## MEETING THE CHALLENGE OF DYSLEXIA IN THE PANDEMIC AND BEYOND

Marc Joanisse | February 23, 2021

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The COVID-19 pandemic has exacerbated the challenges faced by people with dyslexia, who struggle with reading and writing despite apparently normal vision, intelligence, and spoken language ability. The disorder affects about 10% of school-age children, and when left untreated has long-term consequences for individual well-being.

Even before the pandemic, we knew that individuals with dyslexia have higher school drop-out rates and are less likely to pursue post-secondary training. Because the labor market requires skilled reading, people with low literacy are at greater risk of under-employment, homelessness, incarceration, mental health disorders and addiction. The challenge is societal, as approximately ten percent of school-aged children struggle with learning to read.

How have the challenges for individuals with dyslexia been aggravated by the pandemic? And what might be done to address these challenges? To understand the challenge and the way forward, we need a clear understanding of the disorder, how it's diagnosed and how best to treat it.

Symptoms of dyslexia include slow reading with frequent errors, difficulty spelling, and poor sentence and text comprehension. Recent research has also demonstrated that dyslexia can co-occur with other learning difficulties, including oral language, math, and attention deficits.

The prevailing scientific view is that dyslexia is caused by an impairment in the spoken form of language, called 'phonology'. This often materializes as problems with *phonological awareness*, that is, the ability to explicitly think about and manipulate phonemes that make up words. This includes judging whether two words start with the same sound, or whether they rhyme. These abilities are essential for early reading because they form the backbone of learning how the sounds of language match up with the written word. In dyslexia, phonological processing is disrupted, leading to difficulty learning and using these letter-sound associations.

Starting in the 1990s, educators began implementing phonological awareness screening in kindergarten to identify children at risk. They also introduced phonological awareness training as a way to boost reading scores. But despite these efforts, dyslexia continues to be a significant problem the school years, and parents of affected children still struggle to find appropriate help for them.

The ongoing scope of the problem was highlighted in 2019 when the Ontario Human Rights Commission launched its Right to Read Inquiry; over the course of its consultations, the Commissioners heard from individuals with dyslexia and their parents, who have struggled to find the support they need. The Commission's final report will be released this spring and is expected to highlight the difficulty that parents have in getting their child's reading problems identified and addressed, and how teacher training needs to be overhauled.

The challenges facing those with dyslexia continue to be profound, and they are not aided by a persistent misconception that dyslexia is a rare, specific and severe reading difficulty. In fact, reading impaired children show a spectrum of strengths and weaknesses, and the criteria used to identify a reading disorder involve choosing artificial cut-off scores along that continuum.

Given what we know and what we have learned, what supports can be enhanced for those with dyslexia? Here are three examples.

First, enhancing the focus on phonology in early readers: The science of reading tells us children learn to read most effectively when they are taught a 'phonics'-based curriculum. Phonics explicitly teaches learners what sounds go with which letters, and to decode words letter-by-letter so they can read any text, familiar or new. Prioritizing phonics instruction for struggling readers is essential, and research indicates that early interventions targeting these skills show the greatest promise in improving these children's reading.

This is also important in the context of remediation programs, which work best when they emphasize phonological awareness, letter-sound decoding, recognizing consistent grammatical patterns in words (like how *walking*, *talking* and *eating* all end in the *-ing* suffix), recognizing words with unusual spellings, and ultimately, understanding sentences and connected texts.

Admittedly, such programs require considerable investment to implement, are time-intensive, require educators specifically trained in reading instruction, and are done one-on-one or in small groups. As a result, we still haven't seen widespread adoption of intensive reading intervention programs.

Second: building out Universal Design for Learning. UDL is a movement that looks to improve teaching of children with learning difficulties by providing resources for addressing learning challenges in any classroom, in parallel with promoting specialized interventions where needed. This approach requires a dramatic re-thinking of how we train teachers in reading instruction. It also calls for a model of early screening that is more inclusive, allowing for degrees of disability and correspondingly flexible approaches to intervention.

Third: strengthening technological supports. There are phonics-based e-learning programs that do a great job of making learning to read fun through bright, engaging and fast-paced games. However, while technology is advancing quickly, these programs have not been validated for intervention in severe reading disorders. They are not yet a substitute for intensive intervention from in-person educators.

Social distancing and online learning brought on by the pandemic also threaten to widen achievement gaps for children with learning difficulties, in what's being called the 'COVID slide'. Identifying struggling readers is all the more challenging when teaching children online. Likewise, effective remediation programs are complicated to implement at a distance, since online instruction places increased emphasis on independent learning - a particular challenge for individuals with a reading disability.

Even in-person learning presents special challenges right now. While masks prevent the spread of COVID, they do also make spoken language more difficult for children to understand, by muffling the sounds of speech and hiding the speaker's articulations. One kindergarten teacher told me that children in his class were having difficulty playing along with phonemic awareness games because his mask made it hard for them to make out some sounds of words. Remarkably, his solution was to record YouTube videos of himself leading these activities, unmasked, which he then watches along with the children in the classroom.

Such ingenuity from our teachers is not surprising. When combined with enhanced technological support, a commitment to phonology and UDL, we can combine science with a human-centered approach to support children with dyslexia.

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