Please enjoy this complimentary excerpt from The "Why" Behind Classroom Behaviors, PreK-5, by Jamie Chaves and Ashley Taylor.

LEARN MORE about this title!
Using an integrated approach to teaching can benefit all students in your classroom. While we all have strengths and challenges in the ways our brains learn and function, some students have impairments that meet the criteria for language-based learning disabilities such as dyslexia, dysgraphia, and dyscalculia, which we will take a few moments to discuss below. These diagnoses are based on patterns of processing information resulting from different areas of the brain having difficulty working together. These students, in particular, will benefit from a more integrated approach to learning and will also likely need more extensive, structured, and intensive support inside and outside the classroom.

The topic of language-based learning disabilities is expansive, and vital when you work in education. There are many wonderful books and researchers who have written on this topic such as Maryanne Wolf, and Daniel Franklin, among others. You have likely, hopefully, also gained experience regarding learning disabilities in your training. We will therefore not spend too much time on them here but will highlight some important facts, features, misconceptions, and warning signs, while providing you with references if you’d like to learn more. Again, while there are common patterns, signs, and symptoms of learning disabilities, each child is different. These diagnoses serve as a starting point to understanding the individual differences of the student. It is also of utmost importance to remember and understand the power of early intervention. Your professional observations and insights are critical to getting students the support they need, particularly given the amount of time you spend with students on a regular basis. We will explore the ways you can do this in Chapter 10.

Supportive Diagram

Language-based learning disabilities reflect individual differences in the way students process language, such as learning vocabulary, expressing themselves on paper, memorizing math facts, and reading.

(Continued)
Language-based learning disabilities including dyslexia, dysgraphia, and dyscalculia cause language-based learning to be more challenging for such students. They may have greater difficulty with vocabulary, reading, writing, getting their thoughts down on paper, expressing themselves, memorizing language-based information, and utilizing rote memorization. They may have greater difficulty with fluency in reading, writing, and math, remembering math facts quickly and accurately and processing more subtle sounds. Often kids with language-based learning disabilities have difficulty with phonetic decoding and phonological processing. They may struggle with retention and often times teachers may feel as though their student's learning isn't “sticking.” This is because they may have difficulty with retention, recognition, and retrieval skills making new learning more challenging for them.

The Diagnostic and Statistical Manual of Mental Disorders, the fifth edition of the classification by the American Psychiatric Association and an important diagnostic tool, estimates the prevalence of all learning disorders (including impairment in writing as well as in reading
and/or mathematics) to be about 5 percent to 15 percent worldwide. This percentage is similar to the incidence of developmental dyslexia, which is about 17 percent.\textsuperscript{11}

- **Dyslexia** is a learning disability characterized by a difficulty with reading. People with dyslexia often have difficulty reading at a good pace without making mistakes. This may also impact reading comprehension, spelling, and writing. Children with dyslexia often have difficulty with phonetic (i.e., sound) awareness, or matching letter sounds to their written form. They have difficulty with decoding and sounding out words which typically results in poor spelling ability. If this is not addressed very early on, it can have a negative impact on the child’s learning and academic success. It can also impact self-esteem, a sense of self-worth, and a positive overall sense of self.\textsuperscript{12}

- **Dysgraphia** is described as a language-based learning disability where a student has a specific set of writing challenges. Children with dysgraphia often have difficulty with handwriting, typing, and spelling. One of the main signs of dysgraphia is messy handwriting or difficulty with graphomotor functioning. Most students with dysgraphia have incredible ideas of things they want to write but have difficulty getting their thoughts down on paper. Again, there is a mismatch between the intellectual reasoning and their output, or their ability to demonstrate the amazing things that are going on in their brain.\textsuperscript{10–13}

- **Dyscalculia** is a learning disability that centers around math, including an individual’s ability to understand numbers and learn math facts, the prevalence among school-aged children ranges between 3 percent and 6 percent. Students with dyscalculia may have difficulty learning how to count, have trouble with telling time, and struggle when completing arithmetic problems.\textsuperscript{14}

Common warning signs associated with language-based learning disabilities include\textsuperscript{10–14}:

- **Dyslexia**
  - Slow, limited vocabulary
  - Difficulty rhyming
○ Trouble associating the sounds of letters to their corresponding shapes
○ Difficulty with rapid naming tasks, such as “tell me all the sea animals you can think of”
○ Challenges in phonological processing, and phonemic awareness
○ Avoiding reading out loud or to themselves
○ Increased frustration, anger, and/or anxiety around reading tasks
○ Avoiding homework

- **Dysgraphia**
  ○ Difficulty with letter or number formation—forming from the bottom-up rather than top-down, segmentation of letters, or inconsistent formation
  ○ Spacing between letters and words that is inconsistent—sometimes too much space, or maybe too little
  ○ Sizing of letters and numbers may also be inconsistent—sometimes too big and other times too small
  ○ Placement of letters and numbers on the line may be off—sometimes they write on an upward or downward slant or have difficulty staying in a straight line
  ○ Poor or inconsistent pencil grip
  ○ Difficulty with utilizing the right amount of pressure while writing—sometimes too much pressure or too little pressure
  ○ Poor organization of thoughts and ideas when writing sentences, short stories, or essays

- **Dyscalculia**
  ○ Difficulty with number sense and sequencing
  ○ Weak mental arithmetic skills
  ○ Slow to perform arithmetic and memorize math facts
  ○ Difficulty understanding place value
  ○ Has trouble learning to count, skips over numbers
  ○ Has trouble understanding number symbols
  ○ Struggles with understanding patterns (such as smallest to largest)