematic and cumulative, is explicitly taught, uses diagnostic teaching to automaticity, and includes both analytic and synthetic approaches.*

### Essential Learning Systems

ELS does include a Dyslexia Support Track, but CEI did not design the program solely for use with dyslexic students. In fact, the program correlates with the major federal programs serving low-performing, economically disadvantaged, limited-English proficient, and special education learners:

- + Title IA Schoolwide Projects and Targeted Assistance Programs
- + Title IB Reading First Programs
- + Title IF Comprehensive School Reform Programs
- + Title III Programs for Limited-English Proficiency Students
- + Programs for Section 504 Disabilities
- + IDEA Programs for Special Education

Because the program serves so many different types of students, ELS training courses focus less on student populations and more on implementation with fidelity. While CEI does not provide dyslexia-specific training, our Educational Consultants are well-versed in the most recent dyslexia research and trends in education. As a result, they can offer follow up coaching and suggestions how to maximize the success of dyslexic students using the program.

## E. Professional Development Relative to Dyslexia for All Teachers

### TEA Handbook

*According to TEC §21.044(b), all candidates completing an educator preparation program must receive instruction in detection and education of students with dyslexia. This legislation ensures that newly certified teachers will have knowledge of dyslexia prior to entering the classroom.*

### Essential Learning Systems

Because the program serves so many different types of students, ELS training courses focus less on student populations and more on implementation with fidelity. While CEI does not provide dyslexia-specific training, our Educational Consultants are well-versed in the most recent dyslexia research and trends in education. As a



result, they can offer follow up coaching and suggestions on how to maximize the success of dyslexic students using the program.

## F. Instructional Intervention Consideration for English Learners with Dyslexia

### TEA Handbook

*In addition to all the components of effective instruction previously discussed, intervention for ELs also must emphasize oral language development (Cardenas-Hagan, 2018). Because the English language is derived from Anglo-Saxon, Latin, Greek, French, and other languages, ELs can expand their oral language and vocabulary knowledge by understanding the cognates (baseball/béisbol or leader/lider) that exist in their native language and English. The similarities of words in the native language and English must be explicitly taught.*

*It is also necessary to incorporate ESL strategies during the intervention process and in all content areas. In Texas, school districts are required to implement the English Language Proficiency Standards (ELPS) as an integral part of each subject area in the required curriculum (TAC §74.4(a)). Dyslexia instruction for ELs must incorporate the ELPS. A few strategies to consider include the following:*

- + Establish routines so that ELs understand what is expected of them*
- + Provide native language support when giving directions or when students do not understand the task*
- + Provide opportunities for repetition and rehearsal so that the new information can be learned to mastery*
- + Adjust the rate of speech and the complexity of the language used according to the second language proficiency level of each student*
- + Provide extra time for the EL to process the English language. This is especially necessary during the early stages of second language development*
- + Provide extra time for the EL to formulate oral and written responses*
- + Emphasize text that includes familiar content and explain the structure of the text*

### Essential Learning Systems

Because many of our partners use ELS with their English Learners, we have incorporated many of the strategies that have been deemed crucial to cross-curricular second language acquisition:

- + Routines** — CEI developed lesson plans called sequences to correspond to different traits of students who use the program. Sequences determine the order of the lesson tasks and how many times students perform each task. They also establish a routine for the students. When a student works in sequence, the ELS program automatically moves from activity to activity, prompting the student to proceed at the beginning of each task. The primary tasks — SHARE and Echo — appear at the beginning of each new lesson, and the supporting tasks follow in the same order every time. Students must finish the day's primary tasks before exiting the program. If students do not complete all primary tasks on a given day, the program will present the primary tasks again upon the next login. The computer will not advance to the next lesson until the student completes all of the tasks in his lesson.
- + Native language support** — Initially, ELS presented all introductory instructions in English. As more of our partners began using the program with English Learners, we added a Spanish Introductory Instructions Language Option. Using this option, the program will present all task directions in Spanish. Depending on the parameters the teacher selected, students may even switch back and forth, so they can compare the Spanish instructions to the English.
- + Repetition and rehearsal** — A major strength of ELS is the scope and variety of its practice activities, which provide every available opportunity for students to learn the content and skills presented in each set of lessons. The goal of ELS and of all instruction is to move new information and skills into long-term memory as efficiently as possible so that it can be retrieved at will and applied to new situations. ELS provides deep and repeated practice to move new knowledge about a word family's individual words, their similar spellings, and their definitions into the permanence of long-term memory so that students can retrieve the information for application.



- + **Speech adjustments** — ELS' computer-assisted instruction enables speech to be slowed down or sped up depending on student needs. The computer voice also provides clear enunciation and pronunciation so that English-language learners hear good English models of speech.
- + **Extra processing time** — ELS includes built-in lesson plans called sequences, which determine the order of the lesson activities and the number of times the student completes them. These sequences allow the student as much time as she needs to work on lessons; at the same time, the sequences provide the repetition and review necessary for mastery. Instead of using one lesson plan for the entire class, facilitators can potentially implement as many lesson plans as there are students.
- + **Extra time for oral and written responses** — The ELS sequences allow the student as much time as she needs to work on lessons; at the same time, the sequences provide the repetition and review necessary for mastery. While the program is self-paced, each ELS task also has a variety of preferences and parameters, or settings that determine how the program presents each task and how the student responds to the computer presentation. The teacher can modify the program pulse or lower the speech speed on some tasks to allow students more response time.
- + **Familiar content and explanation of text structure** — ELs often struggle with reading comprehension due to limited background knowledge. ELS initially addresses that deficit through vocabulary instruction. When teaching vocabulary, the program uses illustrations to help ELs make visual connections to information they have already learned. Once students have had ample practice and repetition, ELS introduces longer texts using the newly learned vocabulary words. The Quick Tales activity requires students to read a short selection independently or to listen while the computer voice reads it aloud. At the end of the story, the program presents a series of questions to help develop comprehension abilities. As the students read and answer questions, they become more familiar with text-related concepts like main idea, cause and effect, chronology, and comparisons or contrasts.

## G. Research-Based Best Practices, Accommodations, and Advanced Programs

### TEA Handbook

*Pages 46-58 summarize the research-based best practices the TEA followed when developing and updating the guidelines for school districts to follow as they identify and provide services for students with dyslexia and related disorders. The pages also discuss ineffective treatments, potential classroom accommodations, and advanced academic programs.*

### Essential Learning Systems

CEI staff members receive many requests for correlations, which is another way for educators to see evidence of the research grounding Essential Learning Systems. CEI has published numerous correlations since many federal and state mandates for interventions are themselves grounded in research. For copies of the following correlations, or to find out how ELS correlates to another program, please email [info@ceilearning.com](mailto:info@ceilearning.com).

- + Correlation to Texas Standards (TEKS) for English Language Arts and Reading
- + A Results-based Assessment of Essential Learning Systems' Correlation to the National Reading Panel Guidelines
- + Essential Learning Systems and Its Correlation to a Successful Intervention for Left Occipitotemporal Systems (Sally Shaywitz, et al. study)
- + A Results-based Assessment of Essential Learning Systems' Correlation to Limited English Proficient Instruction (RPTE and Observation Protocols)
- + ELS Correlation with Accelerated Reading Initiative (ARI)
- + ELS Correlation to Title I Schoolwide Project Requirements
- + ELS and MLS Use in Adult Basic Education Programs
- + ELS Correlation with DIBELS



- + ELS Correlation with Texas Primary Reading Inventory (TPRI)
- + Educating Maria — and Tiffany and Jose' and Kareem and Arnold and Susanna and Phil and ... (scenarios depicting ways that ELS and MLS fit into a Response-to-Intervention model)

The handbook addresses some popular techniques that have been found ineffective in dyslexia treatment:

- + Colored overlays and lenses (Irlen overlays)
- + Specialized fonts (like Dyslexie)
- + Vision therapy (eye exercises)
- + Specific working memory training programs (N-back, CogMed, complex span, etc.)

Based on requests from our partners, CEI has incorporated several themes and fonts — including a dyslexia font — into our updates over the years. However, the program defaults to simpler screens and fonts, so learners with difficulties or disabilities are not distracted from the purpose of the lesson.

The handbook advises a student's ARD or 504 committee discuss decisions about accommodations and advanced academic program placement. CEI staff members are happy to provide input on how to incorporate our programs into a student IEP.

## V. Dysgraphia

### TEA Handbook

*Difficulty with handwriting frequently occurs in children with dyslexia. Dysgraphia is a written language disorder in serial production of strokes to form a handwritten letter. This involves not only motor skills but also language skills—finding, retrieving and producing letters, which is a subword-level language skill. The impaired handwriting may interfere with spelling and/or composing, but individuals with only dysgraphia do not have difficulty with reading (Berninger, Richards, & Abbott, 2015).*

*The following are research-based elements of effective handwriting instruction. These elements, which apply to both manuscript and cursive handwriting, may not necessarily apply to an entire class but instead may be used to support instructional methods delivered in small groups with students whose penmanship is illegible or dysfluent:*

- + *Show students how to hold a pencil.*
- + *Model efficient and legible letter formation.*
- + *Provide multiple opportunities for students to practice effective letter formation.*
- + *Use scaffolds, such as letters with numbered arrows showing the order and direction of strokes.*
- + *Have students practice writing letters from memory.*
- + *Provide handwriting fluency practice to build students' automaticity.*
- + *Practice handwriting in short sessions.*

### Essential Learning Systems

Although writing is not one of the five essential components in a beginning reading program, it is always listed as an essential component in a comprehensive literacy program and in a literacy intervention. Writing is included at a basic level in ELS because a well-integrated program incorporates all four domains of the language arts—reading, writing, speaking, and listening. Writing at various levels is also one of the visual/tactile processing activities by which students can acquire other knowledge and skills, and so is valuable in both the guided practice and independent practice activities.

Handwriting instruction begins in the Letter Recognition component of ELS. LR's Copy-Write task consists of three Lesson Types:





- + **Copy-Write Coloring** — Geared toward beginning writers or those with less developed motor skills and/or writing ability, this worksheet provides outlines of letters in which students can write the letters, or in which they can color.
- + **Copy-Write Tracing** — During Tracing lessons, the student traces the letter forms on the worksheet. Each letter has numbered arrows showing the order and direction of strokes.
- + **Copy-Write Writing** — Since the letters on the Writing worksheet are smaller than the letters on the Tracing worksheet, only the first two letters on each line include numbered arrows. The student traces the first two letters and then writes the letter freehand as many times as it will fit on the line.

After students have learned the upper- and lower-case letters in Letter Recognition, the program automatically advances them to the first level and lesson in ELS. Since ELS is a basic skills program, the program requires students to write in several different contexts, including spelling, dictation, proofreading, and self-expression:

- + **SHARE** — During See Hear Spell in the Write response mode, the computer simultaneously flashes and says a word. The student then writes the word on a piece of paper. In Hear Spell, the computer spells the word out loud, but no letters appear on screen. The student then spells aloud as he writes the word. The teacher then checks the responses and can use the opportunity to give input or model efficient and legible letter formation.
- + **Copy-Write** — In Copy-Write, the student practices taking dictation from auditory prompts. Copy-Write consists of three options, and the student should use cursive writing if possible:
  - **Copy-Write Words** — Much like a spelling test, this option tests the student's immediate recall of one word. The student repeats the entire sentence spoken by the computer and then writes the lesson word on paper when prompted.
  - **Copy-Write Phrases** — The student begins to take dictation of small groups of words. The student repeats the entire sentence spoken by the computer and then writes a specific phrase on paper when prompted. Copy-Write Phrases requires the student to write words that are not in the lesson.
  - **Copy-Write Sentences** — The student repeats the sentence spoken by the computer and then writes the sentence on paper. While the sentences are rarely more than five or six words, students with auditory memory deficits may find this exercise difficult. As in Copy-Write Phrases, Copy-Write Sentences requires students to write words that are not in the lesson.
- + **Copy-Write Editing** — When the student completes Copy-Write, a screen appears telling him to check his work (right). The student should use the Picture Reference/Answer Book to check his work and correct it before the facilitator checks it. This added requirement of the Copy-Write task gives the student practice distinguishing between correct and incorrect patterns of spelling, punctuation and grammar and develops editing ability. Many students with processing problems have difficulty finding their own mistakes. When students misspell a word, they rewrite the entire word rather than scratching out the mistake and adding the correct letter. Rewriting the entire word will help to reinforce the spelling pattern.
- + **Worksheets** — To help students experience a direct transfer of skills to classroom experience, ELS includes three worksheets. Each worksheet requires students to take the information they learn from ELS and apply it to pencil and paper exercises. The printed material in ELS provides added reinforcement to complete the students' learning experience:
  - **Word Building Worksheet** — The Word Building Worksheet helps the student understand the relationships between words. The student should use the word endings and beginnings at the top of the worksheet to create words.
  - **Clues Worksheet** — On the Clues Worksheet, the student will read a sentence with a word missing. She will then select from a choice of two words and write the appropriate word in the blank.
  - **Word Match Worksheet** — The student completes this worksheet by writing the word in the blank next to each definition.



- + **Quick Tales** — Quick Tales are short text selections that provide targeted instruction using the words the student is learning on the program. Most students complete the exercise on the computer, but the ELS Facilitator Toolkit includes printed copies as well. Using the printed copies, students read the story and answer a series of multiple-choice questions. The printed copy also includes a bonus question, an open-ended writing prompt. Responding to the open-ended prompts helps students become more fluent writers and overcome their fear of putting thoughts on paper. As an added benefit, the students' answers provide teachers some additional information they can use to assess skill development informally.
- + **CEI Journal** — Available upon request, CEI Journal jump-starts the writing process by having students focus on a written or picture prompt and write for a set amount of time. Like the Quick Tales, CEI Journal helps students become more fluent writers and give teachers another way to assess skill development.
- + **Creative Crosswords** — Available upon request, Creative Crosswords are crossword puzzles that feature the words and definitions students have learned in their lessons.
- + **ELS Copy-Write Tracing** — Available upon request, the ELS Tracing worksheets are similar to the LR worksheets, but they include lesson words instead of letters. Students will trace the word twice and then write it as many times as they can. The ELS Copy-Write Tracing worksheets include a set of directions listing the "Watch Our Writing" (W.O.W.) posture guidelines (below) and a graphic depicting proper pencil grip.
  - Feet are flat on the floor.
  - Back is straight.
  - Paper is slanted so that the edge of the paper is parallel to the writing arm.
  - Paper is anchored with the non-writing hand.
  - Pencil grip and position are correct.

## VI. Questions and Answers

At CEI, we often receive questions about using ELS as part of a comprehensive dyslexia program. Since Appendix A of the TEA Handbook also addresses various questions and answers about dyslexia and related disorders, this section includes inquiries and explanations from both sources.

### **Q May a computer program be used as the primary method of delivery for a dyslexia instructional program?**

#### **TEA Handbook:**

*No. Computer instruction to teach reading is not supported by scientifically-based reading research. The National Reading Panel (2000), in its review of the research related to computer technology and reading instruction, indicated that it is extremely difficult to make specific instructional conclusions based on the small sample of research available and that there are many questions about computerized reading instruction that still need to be addressed. Additionally, in a position statement released in 2009, the International Dyslexia Association (IDA) stated, "Technology-based instruction should not be used as a substitute for a relationship with a knowledgeable, trained teacher or educational therapist. Technological innovations, however, may be extremely helpful in providing practice and reinforcement, access to information, and alternative routes of communication." (Source: TEA Handbook)*

#### **Creative Education Institute**

It is important to note that ELS was designed to emphasize the teacher's role in delivering instruction, monitoring progress, coaching and encouraging, diagnosing needs, and adapting the program as required for student success. Experience has shown us that successful implementations are a result of engaged, reflective teachers, who never turn responsibility for all the content, instruction, monitoring, assessment, or decision-making over to the computers. These teachers allow the technology to facilitate lesson individualization, so they can spend more time monitoring students as they work, address additional higher-ordered skills, and provide the necessary immediate and specific feedback to students to ensure that they are maximally successful. They continuously adapt sequences and parameters and think about ways to move



student learning forward. They also supplement the software instruction with whatever is needed to ensure an individual student's success.

Additionally, due to the Handbook's guidelines for providers of dyslexia instruction, CEI introduced the ELS Dyslexia Support Track, an additional track of 246 new lessons specifically designed to complement and support any Orton-Gillingham based approach. Using these lessons, accessible in Levels 7 through 13, teachers can conduct individual or small group table-top lessons and then assign students to the program to get the practice and consistent repetition they need to master their word patterns.

### **Can technology benefit students with dyslexia? (Source: TEA Handbook)**

#### **TEA Handbook:**

*Yes. The research is definitive regarding technology and instruction for students with dyslexia. When students have access to technology, their overall performance improves. Technology tools allow students with dyslexia to be equal participants in school-based learning experiences (TEC §38.0031). Technology is not to take the place of direct and explicit instruction, but to provide access to grade level and course curriculum. The online tool Technology Integration for Students with Dyslexia available at <https://www.region10.org/programs/dyslexia/techplan/> may provide assistance in identifying appropriate technologies.*

*The Region X Techplan recommends appointing a team to implement a process for providing effective, current technology to students. Assisting all students with suitable technology is critical; however, appropriate technological support for students with dyslexia is particularly vital. In order for districts/campuses to provide the most current, appropriate technology for students with dyslexia, the following process should be considered by the appointed team:*

- 1. Attend Trainings — Attend trainings on the benefits of technologies in supporting students identified with dyslexia.*
- 2. Create an Inventory of Resources — Create an inventory of resources to determine what purchases have been made, including both hardware and software.*
- 3. Conduct Research — Conduct research and visit other schools to gain the latest research, best practices, and successful strategies for using technology with students.*
- 4. Evaluate Technologies — Evaluate technologies that will support students with dyslexia in accommodating their learning differences. Teachers from all content areas should be involved in this step of the process, as many of the challenges for students with dyslexia come in the reading of content-rich text.*
- 5. Ensure Pedagogical Support — Ensure pedagogical support for teachers to meet students' needs.*
- 6. Match the Needs of Identified Students — Match the needs of identified students with the appropriate technologies so that students with dyslexia have technological access across all content areas.*
- 7. Identify Gaps in Technology — Identify gaps in technology so that districts can determine what technologies they already have and what new technologies should be purchased.*
- 8. Ensure Pedagogical Support — Ensure that teachers are thoroughly trained on the use of the technology chosen, including the various features of technology that is already available to them (i.e., word processing tools, tablets, smart phones).*
- 9. Determine Implementation — In addition to the challenge of staying current in new technologies, educators must also be able to evaluate technology and determine an appropriate implementation plan. They must discern whether a particular technology is a good match for a particular student.*



*Selecting suitable tools in any field is a challenge, but perhaps more so in the field of dyslexia, where student needs are so varied.*

### **Creative Education Institute**

CEI wholeheartedly agrees with the recommendations in the Techplan. We want our partners to be fully informed about all their options before purchasing Essential Learning Systems, and we will provide as much information as we can to help in the decision-making process.

Once a district does purchase the program, we do everything possible to achieve the desired academic results for the students. We conduct professional development sessions, so all teachers working with CEI will know how to implement the program and operate the software. Partners who implement ELS can also receive a complimentary orientation for administrators, faculty, and parents. Our orientation sessions provide information on program design, learning theory, diagnostics, and other aspects of our programs.

We also provide principals and other instructional leaders an Implementation Toolkit, which features information, suggestions, and encouragement for leading an effective implementation. We partner with the teachers by providing ongoing professional development; follow-up coaching; online, telephone, and e-mail support; and webpage and social media information. We include several electronic resources to support learning, motivate students, and involve parents in the educational process. We also listen to our partners' feedback and incorporate their suggestions and recommendations into the software and supplementary materials.

### **Q Does the TEA have a list of approved dyslexia programs?**

#### **Texas Education Agency**

*CEI contacted the TEA Statewide Coordinator for English Language Arts and Reading Curriculum Standards and Student Support Division and received the following response:*

*"Texas does not specify or endorse a specific instructional program or provide a list of approved programs for teaching students with dyslexia. All students identified with dyslexia must receive instruction that is appropriate for their literacy needs. The instruction must match the descriptors (TAC §74.28(c)) found in Chapter III of The Dyslexia Handbook – Revised 2014: Procedures Concerning Dyslexia and Related Disorders and contain reading, writing, and spelling components as appropriate for the student. In accordance with 19 TAC §74.28(c), districts must purchase or develop a reading program for students with dyslexia and related disorders that incorporates all the components of instruction and instructional approaches described under the sections titled "Critical, Evidence-Based Components of Dyslexia Instruction" and "Delivery of Dyslexia Instruction...."*

## **VII. Results**

ELS not only complies with the recommendations in The Dyslexia Handbook; it also boasts remarkable results with students who suffer from dyslexia. Information follows detailing CEI's testing methodology and the success that dyslexic students have achieved in ELS labs.

### **A. Methodology**

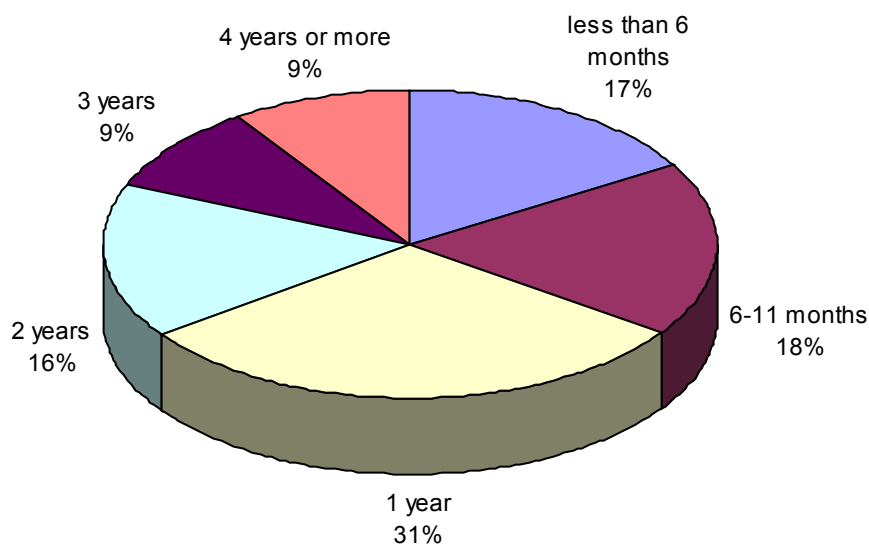
CEI has long recognized the importance of measuring the annual gains (value-added) of students participating in its labs. To measure academic growth of ELS students, CEI uses the Diagnostic Screening Test: Reading (DST:R), developed by Thomas D. Gnagey, Ph.D. and Patricia A. Gnagey, M.S. The DST:R is an individually administered evaluation that provides information on a student's basic reading skills. Since lab teachers administer a pre- and post-test, results show the gains each student makes in basic reading skills and concepts as a result of engagement in the ELS program. The DST:R is a quick, valid method for gathering information about a student's reading skills. Each subtest provides a grade-level equivalent score. Additionally, the test computes four major scores:



- + **Word Reading Comfort Level**—The level at which the student knows almost all of the words and reads each without assistance.
- + **Word Reading Instructional Level**—The level at which the student knows 85 to 90 percent of the words and therefore reads easily enough to gradually acquire new vocabulary and associated skills.
- + **Word Reading Frustration Level**—The level at which the student is unable to read so many of the words that he or she misses the essence of passages and finds the task of reading uncomfortable or unpleasant.
- + **Comprehension of Passages**—The level at which the student is able to understand and remember the facts and subtleties of passages. (Both reading and listening comprehension may be tested.)

## B. From Our Testing

This study includes 1,765 dyslexic students. The graph reflects the percentages of ELS students who had various gains in Reading Comprehension over a one-year period. Scores are averages and, therefore, include schools that erratically implement, students who are not in the lab for a full year, and schools that implement labs late and close them early. Results are, therefore, in reality much better than these averages indicate when labs are implemented with fidelity and when the actual length of time each student participates is factored in.



Average gain per year: 1.83 grade levels!  
34% of the students showed gains of two to four years!

For a breakdown of results by pre-K/Kindergarten, elementary, middle school, and high school students, please visit <https://www.ceilearning.com/your-students/dyslexic-students/>. There, you will also find testimonials from students, educators, and administrators who have successfully used ELS as a dyslexia intervention.