Q&A

PSYCHOLOGICAL ASSESSMENT ROUNDS–LEARNING DISABILITIES

PRESENTED BY
PETER K. ISQUITH, PHD
STEVEN G. FEIFER, DED

Q *Is there a reading program that color codes the vowel digraphs? Or is there a reading program beside Orton-Gillingham that you recommend for students with both orthographic and phonological deficits? Do you have good recommendations for orthographic interventions?*

Our new book, *The Neuropsychology of Reading Disorders: A Compendium of Research-Based Interventions*, will be released next week. There are more than 100 interventions and strategies we reviewed. The short answer is yes—try a visual phonics program such as Horizons for color-coding vowel patterns. Depending on the age and skill level of the child, Read 180 and Corrective Reading are good for readers weak in decoding and fluency.

Q *Can you recommend programs for older students who are either nonreaders or very low readers?*

Our new book, *The Neuropsychology of Reading Disorders: A Compendium of Research-Based Interventions*, will be released next week. There are more than 100 interventions and strategies we reviewed in that book. The Wilson Reading Program was initially designed for adolescents and adults with dyslexia. Also, Failure-Free Reading is for students in the bottom 15% on standardized assessments who have not responded to conventional reading programs.

I understand the importance of ruling out mental health/social–emotional potential issues, but what about when they coexist (for instance, if dyslexia seems evident in a student who also shows criteria for depression)? Your case doesn't have much anxiety or difficulty with attention, but so many kids have comorbid ADHD and generalized anxiety disorder, so it can't really be ruled out. When there are social–emotional issues as well as learning disabilities, how do you decipher if they are coexisting, if one drives the other, or if it is a "this AND that" versus a "this OR that" issue?

Social and emotional difficulties are common in children with learning disabilities. One of the first signs of a learning disability may be an emotional reaction or a change in a child, particularly in early elementary school. A student who believes they are doing well suddenly notices that their schoolwork is taking longer and is not as good as their peers, and they may become distressed and anxious and may show problematic behavior. This is the case of a learning disability challenging a child's self-concept and producing emotional/behavioral changes.

It may also be that a child with a learning disability also has anxiety or mood concerns. And further, a child with severe emotional or behavioral issues may not be available for learning to read and write, contributing to poor academic skill development and raising the question of a learning disability.

Social–emotional issues such as anxiety, stress, trauma, and so on negatively impact working memory and executive functioning. These processes, in turn, can disrupt reading comprehension. With respect to fluency, it can be important to measure reading silently versus reading out loud. If students struggle more to read out loud, they may be anxious and self-conscious about their reading, so fluency can be influenced by social–emotional issues. Phonics tends to be spared by social–emotional issues. This is one of the reasons the Feifer Assessment of Reading includes silent reading and reading out loud.

In any case, it is important to measure a student's emotional functioning when there is a question of a learning disability. We need to rule out mood and anxiety as contributors to learning problems and we need to assess comorbid emotional and behavioral issues that need to be addressed along with a learning disability. The case we chose to present was a less complicated case where the child's emotional functioning was not problematic. We will find cases to discuss in the future that have more of these problems to untangle.

What if rapid naming is in the average range but the student has difficulty with phonemic processing?

This occurs commonly. Children with dyslexic profiles, or more broadly reading disorders, typically have one or both problems with automaticity (reflected in slow rapid naming) and/or phonemic processing (reflected in a variety of rhyming, segmenting, blending, and elision tasks). Disruption in phonemic processing is most common, but disrupted rapid naming is close behind. Children with problems in both often are the more challenged readers.

Q *Can you address phonemic awareness being a learned versus innate skill/ability, especially in low-income areas where we see deficits in phonological processing? Is that always a rule in/out of specific learning disability?*

Phonemic awareness is our knowledge of the 44 sounds that make up the English language. We are born with the ability to detect all the sounds in all the languages in the world, but our auditory system is tuned over time to the language around us. Therefore, it is dependent on the sounds and dialects you hear every day. Phonological processing is a learned skill. Phonological processing deficits are seen across all income levels. Children with socioeconomic disadvantages may be less exposed to early reading and may have fewer opportunities for early education. Data from the pandemic showed clearly that children from lower socioeconomic backgrounds had a much greater loss of education than children from higher socioeconomic groups.

Q *How would you explain the math calculation deficits? Do you think that was related to the orthographic and rapid retrieval issues associated with mixed dyslexia?*

Language-based learning disabilities that lead to poor retrieval cut across both language-related tasks and math fact retrieval. The same process of making basic facts and skills automatic affects reading and writing as well as math. Children must learn to recognize numbers and must learn number facts to an automatic level in order to progress. We commonly see children with limited automaticity (i.e., poor rapid naming) who also are not automatic with math facts. This often shows up later when they are expected to learn multiplication tables, but they don't "stick." Math comprehension, however, usually remains intact.

Q *Once we achieve automaticity with many words, aren't they stored and accessed as a single entity versus decoding each time?*

Yes. This is referred to as *orthographical mapping*. Not only do we become automatic in our letter-sound knowledge and associations, but we do so at the phonemic level (e.g., *f* and *ph* are automatically understood as producing an *f* sound), but we learn to make word and even phrase recognition automatic. By the time we are fluent readers, we start down a sentence and our brain anticipates what is coming next. We do a match between what we expect and what we see, rather than attempting to decode each letter, word, or phrase. This is why "recovered dyslexics" in high school or college read more slowly and often have to read something twice, once for decoding and once for comprehension. They are still working on decoding words rather than using more advanced recognition and matching methods.

Q *Functionally, you noted that phonological difficulties underlie dyslexia, dysgraphia, and dyscalculia. Clinically, if you were providing a Diagnostic and Statistical Manual of Mental Disorders, Fifth Ed. (DSM-5) diagnosis, would you diagnose a specific learning disorder in reading, writing, and math?*

Yes. Although we recognize that a child with a dyslexic pattern will also show dysgraphia (poor spelling and writing) and often dyscalculia (poor math fact retrieval affecting calculations), we often use dyslexia as shorthand for all three as the same processing deficits are beneath all three of these academic difficulties. If using the [DSM-5](#), we might diagnose a specific learning disorder in reading, writing, and math to be complete.

Q *I have a student who has a high IQ (120), low average reading scores on the Kaufman Test of Educational Achievement (KTEA; 80s), and average phonological processing and decoding skills. His rapid naming is VERY slow, standard score of 70s. I was hesitant to call it dyslexia or specific learning disability (SLD) without the phonological issues. Could it still be dyslexia with good, solid phonological processing?*

Yes. Rapid naming taps *automaticity,* or how secure the child knows basic facts and skills. Phonemic processing deficits are not necessary for dyslexia, reading disorder, or SLD identification. It could be surface dyslexia, which captures poor speed and fluency with intact phonological processing.

Q *I understand the rationale behind this interpretation, but what about those kids/adults whose IQ scores are in the 60s and low 70s and are low in all aspects of reading, not just phonological? What do you do if IQ is in the low-to-mid 80s? If someone's standard scores are in the 70s–80s for reading, math, and writing skills, is that a learning disability?*

Reading disorders occur across the IQ spectrum and, though there is some correlation between IQ and reading/writing/math functioning, it is not a strong association. Children with lower cognitive functioning—including those with intellectual disabilities—can have reading problems.

Many children with intellectual disabilities have trouble with academics that are commensurate with the global cognitive functioning. This is where intellectual disability (ID) is a rule out for learning disabilities. Many children with lower IQ scores and even ID, however, have good phonological awareness and can make skills automatic, supporting good reading.

In any case, knowing something about a student's cognitive functioning can be helpful. It may be a rule in if you are using a discrepancy model for SLD identification, a point of comparison for a pattern of strengths and weaknesses (PSW) model, or a rule-out for any educational

disability determination. Under the Individuals with Disabilities Education Act (IDEA), a learning disability cannot be due to ID, making it an important rule out. Beyond this level of analysis, however, it is useful to know if a student is being appropriately challenged, if the demands are too high, or, in some cases, too simple.

Q

If looking at a clinical or an educational disability, how are we confidently ruling out exclusionary factors in the face of the pandemic? Can you comment on the findings that suggest the reciprocal nature of reading skill and phonological processing in the context of making a diagnosis following/in the midst of a pandemic? If we see phonological deficits that might underpin a reading disability, should we be concerned this may actually reflect a lack of proper academic exposure?

Absolutely. This has been a great challenge this year. We are seeing some children entering first and even second grade who have not been in school before. If the student has not had proper instruction to date, it would be difficult to identify SLD. We can look at the fundamentals or phonemic awareness and automaticity at the outset, then use good instruction, and measure if they catch up. If not, then we would consider SLD identification in these challenging and unusual times.

Q

What do you look for in diagnosing learning disorders? I know the discrepancy model is not very valid, so what standard scores or percentiles do you look for to determine if a child has a learning disorder or not? When do you use the discrepancy model, if ever?

I use a processing model that focuses on core processes that underscore reading. This includes phonemic awareness, phonological processing, orthographical processing, working memory, etc. For further reading, our new book [The Neuropsychology of Reading Disorders: A Compendium of Research-Based Interventions](#) may be helpful for you.

Many would argue that the discrepancy model works for many students and may work as well as or even better than a PSW model for identifying SLDs. Many states still use a discrepancy model. I work in one of them as well as in another state that is more PSW—and yet another one that is "whatever" (I prefer the "up to your clinical judgement" approach).

Keep in mind that the process of determining whether an educationally handicapping condition is present is NOT a diagnosis *per se*, but instead is a cutoff for who gets resources and who does not. We need to think of them separately. Clinically, we are interested in what kind of learning disability, if any, a child has and what processes are not working so we can remediate those. For example, we don't need to waste time on a phonological processing program when that isn't the issue. The team determination of an SLD is not a clinical diagnosis but it is a gatekeeping function to determine who gets the resources and who does not. That very process will have false negatives—children who need services but don't get them—and that is the greatest concern with either the PSW or the discrepancy model. Response to intervention is not a diagnostic model but a treatment model, and should be a part of our toolkit for every child—screen all children for risks of learning problems; use the best evidence-based approach to teaching reading, writing, and math; and measure progress. If the child isn't making progress, then assess those basic processes that support reading,

writing, and math, and in all likelihood, there is a discrepancy. These systems can work together in the hands of a good team.

Q

What cut-off scores do you look for in reading, writing, and math subtests?

As we suggest in the question above, cut-off scores are inherently problematic. When we choose a certain cut-off score above or below which a child gets services or does not get services, there will be a true positive rate (i.e., children who need services and we provide them) and a true negative rate (i.e., children who are doing fine and don't get services). But there will also be false positive cases (i.e., children who don't need services but get them) and, most concerning, false negative cases. These are children who, because of our cut-off score, need services but aren't eligible for them. This is why it is important to consider whether there appears to be a problem (such as the child's reading level is much lower than expected relative to age, grade, intellectual functioning, early intervention, etc.), and if there are problems with processes related to reading (like phonological awareness or automaticity), and then test if appropriate intervention is helpful.

Q

When you see lower WM and PSI and lower RAN, fluency, etc., what does that mean when cognitive profiles are not commensurately average?

What we know from decades of research on the neuropsychological profiles of children with learning disabilities, specifically dyslexia, is that the most common deficits are seen in phonological processing (sound awareness) and/or automaticity (slow rapid naming). We often see reduced immediate auditory memory (usually on digit span tasks) and slower speed of output (again, that automaticity problem). This pattern is quite common, especially once a child is in elementary school. We would not base a diagnosis on low WM and PSI scores, but they may be a factor along with phonological deficits and/or automaticity. There is no profile on a cognitive battery that is unique to learning disabilities.

Q

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Q

Are your schools accepting the [Feifer Assessment of Reading (FAR)](#)? How does it measure up to competitors?

Schools use the FAR, both in full assessment and in screening form, commonly. The FAR is different from academic batteries such as the [Academic Achievement Battery (AAB)](#), the Wechsler Individual Achievement Test, Fourth Ed. (WIAT-4), Kaufman Test of Educational Achievement, 3rd Ed. (KTEA-3), and others in that it is designed to measure the underlying processes that go into a reading problem and not reading itself. Thus, as in our case, we suspected a reading problem, gave an academic battery that looks at reading skill versus reading comprehension (and writing, math, listening, etc.), and then used the FAR to break down reading into processes. This helps us figure out if the reading problem is inexperience or something else.

The [Comprehensive Test of Phonological Processing–Second Edition (CTOPP-2)](#) is a venerated measure that looks at rapid naming and phonological processing like the FAR Screening Form. The FAR adds a semantic component to the screening assessment to check for comprehension issues. The full FAR battery is much more detailed than the CTOPP-2.

Q

Is the irregular word reading measure related to oral vocabulary?

No it is not. It is just a list of phonologically irregular words.

Q

Does the FAR consider second-language factors and/or students who are new to the country and have limited cognitive academic language proficiency?

We are currently working on the FAR Spanish for this very reason. Stay tuned for more information.

Q *What screening tools can teachers, school counselors, and social workers access to determine whether to make an initial referral for evaluation? Does PAR have screeners for those not qualified to use the more diagnostic instruments?*

The [FAR Screening Form (FAR SF)](#) is a Qualification Level B instrument that teachers can administer. It is useful as a very quick tool for detecting children at risk for reading (or writing) problems due to phonological, automaticity, or semantic weaknesses.

Q *How low does a standard score have to be before you feel that a child has a weakness in that processing area?*

"Impairment" or "deficit" or "relative weakness" and all other such terms are in the eyes of the beholder and relative to the child. For example, a standard score of 85 (1 standard deviation below average) might be a weakness for one child but a score of 100 would be a weakness for a gifted child. This requires clinical judgement. When a district sets a hard and fast rule, as they must do to be fair to all children, we run into a problem of hits and misses. Children who have a score of 86 when the cut-off score is 85, for example, would not get services, when we know that 85 and 86 are not meaningfully different. We have to use all available information including: 1) is the score substantially lower than expected for the student's age, grade, ability, experience; 2) is the student making good progress or are they stuck where they are; and 3) are there other indicators that suggest a true disability (i.e., phonological processing, automaticity, or working memory weaknesses)?

Q *What measure of the core components of reading would you recommend for adults over age 30?*

We typically use the same approach. We examine academic skills using a broadband battery (e.g., AAB, KTEA-3) and, if there are problems, use measures of reading speed and comprehension with adult norms. We can look at automaticity and phonological awareness with measures such as the FAR or the CTOPP-2.

Q *Are there other measures that look at the autism spectrum and LD discrepancies? Or can you include this in the future?*

Identifying learning disorders in children with ASD can be challenging, depending on the severity and nature of the ASD characteristics. Every child diagnosed with ASD is unique in their learning abilities. Some are excellent word readers with poor comprehension, some show dyslexic profiles, and some have no academic deficits. We can look at a child's reading alongside their ASD profile.

Q *Is there a need to use the FAR plus a normed achievement reading composite (e.g., the Woodcock-Johnson IV)? Why not just use the FAR to determine achievement in reading?*

Most schools require a broad reading score (e.g., basic reading, reading comprehension) to compare with IQ or age/grade, which is why traditional achievement tests are needed. We need to know how reading is going. If there are problems, then we use a processing measure like the FAR to understand what is driving the reading problem. The FAR is a process/diagnostic measure, whereas a broad academic battery is an outcome measure. They work together.

Q *Writing appears to be a huge issue in schools now even when there is no dyslexic profile. For example, I have a student who cannot sequence thoughts on paper and got a low score on the [Feifer Assessment of Writing (FAW)](#) Executive Index. Can you point me toward recommendations for interventions for such a student? He has a profile of cognitive ability very similar to the case here, except he has average visual–motor processing and naming speed.*

We are currently working on the FAW Interpretive Report, which will provide those interventions. In the meantime, check out [The Neuropsychology of Written Language Disorders: A Framework for Effective Interventions](#).

Q *On the AAB, does the examiner read the math word problems aloud to the student or does the student read them aloud to themselves? I was a little surprised by this student's higher math comprehension score. Do you think his ongoing math interventions led to him overcoming his reading deficits on the math comprehension subtest?*

The AAB Mathematical Reasoning task is not designed to be a measure of reading. The examiner reads the question (usually displayed in front of the student) and can repeat it up to two times. I have been using this measure for several years as my main academic achievement battery and can't recall having to repeat questions. The calculations are typically fairly simple and few students need pencil and paper for the calculations, though this is allowed. The purpose is to sample children's knowledge of basic math concepts. My case example in this rounds had good reasoning and understanding but was still counting on his fingers. He could show what he knew but had difficulty with the calculations as he had limited to no automaticity for letter-sound associations, months, or math facts.

Q

The medical diagnosis of SLD does not take the school performance and PM data into consideration and puts weight heavily on parent input and standardized assessment results. Yet the American Psychological Association indicates that if the child meets the criteria for a medical diagnosis of SLD, the child should meet the criteria for an educational specific learning disability.

Dr. Feifer: I have never worked with a physician who issued a medical diagnosis of SLD. They have always referred for more testing if SLD was suspected. To be honest, I do not even know what a medical SLD diagnosis really means.

Dr. Isquith: I agree. Though we see physicians diagnose ADHD or often anxiety or depression, most refer to the school for evaluation and consideration of a learning disorder. The *DSM-5* has brought criteria for SLD more in line with IDEA criteria, though they are not a perfect match. For example, while *DSM-5* does not mention IQ/general cognitive functioning but instead says that the reading/writing/math is much worse than expected relative to the child's age and grade, IDEA still includes intelligence as a comparison criteria. This is one of the reasons that we have to lay out and separate the functional deficits (i.e., phonological processing, rapid naming, language) from the clinical diagnosis (specific learning disorder) from the educational diagnosis (specific learning disability) from the colloquial term (dyslexia). They don't map one-to-one.