Identifying and Teaching Students with Significant Reading Problems



"No child is born a reader; all children in literate societies have to be taught to read."¹

"We are all good at speech, but disabled as readers and writers; the difference among us in reading/ writing is simply that some are fairly easy to cure and some are not."²

BY SHARON VAUGHN AND JACK M. FLETCHER

elping children learn to read is big business. From expensive literacy curricula and remedial programs to one-day workshops and brain-training fads, there are too many claims of guaranteed success and too little focus on trustworthy findings. Having been researchers studying mechanisms for improving literacy outcomes for more than 30 years, we offer a more sober—and sobering—review of what is known about how to help struggling readers.

To begin, we confess that there are some rather large holes in our collective knowledge. We know more about the science of reading than the science of reading instruction. In other words, we know a lot more about what components are associated with improved outcomes for each stage of reading development (e.g., phonemic awareness and the alphabetic principle are essential for beginning readers) than we do about how to teach all these components to a class of students with diverse learning needs. Similarly, we know more about interventions for students with mild to moderate reading difficulties than we do about students with severe reading difficulties. Students with very low reading skills—those at the bottom 10th percentile of word reading and lower—have been challenging to impact. Finally, in policy

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development, we have not capitalized on theory and science for effectively implementing new practices in schools.³ Still, there is much we do know that can support excellent instruction. Both here and in two online supplements—"It's Time to Act on a 20-Year-Old Consensus" (go.aft.org/vf_sb1) and "Three Things We Need to Learn" (go.aft.org/vf_sb2)—we offer guidance to prevent and address reading difficulties. There is no doubt that some children have reading disabilities, but the key to improved outcomes for the vast majority of struggling readers, including those with a reading disability, is enhanced core instruction—and that means enhanced curricula, assessments, pre-service and inservice professional development, and supports.

In the high-functioning system we describe below, the primary focus is on assessing changes in children's reading abilities as a response to instruction and on building educators' capacity to deliver more intense, customized interventions. To be effective, such assessments and interventions need to be delivered through a seamless system of well-coordinated general and special education supports that emphasizes prevention, reduces inappropriate referral to and placement in special education as a function of low reading ability, and provides more intensive interventions for students with reading disabilities. Inappropriate referral to and placement in special education is often a function of identifying students as needing special education who have not received an adequate opportunity to learn, as well as the view that special education is the solution for all children who do not readily learn to read. Some students are not given an opportunity to learn because they move frequently or are absent often; others are present day after day but are taught with programs and practices that are not based on the science of reading. Because so few teacher preparation programs, school districts, and commercially available programs have implemented consistently what we have learned from the science of reading, far too many students struggle-feeling like they are reading failures, not realizing that they were never provided the explicit instruction they need to succeed.* The vast majority of students with low reading achievement have preventable problems: with explicit, evidence-based instruction, they would learn to read.

These evidence-based practices are fundamental and necessary not only to develop strong readers but also to discern the differences between students with reading difficulties that can be readily supported through general education from those with serious reading disabilities or dyslexia. For the purposes of this article, we are using *reading disabilities* and *dyslexia* synonymously to refer to children with foundational decoding and spelling problems.

Students in classrooms where evidence-based fundamentals of reading instruction are deliberately implemented are far less likely to demonstrate reading difficulties. Enhanced general education instruction in the early grades reduces the number of children who do not meet grade-level benchmarks and start to fall behind, and therefore it reduces eventual referrals to special education.

We recognize that teachers—even those with the most advanced knowledge and skills—cannot and should not be asked to carry the entire burden of improving reading outcomes for all learners. We think there is ample evidence to suggest that educational systems can be organized so that the vast majority of students—close to 95 percent—will be reasonably successful readers when these organized systems are effectively implemented.⁴ The roughly 5 percent of students who do not make adequate progress when these systems are in place are likely truly reading disabled because of the persistence of their reading difficulties. They too can improve their reading skills, but they require highly specialized, intensive interventions and may have difficulty reading throughout their lives.

Assessments and interventions need to be delivered through a seamless system that emphasizes prevention.

Why Do Some Children Learn to Read Easily, While Others Struggle?

Learning to read is a process that occurs so readily for some youngsters that it seems to develop almost naturally. With minimal guidance and feedback, some students are on their way to recognizing the patterns of written



words and inferring the ways in which our phonological system (sounds of language) map to our complex orthography (written system). But for other students—anywhere from 40 to 65 percent—the task of learning to read is much more challenging. If these students do not receive highly explicit instruction with additional opportunities for implicit learning, difficulties in learning to read proficiently are inevitable. These more challenging readers are the ones who require the most knowledgeable and skillful teachers.

Reading science has established that learning to read is an acquired process, not a natural process-it's nothing like learning to walk or talk. There are no brain systems evolutionarily designed for reading. Rather, neural circuits for language and visual processing must be repurposed and reorganized to support literacy.5 One neural circuit involves the ability to process sublexical units of words, initially at the phonological level. The child must take what is essentially an implicit understanding of the sound system of language and explicitly apply it to print.⁶ Once this repurposing begins, another neural circuit designed for face and object recognition has to become a rapid letter and word processor; this reorganization of the circuit requires considerable meaningful exposure to print. As these circuits are revamped, they form a system, which usually takes several years to become well developed, that enables the child to process print with immediate access to the meaning of the word, which is sometimes described as "language at the speed

^{*}To learn more about how preparation programs, professional development, and other key supports could be improved, see "Teaching Reading *Is* Rocket Science" in the Summer 2020 issue of *American Educator*: aft.org/ae/summer2020/moats.

It is very hard to catch up if mastering the alphabetic principle is delayed.



of sight."⁷ If a child does not have access because of struggles with mastering the alphabetic principle, this system does not develop adequately and the child falls behind in the ability to automatically recognize letter patterns. Reading becomes an effortful, unenjoyable process. Because all children must reorganize these

neural circuits into a reading brain, prevention programs must focus on early acquisition of these skills. It is very hard to catch up if mastering the alphabetic principle is delayed. This is why prevention is more effective and less costly than remediation.⁸

Students with reading disabilities have great difficulty acquiring foundational, word-level reading skills; they do not decode words accurately or fluently, and often they have poor spelling. Except for assessing to determine children's responses to instruction, there are no effective methods for differentiating subgroups of children with word-level problems. *Students with reading disabilities (dyslexia) are real* and represent the largest group of children in special education, even though in many cases stronger instruction in the earlier grades may have prevented the special education referral; they also comprise a large portion of the general education population that does not read well but has not been identified for special education.

Preventing reading difficulties is about making sure every child is exposed to reading instruction that is sufficiently explicit and customized to support the acquisition of foundational skills within a language-rich learning environment that promotes vocabulary and background knowledge. This will reduce unnecessary special education referral and identification. Students with significant,

18 Common Misunderstandings of Dyslexia

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- 1 Students benefit from waiting until after second grade to provide reading intervention (False). Early screening and intervention provide opportunities for targeting reading needs and reducing the likelihood of long-term reading difficulties.
- Dyslexia requires specific and unique screening and identification approaches (False). Psychometrically sound approaches currently used to screen and identify students with reading problems are useful for screening and identifying students with dyslexia. Layering additional screening measures onto already psychometrically sound screening approaches is an unnecessary burden.⁹
- Providing more opportunities to read books will resolve their reading problem (False). All students benefit from increased opportunities to read a variety of text levels and types. However, additional reading practice for students with dyslexia is an inadequate approach to improving their reading outcomes. These students also require comprehensive approaches to reading instruction that include decoding, opportunities to practice for fluency, and comprehension instruction.

Colored lenses or overlays help improve reading for students with dyslexia (False). Though the issue of colored lenses and overlays continues to appear in a range of professional guides, there is no evidence to support their effectiveness.¹⁰ Similarly, multisensory instruction is not necessary for students with dyslexia. However, there are many systematic approaches to improving reading outcomes for students with dyslexia.

- Students with dyslexia primarily have reading comprehension problems (False). Students with dyslexia have word-level difficulties that are manifested in difficulty reading text accurately and proficiently. These word-level difficulties result in reading comprehension problems, but teaching reading comprehension strategies alone will not resolve the reading problems of individuals with dyslexia.¹¹
- 6 Many educators have not had opportunities to develop the knowledge necessary to provide evidence-based screening, assessment, and interventions for students with dyslexia (True). There is considerable research documenting the need for educators to have improved knowledge and skills for better identifying and teaching students

with dyslexia and other reading problems.¹² Many reading teachers perceive that they lack the confidence to teach students who are identified as dyslexic.13 Dyslexia is rare, and most individuals grow out of it (False). Dyslexia is a universal condition that occurs across writing systems, not just the alphabetic system, with prevalence rates of approximately 5-15 percent depending on the threshold for poor reading.14 While the manifestations of dyslexia can dissipate because of effective instruction, most individuals with dyslexia who show intractability to effective instruction have slow and labored reading throughout their lives.¹⁵

- Dyslexia operates on a continuum in which the severity can be represented as mild to severe (True). Dyslexia does not look precisely the same for all learners, and the range of reading difficulties because of dyslexia also vary, but reading is normally distributed in the population (i.e., a small percentage of people are excellent readers, most are average or close to it, and a small percentage are very weak readers), and dyslexia is the lower end of this distribution.¹⁶
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Many students with dyslexia display difficulties with spelling and handwrit-

intractable reading problems that are not responsive to evidencebased instruction meet an important threshold for special education referral and identification. However, students who have not consistently had access to evidence-based instruction (because they are absent often or because their school district is not aware of the science of reading) are the students for whom reading difficulties can be prevented. While adequately addressing all the issues related to reading disabilities and dyslexia is beyond the scope of this article, we highlight "18 Common Misunderstandings of Dyslexia" below.

How Should Educational Systems Be Organized So That the Vast Majority of Students Learn to Read?

Nearly two decades ago, the President's Commission on Excellence in Special Education¹⁷ made three recommendations that—if fully implemented—could dramatically improve the instruction children receive and their reading achievement. The first recommendation was to *focus on results, not process*. The commission observed that special education was a highly bureaucratic process that did a good job in providing civil rights protection once a child was identified, but did not show strong evidence for accelerated gains in learning. It recommended the simplification of paperwork requirements and a change in monitoring of school-based implementation of special education to a focus on outcomes.

The second recommendation was to *embrace a model of prevention, not a model of failure*. Many literacy problems can be



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ing (True). Students with dyslexia often have difficulties not only with reading words but also with spelling and writing words. Effective instructional approaches target word reading, spelling, and writing.

- Dyslexia has a familial and genetic association (True). There is a much higher rate of dyslexia in families with a familial history of dyslexia—as high as 45 percent in most studies.¹⁸
 - Improving home literacy will resolve dyslexia (False). It is not useful to consider the home environment as the causal factor for dyslexia. While opportunities to read are beneficial to all learners, improving home literacy will not resolve reading challenges for individuals with dyslexia.

Brain training can improve reading outcomes for students with dyslexia (False). Many approaches to improving dyslexia falsely claim that they can "train" the brains of individuals with dyslexia result-

ing in improved reading outcomes. Cognitive training in isolation of a reading program does not generalize to improved academic outcomes.¹⁹

Only certified language therapists are capable of providing effective reading interventions for students with dyslexia (False). Educators with

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extensive knowledge of the science and practice of reading instruction who are using evidence-based practices are prepared to meet the needs of students with dyslexia.

Students with dyslexia see letters and 14 words backwards (False). Perhaps one of the oldest and most persistent myths regarding individuals with dyslexia is that they see and write letters and words backwards or upside down. Many young children reverse letters when beginning reading and writing; with instructional practice and feedback, this issue is remedied.²⁰ Vision therapy is an effective approach 15 for students with dyslexia (False). The faulty idea that dyslexia is a result of a vision disorder of some type has been very slow to go away. Many vision training approaches exist and have not been associated with any improvements in reading for individuals with dyslexia, including a recent randomized trial that showed no effect of optometric exercises on reading skills.²¹ Dyslexia can be addressed with medi-16 cations (False). There is no medication that will remedy word reading difficulties. While many students with dyslexia also demonstrate difficulties with attention and may be diagnosed

with attention deficit disorder, medications appropriate for these students are aimed at their attention problems, not their reading difficulties per se, and the medications do not lead to improved decoding.²²

Students with dyslexia are more creative, gifted, and talented than other students (False). There are many highly skilled and capable individuals with dyslexia who have gifts and talents. Just like in the population as a whole, not all individuals with dyslexia would be identified with extraordinary gifts or talents.

Classroom teachers can be a valuable 18 asset to remedying difficulties for students with dyslexia (True). Classroom teachers may be the most important and valuable resource for students with dyslexia. Classroom teachers are their primary reading teachers as well as the educators who have the most influence on their self-worth. Classroom teachers can be a tremendous source of socialemotional and educational support for students with dyslexia. Armed with the knowledge and skills, classroom teachers can alter the learning and life trajectories of students with dyslexia.

-S. V. and J. M. F.

resolved with early intervention, so the commission advocated for universal screening, progress monitoring, and increasingly intense intervention based on instructional response; prevention was to start upon school entry and be supported by special education personnel. These methods, originally subsumed under a response to intervention (RTI) rubric, are now often referred to as multiple tiers of systematic support (MTSS).

It is better to over-identify children at risk for reading problems as early as possible than to under-identify.



The third recommendation was to *consider children with disabilities as general education children first*. Although requirements for placement in the least restrictive environment result in many children with reading disabilities spending the bulk of their school day in general education, there is often little alignment between the

approaches to literacy instruction in general and special education. The primary special education intervention often involves accommodations, not remedial interventions to significantly improve students' reading ability.

We, as well as others, have summarized a model for preventing reading difficulties that aligns with an RTI/MTSS approach.²³ The fundamental principle of prevention is screening to identify risk early.²⁴ The idea is that it is better to over-identify children at risk for reading problems as early as possible and provide necessary instruction than to under-identify and have large numbers of students who suffer as their problems linger without the required instructional supports. An overview of this system for preventing reading difficulties is illustrated in the "Tiers of Instruction" below.

In this seamless, supportive system, all students are screened. Those at risk for reading difficulties receive continued evidencebased Tier 1 literacy instruction in the classroom, ongoing progress monitoring, and, if needed, a Tier 2 intervention that addresses their specific literacy problems. This Tier 2 intervention may be provided by the classroom teacher, a trained teaching assistant supervised by the classroom teacher, or an educational specialist such as a reading teacher. Tier 2 interventions are not part of a special education but rather an extension or supplement within general education. Students participate in Tier 2 intervention for a specified period of time, typically 8–12 weeks, with ongoing progress monitoring, approximately every two weeks. Using progress monitoring data and teachers' observations, each student's response to literacy instruction is determined (e.g., is the student reaching expected benchmarks?).

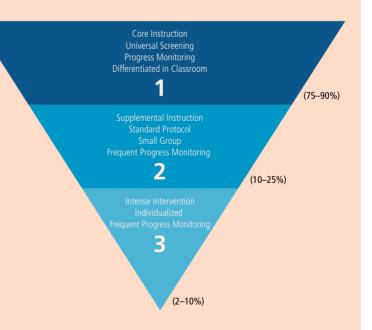
If the student's response is not sufficient to meet progress monitoring benchmarks, there are several options, including adjusting the instruction, changing the group, adjusting the group size, changing the intervention, or providing an increasingly intensive intervention (which may be longer, e.g., 30–45 minutes rather than 20 minutes, and more customized to each student's needs). If inadequate instructional response continues, the educational team or parent/guardian may determine that an eligibility evaluation for special education is in order. The advantage to this approach is that students are provided appropriate, evidence-based instruction early; for the majority of students, this rapid Tier 2 intervention is adequate for becoming strong readers. Only those students with persistent and significant reading difficulties would be referred for special education or dyslexia services.

Throughout this model, screening and progress monitoring are critical. Most schools across the United States are imple-

Tiers of Instruction

The Tiers of Instruction describes a model for providing increasingly customized reading interventions to students at risk for reading problems. Commonly presented as a triangle, we have tipped the triangle to emphasize the primacy of Tier 1 instruction for all students. Tiers 2 and 3 increase intensity for students who do not respond adequately to instruction. The percentages represent estimates, based on effective implementation of a multi-tiered system, of how many children are likely to be at or near grade level and only need Tier 1 (effective, evidence-based instruction for the whole class), at risk of reading difficulties and require Tier 2 (targeted, efficient supplemental instruction), or at risk of severe challenges and require Tier 3 (intensive, customized intervention, often with special education and/or dyslexia services).

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menting screening approaches to reading difficulties that ostensibly identify those youngsters who are at risk for reading failure. It is mandated for dyslexia in over 40 states.²⁵ Effective screeners (1) require 10 minutes or less per child, (2) demonstrate strong psychometric properties (e.g., are valid and reliable), (3) provide readily usable data that identify students as either at risk or not at risk, (4) are developmentally appropriate and can be administered two to three times per year, and (5) are easily scored. Errors in identifying which children are at risk of reading difficulties are inevitable, but we think schools should focus on reducing errors that result in *not* identifying risk (false negatives). In other words, it is better for a child who does not need extra instruction to get it than for a child who does need extra instruction to go without.

For progress monitoring, short probes involving timed word or passage reading are used so that teachers can make instructional decisions.²⁶ These types of assessments are aimed at improving instruction and determining each student's incremental progress, recognizing that for students who are consistently making inadequate progress, additional interventions may be warranted. (For an easy-to-use review of progress monitoring tools, see charts.intensiveintervention.org/aprogressmonitoring.)

Progress monitoring data can be useful in many ways. First, these data can document that students are learning the critical aspects of reading (e.g., sound-spelling patterns, vocabulary) being taught. Second, the types of responses students provide can guide instruction by highlighting each student's needs for reteaching and additional practice, while those elements that appear to be successfully learned can be monitored for maintenance. Third, data from these measures can facilitate decisions about curriculum (e.g., whether additional or different programs are needed), grouping (e.g., some students may benefit from a more advanced group; others may benefit from a mini one-on-one lesson to enhance performance), and interventions (e.g., whether to continue an intervention). Fourth, these data-especially ongoing progress monitoring data-can inform decisions about referral to and placement in special education. If special education eligibility becomes an issue, the best signal is the intractability of the child's reading problems when provided with the explicit instruction that works for most children.

How Can a Supportive, Integrated General and Special Education System Be Implemented?

Developing a systemic approach to supporting teachers so that they can meet the needs of the range of readers in their classrooms requires ongoing screening, monitoring students' responses to instruction so that teachers can adjust instruction to meet students' needs, and fidelity of implementation to ensure adherence to treatment protocols. But seamlessly assembling all these pieces is not easy.

First, most educators, including teachers and school leaders, would benefit from ongoing *situated professional development* that builds on the knowledge they have and extends it in ways that may be readily implemented in their school setting. What happens when you say "professional development" to most educators? Do they smile with anticipation about what they will learn and how they can implement it in their school? Typically, no. Too often, professional development is a one-day exposure to ideas (of varying quality), many of which are lost before the next day at school.



Building up the seamless system takes time and a great deal of in-class support for teachers.

We are suggesting a distributed professional development model that provides ongoing learning opportunities as each aspect of the new system is launched. This model can follow standards like those from Learning Forward (learningforward.org/ standards-for-professional-learning). Workshops on how to screen children and offer highly effective Tier 1 instruction would be followed with in-class coaching and support until the majority of educators were aligning their practices with data on outcomes. Then, educators would learn how to extend their Tier 1 practices with Tier 2 supplemental interventions, increasing time in literacy instruction for students who are not making sufficient progress. This would ensure that the instruction children receive in Tiers 1 and 2 is well aligned, which increases effectiveness.

Adding Tier 3 instruction requires yet more professional development, coaching, and coordination. Tier 3 more intensively focuses intervention on students' skill gaps and may be guided by more diagnostic and progress monitoring assessments. Students in Tier 3 may be candidates for special education and/or dyslexia identification and services. Because of the focus on individual skill gaps, it is not as tightly aligned with Tier 1 (regular classroom instruction), but Tier 1 remains essential for providing a comprehensive reading program. For example, a child receiving Tier 3 intervention for specific decoding skills needs Tier 1 core instruction to continue progressing in vocabulary, listening comprehension, writing across genres, and other aspects of English language arts.

Building up the seamless system takes time and a great deal of in-class support for teachers—but it is far more effective than scattershot workshops. Preventing and addressing reading difficulties is hard, but the effort pays big dividends in reducing reading difficulties. We urge schools, districts, and states to put far more effort into systemic supports (especially the professional development and coaching for teachers and administrators described here). We recommend beginning in grade 1, where the strongest evidence of the efficacy of these approaches exists, and then expanding to other grades.

What Can Teachers Do Now to Support Students with Reading Difficulties or with Mild to Moderate Disabilities or Dyslexia?

Most of what we describe above requires system-level change. But teachers want to do what's best for their students today. Here are six steps that teachers can implement in their classrooms now (and that school leaders should start supporting immediately).

Far too many students and teachers are struggling. It is long past time for leaders to step up.



 Use academic learning time deliberately and purposefully to ensure students receive the maximum amount of 5. evidence-based instruction. Academic engagement—i.e., time on task—is an excellent predictor of academic outcomes.²⁷ Consider how much time you spend explicitly

teaching and providing highly focused instructional time. Observation studies reveal that surprisingly little class time is devoted to explicitly teaching the high-priority skills associated with improved reading outcomes.²⁸ Consider ways to structure your classroom, teaching, and resources so that maximum time is spent on instruction and minimal time is lost to transitions, over-explaining, and behavioral management.

- 2. Consider the value of the one-minute lesson. Many students with significant reading difficulties benefit from a one-minute lesson in which they are provided a mini review of a challenging task, an opportunity to practice word reading with feedback, or a chance to demonstrate what they know with feedback. Time is always an issue, but do not allow it to block you from spending highly focused instructional minutes with the students who need you the most.
- 3. Offer customized instruction that reflects students' learning needs. Many of the students you teach learn to read almost effortlessly. However, students with reading difficulties, disabilities, or dyslexia require highly customized instruction that aligns with their specific learning needs. How can you determine what this customized instruction might be? Examine their screening and progress monitoring data. Determine the high-priority areas in which they require additional instruction and practice. Identify ways to include this type of work each day in an individual mini lesson or with a small group of students with similar needs. Provide practice opportunities with feedback so they have multiple opportunities to acquire proficiency.
- 4. *Give struggling readers instruction in small groups, in pairs, or one on one.* Many students with reading difficulties benefit from the specialized instruction that is allowable in small-group, paired, and one-on-one instruction. These formats provide opportunities to tailor instruction to their needs with appropriate practice and targeted feedback.
- 5. Create many opportunities to read a range of text types and a range of text levels. Students who struggle with reading benefit from opportunities to generalize their reading to varied text types, including digital texts, informational texts, and narrative texts as well as hybrid informational and narrative texts such as biographies. This variation in text types is not just for older students but can be part of the listening comprehension and text reading of younger students, including beginning readers. Also, consider ways to vary the text levels that students read. Students can read and comprehend more advanced texts when they have adequate background knowledge, are motivated by the topic, and/or have additional instructional support.

Hope for the Lowest-Achieving Readers

Maureen Lovett and her colleagues are among the very few scholars who tackle developing and implementing interventions for students whose word reading troubles are intractable.²⁹ One promising program is called PHAST: Phonological and Strategy Training.³⁰ PHAST uses components based on direct instruction principles and strategy training with a metacognitive approach to promote generalization of word recognition strategies. In one study,³¹ children gained about half of a standard deviation (which is a relatively large gain among this population) in reading skills after 70 hours of instruction. Similarly, researchers³² found good growth when they provided a Tier 3 intervention to children who did not respond to Tier 1 or 2 instruction. The intervention consisted of about 70 hours of decoding instruction (delivered daily, two hours per day) followed by a fluency intervention for another eight weeks at an hour per day. The children's reading achievement increased by about two-thirds of a standard deviation, and about half of the children met grade-level benchmarks.

Unfortunately, it is difficult for schools to provide this level of intensity, although it seems essential for helping the lowestachieving students. Through after-school and summer school programs, districts and states should find ways to provide this type of intensive intervention.

- 6. *Provide explicit instruction that incorporates clear feedback.* Explicit instruction with feedback is highly effective, especially when students are having difficulty learning with less explicit methods. Teachers who offer this type of evidence-based instruction do the following:
 - Identify, prior to teaching, what they expect the students to do or say.
 - State clearly and in as few words as possible what they need students to know.
 - Model what they expect students to say or do.
 - Ask students to demonstrate what is expected (e.g., blend phonemes, read a word, read a text silently).
 - Provide prompt feedback that is specific and clear (e.g., "I heard several of you blending the sounds /r/, /a/, /t/ and then saying the word 'rat.' That is what I expect. I also heard several of you *only* saying the word 'rat' and not blending the sounds. I will give you three more sounds, and I want everyone to both blend the sounds and say the word.").
 - Give selected students opportunities to respond independently (and avoid only calling on the most capable students).
 - Control the task difficulty by making the task less difficult for students in need of adaptation and then gradually increasing the task difficulty as their performance improves.
 - Maintain high levels of student success, engagement, and response.

Wrap Up

The degree to which a student expresses a reading difficulty is always an interaction between the child's opportunity to learn (due to absences, instructional quality, or other issues) and the extent of the student's reading impairment. Thus, youngsters who are provided a genuine opportunity to learn to read-including high-quality, explicit, evidence-based instruction-and yet still present with significant reading difficulties are likely to have a severe reading impairment. In contrast, children who have not consistently been able to access high-quality, evidence-based instruction and present with significant reading difficulties are likely to have reading problems that could have been prevented and still can be remediated. This difference is of the utmost importance. Currently, there are students with preventable reading problems who are suffering academically and emotionally, and who are placed in special education often to receive accommodations without effective remediation. And there are students with severe reading disabilities or dyslexia who are not getting the intensive interventions they need-in part because special education is overwhelmed with large numbers of students who do not actually have reading disabilities.

This must end, but teachers cannot solve these problems on their own. These are systemic problems—and that is why we have proposed a new, seamless, three-tiered system of general and special education to address them. Far too many students and teachers are struggling. It is long past time for leaders of schools, districts, and states—not to mention teacher preparation programs, curriculum developers, and professional development providers—to step up, change their policies and programs, and focus on meeting children's needs.



Endnotes

1. G. R. Lyon et al., "Rethinking Learning Disabilities," in *Rethinking Special Education for a New Century*, ed. C. E. Finn et al. (Washington, DC: Thomas B. Fordham Foundation and Progressive Policy Institute, 2001), 287.

2. A. Liberman, "How Theories of Speech Affect Research in Reading and Writing," in *Foundations of Reading Acquisition and Dyslexia: Implications for Early Intervention*, ed. B. Blachman (Mahwah, NJ: Lawrence Erlbaum, 1997), 5.

3. L. Sanetti and M. Collier-Meek, Supporting Successful Interventions in Schools: Tools to Plan, Evaluate, and Sustain Effective Implementation (New York: Guilford Press, 2019).

4. J. Fletcher and S. Vaughn, "Response to Intervention: Preventing and Remediating Academic Difficulties," *Child Development Perspectives* 3, no. 1 (2009): 30–37; and A. VanDerHeyden, J. Witt, and D. Gilbertson, "A Multi-Year Evaluation of the Effects of a Response to Intervention (RTI) on Identification of Children for Special Education," *Journal of School Psychology* 45, no. 2 (2007): 225–256.

5. S. Dehaene, *Reading in the Brain: The New Science of How We Read* (New York: Penguin Random House, 2009).

6. Liberman, "How Theories of Speech."

7. M. Seidenberg, Language at the Speed of Sight: How We Read, Why So Many Can't, and What Can Be Done About It (New York: Basic Books, 2017).

8. Fletcher and Vaughn, "Response to Intervention."

9. A. VanDerHeyden, M. Burns, and W. Bonifay, "Is More Screening Better? The Relationship Between Frequent Screening, Accurate Decisions, and Reading Proficiency," *School Psychology Review* 47, no. 1 (2017): 62–82.

 J. Fletcher and D. Currie, "Vision Efficiency Interventions and Reading Disability," Perspectives on Language and Literacy 37, no. 1 (2011): 21–24.

11. J. M. Fletcher et al., *Learning Disabilities: From Identification to Intervention*, 2nd ed. (New York: Guilford Press, 2019).

12. A. E. Cunningham et al., "Disciplinary Knowledge of K–3 Teachers and Their Knowledge Calibration in the Domain of Early Literacy," *Annals of Dyslexia* 54 (2004): 139–167; and L. Spear-Swerling and P. Brucke, "Preparing Novice Teachers to Develop Basic Reading and Spelling Skills in Children," *Annals of Dyslexia* 54 (2004): 332–364.

13. J. Worthy, "'We Know for a Fact': Dyslexia Interventionists and the Power of Authoritative Discourse," *Journal of Literacy Research* 50, no. 3 (2018): 359–382.

14. R. Peterson and B. Pennington, "Developmental Dyslexia," *The Lancet* 379, no. 9830 (2012): 1997–2007.

15. S. Shaywitz et al., "Persistence of Dyslexia: The Connecticut Longitudinal Study at Adolescence," *Pediatrics* 104, no. 6 (1999): 1351–1359.

 A. Ellis, Reading, Writing and Dyslexia: A Cognitive Analysis (Hove, UK: Psychology Press, 1993).
 US Department of Education, Office of Special Education and Rehabilitative Services, A New Era: Revitalizing Special Education for Children and Their Families (Washington,

DC: 2002).
18. M. Snowling and M. Melby-Lervåg, "Oral Language Deficits in Familial Dyslexia: A Meta-Analysis and Review," *Psychological Bulletin* 142, no. 5 (2016): 498–545.

 See, for example, M. Melby-Lervåg, T. Redick, and C. Hulme, "Working Memory Training Does Not Improve Performance on Measures of Intelligence or Other Measures of 'Far Transfer': Evidence from a Meta-Analytic Review," *Perspectives on Psychological Science* 11 (2016): 512–534.

20. Dehaene, Reading in the Brain.

21. M. Scheiman, "Effect of Vergence/Accommodative Therapy on Reading in Children with Convergence Insufficiency: A Randomized Clinical Trial," *Optometry and Vision Science* 96, no. 11 (2019): 836–849.

22. L. Tamm, "Comparing Treatments for Children with ADHD and Word Reading Difficulties: A Randomized Clinical Trial," *Journal of Consulting and Clinical Psychology* 85, no. 5 (2017): 434–446.

(Continued on page 40)

Identifying and Teaching Students The Power of "Screen Time" with Significant Reading Problems

(Continued from page 11)

23. Fletcher and Vaughn, "Response to Intervention."

24. For similar models, see G. Batsche et al., Response to Intervention: Policy Considerations and Implementation (Alexandria, VA: National Association of State Directors of Special Education, 2005); and J. Kovaleski, A. VanDerHeyden, and E. Shapiro, The RTI Approach to Evaluating Learning Disabilities (New York: Guilford Press, 2013).

25. Y. Petscher et al., Screening for Dyslexia (Washington, DC: US Department of Education, Office of Elementary and Second-ary Education, Office of Special Education Programs, National Center on Improving Literacy, 2019).

26. L. Fuchs et al., "Bringing Data-Based Individualization to Scale: A Call for the Next-Generation Technology of Teacher Supports," Journal of Learning Disabilities (forthcoming)

27. C. Greenwood, B. Horton, and C. Utley, "Academic Engagement: Current Perspectives on Research and Practice," School Psychology Review 31, no. 3 (2002): 328-349; and J. Stallings, R. Johnson, and J. Goodman, "Engaged Rates: Does Grade Level Make a Difference?," Journal of Research in Childhood Education 1 (1986): 20-26.

28. D. Chard and E. Kameenui, "Struggling First-Grade Readers: The Frequency and Progress of Their Reading," Journal of Special Education 34, no. 1 (2000): 28-38; and S. Vaughn et al., "Reading Instruction for Students with LD and EBD: A Synthesis of Observation Studies," Journal of Special Education 36, no. 1 (2002): 2-13.

29. See, for example, M. Lovett et al., "Treating the Core Deficits of Developmental Dyslexia: Evidence of Transfer of Learning After Phonologically- and Strategy-Based Reading Training Programs, " Developmental Psychology 30, no. 6 (1994): 805–822; and R. Morris et al., "Multiple-Component Remediation for Developmental Reading Disabilities: IQ, Socioeconomic Status, and Race as Factors in Remedial Outcome," Journal of Learning Disabilities 45, no. 2 (2012): 99-127.

30. M. Lovett, R. Barron, and J. Frijters, "Word Identification Difficulties in Children and Adolescents with Reading Disabilities: Intervention Research Findings," in Handbook of Learning Disabilities, ed. H. Swanson, K. Harris, and S. Graham (New York: Guilford Press, 2013).

31. Morris et al., "Multiple-Component Remediation."

32. C. Denton et al., "An Evaluation of Intensive Intervention for Students with Persistent Reading Difficulties." Journal of Learning Disabilities 39, no. 5 (2006): 447-466.

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(Continued from page 25)

Technologies Can Work Together to Support Learning," Computers & Education 54, no. 3 (2010): 669-678.

21. A. Shamir, O. Korat, and N. Barbi, "The Effects of CD-ROM Storybook Reading on Low SES Kindergartners' Emergent Literacy as a Function of Learning Context," Computers & Education 51, no. 1 (2008): 354-367

22. R. Silverman et al., "Effects of a Cross-Age Peer Learning Program on the Vocabulary and Comprehension of English Learners and Non-English Learners in Elementary School, Elementary School Journal 117, no. 3 (2017): 485-512.

23. Shamir et al., "The Effects of CD-ROM Storybook Reading"; and Silverman et al., "Effects of a Cross-Age Peer Learning Program."

24. M. Martin-Beltrán et al., "Using Digital Texts vs. Paper Texts to Read Together: Insights into Engagement and Mediation of Literacy Practices Among Linguistically Diverse Students." International Journal of Educational Research 82 (2017): 135-146.

25. W. Chen and J. L. Adler, "Assessment of Screen Exposure in Young Children, 1997–2014," JAMA Pediatrics 173, no. 4 (2019): 391-393; and Common Sense Media, The Common Sense Census: Media Use by Tweens and Teens in 2019 (San Francisco: Common Sense Media, 2019).

26. S. Pappas, "What Do We Really Know About Kids and Screens," American Psychological Association 51, no. 3 $(2020) \cdot 42$

27. J. Gillen and N. Kucirkova, "Percolating Spaces: Creative Ways of Using Digital Technologies to Connect Young Chil-dren's School and Home Lives," British Journal of Educational Technology 49, no. 5 (2018): 834-846.

28. National Academies of Sciences, Engineering, and Medicine, How People Learn II: Learners, Contexts, and Cultures (Washington, DC: National Academy Press, 2018).

29. K. Mills and A. Levido, "iPed: Pedagogy for Digital Text Production," Reading Teacher 65, no. 1 (2011): 80-91. 30. Labbo and Kuhn, "Weaving Chains of Affect and

Cognition

Teaching About Identity, Racism, and Fairness

(Continued from page 39)

4. S. Smith, M. R. Granja, and U. S. Nguyen, New York State Profile of Young Children in Deep Poverty (New York: National Center for Children in Poverty, Mailman School of Public Health, Columbia University, 2017).

5. Annie E. Casey Foundation, A Shared Sentence: The Devastating Toll of Parental Incarceration on Kids, Families and Communities, Policy Report (2016), 2.

6. L. J. Schweinhart, H. V. Barnes, and D. P. Weikart, Significant Benefits: The High/Scope Perry Preschool Study Through Age 27 (Ypsilanti, MI: High/Scope Press, 1993); L. J. Schweinhart et al., Lifetime Effects: The High/Scope Perry Preschool Study Through Age 40 (Ypsilanti, MI: High/Scope Press, 2005); and D. P. Weikart, Longitudinal Results of the Ypsilanti Perry Preschool Project (Ypsilanti, MI: High/Scope Educational Research Foundation, 1993).

7. J. Heckman and G. Karapakula, The Perry Preschoolers at Late Midlife: A Study in Design-Specific Inference (Cambridge, MA: National Bureau of Economic Research, 2019).

8. K. B. Clark, Prejudice and Your Child (Boston: Beacon Press, 1963); M. E. Goodman, Race Awareness in Young Children (Cambridge, MA: Addison-Wesley, 1952); and H. Trager and M. R. Yarrow, *They Learn What They Live: Prejudice in Young Children*, Problems of Race and Culture in American Education, Issue 8 (New York: Harper & Brothers, 1952).

9. P. Bronson and A. Merryman, "See Baby Discriminate," Newsweek, September 14, 2009, 53-59

10. J. Lane, Young Children and Racial Justice (London: National Children's Bureau, 2008).

11. L. Derman-Sparks and P. Ramsey, with J. O. Edwards, What If All the Kids Are White? Anti-Bias Multicultural Education with Young Children and Families, 2nd ed. (New York: Teachers College Press, 2011)

12. Derman-Sparks and Ramsey, What If?

13. Clark, Prejudice and Your Child, 81.

The Fraught Debate Over **Reopening Schools**

(Continued from page 27)

13. S. Soucheray, "US Blacks 3 Times More Likely Than Whites to Get COVID-19," Center for Infectious Disease Research and Policy, August 14, 2020.

14. M. Jordan and R. Oppel, "For Latinos and COVID-19, Doctors Are Seeing an 'Alarming' Disparity," New York Times, May 7, 2020.

15. T. Selden, T. Berdahl, and Z. Fang, "The Risk of Severe COVID-19 Within Households of School Employees and School-Age Children," Health Affairs 39, no. 11 (2020): 2002-2009

16. "COVID-19 Planning Considerations: Guidance for School Re-Entry," American Academy of Pediatrics, services.aap.org/ en/pages/2019-novel-coronavirus-covid-19-infections/ clinical-guidance/covid-19-planning-considerations-return-toin-person-education-in-schools.

17. "COVID-19 Planning Considerations."

18. L. Garabedian and R. Haffajee, "Schools Need to Assume Kids Can Get and Spread COVID, and Operate Safely for All Ages," USA Today, August 28, 2020.

19. K. Forde, "No Access: Remote Learning Widens US Digital Divide for Students," Al Jazeera, October 23, 2020.

20. D. Dayen, "Unsanitized: Paying Restaurants to Close Is a Public Health Imperative," American Prospect, October 22, 2020.

The Education of American Indian Students

(Continued from page 31)

and J. Kalt. "American Indian Self-Determination: The Political Economy of a Successful Policy," JOPNA Working Paper No. 1, Native Nations Institute for Leadership, Management, and Policy et al., 2010

14. US Government Accountability Office, Bureau of Indian Education Needs to Improve Oversight of School Spending, GAO-15-121 (Washington, DC: November 2014).

15. National Congress of American Indians, Tribal Leaders Toolkit.

16. For results of the 2015 National Indian Education Study, see National Center for Education Statistics, National Indian Education Study 2015: American Indian and Alaska Native Students at Grades 4 and 8, NCES 2017-161 (Washington, DC: US Department of Education, 2017); and National Center for Education Statistics, National Indian Education Study 2015: A Closer Look, NCES 2019-048 (Washington, DC: US Department of Education, 2019).

17. Technical Review Panel for the National Indian Education Study, National Indian Education Study 2015: Setting the Context (Sault Ste. Marie, MI: Sault Printing Co., 2015), 4.

Ensuring American Indian Students Receive an Equitable, Just, and Appropriate Education

(Continued from page 34)

Endnotes

1. L. Ferlazzo, "Response: 'Something Must Change' to Address Challenges Facing Native American Youth," Classroom Q&A with Larry Ferlazzo (blog), Education Week, April 22, 2019.

2. L. Sabzalian, Indigenous Children's Survivance in Public Schools (New York: Routledge, 2019).

3. E. Style, "Curriculum as Window and Mirror," National SEED Project, nationalseedproject.org/key-seed-texts/ curriculum-as-window-and-mirror.

4. T. McCarty and A. W. Snell, State of the Field: The Role of Native Languages and Cultures in American Indian, Alaska Native, and Native Hawaiian Student Achievement, policy brief (Phoenix: Center for Indian Education, Arizona State University, 2011).

5. K. Lomawaima and J. Ostler, "Reconsidering Richard Henry Pratt: Cultural Genocide and Native Liberation in an Era of Racial Oppression," Journal of American Indian Education 57, no. 1 (2018): 82