



Taking a Closer Look at Dyslexia & Dysgraphia

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FLORIDA DEPARTMENT OF
EDUCATION
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Learning Objectives

- Participants will learn about the definition and characteristics of dyslexia and dysgraphia.
- Participants will learn about strategies that can be used to support striving readers and writers.
- Participants will learn about professional learning opportunities being offered across the state.



Dyslexia

- Definition
- Dyslexia and the Brain
- Common Characteristics
- Legislative Requirements for Training



Reflection

- How does your district recognize dyslexia?

Dyslexia

- Definition adopted by the International Dyslexia Association:

“Dyslexia is a specific learning disability that is neurobiological 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.”

Dyslexia and the IDEA

- 34 CFR 300.8(c)(10)

- Dyslexia is included in the definition of a specific learning disability under IDEA:

(10) Specific learning disability. (i) General. Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, **dyslexia**, and developmental aphasia.

Information about Dyslexia and the Brain

- Information shared by Dr. Nadine Gaab, Associate Professor of Pediatrics at Harvard Medical School:
 - Individuals with dyslexia have less gray matter, meaning less processing capacity.
 - Individuals with dyslexia have less activation/functioning in areas of the brain during reading activities.
 - Functional characteristics of developmental dyslexia in left-hemispheric posterior brain regions PREDATE reading onset.
 - Dr. Gaab reinforces the practice of using a customizable approach to remediation based on a student's strengths and weaknesses—there is not one program that will meet the needs of all students with dyslexia.

Dyslexia: What does it look like?

- The most common symptoms associated with dyslexia include weaknesses in:
 - word reading
 - word decoding
 - oral reading fluency
 - spelling
- In addition, students with dyslexia may have weaknesses in:
 - conventions in writing (orthography)
 - phonological coding (phonemic awareness)
 - rapid automatic naming
 - attention



Information included in the IDA Fact sheet: Understanding Dysgraphia (<http://eida.org/understanding-dysgraphia/>)

Dyslexia: What does it look like?

- Additional characteristics of students with dyslexia may include:
 - doesn't read for pleasure
 - takes excessive time to complete assignments
 - difficulties in remembering procedures or formulas
 - difficulty mastering math facts
 - difficulty with multi-step directions



Dyslexia: What does it look like?

- Another common characteristic of students with dyslexia is weakness in short-term memory (but often times students exhibit strengths in long-term memory).

Basket too small



Basket poorly organized



- “Lazy secretary syndrome”
- Need to organize files of the mind



Reflection

- How can we help administrators and teachers recognize common characteristics of students with dyslexia?
- What do you feel is the most common misconception about dyslexia in your district?

2017 Florida Statutes & Intervention Requirements

- s. 1012.98(4) F.S.
 - (b) 11. Provide training to reading coaches, classroom teachers, and school administrators in effective methods of identifying characteristics of conditions such as dyslexia and other causes of diminished phonological processing skills; incorporating instructional techniques into the general education setting which are proven to improve reading performance for all students; and using predictive and other data to make instructional decisions based on individual student needs...

2017 Florida Statutes & Intervention Requirements

- s. 1012.98(4) F.S.
 - (b) 11...The training must help teachers integrate phonemic awareness; phonics, word study, and spelling; reading fluency; vocabulary, including academic vocabulary; and text comprehension strategies into an explicit, systematic, and sequential approach to reading instruction, including multisensory intervention strategies. Each district must provide all elementary grades instructional personnel access to training sufficient to meet the requirements of s.1012.585(3)(f).

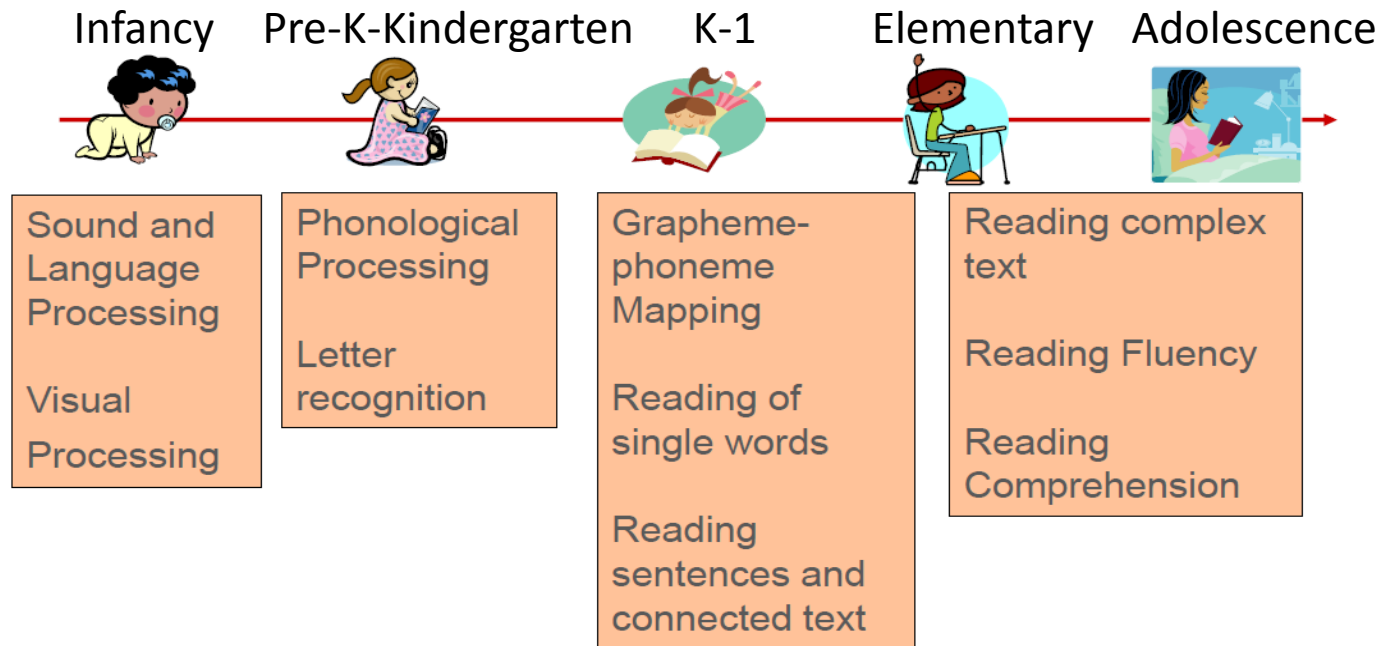
2017 Florida Statutes & Intervention Requirements

- s. 1012.585(3) F.S.
 - (f) An applicant for renewal of a professional certificate in any area of certification identified by State Board of Education rule that includes reading instruction or intervention for any students in kindergarten through grade 6, with a beginning validity date of July 1, 2020, or thereafter, must earn a minimum of 2 college credits or the equivalent inservice points in the use of explicit, systematic, and sequential approaches to reading instruction, developing phonemic awareness, and implementing multisensory intervention strategies.

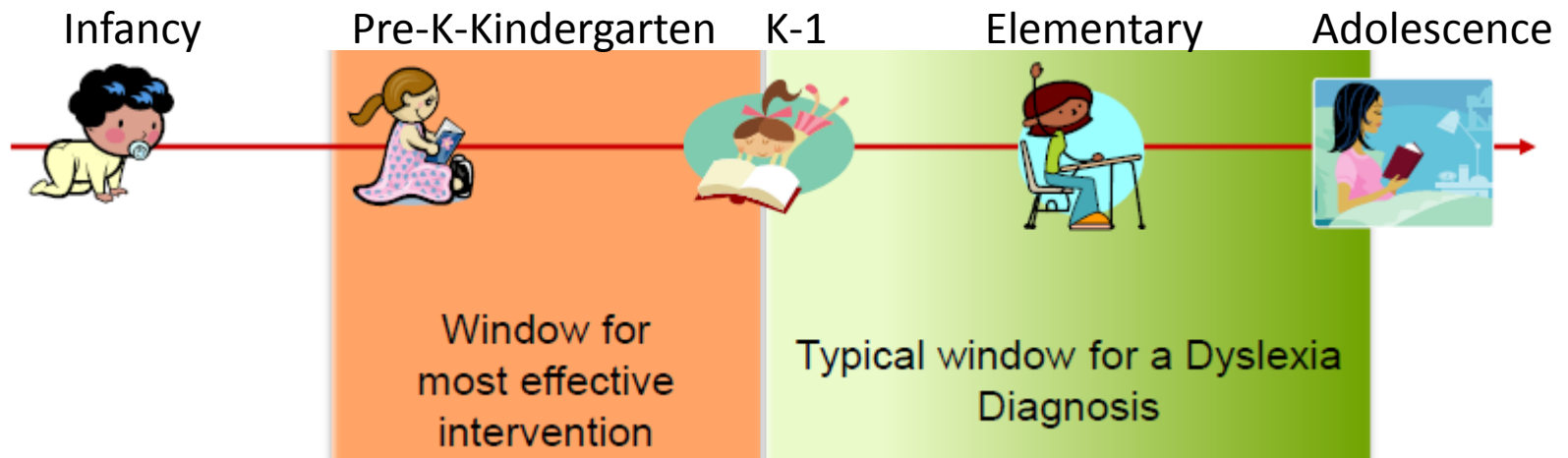


Dyslexia Screening & FLKRS

Timeline of Typical Reading Development



The Dyslexia Paradox





Reflection

- What early warning systems have your district put in place to determine which students may be at risk for having a reading disability?

FLKRS and Dyslexia Screener Crosswalk

| Recommended areas to be assessed by the International Dyslexia Association (IDA) https://dyslexiaida.org/dyslexia-assessment-what-is-it-and-how-can-it-help/ | Areas assessed by the FLKRS Assessment: Star Early Literacy Assessment http://www.fldoe.org/core/fileparse.php/18494/urlt/FLKRS050317Webinar.pdf (see p. 28) |
|--|--|
| Phonological Awareness | ✓ |
| Phonological or Language-Based memory | ✓ |
| Rapid Automatic Naming | X |
| Receptive Vocabulary | ✓ |
| Phonics Skills | ✓ |
| Decoding | ✓ |
| Oral Reading Fluency | X |
| Spelling | X |
| Writing | X |

*This crosswalk contains recommendations for screening students who might be at risk of having a reading disability such as dyslexia, and does not serve as a recommendation for an assessment to be used to provide a formal diagnosis of dyslexia.

2017 Florida Statutes & Intervention Requirements

- s. 1002.69(2) F.S.
 - ...concerning each student's readiness for kindergarten...data from the screening, along with other available data, must be used to identify students in need of intervention and support pursuant to s. 1008.25(5).
- Alignment to K-12 Reading Plan:
 - DT1 must include information on how the Florida Kindergarten Readiness Screener will be used to plan intervention for students scoring in the following performance levels:
 - 1) Scaled score of 497-529
 - 2) Scaled score of 438-496
 - 3) Scaled score of 437 and below

Implications for students in K-3

- How can I create a similar crosswalk for students in K-3 for the assessments identified in the identification/intervention decision trees?
- Has our district identified interventions available to schools that target the areas we are assessing?
- What training is needed for teachers and administrators in using data to make instructional decisions as part of the problem solving process?



Dyslexia: Best Practices



Best Practices for Working with Older Students with Dyslexia

- The Center on Instruction recommends that teaching word study to older students should include instruction on:
 - breaking words into syllable types;
 - when and how to read multisyllabic words by blending parts together;
 - recognizing irregular words that do not follow predictable patterns;
 - the meanings of common prefixes, suffixes, inflectional endings, and roots;
 - Instruction should include ways in which words relate to each other (for example, *trans*: transfer, translate, transform, translation).
 - how to break words into word parts and to combine word parts to create words based on their roots, bases, or other features; and
 - how and when to use structural analysis to decode unknown words.

Reflection

- How are striving readers at the secondary level provided opportunities to work on these recommended skills?
- What implications does this have for supporting striving readers in content area classes and for training content area teachers?

Structured Literacy—the new term on the block.

- *Structured Literacy* prepares students to decode words in an **explicit** and **systematic** way.
- *Structured Literacy* includes instruction in:
 - *Phonology*
 - *Sound-Symbol Association*
 - *Syllable Instruction*
 - *Morphology*
 - *Syntax*
 - *Semantics*

Additional Best Practices:

- **Students with dyslexia need to be taught spelling rules!**
- **Multi-Sensory strategies.**
- **Universally designed learning.**
- **Differentiation.**

Explicit Instruction

- The Florida Center for Reading Research (FCRR) defines explicit instructions as:

Explicit instruction is teacher-led, interactive instruction where the words and actions of the teacher are unambiguous and direct. The teacher begins with a clear explanation of the targeted skill, followed by modeling of the skill. Ample practice opportunities, including guided practice with corrective feedback, supported application and student independent practice using aligned student materials help the student to apply what they have been taught.

<http://www.fcrr.org/assessment/ET/elements/expInst.html>

Systematic and Sequential Instruction

- The International Dyslexia Association defines systematic and sequential instruction as:

Multisensory language instruction requires that the organization of material follows the logical order of the language. The sequence must begin with the easiest and most basic concepts and progress methodically to more difficult material. Each concept must also be based on those already learned. Concepts taught must be systematically reviewed to strengthen memory.

<https://dyslexiaida.org/multisensory-structured-language-teaching/>

Multisensory Instruction

- The International Dyslexia Association defines multisensory instruction as:

Multisensory learning involves the use of visual, auditory, and kinesthetic-tactile pathways simultaneously to enhance memory and learning of written language.

<https://dyslexiaida.org/multisensory-structured-language-teaching/>

Simultaneous Multisensory Instruction

- The International Dyslexia Association defines simultaneous multisensory instruction as:

Simultaneous, Multisensory (VAKT): Teaching uses all learning pathways in the brain (i.e., visual, auditory, kinesthetic tactile) simultaneously or sequentially in order to enhance memory and learning.

<https://dyslexiaida.org/multisensory-structured-language-teaching/>

Multisensory Instruction: An Example



Photo Credit: <https://dyslexiaida.org/multisensory-structured-language-teaching/>

<https://dyslexiaida.org/multisensory-structured-language-teaching/>

2017 Florida Statutes & Intervention Requirements

- s. 1011.67(2) F.S.
 - Beginning July 1, 2021, for core reading materials and reading intervention materials used in kindergarten through grade 5, that the materials meet the requirements of **s. 1001.215 (8)**. This paragraph does not preclude school districts from purchasing or using other materials to supplement reading instruction and provide additional skills practice.

2017 Florida Statutes & Intervention Requirements

- **s. 1001.215(8) F.S.**
 - Work with the Florida Center for Reading Research to identify scientifically researched and evidence-based reading instructional and intervention programs that incorporate **explicit, systematic, and sequential** approaches to teaching phonemic awareness, phonics, vocabulary, fluency, and text comprehension and incorporate decodable or phonetic text instructional strategies.
 - Reading intervention includes **evidence-based strategies** and includes, but is not limited to, individual instruction, **multisensory approaches**, tutoring, mentoring, or the use of technology that targets specific reading skills and abilities.

2017 Florida Statutes & Intervention Requirements

- s. 1008.25(5) F.S.
 - (a) Any student in kindergarten through grade 3 who exhibits a substantial deficiency in reading—based upon screening, diagnostic, progress monitoring, or assessment data; statewide assessment; or teacher observations,—must be provided intensive, explicit, systematic, and multisensory reading interventions immediately following the identification of the reading deficiency. A school may not wait for a student to receive a failing grade at the end of a grading period to identify the student as having a substantial reading deficiency and initiate intensive reading interventions.

2017 Florida Statutes & Intervention Requirements

- s. 1008.25(7) F.S.
 - (a) Students retained under paragraph (5) (b) must be provided intensive interventions in reading to ameliorate the student's specific reading deficiency and prepare the student for promotion to the next grade. These interventions must include:
 - 1. Evidence-based, explicit, systematic, and multisensory reading instruction in phonemic awareness, phonics, fluency, vocabulary, and comprehension and other strategies prescribed by the school district.
 - 2. Participation in the school district's summer reading camp, which must incorporate the instructional and intervention strategies under subparagraph 1.

2017 Florida Statutes & Intervention Requirements

- s. 1008.25(7) F.S.
 - (a) Students retained under paragraph (5) (b) must be provided intensive interventions in reading to ameliorate the student's specific reading deficiency and prepare the student for promotion to the next grade. These interventions must include:
 - 3. A minimum of 90 minutes daily, uninterrupted reading instruction incorporating the instructional and intervention strategies under subparagraph 1. This instruction may include:
 - a. Integration of content-rich texts in science and social studies within the 90-minute block.
 - b. Small group instruction.
 - c. Reduced teacher-student ratios.
 - d. More frequent progress monitoring.
 - e. Tutoring and monitoring.
 - f. Transition classes containing 3rd and 4th grade students.

2017 Florida Statutes & Intervention Requirements

- s. 1008.25(6) F.S.
 - (b) ...A student who is promoted to grade 4 with a good cause exemption shall be provided intensive reading instruction and intervention that include specialized diagnostic information and specific reading strategies to meet the needs of each student so promoted. The school district shall assist schools and teachers with the implementation of explicit, systematic, and multisensory reading instruction and intervention strategies for students promoted with a good cause exemption which research has shown to be successful in improving reading among students who have reading difficulties...

2017 Florida Statutes & Intervention Requirements

- s. 1008.25(6) F.S.
 - (b) ...A student who is promoted to grade 4 with a good cause exemption shall be provided intensive reading instruction and intervention that include specialized diagnostic information and specific reading strategies to meet the needs of each student so promoted. The school district shall assist schools and teachers with the implementation of explicit, systematic, and multisensory reading instruction and intervention strategies for students promoted with a good cause exemption which research has shown to be successful in improving reading among students who have reading difficulties...

Reflection

- What impact will the requirement of using intensive, explicit, systematic and multisensory with any student identified with a reading deficiency in grades K-3, are retained in grade 3 or are promoted to 4th grade with a good cause promotion have on your current instructional practices?
- What support will you need?

2017 Florida Statutes & Intervention Requirements

- s. 1008.25(3) F.S.
 - ALLOCATION OF RESOURCES.—District school boards shall allocate remedial and supplemental instruction resources to students in the following priority:
 - (a) Students in kindergarten through grade 3 who have a substantial deficiency in reading as determined in paragraph (5) (a).
 - (b) Students who fail to meet performance levels required for promotion consistent with the district school board's plan for student progression required in subsection (2).

2017 Florida Statutes & Intervention Requirements

- s. 1008.25(5) F.S.
 - (a) The student's reading proficiency must be monitored and the intensive interventions must continue until the student demonstrates grade level proficiency in a manner determined by the district, which may include achieving a Level 3 on statewide, standardized English Language Arts assessment. The State Board of Education shall identify by rule guidelines for determining whether a student in kindergarten through grade 3 has a substantial deficiency in reading.



Reflection

- What assessment tools are being utilized in your district to monitor the progress of students receiving intensive reading intervention?
- What district guidelines have been established to determine the frequency of which students receiving intensive intervention should be progress monitored?

Accommodations & Strategies

Classroom & Assignments

- peer note taker or provide students with a copy of lecture notes or important information
- allow sufficient time to read & comprehend material
- software with text-to-speech & speech-to-text options
- break up a large assignment into smaller parts
- provide study guides
- audio books

Exams

- extended time
- alternate testing site with reduced distractions
- oral exam
- use of calculator
- allow student to dictate answers to essay and short answer questions

Organization & Planning

- multi-modal methods to present material
- create visual graphic organizers and/or timelines to help organize information
- use illustrations with informational text
- schedules, rules, and assignments written on board
- work with student to set achievable goals

Accommodations & Strategies

Reading

- use marker or highlighting tape to highlight important textbook sections
- assign peer reading buddies
- review vocabulary prior to reading
- do not require the student to read aloud
- use text summaries to reduce the amount of content in a text so students can focus on core ideas
- Use of graphic organizers

Writing

- extended time
- allow use of a keyboard when appropriate
- focus on content vs. spelling and handwriting
- student held accountable for spelling words that have been mastered only
- use of graphic organizers
- speech-to-text software

Math

- allow use of a calculator
- use visuals and concrete examples
- use grid paper to help correctly line up math problems
- present information and problems in small increments
- read story problems aloud
- extended time

Dyslexia & Student Strengths

“Dyslexia is a weakness in a sea of strengths.”

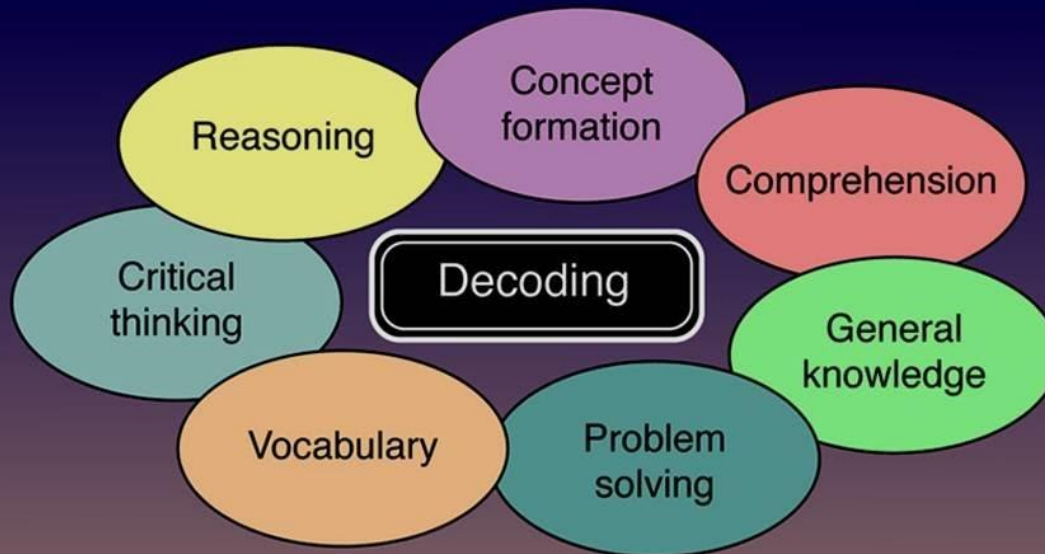
Sally Shaywitz, M.D

“The strengths are as important to find and address as the deficits....All too often we focus on the deficit and not the asset, and we really need to focus on that as well.”

E. Emmerson Dickman, J.D., Former President of IDA

Dyslexia & Student Strengths

Sea of Strengths Model of Dyslexia



© Sally Shaywitz, *Overcoming Dyslexia*, 2003



Dysgraphia

Dysgraphia: What is it?

- Dysgraphia is a learning disability that results in a deficit in written expression.
- Brain research has linked dysgraphia to a processing deficit.
 - “*Orthographic coding* refers to the ability to store written words in working memory while the letters in the word are analyzed or the ability to create permanent memory of written words linked to their pronunciation and meaning.*”
- It may OR may not coexist with another disability or disorder such as dyslexia, language impairment, auditory processing disorder, and/or ADHD.

*<https://dyslexiaida.org/understanding-dysgraphia/>

Dysgraphia and the IDEA

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- Dysgraphia is included in the definition of a specific learning disability under IDEA:

(10) Specific learning disability. (i) General. Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, **write**, **spell**, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.

Dysgraphia: Effects on Student Learning

- Interferes with a student's ability to express their ideas when writing.
- Writing is a strenuous activity requiring an above average amount of time and energy.
- Can cause emotional stress and anxiety resulting in avoidance behaviors.

Dysgraphia: What does it look like?

- Illegible handwriting
- Irregular and inconsistent letter formations
- Random mixture of upper and lowercase letters
- Fatigue when writing
- Difficulty with spelling rules and identifying misspelled words
- Often misspells the same word multiple different ways

Dysgraphia: Additional Characteristics

- Avoidance of writing (which may be interpreted as lack of motivation, laziness or defiance)
- Grammar: incomplete or run-on sentences, lack of or misuse of punctuation, mixes up verb tense
- Struggles with organization of ideas
- Papers often contain lots of erasures and cross-outs
- Struggles to write on a line and stay within margins

Reflection

- Work with a shoulder partner to list at least 5 strategies that would assist a striving writer exhibiting these characteristics.
- Are our teachers fluent at implementing these strategies?
- What are the implications for future professional development?

Dysgraphia: Strategies



Organization of Ideas

- Use of graphic organizers
- Use of speech-to-text technology
- PPT or Google Slides for organizing ideas
- Whisper phone: provides auditory feedback

Handwriting

- Explicit, systematic instruction of handwriting, including posture, grip and paper positioning
- Use of manipulatives to help with letter formation
- Low-tech assistive technology: pencil grips, slant boards, raised paper and highlighted paper
- Multiple opportunities for practice each day
 - See the *Understanding Dysgraphia* Fact Sheet from the International Dyslexia Association for examples:
<https://dyslexiaida.org/understanding-dysgraphia/>



Reflection

- If you completed a walkthrough at a school (both elementary and secondary), would you see striving writers being supported with these types of strategies?

Correction Strategies

Examples:

- Compliments & a Wish
 - Provide at least two compliments in relation to student writing and one wish for how they can improve. Alternate the focus of writing assignments (i.e. neatness, spelling, grammar, organization, etc.)
- Red words + current focus (Ex: transition words)
 - “Red words” include spelling/sight words the student has already mastered. When providing feedback to students on spelling, focus on words the student has already mastered and is being held accountable for. Use other misspelled words in a student’s writing to drive differentiated instruction.
- Checklists and visuals students can use to self-monitor progress and self-correct.

Spelling

- *Structured Literacy* prepares students to decode words in an **explicit** and **systematic** way.
- *Structured Literacy* includes instruction in:
 - *Phonology*
 - *Sound-Symbol Association*
 - *Syllable Instruction*
 - *Morphology*
 - *Syntax*
 - *Semantics*

Check out <https://dyslexiaida.org/spelling/> and <https://dyslexiaida.org/understanding-dysgraphia/> for more information and ideas.



Reflection

- How is spelling taught in your district?
- How does your core reading curriculum support spelling instruction?
- Are spelling rules explicitly taught?

Executive Functioning

Self-Regulation

Support students in:

- Goal-setting
- Self-instruction
- Self-monitoring
- Self-reinforcement

Alignment to UDL Guidelines:

- 6.1: Guide appropriate goal-setting
- 6.2: Support planning and strategy development
- 6.4: Enhance capacity for monitoring progress
- 9.1: Promote expectations and beliefs that optimize motivation



Reflection

- What professional development has been offered on executive functioning in your district?

UDL

Considerations

- “Many bright children with dysgraphia are unable to keep up with the written work required by classes that are the most appropriate for them intellectually.*”
- How can we provide students multiple opportunities to express what they know?

*<http://www.smartkidswithld.org/first-steps/what-are-learning-disabilities/dysgraphia-an-overview/>

Alignment to UDL Guidelines:

- 4.1: Vary the methods for response and navigation
- 4.2: Optimize access to tools and assistive technologies
- 5.1: Use multiple media for communication
- 5.2: Use multiple tools for construction & composition

Common Accommodations

- Break writing assignments into logical steps/chunks
- Extended time
- Assistive technology
- Note taking assistance
- Study guides provided ahead of time

A Collaborative Team Approach

General Education Teacher:

The general education teacher is the content specialist on the team. They can offer information on grade level expectations for what mastery of the writing standards looks like in order to assist with appropriate goal-setting.

The Special Education Teacher:

The special education teacher can offer information on the use of specific accommodations, assistive technology and remedial strategies as well as assisting with appropriate goal-setting and directly support the general education teacher.

A Collaborative Team Approach

The Occupational Therapist:

According to the American Occupational Therapy Association, “Occupational therapists can evaluate the underlying components that support a student's handwriting, such as muscle strength, endurance, coordination, and motor control, and parents can encourage activities at home to support good handwriting skills.*”

* <http://www.aota.org/About-Occupational-Therapy/Patients-Clients/ChildrenAndYouth/Schools/Handwriting.aspx>

The Speech and Language Pathologist:

Many times, students with language deficits also struggle with learning to read and write. The Speech and Language Pathologist (SLP) can be a great resource when seeking out information on written language disorders and in fulfilling our Child Find responsibilities.

* http://www.asha.org/PRPSpecificTopic.aspx?folderid=8589942549§ion=Roles_and_Responsibilities

A Collaborative Team Approach

The Literacy Coach:

The literacy coach can offer content-specific information on strategies to support students with dysgraphia such as appropriate graphic organizers, support for the writing process and remedial spelling instruction based on diagnostic assessment results.

The Local Assistive Technology Specialist (LATS):

The LATS can offer technological supports to all students writing within a UDL classroom and/or students that require assistive technology.

A Collaborative Team Approach

The MTSS Contact:

The MTSS Specialist can assist with engaging teams in the problem solving process, planning for intervention, identifying progress monitoring tools and tasks associated with monitoring fidelity and evaluating effectiveness.

The ELL Contact:

The ELL Specialist can assist in determining best practices for writing instruction for English language learners as well as work with general education teachers to plan for instruction and to model strategies.



Reflection

- What workgroups/task forces exist at the district level to problem solve issues related to supporting striving readers and writers?



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