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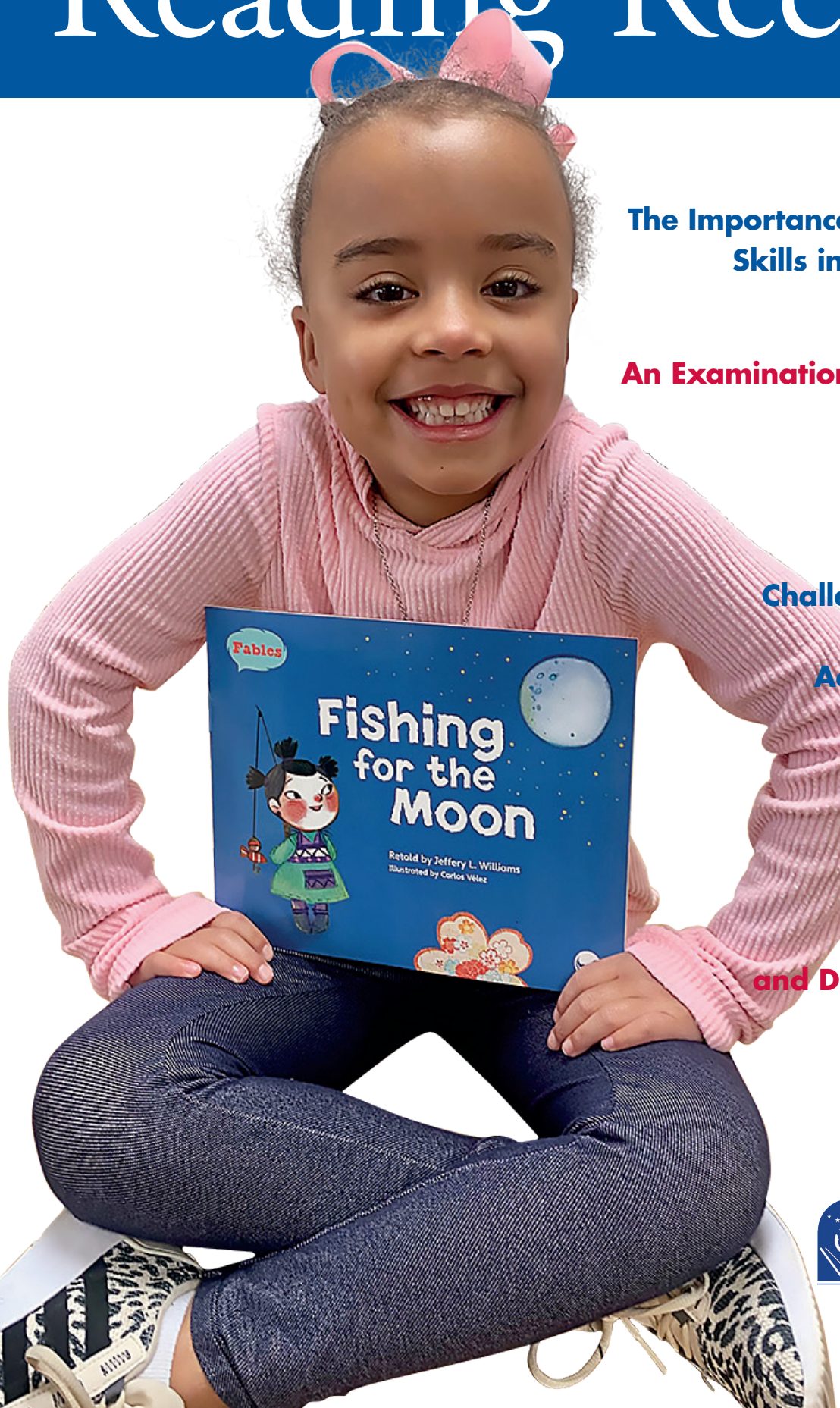

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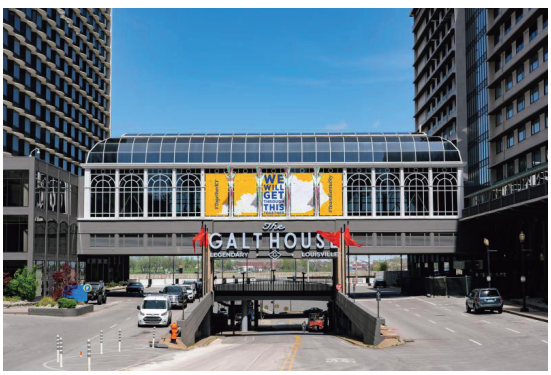

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The Journal of
Reading Recovery

Contents

Spring 2022

Teaching

Implementation

Research

continued

Reading Recovery
Community

Contents

continued

RRCNA

Advertising Index

Editor's Corner

Patricia L. Scharer, Editor-in-Chief

Our spring 2022 issue is packed with learning opportunities for JRR readers. I'm so excited about the content that I'm going to challenge readers to create opportunities to both read and discuss an article or even the entire issue with colleagues — perhaps in class, or over coffee, or even via FaceTime! Jeff Williams takes the lead this issue with a thought-provoking article on executive function, high-level organizational skills. Williams makes important links between Clay's theories and recent scholars who are studying and documenting the relationship between executive function and literacy development.

Next, Jamie Lipp and JaNiece Elzy argue against deficit theory by demonstrating the progress of Literacy Lessons™ students whose learning is accelerated by individual lessons with trained Literacy Lessons intervention specialists. Why slow down the curriculum when students are able to accelerate their learning via lessons planned to meet their individual needs?

Three new Intervention Essentials follow about working with children who are emergent bilinguals; the importance of live, face-to-face learning sessions for literacy professionals; and the rationale for collecting data on each Reading Recovery® student to maintain the fidelity of implementation of Reading Recovery standards. We hope that readers are informed by this series of 2-page articles and are finding them useful to distribute to colleagues and administrators to enhance their understanding of Reading Recovery. Let us know how you are involving the pieces in your advocacy work and be sure to request a specific topic or two!

The latest Distinguish Scholar Series article is by literacy scholars, Peter Johnston and Donna Scanlon. Originally published by the Literacy Research Association, we are so pleased to have permission to reprint the 12 questions and answers that Johnston and Scanlon wrote about dyslexia. These questions and answers will surely spark conversations with colleagues and administrators as well as inform district policy.

In our upcoming fall issue, we will be printing a speech given by Marie Clay in 1986. The speech was found recently in typed format with Clay's handwritten notes. It's an opportunity for the past to inform the present! Inspired by this find, the JRR editors are posting a Call for Manuscripts. Please email me at the address below with your ideas.

— Call for Manuscripts —

JRR editors are looking for recommendations of key articles from the past for the new, upcoming section entitled, *The Past Informing the Present.* Please send ideas of essential articles used in professional development that can be updated or republished. This is an opportunity for articles from the past to be refreshed to inform the present!
email scharer.1@osu.edu

Reading Recovery Council of North America

Vision

We ensure the competencies necessary for a literate and productive future for children learning to read and write.

Mission

We construct collaborative partnerships to change the trajectory of literacy achievement by:

- *implementing Reading Recovery® in English, Spanish, or French as an essential, research-based early literacy intervention within a comprehensive literacy system*
- *expanding the application of literacy processing theory through Literacy Lessons™ with special education students and English learners*
- *delivering expert teaching that is equitable and responsive to children's strengths and needs*
- *providing sustained, specialized professional development focused on continuous improvement and literacy leadership*
- *advancing the development of knowledge and practice based on research, data, and the theoretical framework that has underpinned Reading Recovery® since its founding.*

ADOPTED FEBRUARY 2019

How to Submit Articles

Write for The Journal of Reading Recovery

Every Reading Recovery teacher, teacher leader, administrator, site coordinator, and parent has a good story to tell. Please consider sharing your Reading Recovery experiences, ideas, and surprises by writing for *The Journal of Reading Recovery* (JRR). We need to hear from you because readers have told us they want to hear more about people like themselves — especially those on the front lines working with children.

Blind Peer Review Process

The Journal of Reading Recovery is a peer-reviewed and refereed publication issued twice annually to members of the Reading Recovery Council of North America. All submitted manuscripts will be read by the editors to determine suitability for publication. Authors will receive an acknowledgment when the submission is received and will be notified via email of the editors' decisions.

JRR uses a blind review process allowing only editors and editorial staff to know the names of the authors. The article will be sent to the appropriate section editor who will monitor a peer review process by a team of reviewers. Editors will send authors feedback from reviewers and, if necessary, specific suggestions for revision.

Guidelines for Authors

1. Select a topic of interest to our Reading Recovery audience.
2. Write clearly, concisely, and use an active voice.
3. Be sure the message is clear and has a consistent focus throughout.
4. Include dialogue or samples of children's work when possible.
5. Articles will be edited to fit space and style requirements; published length ranges from short anecdotes to longer, more technical articles.
6. RRCNA publications follow the style designated by the most-recent edition of the *Publications Manual of the American Psychological Association*.

Submitting Articles for Publication

All manuscripts, feature items, photos, and original artwork must be submitted electronically (see website for photo and artwork requirements) via email to vfox@readingrecovery.org.

For original manuscripts, please follow the most-recent APA style guidelines. Manuscripts must be double-spaced and should be no more than 30 pages (excluding reference list, tables, and figures). No identification of the author(s) and affiliations should appear anywhere in the manuscript, including running headers and footers. **A cover page identifying corresponding and contributing authors, affiliations, and email contacts should accompany the manuscript, as well as an abstract of not more than 250 words.**

For questions about or help with the submission process, email vfox@readingrecovery.org.

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The Importance of Executive Function Skills in Literacy Development

Jeffery L. Williams, The Ohio State University

In March of 2020, just as the flowers of spring began to open, our schools began to close; while nature reawakened outside, we were hunkered down inside. In the months and years that followed, educators have been thrust into scenarios never attempted — fully remote learning; hybrid learning schedules; or blended learning, with some children physically coming into classrooms and others connected to the same class from the safety of home, while one adult simultaneously (and miraculously) managed both groups. None of us understood what impact the global pandemic would have on us professionally or personally and, in many ways, we are still trying to comprehend this. However, it has been widely reported that most adults have had—or are still having—difficulty with anxiety, concentration, motivation, planning, or keeping emotions in check (Javed et al., 2020). Because of the hardships and trauma associated with the pandemic, adults have had to actively utilize our built-in set of high-level cognitive skills, known as executive function (EF) skills.

What Are EF Skills?

According to neuroscientist, Kelly Cartwright, "just as a chief executive of a company sets goals ... and manages operations to achieve those goals, our executive skills are what we use to engage in self-regulated, goal-directed behavior in any area of life" (2015, pp. 6–7). To use another analogy, the Center on the Developing Child at Harvard University (2011) likens our EF skills to an air traffic control center that manages complex operations at a busy airport. For most adults, EF skills are so well-tuned that they go largely undetected as they work in the background helping us manage our personal and professional lives. EF skills begin to develop just after birth and are shaped slowly over the next 25 years. This means that because we have used them unconsciously for so long, we probably cannot remember how we learned these skills or recall how it feels when they were not working. But, the pandemic has afforded adults a rare opportunity to notice and feel the impact of EF skills as we navigated the trickiness of our situation. These newly gained understandings about our own EF skills can help us empathize with the children we teach and come to appreciate the importance these skills have on the complex tasks of literacy development.

Though currently there is a renewed emphasis on executive functions in K–12 education, the concept of the brain's control mechanism is far from new. First discussed as early as the 1840s, it was the period between 1950 and 1980 that neuroscientists became more interested in defining the concept of executive functions. As with nearly all things human, there are inconsistencies in how these skills are named and defined. In the literature of cognitive psychology and neuroscience, they can be known as executive control processes, executive functions, or executive function skills. Likewise, the number and names of the actual skills can vary from 5 or 6 skills to nearly 20 skills. Figure 1 on the following page represents a more widely agreed upon list of important skills involved in self-regulation. These EF skills, when working in tandem, create the necessary conditions for self-regulation, which can be defined as "…the capacity to plan, guide, and monitor…behavior from within and flexibly according to changing circumstances" (Diaz et al., 1990, p. 130).

> Although EF skills have had a long and consistent focus in educational literature, they are now being tied more directly to literacy development. In fact, there is growing evidence that EF skills play an important role in coordinating various components of reading tasks and contribute directly to reading comprehension.

Figure 1. Executive Function Skills for Self-Regulation

Goal-Directed Persistence	*Capacity to persevere to achieve a goal regardless of obstacles, setbacks, or mistakes*	**Task Initiation**	*Capacity to overcome inertia to launch into a complex task in a timely manner*
Planning	*Capacity to develop plans to reach goals/complete tasks, including making decisions about important vs. irrelevant information or actions*	**Flexibility**	*Capacity to consider multiple bits of information simultaneously, switching between information, revising or adapting as needed*
Organization	*Capacity to see or impose order on information or objects to better manage complexity*	**Response Inhibition**	*Capacity to restrain habituated responses and/or reactions until enough information is collected and evaluated*
Working Memory	*Capacity to hold information and past experiences in mind (and update as needed) to support completion of tasks*	**Sustained Attention**	*Capacity to remain focused on particular information or tasks despite distractions, boredom, and/or fatigue*
Self-Monitoring	*Capacity to notice thinking and mental processes, detect problems, and assess effectiveness of problem solving*	**Emotional Control**	*Capacity to manage emotions in view of situations or contexts in order to direct behavior*

Adapted from Dawson, P. & Guare, R. (2018). *Executive Skills in Children & Adolescents: A Practical Guide to Assessment & Intervention,* (3rd ed.). Guilford Press.

According to the Institute of Medicine and National Research Council (2000), self-regulation is the cornerstone of development because it is so key to academic and social success and is outwardly observed in a child's increased independence over time with complex tasks. As with most of human development, we expect variation and know that EF skills may develop more slowly in some children. However, instruction that builds EF skills has shown positive effects on many aspects of learning (Cartwright, 2012, 2015; Cartwright et al., 2019, Cartwright, Bock et al., 2020; Cartwright, Lee et al., 2020; Dawson & Guare, 2018; Goldstein et al., 2014; Meltzer, 2010). EF skills assessed formally or informally in early childhood have been found to predict school readiness for reading and math and, in many cases, EF skills predict outcomes better than IQ scores (Zelazo et al., 2016). Furthermore, we also know that "the brain undergoes a particularly rapid transformation during early childhood which may represent a window of opportunity for the cultivation of EF skills via well-timed, targeted scaffolding and support" (Zelazo, 2015, p. 64). This period has the greatest potential for growth and development which is a strong argument for Reading Recovery and primary-grade professionals to be attentive to and understand EF development.

EF Skills in Relation to Literacy Development

Although EF skills have had a long and consistent focus in educational literature, they are now being tied more directly to literacy development. In fact, there is growing evidence that EF skills play an important role in coordinating various components of reading tasks (Barber et al., 2021; Cartwright, Bock et al., 2020; Cartwright, Lee et al., 2020; Locascio et al., 2010; Nguyen et al., 2020) and that EF skills contribute directly to reading comprehension (Cartwright, 2015; Georgiou & Das, 2018; Kieffer et al., 2013; Locascio et al., 2010; Taboada Barber et al., 2021).

Duke and Cartwright (2021) identify several specific domain-general EF skills that work across content areas that have also been shown to be actively employed during reading. These include the following:

- flexibility (Georgiou & Das, 2018; Kieffer et al., 2013)

- sustained attention (Conners, 2009)
- response inhibition (Potocki et al., 2017)
- working memory (Nouwens et al., 2020)
- planning (Nouwens et al., 2020; Sesma et al., 2009)

They also mention a reading-specific EF skill—graphophonological-semantic cognitive flexibility (GSF)—which is "…the ability to simultaneously consider and actively switch between the letter-sound (graphophonological) and meaning (semantic) features of printed words" (Duke & Cartwright, 2021, p. S31). Executive skills, they argue, enable readers to coordinate processes across word recognition and language comprehension to forge connections between phonology, orthography, and meaning. The concept of GSF was also explained in Lea McGee and Mary D. Fried's monumental research in this way:

> Reading acquisition requires simultaneous and flexible attention to multiple linguistic features, including orthographic, syntactic, morphological, phonological, and semantic features, and the ability to switch attention from one feature to another in flexible ways. (McGee et al., 2015, p. 25)

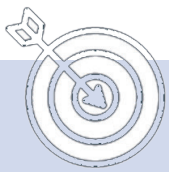
The existence of GFS is supported by MRI evidence (Aboud et al., 2016) which shows that EF areas of the brain contribute to connectivity between semantic and phonological processes during reading. Duke et al. (2021) likewise discuss the importance of GFS as a "bridging skill" and report that research has found a relationship between readers' comprehension and their ability to simultaneously attend to and flexibly switch between letters and sounds in words and the meanings of words. There are several studies beyond these that support the existence of GSF as a unique executive function for reading (Aboud et al., 2018; Cartwright, 2002; Cartwright et al., 2019; Cartwright, Lee et al., 2020; Gnaedinger et al., 2016; Knudsen et al., 2018; Yu et al., 2018).

EF Skills and Reading Recovery

Between Marie Clay's training as a primary and special education teacher and the development of Reading Recovery, she received her doctorate in clinical child psychology which she acknowledged as a "…fundamental turning point in her understanding of how to study children's learning" (Gaffney & Askew, 1999). Clay's training in child psychology coincided with a period of high interest in executive functions, and her definition of reading seems to reference executive control mechanism:

> Reading is a message-getting, problem-solving activity, which increases in power and flexibility the more it is practiced. It is complex because:
>
> - within the directional constraints of written language
> - verbal and
> - perceptual behaviors
> - *are purposefully directed* [emphasis added]
> - in some integrated way
> - to the problems of extracting sequences of information from texts
> - to yield meaningful and specific communications (2015b, p. 1)

This early reference to purposeful directedness is closely aligned to definitions executive control mentioned earlier. Clay (2015a) expounded on this concept in another early work, *Becoming Literate: The Construction of Inner Control*, where she made central the concept of "… the behaviors, the inner control, the visual perception and the in-the-head processing learned in the reading acquisition period become part of an interactive system of strategies which work in some way that empowers the system" (p. 317).



Of interest to teachers who work with emergent bilingual students, recent findings demonstrate that certain EF skills, such as cognitive flexibility, are stronger in emergent bilingual students than in monolinguals. Because two languages are always active in bilinguals, EF skills are recruited by the language processing system which reorganizes and/or fortifies this system. This relative strength could demonstrate that "...bilingualism 'trains' executive function through its constant recruitment for language selection" (Taboada Barber et al., 2021, p. S59).

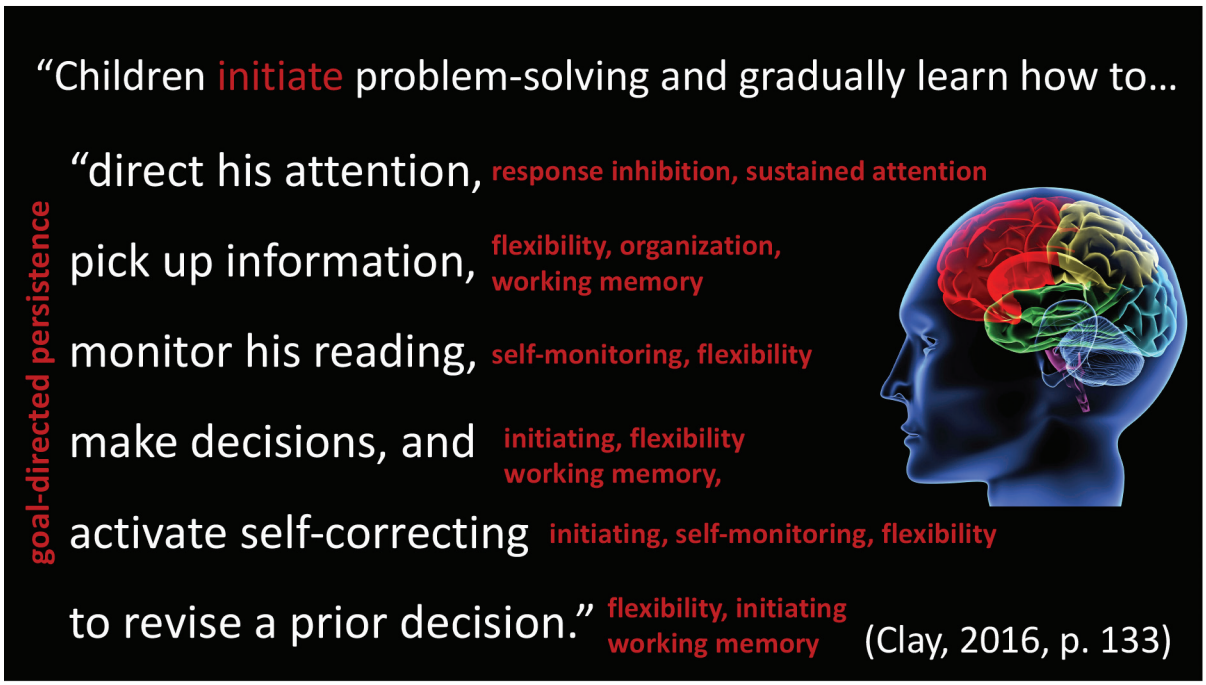
While those references require a bit of deduction to conclude Clay's thoughts on executive functions, her writings about self-correction make clear what she thought about self-regulation and EF skills. In *Change Over Time*, Clay (2015b) explained: "The main argument of this chapter is that self-correction behaviors are evidence of one kind of executive control developed and mobilized by readers to keep them on track" (p. 186). She went on to qualify what she meant, using psychologist Paul Karoly's definition, saying that self-regulation refers to all of the processes "... that enable the individual to guide … goal-directed activities over time and across changing circumstances" (p. 189). She later added in a strong statement, "I ... urge my readers at this point to consider a more detailed account of self-correction as one active part of the assembling of early working systems, linked tightly with developing executive control mechanisms" (p. 199).

To further explore how embedded various EF skills are in reading, one only has to examine Clay's (2016) description of what happens when a child reads (Figure 2) in relation to EF skills.

> Children initiate problem-solving (*which is an EF skill*) and gradually learn how to…
>
> - direct his attention (*involving response inhibition and sustained attention to focus*)
> - pick up information (*requiring flexibility to consider different sources of information, as well as organizing and storing in working memory*)
> - monitor his reading (*an EF skill itself that also shows flexibility to be thinking about more than one thing at a time*)
> - make decisions (*by initiating and flexibly considering new evidence against what is held in working memory*) and
> - activate self-correction (*entailing more task-initiation, monitoring, and flexibility*)
> - revise a prior decision (*necessitating flexibility about the decision held in working memory while monitoring its acceptability and potentially initiating additional searches to pick up information, make decisions, and monitor*) (Clay, 2016, p. 133)

Carrying out all these processes is evidence of a goal-directed, self-regulated system. This quote is not unique — in fact, you can take almost any quote where Clay describes the complex processing involved in reading and see the connections to specific EF skills in this way.

Figure 2. Clay's (2016) Description of What Happens When a Child Reads in Relation to EF Skills



At the time Reading Recovery was being developed, science had not yet confirmed all of what we know today about EF skills, yet Clay's literacy processing theory consistently acknowledged and accounted for the role of EF skills as critical to the self-regulation needed for becoming literate. This is largely explained by Clay's multifaceted literacy processing theory which involves both knowing about what changes occur over time in literacy processing AND knowing about sound teaching practices involved in creating the conditions to accelerate such changes. As Clay (2015b) wrote, "Teachers need a theory at two levels: a theory of what occurs [in literacy development over time] ... and a theory of how to interact with what occurs which could lead to improved teaching interactions" (p. 77).

The teaching procedures and prompts used in Reading Recovery are centered on developing self-regulated and self-extending learners and are grounded in constructivist learning theory. According to Clay (2016),

> [T]he child's progress can be described and recorded in some detail within a constructivist theory that allows for an adult to share the complex task. Gradually the teacher will become less helpful as the learner locates more of the information in print, and takes on more of the processing and problem-solving. The reader shifts from meaningful acts to cognitive awareness of how these things can work together, and how to use new learning from this task in another context. (p. 212)

This, of course, aligns with theory of Lev Vygotsky (1978) who asserted that all learning was socially constructed, regulated by language between a novice and a more-experienced other, which eventually gives way to the inner dialogue that form the processes of self-regulation of intellectual activity. Unlike some explanations of constructivist theories which assume learning happens with minimal guidance, Reading Recovery aligns with Kintsch's (2009) view that learners are actively engaged in knowledge building and are not simply receiving information or acquiring knowledge. Kintsch clarifies, adding:

> [A]lthough minimal guidance and discovery learning have frequently been advocated by constructivists, minimal guidance does not necessarily follow from a constructivist view of learning. Instructional methods are most effective when they respect the view of learning as an active (and, indeed, often effortful) process, with the right amount of guidance determined by the characteristics of the learner and the to-be-learned material… (2009, p. 224)

Although Clay wrote that no thought was given to specific theories of Vygotsky when developing Reading Recovery, she acknowledged that it was possible to interpret features of Reading Recovery in Vygotskian terms — especially noting changes in mediation and use of signs between the adult and child over time, the special use of conscious realization, and the concept of the zone of proximal development (Clay & Cazden, 2007). Lose (2007) has also highlighted the use of other constructivist principles by relating Reading Recovery prompts and procedures to Wood's theories of the dimensions of contingent tutoring which include instructional contingency (how to support), domain contingency (what to support next) and temporal contingency (when or if to intervene).

Research on Instruction That Builds EF Skills

One of the foremost researchers in EF skill development, neuroscientist Philip Zelazo (2015) posits that EF skills, like many complex skills, are learned through repeated use in authentic contexts, usually with adult support and scaffolding: "These reflective, verbally mediated EF skills (and the neural circuitry involved) … become more efficient and effective as they are exercised in the context of goal-directed problem solving" (p. 59).

In Zelazo's model, EF skills are being learned in much the same way as literacy — in meaningful problem-solving contexts within reach of adult modeling, demonstration, scaffolding, prompting, feedback, and support that relinquishes control from the adult to the child over time. Zelazo gives particular attention to reflection as a necessary element of EF development, saying, "Like EF skills, reflection is a neurocognitive skill — a way of using attention that involves specific neural circuits…for the iterative reprocessing of information, so that information is fed back into the system where it can be combined with other relevant information, yielding a more elaborate construal" (p. 59). This quote parallels Clay's (2015b) literacy processing theory which involves similar constructs: Reading is a set of neural working systems and young readers are continuously prompted to problem solve using multiple sources of information simultaneously in recursive

loops that strengthen in power the more they are utilized. Interestingly, there are many additional overlaps between Zelazo's accounting of EF skill development and Clay's accounting of literacy development (Figure 3). There is considerable research regarding developing self-regulation and the EF skills this entails. Masten and Barnes (2018) explain that self-regulation systems appear to require experience with stress and challenges to optimize development, and that the timing of introducing these challenges probably matters a great deal. These authors make the analogy that early exposure to numerous animal and plant microorganisms is often protective against some allergies for children who grow up on a farm. The well-calibrated timing and exposure to appropriate levels of difficulty maximizes growth in self-regulation. A report from the National Center for Education Research at the U.S. Department of Education (Zelazo et al., 2016) about the development of EF skills in educational settings confirmed this by showing that students who receive differentiated instruction (well-calibrated exposure to appropriate levels of difficulty) show greater rates of academic improvement. The report also confirmed that EF skills can be engaged and developed through well-structured settings with a balance of enough challenge to stimulate the brain, but not so much to be overwhelming. This reinforces Clay's (2016) assertion that when teachers select and introduce texts they are aiming to "challenge the child's processing system but not upset it" (p. 47). When teachers leave opportunities for error against a backdrop of successful reading, we create the conditions for building working systems which "…then seems to be shaped by successful reading experiences into an implicit executive control mechanism operating in silent reading" (Clay, 2015b, p. 189).

Figure 3. Comparison of Current EF Skill Understandings With Clay

Zelazo, P. D. (2015). Executive function: Reflection, iterative reprocessing, complexity, and the developing brain. *Developmental Review*, *38*, 55–68.	**Clay, M. M. (2015b). *Change over time in children's literacy development*. Global Education Systems (GES) Ltd.**
"…the development of EF depends crucially on increases in the efficiency of reflection. As with all skills, reflection develops through repeated use, in the context of goal-directed problem solving, and usually in the context of…support and scaffolding." (p. 61)	"The Reading Recovery teacher aims to develop the child's abilities to search for and use all types of information as they read books. Children will begin to initiate linking and problem-solving using different kinds of information, depending upon what is easy for them at a particular time. But the teacher aims to strengthen the child's ability to search flexibly for information from different sources to problem-solve the meanings of text. She is careful to counteract any imbalance in the child's use of information." (p. 137)
"Once children detect a problem, they can pause, interrupting the momentum of their behavior, and reflect on the task. When they do so, they may recognize that they know two different ways of approaching the stimuli, and formulate a higher-order rule that allows them to switch between." (p. 63)	"Children act as if aware of some conflict of their response with something in the text… The willingness to choose between alternatives foreshadows the developing processing systems which will monitor, correct and control advanced literacy behaviors. A willingness to choose between alternatives leads to a search for more information and this can potentially take processing to new levels of complexity." (p. 120)
"Developmental improvements in reflection permit more efficient and effective problem construals, and allow for increases in the complexity of the rules children can formulate and keep in mind prior to responding." (p. 59)	"A self-extending system can be thought of as bringing about new forms of mediation, or altering an existing working system to become more effective, or compiling more effective assemblies of systems." (p. 136)

Instruction That Accelerates Literacy Progress

According to the U.S. Standards and Guidelines for Reading Recovery, teachers use the six tasks of the Observation Survey (Clay, 2019) to administer to the lowest 20% of students in Grade 1 and, based upon outcomes from these assessments, the lowest-achieving children are selected for a series of individually designed lessons. (Reading Recovery Council of North America, 2017). Because these children are considerably behind the achievement levels of their peers, a rapid rate of accelerated progress is necessary to catch them up to at least the average of their classroom. This acceleration happens because teachers are trained and challenged to design a series of lessons, based upon the child's strengths. The teacher creates conditions for the child to be able to initiate successful activity and makes highly skilled decisions, moment by moment, moving flexibly around the teaching procedures and prompts all with the express goal of developing the self-regulation necessary for independence over time (Clay, 2016).

But there is much more underpinning these moment-by-moment decisions which encompasses what Clay's referenced about a theory of "how to interact." To explore these underpinnings, we'll focus on a recent white paper (Almarode et al., 2021) written in responses to the current learning gaps created by the pandemic. Researchers John Hattie, Doug Fisher, Nancy Frey, and John Almarode, in conjunction with the national school superintendents association, report on how districts, schools, and teachers should best use federal relief resources based upon the science of teaching:

> Ensuring that we actually accelerate learning for all students requires that we … focus on specific aspects of interventions, approaches, and strategies that have the potential to accelerate student learning … The starting point for this increase cannot be based upon some arbitrary point that is the same for every student [but] … must start from where students are in their learning journey and where they are ready to go next. (Almarode et al., 2021, p. 3)

They also remind us that focusing on what works is not the same as focusing on what works best. Using Hattie's extensive meta-analyses, this resource documents again several elements of constructivist pedagogy that have extraordinarily high effect sizes as demonstrated by scientific research. Their white paper presents a litany of high-outcome practices that they argue should be standard practices. From the list provided in the white paper, the following practices, with reported effect sizes, already are standard practices in Reading Recovery and most comprehensive literacy classrooms:

- using scaffolded learning (.58) which corresponds to Clay's scale of help and change over time in use of prompts tailored to each child
- employing differentiation with appropriate challenge (.59) refers directly to Clay's call to design each lesson part to work at the cutting edge of an individual's learning
- utilizing spaced practice (.60) which entails creating multiple exposures in different settings over time much like Clay's "echoes across the lesson"
- teaching metacognitive strategies (.69) such as self-monitoring and self-correcting
- using feedback (.70) to reinforce, reflect upon, or support the child's attempts
- engaging in deliberate practice (.79) which is defined as extensive engagement in relevant, challenging, effortful repetition with the specific goal of improving performance which is precisely what every lesson is designed to do
- teaching transfer strategies (.86) such as making children aware of and prompting for the useful reciprocity between reading and writing
- using formative assessment (.90) employed daily in running records and teacher observations which are used to adjust teaching
- connecting to prior knowledge (.93), in other words moving from what is known to extend new learning

Not surprisingly, this white paper also names Reading Recovery outright as an investment worth making because of high effect sizes (Almarode et al., 2021, p. 14).

Moving Forward

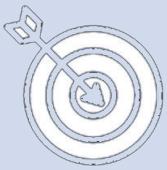
In the current climate of organized attacks on what can and cannot be taught and about how to best teach, there is much at stake. With the recent incursion of "science of reading" legislation based, at least in part, on Gough and Tunmer's (1986) simple view of reading (SVR), Duke and Cartwright (2021) make it clear that the role of EF skills is not currently accounted for in either. "In contrast, there is no place in the original SVR for EF skills, nor does the SVR suggest EF interventions as an option for instruction or intervention for reading difficulty. Models consistent with the science of reading must include a role for EF skills" (p. S31). Sadly, this group's influence may be premature, as author and science of reading advocate Mark Seidenberg recently lamented, "we know more about the science of reading than about the science of teaching based on the science of reading" (Seidenberg et al., p. S121). In contrast, some interventions, such as Reading Recovery, do account for and work actively to build EF skills necessary for reading and learning largely through pedagogical maneuvers consistent with the science of teaching.

Frequent Reading Recovery critic, Timothy Shanahan, recently admitted that Clay's intervention model may be likened to the nimble hummingbird which science was convinced could not fly until it was studied, and much was learned about aerodynamics. He wrote: "This instructional scheme has often been challenged by critics (e.g., Baker et al., 2002; Greaney, 2001, 2011; Wood, 1994) unhappy because of the inconsistency of that program with what is known about effective decoding instruction. Despite this inconsistency, qualitative syntheses (e.g., Shanahan & Barr, 1995), meta-analyses (e.g., D'Agostino & Harmey, 2016), and specific high quality studies (What Works Clearinghouse, 2008) have all concluded that Reading Recovery improves reading…Somehow, students who are being taught in this way are still ending up reading much as the kids who receive explicit decoding instruction…" (2020, pp. 242–243).

What Shanahan does not yet grasp is that Clay's theory is as much about what to teach as it is about how to teach. Literacy processing theory is predicated on highly researched pedagogical principles of scaffolding, differentiation, deliberate practice, use of formative assessment and feedback, and gradually releasing control over to the independent learner. As Clay (2015b) wrote, "the idea of giving 'lessons in becoming constructive' challenges early intervention professionals to think about the perceptual/cognitive learning required in each lesson activity. It calls for more attention to what makes an early intervention preventative of subsequent difficulties, in contrast to one which only adds more items to knowledge sources" (p. 5).

It has been often reported by classroom teachers and parents that Reading Recovery didn't just improve a child's reading and writing, but that particular children seemed to have 'learned how to learn' during their short intervention. Reading Recovery teachers routinely receive notes from parents or are told by classroom teachers about long-lasting successes with children's attention, motivation, and self-confidence in literacy and in other curricular areas. Recently, I received such a note about a former Reading Recovery student who was recommended for honors English (and other honors classes, too) as he prepares to transition to high school next year. His mother wrote: "He wants you to know that you are a huge part of his success. You made him feel like he could do anything. He still remembers visiting you every morning through 4th grade. I want to thank you from the bottom of my heart — you made my kid believe. Believe he could do anything, believe that he could be successful and believe that teachers believe in him. We will forever be grateful…" (Personal communication, 2022).

Reading Recovery is not an intervention designed only to add items into a child's information storehouse but is instead an intervention concerned with getting children to actively construct perceptual and cognitive learning processes and networks necessary to create self-extending learning. Teachers using Clay's two-part theory about literacy development and about how to best interact and teach as a basis to differentiate instruction are likely instrumental in building and developing EF skills for reading and for learning in general. As Shanahan remarked, like the fabled hummingbird whose wings and body work differently than other birds, perhaps Reading Recovery's use of instructional practices supported by copious amounts of pedagogical research, is what enables us to get children to fly.



Further Discussion

Using the list of EF skills from Figure 1 in the article, discuss and label where you see these EF skills in the following Clay quotes:

Change Over Time
Clay, 2015b
p. 121

[A] hypothesis can be generated by any knowledge source (and possibly from more than one source simultaneously). The processing system makes a decision and checks out its implications. If the attempt seems to be a misfit with the information available it will take a bit longer but the system will eventually settle for [a] hypothesis that it can accept. Deciding between hypotheses will depend upon what is stored in the various knowledge sources, and how well they are linked up for this crucial decision. (Singer would call this 'assembling working systems.')

Change Over Time
Clay, 2015b
pp. 127–128

Behavioral records usually only capture combined behaviors and do not reveal the separate input-mediation-output systems which produce those behaviors. I have used the term 'strategic activity' to refer to what goes on in any of the aspects of processing which Singer proposes, when the brain

- picks up information,
- works on it,
- makes a decision,
- evaluates the response,

as well as to the overarching execution of that sequence.

Literacy Lessons
Clay, 2016
p. 7

Young constructive readers and writers work at problem-solving sentences and messages, choose between alternatives, read and write sentences, work on word after word, with the flexibility to change responses rapidly at any point. As they attend to several different kinds of knowledge, they are searching, selecting, rejecting, self-monitoring, and self-correcting.

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About the Author

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Challenging Deficit Thinking in Special Education: Acceleration Possibilities in Literacy Lessons

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JaNiece Elzy, Texas Woman's University

Found within the introduction of *Literacy Lessons Designed for Individuals* (2016), Marie Clay reminds us that many different types/groups of children can benefit from the use of Reading Recovery® teaching procedures, including those in special education. This article aims to tell the story of promising acceleration possibilities found within a large-scale, national data sample of special education students receiving Literacy Lessons™ intervention, carrying out Clay's vision and intent for beginning readers who find the path to literacy difficult.

Introduction

Special education, including its student population and instructional practices, has historically been perceived through deficit mindsets. Rather than focusing on the full potential of the learner themselves, unfortunately, special education students most often receive instruction that focuses on their identified disability, and/or is limited to what the learner is seemingly capable of (Cornett & Knackstedt, 2020; Frey, 2019; Shume, 2020; Trent et al., 1998).

Additionally, the notion of special education students' rate of progress being *accelerative* (progress being made at a rate that is quicker than the average of their peers), rather than remedial, is vastly understudied and underprioritized. Further, acceleration is rarely discussed relative to the special education community. Wolter (2016) alerts us to an "opportunity gap" in literacy in the field of special education, asserting, "It's not the circumstances students bring to school that limit student's growth but rather the opportunity *at school*" (p. 31). However, one literacy intervention—Literacy Lessons—provides revealing data to support a shift in thinking regarding instructional practices, training, and professional development for special education students and teachers (Harmon & Williams, 2017; Poparad, 2021).

Clay's vision for reaching special populations of students beyond Reading Recovery begins with her theory of literacy processing. *Literacy processing theory* is a complex view of literacy learning that focuses on understanding the perceptual and cognitive systems involved in the reading and writing process for emergent literacy learners. These integrated neural networks are constructed in the head of the learner as a result of reading and writing continuous texts (see e.g., Clay, 1991, 2014, 2015, 2016; Doyle, 2013). This view of literacy learning is foundational to Reading Recovery, but additionally, Clay challenged teachers to expand their application of literacy processing theory and Reading Recovery teaching procedures to include students in special education and English learners, or emerging bilinguals (Clay, 2016). Literacy Lessons is a powerful, one-to-one intervention delivered by specialist teachers supporting special education students and English learners in Grades 1–5 who are finding reading and writing difficult (Reading Recovery Council of North America, 2013).

Similar to Reading Recovery, nearly a decade of data collected from implementations of Literacy Lessons reveals powerful student outcomes (Harmon & Williams, 2017; Lose & Konstantellou, 2017; Poparad, 2021). In this article, we share Literacy Lessons data from a national sample of 1,033 first- through fifth-grade special education students with documented learning disabilities and individualized education plans (IEPs). Text level gains from these students who received the Literacy Lessons intervention demonstrated accelerative gains. These data prompt questions about the ways special education populations are typically viewed and instructed.

The goal of this article is to explore the large-scale sample of multiyear text-level data and link the accelera-

tive outcomes to specific ideologies, instructional beliefs, and practices among special education interventionists providing Literacy Lessons instruction to students who are being viewed—finally—as fully capable, active learners. Following that exploration, we will address the potential implications of the data presented as well as future considerations that may provide additional information to impact special education instruction, special education teacher training opportunities, other student populations, and beyond.

Assessment, Instruction, and Teacher Training in Special Education

The field of special education has a long history of centering classification and categorization at the expense of emphasizing specific supports that optimize learning for individual students (Cornett & Knackstedt, 2020; Frey, 2019; Johnston, 2011). This viewpoint endures, in part, because of the medical model of disability. That model sustains the belief that the disability resides within the person, signifying an inherent impairment which privileges diagnosis and treatment of the individual (Shume, 2020). Beginning with the Education for All Handicapped Children Act (EACHA, 1975) and continuing with the current reauthorization of the Individuals with Disabilities in Education Act (IDEA, 2004), the medical model has been interwoven throughout the laws and policies that govern special education, focusing on the categorization of individuals. This view reduces the role of special education instruction to focus intensely on labeling the disability and fix the learner, as opposed to an in-depth examination of other contextual factors for possible "solutions," such as changes in environmental factors and/or adjusting teaching methods. As Cornett & Knackstedt (2020) explain:

> [N]ever is the teacher directed to consider whether the context, teaching or learning environment may be the problem, not the child. Put simply, the EACHA focused on internal deficits of the child, not the barriers in the environment and system. (p. 512)

In many educational settings, this ideology continues to prevail. For example, in a study examining the experiences of and preparation for inclusive education, Kurth and Foley (2014) found that mentor teachers in field placement settings readily used deficit language to describe students who they felt could not be included. This deficit mindset that remains fixed on students' capabilities has direct implications for instruction. Although the literature and research in the field of special education speak to inclusion for all, this study reinforces the significant disconnect between the way special education teacher candidates are prepared and common practices in the field (Gehrke & Cocchiarella, 2013).

The norm-referenced assessments used to identify, diagnose, and determine eligibility for special education services provide another example of the medical model in action within the field of special education today. The EACHA relied on specific norm-referenced assessments, and the manner in which these assessments are carried out and enforced has largely remained unchanged (Cornett & Knackstedt, 2020; Frey, 2019). Using these assessments with the purpose of evaluating how one measures up to a sample of students representing the "norm" is in direct alignment with the medical model. The results of these assessments often are used by special education teachers for the development of IEP goals, as well as instructional planning; however, these assessments were never designed for those purposes and using them in that manner goes against their specified scope and intention (Frey, 2019). These assessments may not assist special education educators with answering the necessary questions to create a plan that addresses the individualized needs of a learner and considers the variety of factors that affect opportunities to learn (Frey, 2019).

Instead, answering questions such as "What instructional practices are most effective for this particular student?" and "Under what conditions does this student respond?" are vital. The importance of these questions cannot be understated, as these questions get to the heart of valuing individualized, personalized, and differentiated instruction, which is the antithesis of the medical model.

Response to intervention and multi-tiered systems of support

Prior to the reauthorization of IDEA, the discrepancy model was used to identify students with the classification of "specific learning disability" (SLD). Due to the wording of the definition of SLD, previously there was no way to identify a student as having an SLD except by exclusion (Johnston, 2011). For example, if a student had IQ test scores that showed intellectual capability but

demonstrated poor reading ability, the student was considered learning disabled. This lack of identifiable characteristics led to a rapid increase in the number of students classified as SLD and consequently the amount of funding to departments of special education (Brownell et al., 2010; Johnston, 2011; Vellutino, 2010).

With the reauthorization of IDEA came response to intervention (RtI), a way to ensure, by law, that the contexts of quality instruction and intervention opportunities were examined before classifying students as needing special education services, especially students with SLD. The law requires data prior to referral that indicates the child received appropriate instruction by qualified personnel and that documentation of repeated assessments of achievement reflects the child's response to a research-based intervention. RtI carried the potential to move beyond the medical model to focus on prevention and improving instruction; however, much of RtI implementation has been about standardization, fidelity, and transfer. Johnston (2011) explains: "If the child's reading improves, it is assumed that the instructional package worked; if not, the child is framed as the problem … it frames the problem as a fixed trait of the child" (p. 517). The prevailing implementation of RtI is, again, steeped in the medical model, centering measurement and identification instead of personalized, individualized, and differentiated instruction. Therefore, suggesting a policy change will not remove the medical model ideology from the field. To move beyond a central focus of standardization and diagnosis requires a shift in mindset that focuses on responsive instruction, as well as a system of professional development to cultivate specialized expertise in teachers (Brownell et al., 2010; Fuchs & Fuchs, 2006).

Deficit models of instruction paired with lowered expectations and a lack of specialized teacher training may lead to students in special education settings remaining in a perpetual state of slow progress and low achievement …

Teacher training in special education

Historically, special education teachers typically receive broad and varied preparation designed to address multiple content areas and grade levels; specifically lacking focus and depth of content knowledge (Geiger et al., 2014; Leko et al., 2015). Indeed, "teacher preparation programs cannot continue to prepare special education teachers broadly and hope they will develop the depth of knowledge and skill fluency needed to teach rigorous content within an MTSS framework" (Leko et al., 2015, p. 28).

Training and professional development for special education teachers rarely promotes a *constructivist approach* in which teachers learn to build on learners' strengths (Akpan & Beard, 2016). A constructivist approach is based on the idea that knowledge is a product of the human mind, constructed by unique individuals differently (Akpan & Beard, 2016) rather than taken in by a passive learner. A constructivist teaching model moves away from the prevailing medical model and deficit ideology that places knowledge as a process of transfer, from teacher to student, thereby "fixing" the inherent deficits within. Deficit ideologies oversimplify the complex nature of literacy learning. As a result, special educators' opportunities to receive specific and intense instruction dedicated to understanding the complex nature of the reading process within a practice-based approach are very rare (Hikida et al., 2019; Leko et al., 2015). Deficit models of instruction paired with lowered expectations and a lack of specialized teacher training may lead to students in special education settings remaining in a perpetual state of slow progress and low achievement, which makes the possibility of acceleration, or increased rate of progress, nearly absent for most students receiving special education services.

Literacy Lessons: Training, Professional Development, Instruction, and Shifting Mindsets

Literacy Lessons intervention challenges deficit thinking in every aspect: training, instruction, and professional development. Literacy Lessons for special education students is taught by special education teachers additionally trained in the intervention. This training and subsequent teaching and professional development has demonstrated the ability to positively shift teacher mindsets (Harmon & Williams, 2017; Lose & Konstantellou, 2017; Poparad, 2021).

Training and professional development

Teacher training is a key factor in the success of the Literacy Lessons intervention, as it centralizes the ongoing development of teacher expertise. Literacy Lessons teachers, like Reading Recovery teachers, train through a three-tiered model of support, with trainers at university training centers nationwide training affiliated teacher leaders who are employed by school districts. The teacher leaders then train and provide ongoing support to teachers. Each teacher trained in Literacy Lessons engages in a year of graduate-level study while simultaneously teaching students using the intervention. This constructive training model utilizes professional learning sessions with lessons viewed through a one-way mirror that provide teacher observation, analysis and reflection experiences; ongoing coaching visits; and continual data collection and analysis to collaboratively support student learning.

Beyond the training year, teachers receive ongoing professional development, coaching, collaboration, and support from teacher leaders for the duration of their time as Literacy Lessons professionals. This multilayered approach to professional development and teacher training yields positive outcomes for the lowest-achieving students in Reading Recovery (May et al., 2016). Because Reading Recovery teacher leaders are responsible for training both Reading Recovery teachers and Literacy Lessons teachers, the training model for both remains carefully aligned. Although May et al., 2016 specifically referred to Reading Recovery training and not Literacy Lessons training, conclusions drawn about the effectiveness of the professional development model existing within Reading Recovery may be applicable to the training of those teachers trained in and implementing Literacy Lessons.

An external evaluation by May et al. (2016) highlighted the deliberateness and instructional dexterity of Reading Recovery teachers as elements of instructional strength. *Instructional strength* in Reading Recovery is defined as *the extent to which a teacher instructs for maximum learning in every lesson* (May et al., 2016, p. 90). It was further noted that the strongest Reading Recovery teachers and lessons demonstrated both *deliberateness and instructional dexterity.* "Deliberateness is understood as *an encompassing commitment to thoughtful practice*; instructional dexterity is defined as *the flexible application of deep skill*" (May et al., 2016, p. 91). Reading Recovery teachers, through their continual deliberateness and instructional dexterity, provide responsive teaching to students based on their individual strengths and needs, which supports student acceleration.

Responsive instruction requires teacher expertise as well as assessment practices that allow teachers to capitalize on the individual strengths of students.

The recognition of instructional strength as a key factor in the success of the intervention speaks volumes about the impact of the teacher training model of Reading Recovery. While the lesson framework and literacy processing theory provide a guide for instruction in both Reading Recovery and Literacy Lessons, it is the skillful teacher's responsibility to carefully observe students to make instructional decisions that support acceleration and growth. Initial and ongoing training provides teachers with the theory, practice, and ideologies needed to effectively support students who are finding reading and writing difficult.

Responsive instruction requires teacher expertise as well as assessment practices that allow teachers to capitalize on the individual strengths of students. Brownwell and colleagues (2010) reiterate this notion in their article on reconceptualizing special education teacher preparation, stating, "Unlike we imagined in the previous era, the diagnostic and intervention knowledge of special education teachers must be well integrated with content domain knowledge" (p. 369). Indeed, there is no useful diagnostic information that can be gathered by simply focusing on classification; teacher expertise is key. Johnston (2011) supports this notion as well, stating, "If the emphasis is put on instruction, then the evidence that the child is not learning adequately indicates that instruction is not yet appropriate and needs to be further optimized" (p. 519). This idea is central to Clay (2016), as well as other researchers (Darling-Hammond et al., 2017) who have underscored the importance of teacher expertise along with the structures that support the development and improvement of teacher knowledge and decision making. These structures are the fabric of the training model for the Literacy Lessons intervention.

Similarly, Reading Recovery teacher training has been widely recognized as a model of professional development deemed effective in building teacher capacity and understanding. The Learning Policy Institute released a research report titled *Effective Teacher Professional Development* (Darling-Hammond et al., 2017) in which the authors set out to determine what constitutes effective teacher professional development. Reviewing 35 methodologically rigorous studies shown to demonstrate a positive link between teacher professional development, teaching practices, and student outcomes, Darling-Hammond et al. (2017) defined teacher professional development as "structured professional learning that results in changes in teacher practices and improvement in student learning outcomes" (p. v). From this review, seven features of effective teacher professional development were identified. Darling-Hammond and colleagues note that effective professional development

1. Is **content focused**
2. Incorporates **active learning** utilizing adult learning theory
3. Supports **collaboration,** typically in **job-embedded** contexts
4. Uses **models and modeling** of effective practice
5. Provides **coaching and expert support**
6. Offers opportunities for **feedback and reflection**
7. Is of **sustained duration** (p. 4)

Within this report, Reading Recovery is specifically recognized as one of the few professional development models possessing all seven elements and has been found to generate positive student gains. (Darling-Hammond et al., 2017, p. 4). It is evident the teacher training model and ongoing professional development contribute greatly to teacher expertise, instructional strength, decision making, and positive student outcomes.

Instruction

Literacy Lessons instruction is built upon Clay's literacy processing theory and values observing children as learners and being responsive to their individual needs. This careful observation provides the foundation from which teachers design individual lessons for each child. Additionally, central to literacy processing theory is the idea that "children construct their personal rules about written language from the print they are exposed to and from opportunities to construct their own messages in writing" (Clay, 2016, p. 6). Therefore, reading and writing continuous text remains a priority throughout the intervention. Unlike those trained through a deficit lens, teachers are trained to remain tentative, continually observing how students respond to print and providing a supportive scaffold as students make links between the known and unknown. Maintaining a peak level of tentativeness and flexibility is crucial: "Teachers need to be tentative in their judgments and must easily and quickly change the emphases of the instruction in response to interaction with learners" (Clay, 2016, p. 214). This flexibility remains possible through the consistent message that all students are capable of learning, and it is the teacher's responsibility to continually search for answers that support student learning and acceleration. Clay (2016) challenges teachers, "If a child is a struggling reader or writer the conclusion must be that we have not yet discovered a way to help him learn" (p. 165).

Shifting mindsets

Even further, teacher mindset shifts resulting from Literacy Lessons training and teaching give way to an important revelation: When special education teachers are immersed in Literacy Lessons' constructive model of teaching and learning—specifically related to a complex view of literacy—previous notions of the ways in which students learn can be challenged, leaving space for teachers to expect, teach for, and ultimately, observe acceleration as it occurs. Harmon and Williams (2017) provide a statement from one trained Literacy Lessons teacher detailing the pivotal shift in thinking occurring because of her training and experience with the intervention:

> The biggest impact that Literacy Lessons training had on my teaching is the idea that there is hope for students who have experienced struggle when learning to read. As a special education teacher, the focus was often placed on supporting and maintaining any reading knowledge and skills, whereas, this training has shifted my focus to accelerate literacy learning regardless of a previous label. (p. 33)

This teacher's revelation about expectations for student learning is not an isolated occurrence. Across the country, Literacy Lessons teacher leaders report similar realizations shared from special education teachers (Harmon & Williams, 2017; Lose & Konstantellou, 2017; Poparad, 2021). It is evident that the training

model, constructivist approach, and literacy processing theory can provide special education teachers with alternative ways of viewing their students' capabilities and the impact of their teaching on students' learning.

Outcomes for Students

In the remainder of the article, we present data supporting the possibility of accelerated literacy learning occurring within special education settings where the Literacy Lessons intervention is implemented. We will highlight the accelerated rate of reading documented for special education students (students with a documented learning disability who qualify for special education and have an IEP) receiving the one-to-one Literacy Lessons intervention between the years 2013 and 2019. The national sample data obtained from the International Data Evaluation Center consist of 1,033 special education students in Grades 1–5. These data focus specifically on documented gains in Text Reading Level (TRL) based on the results from Clay's *An Observation Survey of Early Literacy Achievement* (Observation Survey, 2019) from entry to exit of Literacy Lessons intervention, a timeframe of 1 school year. TRL is used regularly to better understand how a student is reading in comparison with peers, provide diagnostic information to support instruction, and formally assess student reading progress. While there are many versions of leveled texts, Clay's Observation Survey adheres to national norms to identify the average TRLs of students. In a study conducted by Denton et al. (2016) the components of the Observation Survey, which includes TRL, were deemed as valid assessments of early literacy development.

Literacy Lessons national data sample reveals acceleration possibilities

Table 1 illustrates the consolidation of findings of the study sample for special education students in Grades 1–5 who received Literacy Lessons intervention. Typically, for each grade level, the data show an approximate gain of 10 TRLs from the beginning to the end of the intervention. It is important to consider the study sample students' rate of growth prior to Literacy Lessons intervention compared to their rate of growth determined from the beginning and end of the intervention. In doing so, the study sample shows starting point TRLs revealing they had made very little growth prior to Literacy Lessons, despite their years in schooling.

Figure 1 is a visual representation of the accelerated trajectory in TRL gains of students in each of the grade levels represented. The change in mean TRL from entry to exit is further represented beyond the quantitative data in Table 1. Each grade level presents a steady, upward climb indicating a strong rate of growth for TRL regardless of grade level participating in the Literacy Lessons intervention. This evidence of acceleration is powerful when considering special education students who typically have not been expected to accelerate based on deficit thinking and models of instruction (Trent et al., 1998). Simply put, the average rate of progress in TRL gains seen in the study sample makes a case for Literacy Lessons as a viable intervention capable of accelerating student learning gains in special education. Even more, the data provide evidence that special education students **can** experience accelerated learning.

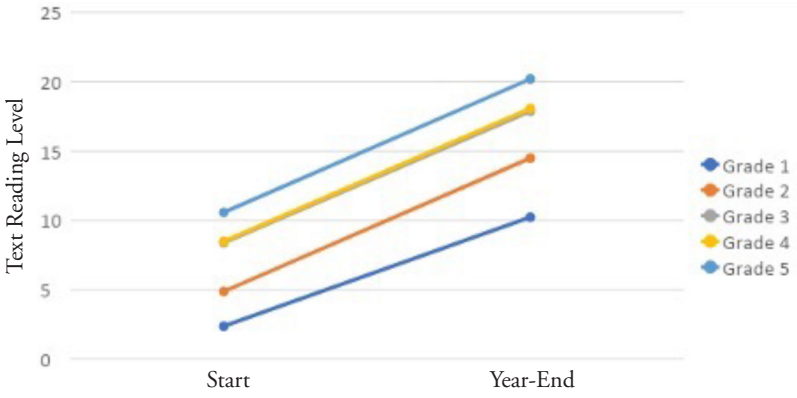
The expectation of accelerated learning should impact the ways in which special education teachers are trained, the instruction they provide to students, and the overall outlook on special education in general. Through teacher training experiences that meet all identified characteristics of effective professional development (Darling-Hammond et al., 2017), teachers can be supported to develop instructional strength that is both

Table 1. Text Reading Level (TRL) Statistics from Students in the Study Sample, 2013–14 to 2018–19

	Grade 1		Grade 2		Grade 3		Grade 4		Grade 5	
Measure	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
TRL at Start of Lessons	2.4	2.4	4.9	3.9	8.4	5.5	8.5	6.2	10.6	6.3
TRL at Year-End	10.2	6.2	14.5	7.4	17.9	7.9	18.1	7.8	20.2	8.3

Note: Statistics used to create the table were based on TRL scores of students identified with a disability who had scores at the start of Literacy Lessons and at year-end (N = 1,033). Grade 1 (n = 427); Grade 2 (n = 279); Grade 3 (n = 157); Grade 4 (n = 123); Grade 5 (n = 47).

Figure 1. Change in Mean Text Reading Level (TRL) by Grade Level at Start of Literacy Lessons and at Year-End



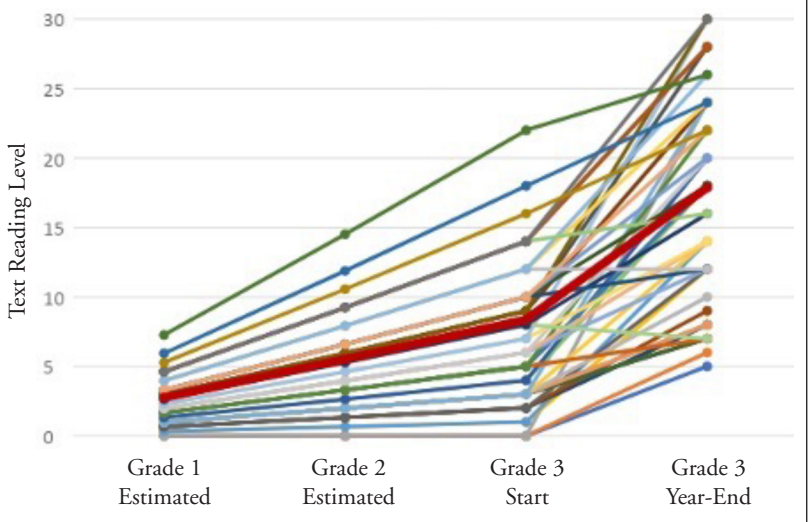
Note: Statistics used to create the figure were based on TRL scores of students identified with a disability who had scores at the start of Literacy Lessons and at year-end (N = 1,033). Grade 1 (n = 427); Grade 2 (n = 279); Grade 3 (n = 157); Grade 4 (n = 123); Grade 5 (n = 47).

deliberate and dexterous (May et al., 2016), providing responsive teaching to special education students through the Literacy Lessons intervention.

Using the data from Grade 3 as one powerful example, a story unfolds far beyond the numbers and lines presented in Table 1 and Figure 1 (see Figure 2). It should be noted that this story could be told using any grade level represented in the study sample. Figure 2 shows TRL gains from a random selection of third graders' data. For example, as demonstrated in Table 1 and Figure 1, within a year or less, a typical third-grade special education student receiving Literacy Lessons intervention makes rapid, accelerated progress, growing in TRL ability by 9.5 text levels (8.4 entry to 17.9 exit, or almost 10 levels). If our baseline for all Literacy Lessons students at kindergarten entry is TRL 0, these data suggest that a typical third-grade student identified for special education gains an average of 8.4 TRLs over 3 years of instruction prior to Literacy Lessons (kindergarten, first grade, second grade). Referencing Clay's Observation Survey (2019), a TRL 8 is an average reading level for a mid-year first-grade student (Stanine 4 according to U.S. norms), while a TRL 18 is typical of an end of the year first-grade student (Stanine 5 according to U.S. norms). However, once these students begin Literacy Lessons, their TRL gain in 1 year far exceeds their past gain over 3 years. Over the last 3 years, these students' rate of growth per year was only 2.8 text levels or 8.4 total. This shows an acceleration of over three times what could be expected before the onset of Literacy Lessons instruction. Figure 2 further highlights this acceleration by providing an estimate of the students' previous TRL gains prior to the intervention in comparison to the TRL gains achieved from entry to exit of the intervention.

As Grade 3 students, their progress had been minimal up until that point. However, once the students became immersed in the Literacy Lessons intervention, their progress

Figure 2. Individual Student Text Reading Level (TRL) Growth Trajectories, Grade 3



Note: Lines represent individual student growth in TRL of a random sample of special education students who participated in Literacy Lessons in Grade 3 (n = 48) during the 2013–14 to 2018–19 school years. The lines reflect the student's TRL measured at entry and then again at year-end. Lines prior to Grade 3 are estimated based on the students' TRL in Grade 3 at entry to Literacy Lessons, assuming each student's growth was linear. The thicker red line represents the mean of all special education students in Grade 3.

shifted from slow and stalled, to steady and quick as they moved almost 10 text levels in 1 year, in comparison to the 8 text levels they had estimated to gain in their years of schooling prior to the Literacy Lessons intervention. It is important to note students in Grade 3 are still reading at an emergent level, as reading at grade level is beyond the scope of Literacy Lessons instruction. However, in Grade 3, data indicate that during their prior educational experiences (Grades K–2), these students had grown only 8 text levels, but during their intervention year, had grown almost 10 levels in 1 year. One may assume by these results that the students were capable of acceleration prior to Literacy Lessons, but either their instruction was not meeting their learning needs, or teachers' expectations prevented them from recognizing students' full potential.

Further Considerations

Data from the study sample present a strong case for the continued data collection, analysis, and dissemination of research on Literacy Lessons implementations. This example of acceleration within special education provides justification for alternative considerations of special education teacher training and ongoing professional development; student capabilities and possibilities within special education; models of instruction most conducive to supporting accelerative learning; social-emotional outcomes occurring as a result of active, accelerative learning; and the need for increased implementations of Literacy Lessons. Moreover, the implications of these data warrant a shift in thinking, challenging the deficit model prevalent among special education settings within the educational system.

> It is past time to decenter classification and categorization in special education, and instead focus on improving teacher expertise with literacy instruction that specifically addresses the individual needs of students.

While this article focuses on the accelerative gains found among the special education population, the Literacy Lessons intervention is also designed for English learner teachers to support emerging bilingual learners. It will be important to explore what additional data will reveal for these learners, as acceleration should be a focus and expectation for students acquiring an additional language just as it is for special education students.

Considering these data beyond the numerical growth of the student sample is particularly important. Although the quantitative gains themselves are impressive, the stories beyond the numbers gleam far greater implications for the power and promise of Literacy Lessons for special education populations. Beyond academic growth, Literacy Lessons students often note increased confidence, motivation, and positive self-perception (Harmon & Williams, 2017; Poparad, 2021). While research currently exists noting positive effects on student motivation and self-perception in Reading Recovery (Bates et al., 2016), a replication of this study is warranted for Literacy Lessons students, both children learning English as an additional language and students in special education. This information may provide further justification for Literacy Lessons as a positive, impactful intervention that can accomplish more than accelerated learning for students. Identified gains in self-confidence and positive shifts in student demeanor stand to further exemplify the power and promise of Literacy Lessons.

Closing Thoughts

Marie Clay's vision that children beyond those served in Reading Recovery could benefit from a complex model of literacy and individualized instruction appears to have merit. High-quality training of specialist teachers paired with implementation practices that value individualized, personalized, and differentiated instruction supports accelerated progress of students in special education and disputes the commonly held view that these students are limited in their capacity to learn, and learn quickly (Lose & Konstantellou, 2017). The data presented in this article show the impact of Literacy Lessons, quantitatively and with powerful stories of how the intervention has changed students' self-perceptions, learning trajectories, and overall confidence (Harmon & Williams, 2017; Poparad, 2021).

The implications of these data warrant a shift in thinking and present a case for increasing the number of

teachers trained in Literacy Lessons throughout the United States, thus increasing the number of special education students served in the Literacy Lessons intervention. It is past time to decenter classification and categorization in special education, and instead focus on improving teacher expertise with literacy instruction that specifically addresses the individual needs of students. The beliefs, ideologies, and instructional practices among Literacy Lessons interventionists make it clear that acceleration is possible when students are finally seen as fully capable and active learners.

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About the Cover

Kenison made exceptional progress during her Reading Recovery lessons. She loves to read all kinds of books and has a particular affinity for animal stories. She takes great delight in bringing the voices of the characters to life when she reads. An enthusiastic writer, Kenison enjoys composing stories about her experiences. She is full of life, always smiling, and prides herself on being a wonderful classmate and friend. Reading Recovery helped Kenison grow into a skilled reader and writer and a confident learner who enjoys new challenges.

Intervention Essentials

Lessons With Emergent Bilingual Students

Mary D. Fried, The Ohio State University

What are some essential shifts in teaching when the Reading Recovery® child is also learning English?

Reading Recovery is an inclusive intervention that is successful with a wide range of children of varying diversities. Among these learners are emergent bilingual students whose accelerated progress has been documented repeatedly (Ashdown & Simic, 2000).

Most recently, both the i3 investigation (May et al., 2016) and a reexamination of annual data reported to the International Data Evaluation Center (Elzy et al., 2019) confirm the efficacy of Reading Recovery instruction with emergent bilingual students. The results of these studies show not only the accelerated progress achieved by these students but also present evidence of narrowing of the achievement gap among emergent bilingual students (Elzy et al., 2019). This success results from effective instruction provided by Reading Recovery teachers meeting the individual needs of children learning a new language and literacy simultaneously.

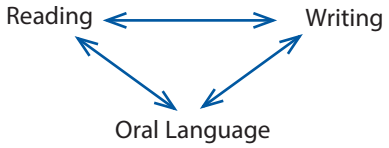
In my work with teachers and teacher leaders, I have been asked for advice regarding the instruction of emergent bilingual students. In general, emergent bilingual students are successful in Reading Recovery lessons when their teachers attend to the individual language competencies they present; nurture their competencies in speaking, reading, and writing in English as well as their home language; and have awareness of their first language and cultural heritage (Rodríguez-Eagle, 2009). In this article, I share questions and recommendations gleaned from my opportunities to teach children and observe lessons for over 35 years. Most of the children I have taught were of widely diverse language backgrounds and were also receiving language support services.

What do you recommend I do to get started? Two of my students are receiving language support services. One is chatty; the other is very quiet and shy.

Start the way you always do in Reading Recovery because the framework of the lessons—beginning with Roaming Around the Known—is designed for the teacher and child to work together reading wonderful stories while also talking, writing, and getting to know each other. You will not only have excellent opportunities to observe the child's strengths, but the Roaming lessons will also give you the opportunity to gain the child's trust, to make it easy for the child to respond, and to encourage the child to talk with you. Observation, a safe environment, and supportive interactions are important goals of these sessions.

Administer the *Record of Oral Language* (ROL; Clay et al., 2015) as soon as possible. This will give you insights regarding the child's control of English oral language structures and make you aware of the support you must provide when introducing new books. The ROL sentence repetition tasks will also help you determine the support needed by the child to compose and write a message.

Assure that the lesson framework and your support create *reciprocity* (Clay, 2016, pp. 23, 77, 106). I think of reciprocity as the golden triangle of literacy learning (Borba, 2004).



For emergent bilingual students, what they learn in reading will help them in writing and vice versa. Their home language is also an important component in their full linguistic repertoirs. Both will help children expand their English language acquisition.

Clay (2016) recommends recording the child's "longest utterance" (pp. 31, 79) during Roaming. Multilingual trainers in Reading Recovery recommend recording the child's longest utterance daily.

Are there any adjustments I should make in my teaching when we begin lessons?

The first multilanguage learner I taught was Rachel, from Zimbabwe. Her first language was Shona and she had completed 1 year of school in Zimbabwe where English is the primary language used by schools and the government. I recommend that you do a search of the first language

of the child to learn the characteristics of the language and the culture of the country.

After a pleasant series of Roaming sessions with Rachael, the first books I introduced were Level 3 books, and we hit frustration. I shifted to Level 2 with success for Rachel, but Level 3 continued to be too difficult. I then looked closely at her performance on the ROL. Finding that Rachel repeated very few of 14 sentences correctly at Level 1, I learned I needed to adjust my introductions of new books. As Marie Clay once said to me, "The purpose of ROL is not to label or put a score on the child but to inform the teacher." As soon as I shifted to provide more support and rehearsal of language structures during book introductions, Rachel was successful with Level 3 books.

Soon Level 4 books were in her instructional range and progress was made in every lesson. Rachel not only needed to hear and practice the language structures of the new book, but she also benefited from reading them in her familiar books. This helped her to read more-complex text successfully and to expand her oral language in English. The added aspect of seeing the phrase or sentence was very important for many of my students.

What about writing? Do you think my student will be able to compose and write a message or simple story? Remember, one child hardly ever speaks.

Yes, with your support! I have cautioned many Reading Recovery teachers to be judicious. For example, after a brief conversation about a book or topic, do not just ask the child to restate the message by prompting "What could you write about that?" (Clay, 2016, p. 81). The ROL will help you identify children who will find replying to that question extremely difficult, especially in early lessons, and those who will have little trouble responding to that prompt.

For children whose English you are supporting, record the child's story as presented to you. Then repeat it back to the child in appropriate chunks (usually phrases or one short sentence at a time). After writing the first sentence, teachers may ask a guiding question to elicit more talking and writing within the same writing episode (Clay, 2016, p.81). This is very effective.

Najib, my student from Niger whose first language was Arabic, took great pride in writing about a book he had just read. He taught me the value of writing about the story, then rereading his written story during the next lesson, and adding another part to create a sustained story with a beginning, middle, and end. He excitedly asked if he could read it to his ESL teacher. For his next lesson, I had made a copy of his story so we added pictures and speech bubbles. He smiled a big smile as we stapled his story together creating his own book to read in his ESL class and at home.

In early lessons, writing about the book was a safe and secure way for my English learners to generate stories. Adding some pictures, labels, and/or speech bubbles brought the stories to life while also increasing concepts, vocabulary, and oral language opportunities. I still remember the look of pride on Najib's face when he closed his Level 14 book and said, "Now I know two languages: Arabic and English. I think I will learn 10 more!" What I knew for sure was that he had a better chance of doing that than I did! It has been a joy to teach emergent bilingual students.

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Intervention Essentials

Professional Learning: Constructing Understanding

Elizabeth L. Kaye, Texas Woman's University
Allyson Matczuk, Manitoba Education & Training Early Childhood Education Unit

Why do teachers need to come together for professional learning?

Around the world, professional training processes for Reading Recovery® teachers demonstrate consistency in teacher development. The result is resourceful, observant teachers knowledgeable of literacy processing theory and able to support emergent readers/writers who present idiosyncratic learning profiles. Learning to read and write is complex. Teaching these processes demands a highly skilled teacher who is both flexible and perceptive.

Reading Recovery's inquiry-oriented professional development model allows teachers to gain complex understandings and sets this training apart from other professional learning opportunities. The Reading Recovery in-service course has a solid theoretical orientation, robust content focus, active engagement, collaborative problem solving, alignment with relevant curricula, and sufficient learning time for participants. Additionally, it uses models and modeling of effective practices and provides coaching and expert support. There are multiple opportunities for feedback and reflection as teachers use observations of student behaviors and student data to inform their work.

How do teachers acquire complex understandings about learning and teaching?

To understand the complexity of a literacy processing theory shared by Reading Recovery practitioners internationally, high-quality experiences are essential. Effective teacher development requires a "norm of continuous improvement. The supporting rationale emphasizes the need for educators to refine skills and construct … knowledge while working with peers" (American Council on Education, 1999, p. 5).

Teachers in training are apprenticing into the role of Reading Recovery teachers. During sessions, they view two live lessons behind a one-way viewing screen as the teacher leader helps them to link theory to observations and to their own teaching experiences resulting in self-reflection, shared feedback, and deep discussion. Two lessons are needed to allow discovery of multiple differences observed among learners and teachers.

While observing, teachers engage in dialogic analyses of the lesson as it unfolds. They are encouraged to share their thinking, offer their hypotheses, present evidence to support their ideas, and explore suppositions offered by colleagues. They are guided to link theory to practice and apply their knowledge to the lesson being observed.

Why do live, face-to-face experiences provide the greatest benefit?

The sharing of two live lessons during training sessions influences teacher understandings efficiently and effectively (Clay & Watson, 1982). Observation, articulation, and interaction are keys to the experience. A one-way screen allows all in the group a direct viewing of a colleague instructing a student. When a teacher brings a child to teach a live lesson, the group engages emotionally with both teacher and child. Everyone is focused on supporting their colleague to understand more about how the teaching is effective and what they might suggest to enhance acceleration of the child's learning. The live experience is more easily stored in memory and more easily accessed and transferred to a teacher's own experiences. "Delayed discussion would not … [be] as effective and [recorded] replays lose the excitement of the on-task commentary" (Clay, 1986, p. 27).

Teachers learn to sharpen their observations and contribute real-time, constructive dialogues. The live, face-to-face learning opportunities allow teachers to try out ideas with colleagues, formulating and reformulating understandings through interactions with others (Lyons et al., 1993). Discussions occurring while watching lessons require considerable linguistic and cognitive demands of teachers and teacher leaders, and as teachers extend and refine their own thinking, they create "chains of reasoning" (Lyons, 1994) that lift the whole group to new levels of understanding.

When the class sits in rows at the viewing screen, each participant occupies a slightly different view of the teacher and child. This arrangement encourages multiple perspectives to surface during the discussion. The dialogue in the circle following the lessons provides another powerful opportunity for learning. Each participant is expected

to articulate ideas, listen actively to understand others, and follow a line of inquiry initiated by another colleague (Rodgers, 2000). Rodgers asserts that the physical positioning of the participants in a circle is a critical element that supports members to engage in collaborative talk and helps ensure that each has an equal opportunity to contribute.

Both arrangements, in rows at the screen and in the circle, provide a superior experience to viewing a live lesson on a video platform like Zoom or a recorded lesson, where the view is two-dimensional, fixed by the camera, and presented identically to all viewers. Synchronous video platforms present additional challenges that reduce participants' access to elements of dialogue. With the thumbnail pictures of participants afforded by most video platforms, teachers and teacher leaders have difficulty perceiving nonverbal cues that contribute to meaning making (Sklar, 2000). People are accustomed to gleaning information from hand gestures or body movements such as a slight turn away or the tilt of the head. It is easy to miss a puzzled brow or quick lift of the eyebrows indicating surprise or disbelief when participating online.

Similarly, one misses the occasional rapid inhalation (as if about to say something) or sigh (signaling relief, sadness, or exhaustion). Thus, using online platforms makes it challenging to detect signals that would otherwise be an impetus for further exploration. Additionally, it may feel draining when participants cannot access nonverbal cues that support understanding (Sklar, 2000). When the online view is arranged such that only the speaker's face shows, one cannot pick up cues from other participants. Yet, a multiperson screen forces participants to make sense of many people at once, which can also be overwhelming. Readers may have noticed that even an hour on Zoom can be unusually taxing.

Video platforms use a single audio stream, which further complicates communication (Sklar, 2000). Video chats become less collaborative with one audio stream because everyone's talk comes through the same stream: child, teacher, and the colleagues viewing the lesson. It is difficult to discern individual voices, and often the person with the most sensitive microphone is heard above the others. These audio challenges contribute to stilted conversations and impede the engaging, collaborative inquiry desired. All such limitations suggest the need for caution.

The elements of live, active, participatory experiences are critical to teacher growth and development. When professional learning sessions happen live, in face-to-face environments, educators have rich opportunities for constructing knowledge collaboratively. These experiences support teachers' efforts to sharpen observation, deepen understandings of theory, and ensure teaching decisions are supported by strong rationales.

Reading Recovery's professional learning model offers highly lauded elements of effective teacher professional development. Research shows that *how* teachers are trained to work with the very lowest achievers makes a difference (Hattie, 2012). By staying true to the unique design of Reading Recovery's professional learning, we ensure that teachers develop the understandings that importantly benefit their students.

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Intervention Essentials

The Annual National Evaluation of Reading Recovery

Mary Anne Doyle, University of Connecticut

Why do all Reading Recovery® implementations submit data annually?

Each nation offering Reading Recovery has established processes for the annual, national evaluation of their implementations, and this entails collection and analyses of data on all Reading Recovery children served, including those participating in redevelopments of Reading Recovery in Spanish (Descubriendo la Lectura or DLL) and French (Intervention preventive en lecture-écriture or IPLÉ). Procedures for the annual evaluations of DLL and IPLÉ parallel those of Reading Recovery and are not discussed separately.

In the U.S., centralized procedures are conducted by the International Data Evaluation Center (IDEC) at The Ohio State University. In Canada, the Canadian Institute of Reading Recovery (CIRR) directs this work with technical assistance as needed. In each case, procedures adhere to formal research practices and are designed to answer questions allowing evaluation of how well the national implementation is meeting its goals. What level of success is achieved by the learners struggling to acquire beginning literacy? What do the analyses reveal in terms of both (a) strengths of the implementation and (b) areas in need of attention and improvement?

Reports generated by IDEC and CIRR additionally provide local data (e.g., state/provincial data, site data, school data) to allow assessments by individual implementations. The data are examined to assure that Reading Recovery teachers are meeting the expectations of this trademark program for learners and schools and to identify any implementation issues.

Design of the evaluation of the Reading Recovery implementation research

The national data evaluation questions and processes are based on Marie Clay's earliest studies of the implementation of Reading Recovery in the U.S. (i.e., beginning in 1984). As Clay initiated the implementation of Reading Recovery in Columbus, OH, she designed a replication study to examine the effectiveness of this new venture. Her initial inquiry was, Can the Reading Recovery innovation, with its impressive record of proven results in New Zealand, be replicated in the U.S. demonstrating success for children, teachers, and schools?

Clay was an astute researcher and theorist and asserted that, "Implementation and dissemination have their own bodies of theory and their own evaluation criteria and innovations do not last unless due attention is paid to these aspects of an innovation" (Clay, 1994, p. 139). Thus, her replication studies established formal procedures for the evaluation of implementation factors. In designing this research, two realities observed by Clay were of concern:

- establishing quality control over implementation factors in order to prevent changes (creative and uncreative) that would be detrimental to the effectiveness of Reading Recovery (Clay, 2009b), and
- establishing a system for confirming that the innovation is being implemented as designed by her in order to optimize results (Clay, 2009a, 2009b).

Only if implemented as designed could Marie Clay, and Reading Recovery trainers, offer specific guarantees for positive outcomes for Reading Recovery. These concerns remain today.

Annual data collection helps ensure quality of the implementation

Very early in her replication research, Marie Clay concluded that she needed to establish strong 'guard rails' for Reading Recovery, and she therefore turned to trademark law. In the U.S. she granted the royalty-free trademark for Reading Recovery to The Ohio State University with the understanding that the univer-

sity would establish and maintain a center for the ongoing collection and reporting of annual data. CIRR fulfills this responsibility in Canada. The trademark is the guarantee to all participants of a quality intervention supported by research and monitored annually for effectiveness. With the collection and reporting of the annual data by all participants, the holders of the trademark confirm compliance with the trademark assurances and standards by each university training center and by all participating teachers and schools. These standards are presented in formal documents published by each nation (e.g., *Standards and Guidelines of Reading Recovery in the United States*; CIRR *Standards and Guidelines)*.

The annual, national data evaluation provides an ongoing check on the implementation of Reading Recovery, and the data are examined to reveal implementation strengths and concerns. Any concerns are addressed by trainers who monitor implementation effectiveness and problem solve challenges with trainer colleagues, as well as with their respective sites' teacher leaders, and site coordinators, as appropriate.

The system for data collection, initiated by Marie Clay, entails a methodology that allows for outcome and process evaluations (Gómez-Bellengé, 2009) and the identification of factors that are key to answering the research questions in an objective and standard way (i.e., used in a consistent way by all participants). This is the research process that is applied to establish assumptions of reliability and replicability.

In conclusion

Continuing Clay's evaluation research processes ensures that Reading Recovery is maintained with fidelity to Marie Clay's theoretical perspectives. These include her theories of research designed to evaluate an intervention as well as her theories of literacy, teaching, and learning as they pertain to both training teachers and instructing learners struggling to acquire beginning literacy. In doing so, we are continuing critically important practices that have sustained the Reading Recovery innovation in North America for nearly 38 years. Without taking this position, the royalty-free trademark for Reading Recovery cannot be used to describe the intervention. It remains the responsibility of each trainer, teacher leader, and teacher to uphold and preserve the integrity of Reading Recovery nationally and within their respective sites.

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Dr. Mary Anne Doyle is chair of the International Reading Recovery Trainers Organization Executive Board and has served as consulting editor for the Marie Clay Literacy Trust. She is a member of the North American Trainers Group, a professor emeritus at the University of Connecticut, and former director of Reading Recovery in Connecticut.

Where Are They Now?

"Reading Recovery Also Gave Me The Confidence to Try Other Tough Classes"

Kris Piotrowski, Troy District Site, Troy, MI

When Abby Ormsby started first grade at Morse Elementary School in Troy, MI, she was a quiet, enthusiastic learner. Her mother, Stephanie, had just started as the principal, so it was a new school for Abby and her brother, Parker. When Abby qualified for Reading Recovery in January, Stephanie was elated. She shared that Abby was very eager to learn how to read, however, she had faced some challenges during kindergarten that included only attending a half-day program and having a substitute teacher for half of the year.

These factors coupled with Abby's difficulty with early literacy tasks prompted Stephanie to work with her every evening to help her catch up to her peers. She worked tirelessly by reading to Abby, engaging her in games to learn her letters and trying to teach her how to read some words, but she could see that Abby was still struggling. Abby really wanted to learn but she didn't know how to use the item knowledge she was learning to initiate the problem solving she needed to do when she was reading and writing.

"When I was learning to read, I knew it was harder for me," Abby reflected. "I didn't want to stand out in that way in my classroom. When I had my Reading Recovery lessons with Mrs. Piotrowski it was a safe space so I could focus on learning at my own pace and with all the help I needed."

When Abby was provided with the expert one-to-one tutoring provided by a trained Reading Recovery professional, she finally became the strategic reader and writer she aspired to be. The accelerated growth that she made in less than 20 weeks was evident outside of the intervention as well. Mrs. McDonald, Abby's first-grade teacher, remembers the change in Abby's confidence, not just in literacy but in everything she did.

After Abby exited her Reading Recovery lessons, her progress was monitored closely by the building literacy leadership team. The school was in the process of developing a comprehensive literacy system that provided additional literacy support, as needed, by Reading Recovery trained teachers. Reading Recovery helped Abby develop a strong literacy processing system. This, combined with strong classroom support, ensured her continued progress through elementary school. Not only had Abby become a strategic reader, but equally important, she developed a love for reading.

When middle school began, Stephanie remembers how she continued to excel. The combination of a motivated reader with a strong processing system and a very supportive family provided the framework she needed to take on new challenges.

"She had wonderfully engaging middle school ELA teachers that helped her curate what she loved about reading in order to think deeply about the connection between reading and herself," Stephanie said. "Abby began high school in the fall of 2020 in ninth-grade Honors English

When Abby entered first grade (left) her mom, Stephanie, read with her every evening to help her catch up to her peers. Abby credits her mom and Reading Recovery for helping her become the avid reader and honors student she is today.

and despite the challenges of being a virtual learner for the entire school year, she continued to excel."

Today, Abby is in tenth-grade Honors English at Athens High School. Stephanie says that what she notices more than her classes or than her grades is the energy she has around reading. "I can still see that first grade 'sparkle' as she made her Christmas list and looked ahead to the book titles for honors 11," she said. "I'm so grateful for Reading Recovery for giving my daughter the right start for reading success! "

And what does Abby say about those Reading Recovery lessons?

"I don't think I'd be the student I am today without Reading Recovery because I'd still be behind. Reading Recovery also gave me the confidence to try other tough classes. I'm thankful for Mrs. Piotrowski's classroom being a safe space to try and fail, in order to meet my own potential."

Reading Recovery provided a once-in-a-lifetime opportunity for Abby to receive the expert, individualized intervention that she needed for long-term success.

Kris Piotrowski has been the Reading Recovery teacher leader for the Troy District Site in Michigan for the last 4 years. She has worked closely with the district literacy leadership team to create a comprehensive literacy plan that ensures all children receive the literacy support they need. Prior to that, Kris was a Reading Recovery teacher for 12 years. Kris lives in Troy with her husband and three teenage daughters.

DISTINGUISHED SCHOLAR SERIES

An Examination of Dyslexia Research and Instruction With Policy Implications

Peter Johnston and Donna Scanlon, The University at Albany

About the Authors

Peter Johnston is professor emeritus in the Department of Literacy Teaching and Learning at the University at Albany. His research explores children's literate development and the relationships among classroom talk, engagement, and social and emotional development.

Donna Scanlon is professor emeritus in the Department of Literacy Teaching and Learning at the University at Albany. Her research focuses on the causes and correlates of reading difficulties, instruction and intervention to prevent and remediate literacy learning difficulties, and professional development for teachers to enhance their ability to reduce the incidence of such difficulties.

Some children experience more difficulty than others becoming literate, often at great emotional, intellectual, social and economic cost to themselves, but also to those who love and care for them, and for society at large. The causes of those difficulties and what to do about them have been the source of much research and sometimes heated disagreement among researchers and educators—disagreements that, in one form or another, go back well over a century. The current focus of this attention (from the media, some researchers, parents, and politicians), is on the construct *dyslexia*—a term used (mostly) to describe serious difficulty with the word reading aspect of the reading process.

Currently, there is a well-organized and active contingent of concerned parents and educators (and others) who argue that dyslexia is a frequent cause of reading difficulties, affecting approximately 20% of the population, and that there is a widely accepted treatment for such difficulties: an instructional approach relying almost exclusively on intensive phonics instruction. Proponents argue that it is based on "settled science," which they refer to as "the science of reading" (SOR). The approach is based on a narrow view of science and a restricted range of research focused on word learning and, more recently, neurobiology, but pays little attention to aspects of literacy like comprehension and writing or dimensions of classroom learning and teacher preparation.[1, 2] Because the dyslexia and instructional arguments are inextricably linked, in this report, we explore both while adopting a more comprehensive perspective on relevant theory and research.

Despite differing views on the causes and potential solutions to reading difficulties, to date, at least 42 states and the U.S. federal government have passed laws invoking dyslexia[3] — laws that are largely aligned with the SOR perspective and that change the distribution of resources and educational practices affecting not only students classified as dyslexic, but all students, their teachers, and teacher education more generally. The media have also become involved in advocating the SOR perspective. In the 4 years between 2016 and 2020, there was a flurry of reports about dyslexia in respected outlets such as National Public Radio, the Public Broadcasting Service, CBS, *Time*, *Newsweek*, the *New York Times*, and *Education Week*, each asserting a narrative that dyslexia

is a central cause of reading difficulty and that SOR-aligned instruction is necessary not only for those classified as dyslexic, but for all students.

To promote engagement in the issues that face stakeholders (including educators, parents, and policymakers) in relation to dyslexia and related literacy instruction, we offer responses to 12 FAQs. Doing so will, of necessity, involve some repeated coverage of certain topics that are relevant for more than one question. Question numbers are for convenience of reference rather than a reflection of priorities.

Question 1:
What is the definition of dyslexia?

Answer: There is much disagreement about how to define dyslexia. So much so, that some argue it is not a useful classification.

There are many, often conflicting, definitions of dyslexia, and none offers a clear foundation for determining who qualifies for the classification. Take, for example, the International Dyslexia Association's (IDA) definition:

> 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.[4]

This definition asserts that dyslexia is recognizable by deficiencies in word recognition, spelling and decoding, but only if the deficiencies have a biological cause and are not related to limited cognitive (intellectual) ability. It also asserts that difficulty analyzing speech sounds (commonly referred to as phonological awareness) is a common, but not the only, cause of dyslexia.

This definition is too vague to serve any practical purpose, which is compounded when the same organization offers a different definition that does not require biological causation and expands the scope of difficulties to "usually" include "difficulties with other language skills such as spelling, writing, and pronouncing words."[5] It also introduces a new criterion, that dyslexics "respond slowly to the instruction being provided to their peers but not because of their IQ or lack of effort." The IDA is not alone. Such discrepancies in definition are widespread. Elliott lists four distinct kinds of definition, each with different implications.[6] Definitions also frequently use hedging, such as "often," "frequently," or "typically."

Why does this matter? First, there is no practical, nor consensually definitive, way to decide who is and is not dyslexic. For example, there is no way to directly detect presumed biological causes in individuals. Consequently, students whose difficulties are presumed to arise from nonbiological conditions such as "environmental, cultural, or economic disadvantage" or below average IQ (as specified in federal law) are excluded from the classification.[7] Indeed, between 1963 and 1973, the early years in which children were classified as "learning disabled in reading" (a term researchers often use interchangeably with dyslexia), 98.5% of students deemed to have such a disability were white, and most were middle class.[8]

Second, researchers who study word reading difficulties/dyslexia use different definitions and criteria to identify the students they study. Some researchers choose a simple, arbitrary cut off point such as below the 25th or the 7th percentile on a wide variety of different tests, subtests, or subtest clusters. Some researchers accept as dyslexic anyone who has been diagnosed by any authority. Some exclude from their studies children with lower IQs or with behavioral or other problems; others do not. Consequently, when researchers report their findings, they are often talking about very different groups of students whose only common factor is that, by some definition and some means, it has been determined that they are having difficulty learning to read. Basically, the majority of researchers studying reading difficulties simply select children who, on some test, are not reading well. Most do not even use the category dyslexic or even mention it in their published reports, a fact that has not inhibited others from referencing that research to draw conclusions about dyslexia.

Because of this variability in definition, estimates of the prevalence of dyslexia range from five to as much as 20% of the population.[9] This confusion has led some highly regarded researchers to propose not using the term at all. For example, Keith Stanovich observed, "No term has so impeded the scientific study of reading, as well as the public's understanding of reading disability, as the term dyslexia. Retiring the word is long overdue."[10] This quote is from the cover material on Elliott & Grigorenko's (2014) book, which is a thorough review of the research on dyslexia and which makes the same argument, as does Frank Vellutino in the foreword.

The bottom line is that there are many definitions of, and theories about, dyslexia and simply no agreed-upon definition that allows schools, clinicians, researchers, or anyone else, to decide who is dyslexic in any valid or reliable way. By contrast, it is simple enough to decide at kindergarten entry who *might* encounter difficulty learning to read using measures of actual literacy knowledge. Such a determination has immediate instructional implications.

Question 2:
Is there a biological basis for some children's difficulties becoming literate?

Answer: Probably.

Like virtually every human characteristic, there are likely heritable influences on reading and language skills. The strength of such heritability is an active area of ongoing research, but the issue, at this point, has virtually no instructional implications. There is, however, evidence that instruction impacts characteristics of a physical nature. For example, studies of people's brains as they process print show that patterns of activity in the brains of good readers are, on average, different from those of poor readers. However, these studies have not shown differences between poor readers in general and those classified as dyslexic because most neuroscience studies on dyslexics simply define them as children scoring below a certain point on a reading test. More significantly, with both children and adults, there is suggestive evidence that instruction in aspects of reading, and the resulting progress in reading development, can change the brain activity of poor readers to look more like that of good readers.[11, 12] That is, while differences in brain anatomy and/or activity correlate to some degree with reading performance, brains are sufficiently plastic that the process of learning to read can, to some extent, reorganize (normalize) brain anatomy and activity. Beyond this, there are no instructional implications.

The bottom line is that individual, biologically based differences can make literacy learning more difficult. However, such differences do not *determine* whether children will readily become literate. Our brains remain somewhat plastic in responding to environmental factors, including reading instruction, into adulthood.

Question 3:
Is there a difference between those classified as dyslexic and others who struggle with learning to read words?

Answer: No.

From an instructional standpoint, there is no practical distinction between those classified as dyslexic and others at the low end of the normal distribution of word reading ability in the early elementary grades.[13] This distribution of word reading ability is likely the result of complex combinations of normally distributed individual differences in, for example, phonological awareness, rapid naming, working memory, and many other biological, cognitive (including instructional), and situational factors.[10, 14, 15] Difficulties with phonological analysis are the most common factor associated with early reading problems, but no single factor or combination of factors, guarantees or fully explains literacy difficulties.

The bottom line is that there is currently no consistent basis—biological, cognitive, behavioral, or academic—for distinguishing those who might be identified as dyslexic from others experiencing difficulty learning to decode words. In the end, determining whether or not someone is dyslexic amounts to deciding where on the normal distribution to draw a line—and for some, determining how many lines to draw (whether for reading ability only or for intellectual ability, as well). There is no agreement about where to draw the line(s),

and there is no evidence that instructional response should be different for those above or below the line(s).

Question 4:
Does dyslexia confer benefits such as greater intelligence, creativity, and the like?

Answer: No.

Public narratives about dyslexia commonly claim that people classified as dyslexic have an array of special positive attributes, such as intelligence or creativity—more so than those not so classified. There is virtually no scientific evidence for these claims. The narratives are based largely on high-profile actors, scientists, artists, or others claiming (or having claims made for them in posterity) to be dyslexic. This lack of evidence has not stopped those advancing such claims. For example, the IDA's website at once recognizes that the evidence for such claims is "pretty weak,"[16] while using visual media to suggest that such claims have validity.[17]

Similarly, Yale University's Center for Dyslexia and Creativity website includes no research on creativity. The word "creativity" occurs only in the website title. Although not included in their explicit definition of dyslexia, the site claims without evidence that indicators of dyslexia among school children might include the following: "Eager embrace of new ideas"; "surprising maturity"; "enjoys solving puzzles"; "talent for building models"; "excellent thinking skills: conceptualization, reasoning, imagination, abstraction," among many others[18]. Similarly, the Connecticut State Department of Education's working definition of dyslexia includes that, "Typically, students with dyslexia have strengths and cognitive abilities in areas such as reasoning, critical thinking, concept formation, problem solving, vocabulary, listening comprehension, and social communication (e.g., conversation)."[19]

A higher incidence of such characteristics among individuals classified as dyslexic lacks any empirical basis. However, the claims do enhance the attractiveness of a diagnosis of dyslexia and the support and funding for researchers studying the dyslexia construct.

Question 5:
Can difficulties often attributed to dyslexia be prevented?

Answer: Answers vary depending on one's definition.

There is strong evidence that *most* children whose initial assessments suggest they might have difficulty developing reading skills can be spared that experience through good first instruction and early intervention. Intervention in kindergarten and first grade is more effective than in later grades.[20, 21] These conclusions are valid, whether or not children are classified as dyslexic. A small percentage of children, 2–6% by some estimates, despite best efforts so far, continue to make slow progress.[22] The most under-researched area, and possibly the most important, is how to address the difficulties of students who do not benefit from intervention that has been successful with many of their peers. It is possible that this gap may, at least in part, be attributable to the belief that dyslexia is a permanent condition and to an assumption that we already know *the* right way to approach instruction for such students.

Question 6:
Is it useful to screen kindergarten and first-grade children for dyslexia?

Answer: It is definitely useful to screen to identify children who demonstrate limited early literacy skills—which does not imply screening for dyslexia.

Early screening to identify and support students whose early literacy skills are limited has been shown to be effective for reducing subsequent reading difficulties through early intervention.[23–25] Preventive screening in kindergarten can be simple and efficient. For example, a simple screening for alphabet knowledge at kindergarten entry (but not subsequently) allows for the identification of children who may need closer monitoring and perhaps intervention to prevent subsequent problems.[24] Assessments based on assumptions about dyslexia are more fraught. Current efforts at dyslexia screening are misleading about 50% of the time.[26] In addition, they often lead to less instructionally relevant screening practices. For example, based on the idea that there is a heritable component to literacy difficulties, some propose screening using family literacy histories collected on school entry.[27] But literacy difficulty can have a range of sources. For example, there are higher rates of literacy learn-

ing difficulty in minority student families, difficulties that are more likely related to a history of schooling and impoverished conditions with fewer family opportunities to acquire the foundations of literacy, than to biologically based family characteristics. There is little evidence that screening for dyslexia via family history indices would improve identification of those in need of instructional support over simple measures of early literacy knowledge. Neither is there evidence such approaches would lead to better instruction. In fact, exactly the opposite effect might accrue as instructional personnel and families might be led to expect that long-term difficulties among those who are flagged as potentially dyslexic are inevitable.

Question 7:
How do we help children most likely to be classified as dyslexic learn to read—those who demonstrate difficulties learning to read words?

Answer: While a good deal is known about this issue, there is currently considerable disagreement about the meaning and interpretations of available evidence.

Reading is a complex process and comprehension is the central goal. To comprehend written texts, readers need to be able to devote most, if not all, of their attention to the meaning of the texts they read. To do so, among other things, readers need to be able to quickly and accurately identify most, if not all, of the words in the text. For readers who struggle with word identification (those most likely to be identified as dyslexic), limits in fast and accurate word identification can become a bottleneck that can create frustration and limited comprehension. The question for educators is how to help readers gain proficiency in word identification. This question has become a hot-button issue because of concerns about dyslexia and, once again, arguments about what science has to say about instruction for beginning and struggling learners.

Those who believe that dyslexia is a useful diagnostic category have historically supported the Orton-Gillingham (O-G) and derivative approaches to instruction for children classified as dyslexic and, of late, for all learners. This instruction, originating in the 1920s, traditionally teaches children, in a fixed sequence, letters and sounds and letter patterns, using what are referred to as multisensory techniques. Despite 90 years of use, there is little other than testimonial evidence that this approach has been successful. Consistent with previous research syntheses, a recent meta-analysis showed that O-G interventions improve neither foundation word reading skills (phonological awareness, phonics, fluency, and spelling), nor vocabulary or comprehension.[28, 29] In the only comparative study of intervention approaches we could find, the O-G-based approach was found to be no more effective than other types of intervention in improving reading comprehension among third- and fifth-grade struggling readers, despite a year of instruction using the approach.[30] A study included in the National Reading Panel (NRP) report even demonstrated a substantial negative impact on comprehension a year after students participated in an O-G-based intervention.[31, 32] Nevertheless, enthusiasm for such approaches persists and the IDA, which advocates for O-G-based programs, now refers to them for "marketing" purposes to help "sell what we do," as "Structured Literacy."[33] This advocacy has intersected and merged with perennial advocacy for explicit systematic phonics as the preferred and sometimes sole approach to instruction for all children.

Thus, despite decades of research on reading instruction for beginning and struggling readers, including several syntheses of research that have found no support for the effectiveness of heavy, near-exclusive, phonics-based approaches to reading instruction when compared to other instructional approaches that might be employed, these approaches are still widely advocated and employed.[34–37] Throughout, the NRP meta-analysis has been cited frequently to justify extreme versions of phonics instruction for those identified as dyslexic, as well as others who struggle with reading, and sometimes all beginning readers. However, the NRP report did not support that conclusion. Instead, it asserted that "various types of systematic phonics approaches are significantly more effective than non-phonics approaches in promoting substantial growth in reading," though effects were in the moderate range.[31] The report did not argue for any particular phonics approach. Rather, it recognized that, given the individual differences in knowledge and skills in any classroom, phonics instruction would need to be flexible, and that teachers need to know how to adapt instruction to those individual differences. In addition, it asserted that "systematic phonics

instruction should be integrated with other reading instruction to create a balanced reading program. Phonics instruction is never a total reading program."[31, pp.2–93] Underscoring this point, the report noted, "Phonics should not become the dominant component in a reading program, neither in the amount of time devoted to it nor in the significance attached. […] By emphasizing all of the processes that contribute to growth in reading, teachers will have the best chance of making every child a reader."[31, pp. 2–97]

Subsequent meta-analyses and reanalyses of the studies included in the NRP report, using different techniques and correcting for various analytical weaknesses, have been even less supportive of the type of instruction advocated by SOR proponents.[28, 34, 38, 39] In a recent summary of intervention for struggling literacy learners, Fletcher and colleagues concluded[12]:

> At this point in the development of reading interventions, the issue is not whether to provide explicit phonics instruction; rather, the question is how to integrate phonics instruction with instruction on other components central to learning to read. Individuals who argue that the solution to reading difficulties is simply to introduce more phonics instruction in the classroom, without incorporating instruction in other critical reading skills (e.g., fluency, vocabulary, comprehension) are not attending to the NRP findings or the converging scientific evidence. This is true for programs that attempt to enhance the reading abilities of all students in the classroom, as well as programs that attempt to enhance reading in students with LDs. (p. 163)

Thus, the idea that there is a "settled science" that has determined the only approach to the teaching of reading is simply wrong. There is no evidence that the highly scripted approaches often advocated in media stories are more effective than other approaches that explicitly teach learners about the alphabetic code. And there is no evidence that such approaches impact the end goals of reading instruction—comprehension and knowledge development.

There is, however, considerable agreement among researchers with a broader perspective on scientific research in reading that children, including those experiencing difficulty with reading and potentially classified as dyslexic, benefit from explicit instruction designed to develop phonological sensitivity (the ability to analyze the sounds in spoken words), an understanding of the alphabetic code (how print is related to the sounds in spoken words), and attention to orthographic structure (the predictable patterns of letters in printed words), and that these warrant serious instructional attention *in combination with instruction to develop comprehension, vocabulary, fluency, and a strong positive relationship with literacy*. These latter aspects do not simply arise spontaneously from improving children's decoding ability.

There is no question that, as children learn phonological and orthographic skills, they should be encouraged to bring all of those skills to bear on figuring out unfamiliar words. However, there are far too many words in printed English that cannot be fully decoded, given initial or even advanced phonics skills. Indeed, many printed words are irregularly or ambiguously spelled and cannot be accurately decoded using phonics alone. The percentage of irregularly spelled words among the most common words in English, and thus the ones beginning readers are likely to encounter early, is particularly high (e.g., *of, the, come, gone, one, was, said)*. Of course, many words are not fully decodable by beginning and struggling readers because not only do they not yet have all of the requisite phonics skills and orthographic knowledge, but also because of differences in spoken dialects. For example, in the American South, there may be little difference between

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the pronunciation of *wheel* and *will,* while in Maine, it is hard to distinguish between *Carl* and *Kyle.*

When readers encounter a word that they are unable to fully decode, they must either stop reading, skip the word, get help, or turn to additional sources of information for assistance. For beginning readers who are reading books at their level, this additional information may include pictures and the sentence context, which would be integrated with code-based information derived through the application of their existing knowledge of sound-spellings and other word parts.[40] For older struggling readers, illustrations may still be helpful, but it is primarily the sentence context in which the word occurs and their advancing knowledge of word meanings, *in combination with* the decodable aspects of the word, that will help them to accurately and independently identify the word and thus continue reading and, potentially, make the initially unknown word more recognizable upon subsequent encounters.[41] SOR proponents argue strongly against encouraging learners to use these additional types of information (see Question 8), a position that has the clear potential to limit learners' growth in sight vocabulary.

Further, there are important gaps in the research. For example, O-G-based approaches teach learners many details of the English writing system that most highly literate adults do not know. These details, such as the six syllable types, are believed to provide assistance in word solving. However, there is no evidence that such knowledge improves word solving in context, which is the setting in which the identities of most written words are learned. Indeed, there is reason to hypothesize that such details may impede word learning by turning readers' attention away from text meaning, which contributes to word solving in important ways (see Question 8).

In addition, most research on dyslexia and approaches to phonics pay little or no attention to children's writing and the role of their motivation to write in their learning about the alphabetic and orthographic code. Existing evidence suggests that encouraging children to write, approximating spelling based on their analysis of speech, accompanied by feedback on the quality of their approximations, helps them to become better readers and spellers.[42, 43]

Question 8:
Are approaches that encourage children to use context information as an assist in figuring out words based on a disproven theory of reading?

Answer: No.

Certain advocates of SOR instruction have asserted that encouraging the use of meaningful context to help identify words arises from a theory that has been "disproven," and that the use of context strategies impedes the development of automatic word recognition. Each such claim we have examined either offers no evidence or simply refers to another researcher offering the same unsupported argument. The National Council on Teacher Quality, a forceful supporter of this perspective, has been asked four times over a period of months for its evidence base for this claim, so far without response.

In fact, the utility of using context to direct and check decoding attempts has long been recognized as critical in enabling learners to build sight vocabulary.[44–46] These approaches assume that many common words cannot be figured out solely through phonic analysis. Instead, they propose that children need multiple strategies to figure out words and to read effectively, using knowledge of the relationships between speech and print and letter patterns *as well as* context information such as meaningfulness and grammar. The argument is twofold. First, multiple strategies offer the greater flexibility necessary with an orthography such as English, in which many of the most common words are not fully decodable. Second, children can only self-correct and be independent in identifying unfamiliar words and in building their sight vocabularies when they use multiple strategies accessing different sources of information. Monitoring for meaning is presumed to be part of building independence in word-solving, rather than something that is learned after word-solving has been mastered. If children are not monitoring for meaning, they will not be able to confirm that their decoding efforts are accurate.

Contrary to the "disproven theory" claims, the approach has strong theoretical and empirical support. For example, more than 20 years ago, Share theorized and demonstrated empirically that in order to build sight vocabulary, readers need to rely on phonological skills coupled with contextual information to enable them to resolve decoding ambiguities.[45] Further, having a *set for variability,*[47–49] as articulated by Gibson and Levin, explains how readers can

use context to help settle on the correct identity of unfamiliar words—*if the first attempt at the pronunciation of a word doesn't result in a word that fits the context, try a different pronunciation for some of the letters, especially the vowels*. In addition, the effectiveness of teaching multiple strategies to children experiencing difficulty learning to read has been supported (albeit not explicitly tested) by intervention studies that have either examined the word solving guidance offered by more and less effective intervention teachers[50, 51] or have directly manipulated the guidance provided to teachers with regard to how to support students' word solving efforts.[52] Furthermore, among first-grade students assigned to special instruction because of reading difficulties, those making the most progress by the end of the year used multiple strategies for identifying words, including contextual meaning and language structure, while their less successful peers used only phonics.[53]

Finally, the argument that scientific evidence disproves the use of strategies other than phonics is based on analysis of competent readers, not analysis of the challenges facing beginning readers.[54] Proficient readers rarely encounter words they cannot identify, which is why they do not normally need context to identify them. However, when faced with difficulty, they will draw on context when the word is in their listening/spoken vocabulary but not in their sight vocabulary. Such instances are likely to involve words that have irregular spellings (e.g., *albeit*) and cannot be identified relying exclusively on the decoding elements typically taught.

Question 9:
Is there one right way to teach a child experiencing difficulty learning to read?

Answer: No, but we can do much better than we currently do.

Numerous studies show that identifying children who are behind in their reading development and intervening early can prevent lasting difficulty in *most* children, and multiple approaches have been variously successful in this regard.[23, 55–57] As noted previously, whatever the approach, there always remains a small group for whom intervention efforts are not successful. In spite of the claims of some, no form of instruction has been invariably effective with these children. What this means and what to do about it are important questions. For those who believe there is a distinct group of dyslexic poor readers, the explanations for failure to respond to intervention either invoke the severity of dyslexia or a lack of the type of instruction for which SOR proponents advocate. If such instruction has already been provided, rather than examining the qualities of instructional interactions, the recommendation is often to simply double down on the previously unsuccessful strategy with sometimes unsatisfactory side-effects.[58] Requiring such instruction to be applied to all children, as some advocates do, risks creating problems across the spectrum of reading ability.[59]

There is another option. Rather than assuming a singular explanation for students' word reading difficulties (dyslexia) and the singular correctness of the type of instruction advocated by SOR proponents, we might instead assume that students' difficulties are explained individually by unique combinations of factors. Rather than assuming that the instruction is scientifically correct and that the problem rests permanently within the student, a conclusion that leads to doubling down on the ineffective instruction, we might instead assume that the problem lies in the instruction not accommodating the student's unique complexities and undertake a thorough analysis of instructional interactions.[60–62] Such research is virtually nonexistent.

Question 10:
What is the value of the term dyslexia?

Answer: It is unclear.

The first assumed advantage of classifying someone as dyslexic is that it will lead to optimal instruction specifically aimed at remediating their condition. As noted previously, there is no evidence that such definitive instruction exists, and there is at least some evidence that some popular instructional interventions for students classified as dyslexic may do more harm than good.[32] Of course, in general, such outcomes are unlikely to be published. Although evidence shows that early identification of students who are at risk of having difficulties learning to read is valuable if it leads to early intervention, early classification as dyslexic contributes nothing beyond that awareness. The second most articulat-

ed advantage is that the classification offers those with reading difficulties, and their parents, a tool for breaking the cultural link between reading difficulty and negative assumptions about intellect. Thus, a diagnosis of dyslexia is a vehicle for maintaining self-esteem, albeit at the expense of those whose reading difficulties are deemed "expected" due to other causes such as poverty or culture.

Although this latter argument is plausible, there is thus far no reliable evidence that it is widely the case or that it outweighs its potential downsides (including a sense that the reading difficulties may be permanent). On the other hand, there is reason to believe that attributing students' lack of success to fixed conditions such as dyslexia could undermine a growth mindset and motivation to overcome difficulties.[63] Furthermore, there is the risk that parents, teachers, and others will have lowered expectations, a risk that is heightened when children are screened for dyslexia on or before entry to school. Screening for limited early literacy-related skills, rather than for dyslexia, *might* be less likely to impact such expectations.

The idea that dyslexics are a separate class of individuals, distinct from those experiencing reading problems for other reasons such as intellect, culture, poverty, and/or limited opportunities to learn, coupled with the allusion that dyslexia indicates other exceptional skills, doubtless appeals to some as advantageous.[10, 64, 65] Less often, articulated arguments emphasize that the diagnosis increases access to more and different resources (e.g, extra time on exams or assistive technologies) that are not available to those who are slow readers not classified as dyslexic. If history is a guide, making such resources available to those classified as dyslexic but not to others with reading difficulties invites class and race-related inequities.[8] Further, as Miciak and Fletcher point out, because "there is little evidence for the specificity of dyslexia interventions […] the search for dyslexia-specific interventions potentially limits access to effective reading instruction for some children." [61]

Question 11:
Given the problems with the term dyslexia and related claims about the need for instruction in word solving to focus exclusively on phonological and orthographic information, what fuels the thriving public narrative about them?

Answer: That's complicated.

Most people know someone who has difficulty with reading and related literacy skills, with all the associated troubles and anxieties. Bearing witness to their suffering makes us passionate about protecting them. Parents, researchers, school personnel, journalists, and others bring that passion to their advocacy for resources for those who struggle to learn to read. Support groups have brought collective resources, passion, and particular narratives to lobbying on their behalf. The IDA and Decoding Dyslexia, two such organizations, have been particularly effective at lobbying politicians to implement state laws they hope will best serve their cause and the learners about whom they are concerned. They have been effective in part because the dyslexia narrative has been embedded in the culture since the 1920s when the popular theory held that dyslexia was a visual problem. Although research rejected that theory in the late 1970s,[66] both the term and the theory had a strong foothold in the public imagination, a foothold that persists to this day. Stories that are repeated frequently become an unquestioned part of cultural knowledge, and the internet and media have turned dyslexia into a cultural meme.

Second, the narrative includes the reasonable premise that a reading problem is not the child's nor the parents' fault and does not reflect a problem with intelligence or some other hypothetical characteristic like laziness. The narrative's appeal has been enhanced with unfounded claims that dyslexia may also entail an array of exceptional abilities. These claims are supported not by research but primarily by anecdotes about prominent, successful public figures, living and dead, who overcame reading difficulties presumed to be due to dyslexia. The experiences of those struggling to overcome reading difficulties are certainly real. As evidence that dyslexics are more likely to be gifted in various ways is limited, the value of these claims is questionable.

A third appealing part of the narrative is that there is a simple and scientifically certain solution to the problem. But as Petscher and colleagues point out, "the accrual of scientific knowledge related to reading is ever evolving, at times circuitous, and not without controversy," [35, p. 268] a sentiment echoed in Solari and colleagues' observation that, "the science on any human phenomenon or behavior is rarely settled." [67, p.351]

A fourth narrative element involves demonizing other instructional approaches by offering caricatures. Anything other than exclusive reliance on alphabetic decoding is demonized as not teaching phonics but instead teaching children to "guess" at words, and thus unscientific and even educational malpractice. In fact, approaches that include alphabetic decoding as one of multiple instructional elements have been shown to be successful with young readers experiencing difficulty.[55, 68–70] Such dualisms are counterproductive. It is possible, even likely, that when teachers overemphasize context strategies, some children will neglect expanding their phonics knowledge. It is equally possible, even likely, that when teachers neglect the use of context strategies, children will lose the sense that reading is about meaning construction and not build the knowledge base and language skills upon which comprehension depends.

Public dyslexia narratives often take the form of conversion narratives — stories with sharp before and after contrasts featuring the (often emotional) recognition of dyslexia or the significance of the nearly exclusive emphasis on phonics instruction. These narratives position public schools as either ignorant or heretical and private providers of O-G-based instruction as primary sources of knowledge and certification.[71]

In recent years, pronouncements about the presence and nature of dyslexia and the importance of SOR instruction have been delivered by practitioners of neuroscience or "brain science," a field that very powerfully captures the public imagination. While yielding increasingly interesting data regarding reading processes, it remains a very large leap from neurological research to recommendations for instructional practice.[2, 35, 72]

Further, there is, in this process, no voice for families who have been failed by instructional approaches aligned with the SOR position. This is likely for at least two reasons. First, it is very difficult to speak up against large, organized, highly passionate lobbying groups and media presentations, particularly those whose stated mission is to protect vulnerable children. Second, diagnoses of dyslexia, with their promise of creativity or other gifts, are hard to give up, particularly when the slow progress in reading only confirms the diagnosis.

Fletcher and Grigorenko observe that "[u]nfortunately, science is generally not a primary basis for decision making in education; political trends, experience, anecdotes, and similar bases for evidence prevail."[73, p. 936] Such decisions are, however, frequently made in the name of science. The current state of research on dyslexia and related literacy instruction does not justify the bulk of the arguments about "settled science" relating to these matters. Indeed, there is strong support for a broader view of literacy-relevant science and serious concern about the narrow view of the science popularized in the press.[12]

Question 12:
Given the confusions and complexity surrounding dyslexia, how might we think about and address children's literacy learning difficulties?

Answer: A bit more humbly and with more recognition of what research actually offers, its breadth, and its limitations.

Some students have difficulty, sometimes extreme difficulty, with the word reading aspect of the reading process, and too often, instruction does not meet those students' needs. These difficulties absolutely need to be addressed, instructionally and institutionally. That said, recent advocacy efforts have not been accurate or forthright about the current state of instructional research, its limitations, or its implications. Consequently, in the name of dyslexia, decisions are being made at school, district, and state levels that affect the literacy instruction of all children. Doubtless, all parties involved have children's best interests at heart. However, decisions are often made based on misrepresentations of the state of research promoted by media, commercial interests, and lobbying groups. Neither the nature nor the existence of dyslexia is settled science. Nor is the best approach to reading instruction for children experiencing difficulty learning to read settled science. Educational and legislative decision-makers should be wary of claims to the contrary. Indeed, enthusiasm for the potentially curative benefits of the approach to instruction currently promoted by SOR proponents led to a grand, federally funded experiment, the Reading First program, that failed to deliver any impact on reading comprehension (the most important target of reading instruction), despite a small but significant increase in word decoding skills. The program entailed the expenditure of billions of dollars in funding from the U.S. Department of Education over 6 years.[74]

Teaching all children to read and write is no simple undertaking, and instruction in word reading skills

Too often, emergency and alternative certifications and limited professional development mean that teachers do not have the necessary professional knowledge to teach literacy effectively, especially for students who are highly dependent on school to promote their growth in literacy.

needs to be considered in the broader context of literacy development. Research suggests that teachers are the most important in-school factor in students' learning.[75–77] It is what teachers know and do, particularly in meeting the needs of individual students, rather than the programs or approaches they use, that are most influential in literacy outcomes. Children enter classrooms with very different knowledge, skills, biological attributes, and life experiences that influence their literacy development, and they encounter a range of difficulties in becoming literate. Consequently, teachers of young children need a deep understanding of early literacy development and teaching strategies in order to teach effectively. Some children will need more emphasis on decoding and related processes than others; some will need more support with language skills or the conceptual knowledge and vocabulary upon which comprehension depends. Many, especially those who encounter difficulties, will need motivational support. It is not enough for teachers to know what children need to learn. They need to know how to create conditions such that children will develop that knowledge and engage and persist with challenging activities while maintaining a sense of meaningfulness, self-efficacy, and a positive relationship toward literate activities. Building such professional knowledge can reduce the number of children encountering difficulty.[69]

Unfortunately, teacher preparation programs typically have too few courses on literacy teaching and learning to enable future teachers to develop the needed expertise. But, adding courses onto teacher preparation programs increases the cost and timeline of preparing for a career that is generally underpaid. Adding literacy courses, on top of extensive other new priorities (anti-bullying, anti-racism, ADHD, SEL, etc.) without changing the cost and time line results in trade-offs against learning how to teach science, social studies, and math — teaching that contributes to the development of the knowledge and vocabulary necessary for enabling comprehension. That these costs and benefits have not been researched has not impeded the implementation of state laws requiring a shift to screening and instructional procedures that are aligned with the dyslexia and SOR perspective.[78] Too often, emergency and alternative certifications and limited professional development mean that teachers do not have the necessary professional knowledge to teach literacy effectively, especially for students who are highly dependent on school to promote their growth in literacy — students for whom limitations in background knowledge and language skills are at least as likely to limit reading comprehension as are weak phonics skills. These are serious problems to be solved that will affect the number of children encountering difficulty becoming literate in the broader sense of literacy that not only encompasses word reading accuracy but also using written and spoken language for communication and knowledge development. Solutions to these problems are likely to reduce the number of children who some would have wished to classify as dyslexic, as well as those who experience difficulties with literacy development more broadly.

Policy Implications

It should be clear that the nature of children's difficulties becoming literate and the best ways to teach are the focus of ongoing, not "settled" science. That said, currently, with respect to dyslexia, we can say:

1. Definitions of dyslexia vary widely, and none offer a clear foundation—biological, cognitive, behavioral, or academic—for determining whether an individual experiencing difficulty with developing word reading skill should be classified as dyslexic (Questions 1 and 10).
2. Although there are likely heritable dimensions to reading and language difficulties, there is no way to translate them into implications for instructional practice (Question 2).
3. Good first instruction and early intervention for children with a slow start in the word reading aspect of literacy reduces the likelihood they will encounter

serious difficulty. Thus, early screening with assessments that can inform instruction is important. Screening for dyslexia, particularly with instructionally irrelevant assessments, offers no additional advantage (Questions 5 and 6).

4. Research supports instruction that purposely develops children's ability to analyze speech sounds (phonological/phonemic awareness) and to relate those sounds to patterns of print (phonics and orthographics) *in combination with instruction to develop comprehension, vocabulary, fluency, and a strong positive and agentive relationship with literacy* (Questions 7, 8, 9, and 12).
5. Evidence *does not* justify the use of a heavy and near-exclusive focus on phonics instruction, either in regular classrooms or for children experiencing difficulty learning to read (including those classified as dyslexic; Questions 7, 8, 9, and 12).
6. Legislation (and district policies) aligned with the SOR perspectives on dyslexia will necessarily require trade-offs in the allocation of resources for teacher development and among children having literacy learning difficulties. These trade-offs have the potential to privilege students experiencing some types of literacy learning difficulties while limiting instructional resources for and attention available to students whose literacy difficulties are not due (exclusively) to word reading difficulties (Questions 3 and 12).

These policy implications should not, in any way, serve to diminish concerns about the experiences of learners who encounter difficulty with the word reading process. Most learners who experience such difficulties can overcome those difficulties with early and appropriately targeted instruction and intervention that is not limited to an exclusive phonics focus. There is no evidence that their classification status is relevant in this regard.

Editor's Note:
The content of this article was presented as a plenary session at the 2020 Literacy Research Association Conference. It maintains the style of its original composition as a report to the Literacy Research Association: https://www.youtube.com/watch?v=UsLb6d13f2s

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A Report of National Outcomes for Reading Recovery and Descubriendo la Lectura for the 2020–2021 School Year

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This report features results from the Reading Recovery and Descubriendo la Lectura interventions in the United States in the 2020–2021 school year. There were 32% fewer students participating in Reading Recovery this past school year than in 2019–2020, and the percentage of students participating in Descubriendo la Lectura was about 50% lower than in 2019–2020. There are many reasons the numbers were lower this year than last, but difficulties due to the COVID-19 pandemic and school closures in the previous school year significantly contributed to a reduction in participation in Reading Recovery and Descubriendo la Lectura.

The data in this report support the conclusion that both Reading Recovery and Descubriendo la Lectura continue to work. In 2020–2021, the group of lowest-performing students and the random sample students, which represent typical first graders, started the school year with lower literacy scores than in previous years. However, the thousands of initially low-performing students in the U.S. who participated in Reading Recovery and Descubriendo la Lectura ended the school year, on average, with stronger literacy skills than the typical first grader.

Summary of the Reading Recovery Implementation

Characteristics of participants

During the 2020–2021 school year, Reading Recovery was implemented by 12 university training centers responsible for overseeing the intervention in schools located in 41 states (Table 1). About 20,000 first-grade students were selected to participate in the Reading Recovery intervention. These children received the intervention from 2,725 Reading Recovery teachers who were supported by 212 teacher leaders in 170 training sites serving 608 school districts. There were a total of 1,898 schools participating in Reading Recovery, with 26% in urban areas, 33% in suburban areas, and 42% in rural areas.

Table 1. Participation in Reading Recovery in the United States, 2020–2021

Entity	*n*
University Training Centers	12
Teacher Training Sites	170
States	41
School Systems	608
School Buildings	1,898
Teacher Leaders	212
Teachers	2,725
Reading Recovery Students	19,716
Started in Fall	10,405
Started in Spring	8,352
Started at Year-end	9,15
Unknown When Started	44
Random Sample for RR	1,925

Demographic information for the participating Reading Recovery students (n = 19,716) revealed that 52% were boys and 48% were girls and the students came from different racial and ethnic backgrounds (i.e., 59% White, 17% Hispanic, 16% Black/African American, 2% Asian American, 1% Native American, and 6% either multiple races or other ethnic backgrounds). Of the schools that reported federal lunch status, approximately 75% of Reading Recovery students were eligible for free or reduced lunch.

In the fall of the school year, teachers in each school that participates in Reading Recovery randomly select two students from all first graders in the school to be part of a national random sample of first graders. The students in this national random sample are considered typical first-grade students and serve as a comparison group. The random sample from the 2020–2021 academic year (n = 1,925) was comprised of students who came from different racial and ethnic backgrounds (i.e.,

68% White, 11% Hispanic, 12% Black/African American, 3% Asian American, 1% Native American, and 6% either multiple races or other ethnic backgrounds). About half of the random sample students were boys and half were girls. Of schools reporting federal lunch status, 65% of the random sample students were eligible for free or reduced lunch.

Reading Recovery teachers who participated in the 2020–2021 data collection had an average of 21.5 years of teaching experience and 9.1 years teaching Reading Recovery and/or Descubriendo la Lectura. These teachers provided individual literacy instruction to 6.9 Reading Recovery children during the school year. In addition, Reading Recovery teachers worked with an average of 27.6 additional children beyond their Reading Recovery load. Thus, accounting for all teaching roles/assignments during the 2020–2021 academic year, Reading Recovery teachers instructed an average total of 34.5 children.

Assessment and exit status categories

The assessment used in this examination of student performance was *An Observation Survey of Early Literacy Achievement* (Observation Survey; Clay, 2019). The Observation Survey was administered several times to Reading Recovery students and the random sample of comparison students during the 2020–2021 academic year. As noted above, 2020–2021 was a uniquely challenging year for many Reading Recovery teachers. Only 56% of the students enrolled in Reading Recovery have fall Observation Survey Total Scores, whereas in the 2 previous school years, 77% of Reading Recovery students had fall Observation Survey Total Scores. Anecdotally, we learned that Reading Recovery teachers, due to other responsibilities at their schools, were unable to collect or enter data for their students in the fall. In addition, one of the six Observation Survey tasks that is used to compute the Observation Survey Total Score is difficult to administer online (i.e., Concepts About Print). The percentage of fall Observation Survey Total Scores for the random sample students in 2020–2021 was also lower than in a typical year; in 2019–2020, 96% of the random sample students had fall Observation Survey Total Scores whereas, in 2020–2021, only 85% of the random sample students had fall Observation Survey Total Scores.

A new status category of *Progressed: Monitoring and Support Essential for Ongoing Literacy Progress* was added in 2020–2021. Students were assigned a status of Progressed if they received a complete series of lessons, made progress, and monitoring and/or support were deemed essential for ongoing literacy progress (Doyle, 2020).

Of the students who received a complete series of Reading Recovery lessons (n = 12,847, 65.3% of all served) end-of-intervention outcomes were as follows:

- 49.7% (n = 6,382) achieved the intervention goal of reading and writing levels commensurate with the average students in their first-grade cohort. These students were given the outcome status of *Accelerated Progress: Achieved Intervention Goal.*
- 22.4% (n = 2,878) made significant progress in their levels of reading and writing achievement but did not achieve average levels after completing a full series of lessons. These students were given an outcome status of Progressed.
- 27.9% (n = 3,586) made some progress during the intervention, but additional evaluation and ongoing intervention was considered essential for literacy progress to continue after completing a full series of lessons. These students were given an outcome status of *Recommended: Additional Evaluation and Intervention Essential for Ongoing Literacy Progress*.

Of the total group of students selected for Reading Recovery (n = 19,716), not all students were able to complete the intervention (34.7%, n = 6,825). The following reasons were given for this:

- 27.5% (n = 5,403) of students were unable to complete a full series of the 20 weeks of instruction before the end of the school year. These students were given an outcome status of *Incomplete*.
- 2.9% (n = 577) of students moved during the school year while still enrolled in lessons (exit status *Moved*).
- 4.3% (n = 845) of students' lessons were concluded early due to unusual circumstances based on a decision by someone other than the Reading Recovery teacher (exit status *None of the Above*).

Comparison of Reading Recovery Outcomes

We used data that was submitted to the International Data Evaluation Center to explore three research questions related to first-grade students' literacy skills. Our first research question examined the effects of school closures due to the COVID-19 pandemic in the previous school year on students' literacy skills as they entered first grade. To answer this question, we compared fall Observation Survey Total Scores from 2020–2021 to fall Observation Survey Total Scores in 2019–2020 and 2018–2019. In order to make comparisons across the 3 years, we used data from schools that had fall Observation Survey Total Scores for all 3 years.

Our second research question examined how students who completed the intervention and were given a status of Accelerated Progress, Progressed, or Recommended compared with each other and with the random sample students on the six tasks of the Observation Survey. Typically, Observation Survey Total Scores would be used for a comparison such as this, however, because the previous school year was not a typical year and many students did not have fall Observation Survey Total Scores, we used students' fall, mid-year, and year-end scores on the six individual Observation Survey tasks to examine how the groups compared.

For research question three we were interested in learning the characteristics of the Reading Recovery students who were given an outcome status of Progressed, the new status category added this past school year. The analysis conducted to answer research question two provided part of the answer to this question. We also looked at proportions of Reading Recovery students in the three status groups (i.e., Accelerated Progress, Progressed, and Recommended) and the random sample in 2020–2021 by gender, free or reduced lunch status, ELL and disability status, and racial/ethnic categories. In addition, we compared the proportions of Reading Recovery students in each of the three status groups in 2020–2021 with the proportions of Reading Recovery students in the two status groups in four previous school years, from 2015–2016 through 2018–2019. We did not use the proportions in status groups during the school year when schools closed due to the COVID-19 pandemic (i.e., 2019–2020) because almost half of the students in Reading Recovery during that school year were given a status of None of the Above and this proportion is typically much lower (e.g., in 2018–2019, the proportion was 3.0%). Counts and frequencies of Reading Recovery students by status group for 2018–19, 2019–2020, and 2020–2021 are presented in Table 2.

In summary, we had three research questions:

1. How did the literacy skills of students entering first grade in 2020–2021 compare to the literacy skills of students entering first grade in 2018–2019 and 2019–2020, as measured by fall Observation Survey Total Scores?
2. How did fall, mid-year, and year-end scores of students who completed the Reading Recovery intervention in 2020–2021 compare to each other by outcome status group (i.e., Accelerated Progress, Progressed, and

Table 2. Counts and Percentages of Reading Recovery Students by Status and School Year for 2018–2019, 2019–2020, 2020–2021

	2018–2019		2019–2020		2020–2021	
Status	***n***	**%**	***n***	**%**	***n***	**%**
Accelerated Progress	17,336	54	7,164	25	6,383	32
Progressed	—	—	—	—	2,878	15
Recommended	7,114	22	6,635	23	3,586	18
Incomplete	5,867	18	681	2	5,403	28
Moved	1,027	3	778	3	577	3
None of the Above	1,052	3	13,228	47	845	4
TOTAL	32,396		28,486		19,672	

NOTE: Percentages were calculated on all students who participated in Reading Recovery. The totals included students who were unable to complete the intervention.

Recommended) and to the random sample students (i.e., typical first graders) on the six individual tasks of the Observation Survey?

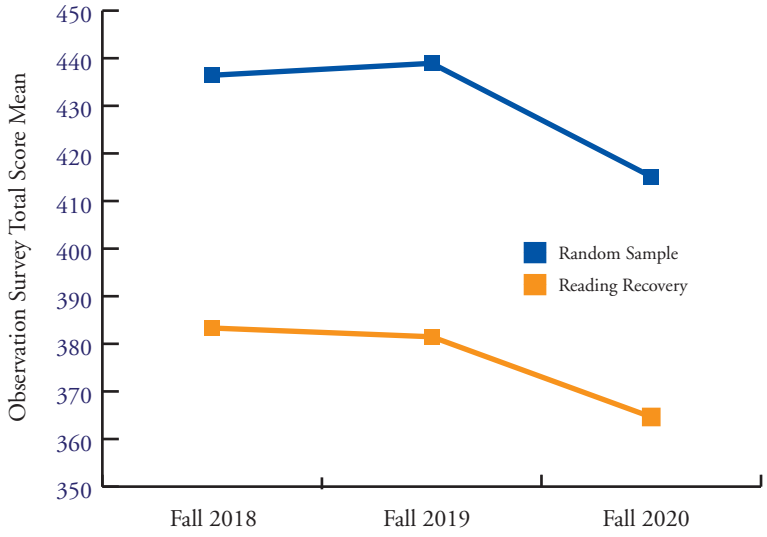
3. What were the characteristics of students who were given a status of Progressed in 2020–2021, and how did they compare to Reading Recovery students who were given statuses of Accelerated Progress and Recommended, as well as to the random sample students?

Research question one

To answer research question one, we used fall Observation Survey Total Scores for students selected to participate in Reading Recovery in schools that had fall Observation Survey Total Scores for students in 2018–2019, 2019–2020, and 2020–2021. In addition, we used fall Observation Survey Total Scores for random sample students from the same school years as representatives of typical first graders for each of those years.

As seen in Table 3 and Figure 1, both groups started the 2020–2021 school year with fall Observation Survey Total Scores that were much lower than they were in the fall of the 2 previous school years. Fall Observation Survey Total Scores of Reading Recovery students were 19 points lower than in 2018–2019 and 17 points lower than in 2019–2020. Random sample students started the 2020–2021 school year with fall Observation Survey Total Scores 21 points lower than in 2018–2019 and 24 points lower than in 2019–2020.

Figure 1. Plot of Fall Observation Survey Total Score Means for Reading Recovery Students and Random Sample Students, 2018–2019, 2019–2020, 2020–2021



After observing the drop in fall Observation Survey Total Scores in 2020–2021 compared to the 2 previous years, we wondered how this reduction in overall literacy skills might be reflected in the reading abilities of typical students entering first grade in the fall of 2020 compared to the falls of the two previous years. In other words, how did this drop in literacy scores play out in the typical first-grade classroom? For this comparison, we used distributions of random sample students' scores because the random sample students were proxies for typical first graders and we used their distributions of fall Observation Survey Text Reading Level (TRL) task scores because fall scores on this task were measures of students' reading ability as they entered first grade. Examining these distributions before and during the pandemic allowed us to visualize how the range of reading ability in first-grade classrooms of 2020 might have compared to the range of reading ability in first-grade classrooms in the falls of 2018 and 2019.

As seen in Figure 2, the percentages of random sample students reading at each text reading level in fall 2018 were similar to the percentages of random sample students reading at

Table 3. Fall Observation Survey Total Score Means for Reading Recovery and Random Sample Students for School Years 2018–2019, 2019–2020, 2020–2021

	Reading Recovery		Random Sample	
School Year	*M (SD)*	*N*	*M (SD)*	*N*
2018–2019	383 (44)	14,088	436 (54)	2,466
2019–2020	381 (44)	13,383	438(54)	2,260
2020–2021	365 (46)	11,046	415 (57)	1,632

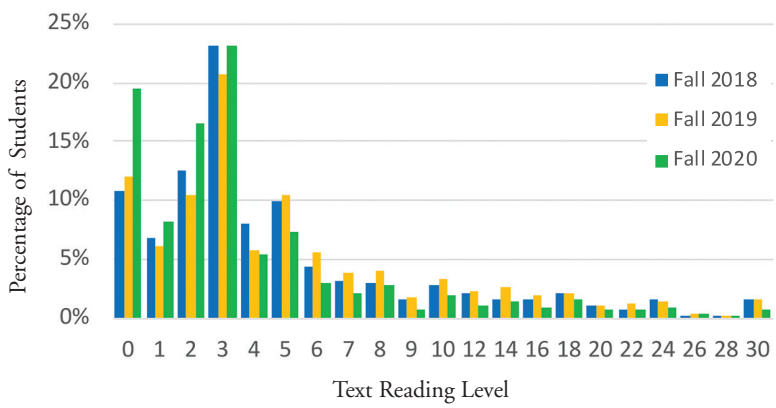
NOTE: In order to make comparisons across the 3 years, data from schools with fall Observation Survey Total Scores for all 3 years were used to calculate means and SD.

each text reading level in fall 2019. For example, in fall 2018 and fall 2019 about the same percentages of students entered first grade with scores on the TRL task < 3 (i.e., 30% and 29%, respectively) and in both school years, the percentages of students with fall TRL scores > 10 were 13% and 15%, respectively. In fall 2020, however, after the school year in which most instruction after mid-March was conducted remotely due to the COVID-19 pandemic, the percentage of random sample students with fall TRL scores < 3 (44%) was higher than it had been in the 2 previous years and the percentage of random sample students with fall TRL scores > 10 was only 9%. These statistics indicate that in the fall of the 2020–2021 school year first-grade classrooms had more students who were not yet able to read and fewer students who had strong literacy skills.

Research question two

To answer research question two, we used 2020–2021 scores on all six tasks of the Observation Survey at fall, mid-year, and year-end from students who completed Reading Recovery, by status category (i.e., Accelerated Progress, Progressed, and Recommended), and from random sample students. Means for each group of students and the percentages of data that were available for computing the means are reported in Table 4. The Concepts About Print task had the lowest proportion of scores available for all groups at all time points (i.e., ranged from 59% to 89%) with fall scores for students in the Accelerated Progress group having the lowest percentage of available scores on this task. As indicated above, this task was difficult to administer in a remote setting. For the other five Observation Survey tasks, the percentages of fall data that were available for calculating means was 71% for Accelerated Progress students, 91% for Progressed students, 95% for Recommended students, and 98% for random sample students. At mid-year and year-end, the percentages of available data on the five Observation Survey tasks for Reading Recovery students in all status categories and the random sample ranged from 84% to 100%, with Progressed and Recommended students having at least 96% of data available.

Figure 2. Distributions of Random Sample Students' Fall Text Reading Level Scores, 2018–2019, 2019–2020, 2020–2021



To visualize the differences between the groups, we created a line plot for each of the six Observation Survey tasks using means from the Reading Recovery students, by status group, and the random sample students. Unlike the means that were calculated for Table 4, the means for the plots were calculated only from students who had scores at all three time points (i.e., fall, mid-year, and spring). For the Reading Recovery status groups, about 79% of the students had data available to calculate the means for all tasks, except the Concepts About Print task, which only had 62% of the data available. For random sample students, about 87% of the students had data available for calculating the means for all tasks, except the Concepts About Print task, which only had 75% of data available. Although our sample sizes were reduced because we calculated the means for the plots only from students who had scores at all three time points, doing so allowed the numbers of students in each group to be the same across all time points. Generally, the means presented in Table 4 were similar to the means used to create the plots in Figure 3.

As seen in Table 4 and Figure 3, almost half of the Reading Recovery students (i.e., those given a status of Accelerated Progress) had year-end mean scores on the six individual Observation Survey tasks that exceeded the mean scores of the random sample students despite having Observation Survey mean scores in the fall that were lower than those of the random sample students. Progressed students also started the school year with scores on the Observation Survey tasks that were lower than the random sample

Table 4. Observation Survey Task Mean Scores and Percentages of Available Data for Reading Recovery Students by Status and for Random Sample Students, 2020–2021

	Reading Recovery Students						Random Sample Students	
	Accelerated Progress		Progressed		Recommended			
Task	Mean	%Data	Mean	%Data	Mean	%Data	Mean	%Data
Text Reading Level								
Fall	1.3	71	0.8	91	0.4	95	4.3	98
Mid-year	11.1	84	8.8	98	4.3	99	11.4	91
Year-end	19.5	98	12.9	97	6.1	96	17.6	93
Letter Identification								
Fall	47.9	71	44.6	91	37.6	95	49.4	98
Mid-year	52.8	100	52.5	100	49.9	99	52.6	92
Year-end	53.6	98	53.1	97	51.1	96	53.2	94
Ohio Word Test								
Fall	3.8	71	2.0	91	1.0	95	7.6	98
Mid-year	15.1	100	13.7	100	8.1	99	14.5	92
Year-end	19.2	98	17.1	97	11.2	96	17.8	94
Concepts About Print								
Fall	12.2	59	11.4	75	10.0	71	14.3	85
Mid-year	18.2	88	18.3	86	16.0	81	17.9	82
Year-end	21.1	89	19.7	86	17.0	82	19.8	85
Hearing and Recording Sounds								
Fall	19.7	71	15.0	91	9.3	95	25.0	98
Mid-year	33.8	100	33.1	100	27.2	99	33.0	91
Year-end	35.9	98	34.4	97	29.1	96	34.5	93
Writing Vocabulary								
Fall	9.5	71	6.8	91	4.3	95	15.6	98
Mid-year	37.2	100	34.3	100	22.9	99	34.6	91
Year-end	53.2	98	41.9	97	28.0	96	46.8	93

NOTE: The percentage of available data are provided in the table for each task, by status group, and for the random sample students to provide additional information on the sample sizes on which the means were calculated. Full sample sizes for each of the groups were Accelerated Progress students, n = 6,383; Progressed students, n = 2,878; Recommended students, n = 3,586; random sample students, n = 1,925.

students, yet they had mean scores on most tasks that mirrored those of the random sample students at mid-year and year-end. Mean scores for Recommended students were the lowest compared to Accelerated Progress, Progressed, and random sample students on the six Observation Survey tasks at the three time points, though their mean scores rose steeply from fall to mid-year on three of the Observation Survey tasks (i.e., Letter Identification, Concepts About Print, and Hearing and Recording Sounds in Words).

Research question three

Mean scores on the six Observation Survey tasks from Reading Recovery students, by status group, and random sample students in fall, mid-year, and year-end of the 2020–2021 school year and demographic characteristics of students in these groups were used to answer research question three. Examining the means and plots of the mean scores on the six Observation Survey tasks (Table 4 and Figure 3) allowed us to compare the literacy growth of the Progressed students with students in the Accelerated Progress, Recommended, and random sample groups. At all three time points on the Text Reading Level task, Progressed students had lower means than the Accelerated Progress students (i.e., differences in fall = 0.5, mid-year = 2.3, and year-end = 6.6) and the random sample students (i.e., differences in fall = 3.4, mid-year = 2.6, and year-end = 4.7). Also, at all three time points on the Writing Vocabulary task, Progressed students had lower means than the Accelerated Progress students (i.e., differences in fall = 2.7, mid-year = 2.9, and year-end = 11.3) and the random sample students (i.e.,

Figure 3. Plots of Mean Scores by Time Point on the Observation Survey Tasks for Reading Recovery Students by Status and for Random Sample Students, 2020–2021

NOTE: Means for each of the plots were calculated using data from students who had scores at all three time points. Four of the Observation Survey tasks have ceiling effects due to the limited range of scores for these tasks (i.e., Letter Identification, Ohio Word Test, Concepts About Print, and Hearing and Recording Sounds in Words).

differences in fall = 8.8, mid-year = 0.3, and year-end = 4.9). On the four other Observation Survey tasks, however, at mid-year and year-end, the differences between the Progressed, Accelerated Progress, and random sample students were small, usually within 1 point. For example, on the Letter Identification task, the differences between Progressed students' means and random sample students' means were 0.1 at both mid-year and year-end. On the Ohio Word Test, at mid-year and year-end, the differences between Progressed students' means and random sample students' means were 0.8 and 0.7, respectively. On the Concepts About Print task, at mid-year Progressed students had a higher mean (18.3) than the random sample students

(17.9), and at year-end the difference between Progressed students' mean and random sample students' mean was only 0.1. On the Hearing and Recording Sounds in Words task at mid-year and year-end, Progressed students had means that were within 0.1 points of the random sample students' means.

As seen in Table 5, Recommended students have the highest proportion of students for each demographic variable, except for the race categories Other or White. Proportions of Progressed students who were male (52%) were similar to Accelerated Progress (50%) and random sample students (50%) and somewhat lower than Recommended students (55%). The proportion of Progressed students who had a federal lunch status of free or reduced lunch (70%) was somewhat higher than Accelerated Progress and random sample students (66% and 65%, respectively), but lower than Recommended students (80%). Progressed students had a similar proportion of ELL students (14%) compared to Accelerated Progress students (14%) and both had higher proportions than the random sample (9%). Proportions of Progressed students who had been identified with a disability (11%) were somewhat larger than proportions of Accelerated Progress students (9%, difference of 2%) and random sample students (8%, difference of 3%). Regarding race groups, differences in proportions in each race category between Progressed, Accelerated Progress, and random sample students vary from 0–3%. The Recommended students had proportions of Black and Hispanic students that exceeded the next highest group (i.e., students in the Accelerated Progress group) by 4–5% and were 7–9% higher than the lowest group (i.e., students in the random sample group). All four groups have equal proportions of students who were identified as Other.

In addition, the proportions of Reading Recovery students by status in 2020–2021 were compared to the proportions of Reading Recovery students by status for the 2015–2016 through 2018–2019 school years. As indicated above, status group proportions during the school year when schools closed due to the COVID-19 pandemic (i.e., 2019–2020) were not used for this comparison because a disproportionate number of students were assigned an outcome status of None of the Above in 2019–2020 compared to any other year. As seen in Figure 4, the proportion of students who were Recommended for additional support in 2020–2021 was similar to proportions of Recommended students in 2015–2016 through 2018–2019. And likewise, the sum of the proportions of students in the Progressed and Accelerated Progress status categories of 2020–2021 were similar to the proportions of students in the Accelerated Progress status group in 2015–2016 through 2018–2019.

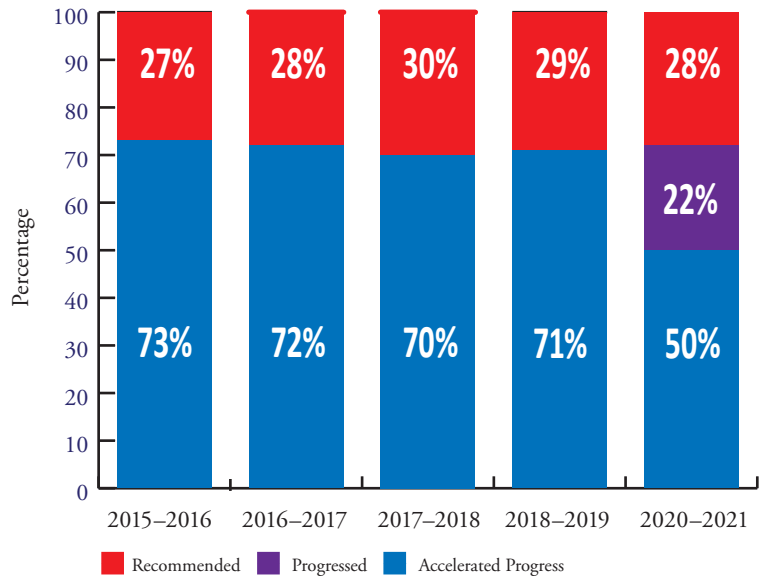
In the random sample group that is collected every year, at the beginning of first grade there have always been students who have strong literacy skills (e.g., TRL > 20) and students who are not yet reading text (i.e., TRL = 0). On average, from year to year, these differences don't change much; the number of students who enter first grade with a low TRL stays about the same year to year as does the number of students who score high on the TRL. As stated above, 2020–2021 was not a typical school year. In that school year, fall TRL scores indicated that there were more children reading at lower text levels and fewer children reading at higher text levels than in previ-

Table 5. Demographics of Reading Recovery Students by Status and Random Sample Students, 2020–2021

	Reading Recovery Students			Random Sample Students
Demographic	Accelerated Progress (n = 6,383)	Progressed (n = 2,878)	Recommended (n = 3,586)	(n = 1,925)
Male	50%	52%	55%	50%
Free/Reduced Lunch*	66%	70%	80%	65%
ELL	14%	13%	16%	9%
Disability**	9%	11%	18%	8%
Race/Ethnic				
Black	14%	11%	18%	12%
Hispanic	15%	14%	20%	11%
Other	8%	8%	8%	8%
White	64%	67%	55%	69%

NOTE: *47.8% of schools did not report federal lunch status. ELL = English language learners. **Some form of disability indicated at entry to intervention. The race/ethnic category Other is a diverse group (e.g., multiracial, Asian, Native American).

Figure 4. Proportions of Reading Recovery Students by Status Group, 2015–2016 Through 2018–2019, and 2020–2021



ous years. Beyond this trend in the random sample, a similar trend was seen in children selected for Reading Recovery at the beginning of the year who likewise had lower TRL scores than in previous years.

Despite coming in lower than in previous years, an examination of Reading Recovery students' mean scores by status group (Table 4, Figure 3) allowed us to see the significant growth that happened for these students. This was true especially for students in the Accelerated Progress and Progressed groups. For example, Reading Recovery students in the Accelerated Progress group started the 2020–2021 school year with a mean TRL of 1.3 and ended the school year with a mean TRL of 19.5, which represented a growth of 18.2 levels. Reading Recovery students in the Progressed group started the 2020–2021 school year with a mean TRL of 0.8 and ended the school year with a mean TRL of 12.9, which represented a growth of 12.1 levels.

Comparatively, the random sample students of the 2020–2021 school year, who are considered average first-grade students, started the school year with a mean TRL of 4.2 and ended the school year with a mean TRL of 17.6, which represented a growth of 13.4 levels. Accelerated Progress and Progressed students started the school year with mean scores on the TRL that were lower than the random sample students' mean TRL but the Accelerated Progress students made *more* growth in their mean TRL than the random sample students, and the Progressed students made similar growth in their mean TRL to the random sample students.

In the past 2 decades, almost 2 million children in the U.S. have benefited from their participation in Reading Recovery. In the 2020–2021 school year, as in previous years, most first graders who completed the Reading Recovery intervention showed accelerated gains in their literacy skills. Data from this report indicated that children's literacy development was interrupted due to the COVID-19 pandemic and the ensuing changes in how schooling was delivered because of school closings in the spring of 2020. Additionally, the ways school was delivered throughout the U.S. was atypical across the 2020-2021 school year (e.g., remote learning, hybrid learning, in-person learning with distance and masks required). In light of past and ongoing changes in how school is delivered, effective early literacy intervention is more important than ever. The findings in this report clearly demonstrate the efficacy of Reading Recovery and the impacts such an intervention can have on the literacy development of students who are struggling with learning to read and write.

Summary of the Descubriendo la Lectura Implementation

Characteristics of participants

The Descubriendo la Lectura intervention, a reconstruction of Reading Recovery in Spanish, was designed for first graders who receive their initial literacy instruction in Spanish. Table 6 provides details about participation in Descubriendo la Lectura in the United States during the 2020–2021 academic year. There were 206 children participating in the Descubriendo la Lectura intervention who received instruction from 28 teachers. These students attended 31 schools in 11 school districts that were located in 6 states and the teachers were supported by 13 teacher leaders. Of the 206 Descubriendo la Lectura students served, 54% were boys, 46% were girls, 99% were Hispanic, 97% were eligible for free

Table 6. Participation in Descubriendo la Lectura in the United States, 2020–2021

Entity	*n*
University Training Centers	3
Teacher Training Sites	11
States	6
School Systems	11
School Buildings	31
Teacher Leaders	13
Teachers	28
DLL Students	206
Started in Fall	107
Started in Spring	91
Started at Year-end	8
Unknown When Started	0
Random Sample for DLL	59

or reduced lunch and English was not the primary language at home for 99% of all Descubriendo la Lectura students. The schools these students attended were located in urban (47%), suburban (47%), and rural (6%) areas.

At the beginning of the school year, in schools that participate in Descubriendo la Lectura, teachers randomly select four students from the first graders in the school. The students in this random sample are considered typical of the first-grade students in their schools. In the random sample from the 2020–2021 academic year (n = 59): 56% were boys, 44% were girls, 95% identified as Hispanic, and 93% were eligible for free or reduced lunch.

Descubriendo la Lectura teachers had an average of 19.6 years of teaching experience and 8.2 years teaching Descubriendo la Lectura and/or Reading Recovery. These teachers taught 6.7 Descubriendo la Lectura children during the 2020–2021 school year and 14.4 children beyond their Descubriendo la Lectura load. Thus, accounting for all teaching roles/assignments during the 2020–2021 academic year, Descubriendo la Lectura teachers instructed an average total of 21.1 children.

Assessment and exit status categories

The assessment used in this examination of Descubriendo la Lectura was the *Instrumento de observación de los lecto-escritura inicial* (Instrumento de observación; Escamilla et al., 1996). The Instrumento de observación was administered several times to both participating Descubriendo la Lectura students and a random sample of students in their schools during the 2020–2021 academic year. Like the Observation Survey, this assessment is typically administered at several times during the school year (e.g., fall, mid-year, and year-end). As noted above, 2020–2021 was a uniquely challenging year for Descubriendo la Lectura teachers. Only 45% of the students enrolled in Descubriendo la Lectura had fall Instrumento de observación Total Scores whereas in the two previous school years about 78% had Instrumento de observación Total Scores. One of the six Instrumento de observación tasks that is used to calculate the Instrumento de observación Total Score is difficult to administer online (i.e., Conceptos del Texto Impreso). The percentage of fall Instrumento de observación Total Scores for the random sample students in 2020–2021 was also lower than was typical; in 2019–2020, 100% of the random sample students had fall Instrumento de observación Total Scores whereas, in 2020–2021, only 76% of the random sample students had fall Instrumento de observación Total Scores.

A new status category of Progressed was added in 2020–2021. Students were assigned a status of Progressed if they received a complete series of lessons, made progress, and monitoring and/or support were deemed essential for ongoing literacy progress (Doyle, 2020).

Of students who participated in the Descubriendo la Lectura intervention in the 2020–2021 school year and who completed the intervention (n = 120, 58.3% of all served), end-of-intervention outcomes were as follows:

- 34.2% (n = 41) achieved the intervention goal of reading and writing levels commensurate with the average students in their first-grade cohort. These students were given the outcome status of Accelerated Progress.
- 12.5% (n = 15) made significant progress in their levels of reading and writing achievement but did not achieve average levels after completing a full series of lessons. These students were given a status of Progressed.
- 53.3% (n = 64) made some progress during the intervention, but additional evaluation and ongoing intervention were considered essential for literacy progress to continue after completing a full series of lessons. These students were given on outcome status of Recommended.

The statistics reported above are based on students who participated in

the Descubriendo la Lectura intervention in the 2020–2021 school year and completed the intervention. Not all students selected for the intervention were able to complete it (41.7%, n = 86). The following reasons were given for this:

- 33.0% (n = 68) of students were unable to complete a full series of the 20 weeks of instruction before the end of the school year. These students were given an outcome status of Incomplete.
- 2.9% (n = 6) of students moved during the school year while still enrolled in lessons (exit status Moved).
- 5.8% (n = 12) of students' lessons were concluded early due to unusual circumstances based on a decision by someone other than the Reading Recovery teacher (exit status None of the Above).

Comparison of Descubriendo la Lectura Outcomes

We used data that was submitted to the International Data Evaluation Center to explore three research questions related to first-grade students' literacy skills. Our first research question examined the effects of school closures due to the COVID-19 pandemic in the previous school year on students' literacy skills as they entered first grade. To answer this question, we compared fall Instrumento de observación Total Scores from 2020–2021 to fall Instrumento de observación Total Scores in 2018–2019 and 2019–2020. In order to make comparisons across the 3 years, we used data from schools that had fall Instrumento de observación Total Scores for all 3 years.

Our second research question examined how students who completed the intervention and were given a status of Accelerated Progress, Progressed, or Recommended compared with each other and with the random sample on the six tasks of the Instrumento de observación. Typically, Instrumento de observación Total Scores would be used for a comparison such as this, however, because the previous school year was not a typical year and many students did not have fall Instrumento de observación Total Scores, we used students' fall, mid-year, and year-end scores on the six individual Instrumento de observación tasks.

For research question three we were interested in learning the characteristics of the Descubriendo la Lectura students who were given an outcome status of Progressed, the new status category that was added this past school year. Although there were only 15 students who were given this status in 2020–2021, learning about students in this group could provide useful information despite the small sample size. The analysis conducted to answer research question two provided part of the answer to this question. We also looked at proportions of Descubriendo la Lectura students in the three status groups (i.e., Accelerated Progress, Progressed, and Recommended) and the random sample in 2020–2021 by gender, free or reduced lunch status, and ELL and disability status. In addition, we compared the proportions of Descubriendo la Lectura students in each of the three status groups in 2020–2021 with the proportions of Descubriendo la Lectura students in the two status groups in 4 previous school years, 2015–2016 through 2018–2019. We did not use proportions by status group during the school year when schools closed due to the COVID-19 pandemic (i.e., 2019–2020) because about 43% of the students in Descubriendo la Lectura during that year were given a status of None of the Above and this proportion is typically much lower (e.g., in 2018–2019, the proportion was 2.9%). Counts and frequencies of Descubriendo la Lectura students by status group for 2018–19, 2019–2020, and 2020–2021 are presented in Table 7.

In summary, we had three research questions:

1. How did the literacy skills of students entering first grade in 2020–2021 compare to the literacy skills of students entering first grade in 2018–2019 and 2019–2020, as measured by fall Instrumento de observación Total Scores?
2. How did fall, mid-year, and year-end scores of students who completed the Descubriendo la Lectura intervention in 2020–2021 compare to each other by outcome status group (i.e., Accelerated Progress, Progressed, and Recommended) and to the random sample students (i.e., typical first graders in their schools) on the six individual tasks of the Instrumento de observación?
3. What were the characteristics of students who were given a status of Progressed in 2020–2021 and how did they compare to Descubriendo la Lectura students who were given statuses of Accelerated

Table 7. Counts and Percentages of Descubriendo la Lectura Students by Status and School Year for 2018–2019, 2019–2020, 2020–2021

	2018–2019		2019–2020		2020–2021	
Status	***n***	**%**	***n***	**%**	***n***	**%**
Accelerated Progress	170	35	72	18	41	20
Progressed	—	—	—	—	15	7
Recommended	143	29	131	32	64	31
Incomplete	148	31	20	5	68	33
Moved	9	2	10	2	6	3
None of the Above	14	3	175	43	12	6
TOTAL	484		408		206	

NOTE: Percentages were calculated on all students who participated in Descubriendo la Lectura. The totals included students who were unable to complete the intervention.

Progress and Recommended, as well as to the random sample students?

Research question one

To answer research question one, we used fall Instrumento de observación Total Scores for students selected to participate in Descubriendo la Lectura in schools that had fall Instrumento de observación Total Scores for students in 2018–2019, 2019–2020, and 2020–2021. In addition, we used fall Instrumento de observación Total Scores for random sample students from the same school years as representatives of typical first graders for each of those years.

As seen in Table 8 and Figure 5, both groups started the 2020–2021 school year with fall Instrumento de observación Total Scores that were lower than they were in the fall of the 2 previous school years and the mean scores for both groups declined steadily across the 3 years. The 2020–2021 fall mean scores of the students who participated in Descubriendo la Lectura from schools that had Instrumento de observación Total Scores for all 3 years (i.e., 25 schools) were 23 points lower than in 2018–2019 and 13 points lower than in 2019–2020. Fall Instrumento de observación Total Scores of the random sample students from schools that had fall Instrumento de observación Total Scores for all 3 years (i.e., nine schools) were 19 points lower than in 2018–2019 and 8 points lower than in 2019–2020. The decline in scores for both groups was steady, however differences across the years should be interpreted with caution due to the relatively small sample sizes.

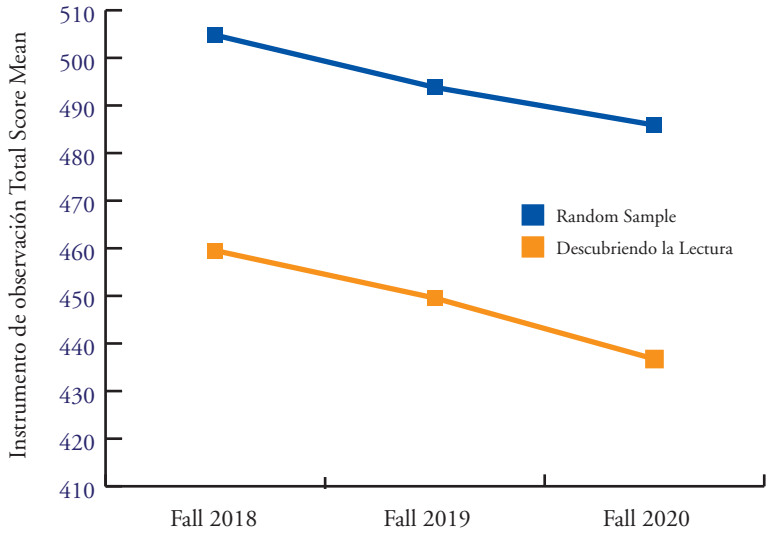
After observing the drop in fall Instrumento de observación Total Scores in 2020–2021 compared to the 2 previous years, we wondered how this reduction in overall literacy skills might be reflected in the reading abilities of typical students entering first grade in the fall of 2020 compared to the falls of the 2 previous years. In other words, how did this drop in literacy scores play out in the typical first-grade classroom of schools that participated in Descubriendo la Lectura? For this comparison, we used distributions of random sample students' scores because the random sample students were proxies for typical first graders in their schools and we used their distribution of fall Instrumento de observación Análisis Actual del Texto (AAT) scores because scores on this task were measures of students' reading ability at the beginning of the school year. Examining these

Table 8. Fall Instrumento de observación Total Score Means for Descubriendo la Lectura and Random Sample Students for School Years 2018–2019, 2019–2020, 2020–2021

	Descubriendo la Lectura		Random Sample	
School Year	***M (SD)***	***N***	***M (SD)***	***N***
2018–2019	460 (32)	126	505 (36)	35
2019–2020	450 (45)	118	494 (46)	35
2020–2021	437 (40)	82	486 (42)	33

NOTE: In order to make comparisons across the 3 years, data from schools with fall Instrumento de observación Total Scores for all 3 years were used to calculate means and SDs.

Figure 5. Plot of Fall Instrumento de observación Total Score Means for Descubriendo la Lectura Students and Random Sample Students, 2018–2019, 2019–2020, 2020–2021



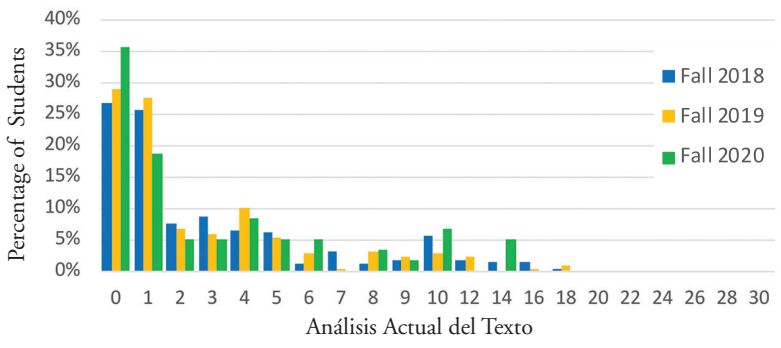
distributions before and during the pandemic allowed us to visualize how the range of reading ability in first-grade students in classrooms of fall 2020 might have compared to the range of reading ability in first-grade classrooms in the falls of 2018 and 2019.

As seen in Figure 6, the percentage of random sample students with a score of 0 on the AAT task in the fall of 2018 was similar to the percentage of random sample students with a score of 0 in the fall of 2019 (i.e., 27% and 29%, respectively). In the fall of 2020, the percentage of random sample students with a score of 0 on the AAT task (36%) was 9% higher than in 2018 and 7% higher than in 2019. The percentage of random sample students with fall AAT scores > 14 was only 2% in 2018 and 2019, but there were no students with AAT scores > 14 in the fall of 2020. These statistics indicate that in the fall of the 2020–2021 school year first-grade classrooms had more students who were not yet able to read and fewer students who had strong literacy skills.

Research question two

To answer research question two, we used 2020–2021 scores on all six tasks of the Instrumento de observación at fall, mid-year, and year-end from students who completed Descubriendo la Lectura, by status category (i.e., Accelerated Progress, Progressed, and Recommended), and from the random sample students in schools that participated in Descubriendo la Lectura. Means for each group of students and the percentages of data that were available for computing the means are reported in Table 9. The Conceptos del Texto Impreso task had the lowest proportion of scores available for all groups at all time points (i.e., ranged from 47% to 98%) with fall scores for students in the Recommended group having the lowest percentage of data available. Proportions of students with a status of Accelerated Progress or Progressed, and random sample students were also low for this task in the fall (i.e., 51%, 53%, and 70%, respectively). As indicated above, this task was difficult to administer in a remote setting. For the other five Instrumento de observación tasks, the percentages of fall data that was available for calculating means were 61% for Accelerated Progress students, 73% for Progressed students, 88% for Recommended students, and 92% for random sample students. At mid-year, the percentages of available data on all six Instrumento de observación tasks for Descubriendo la Lectura students in all status categories ranged from 87% to 100% with students in most status categories having at least 92% of data available for calculating means. For random sample students

Figure 6. Distributions of Random Sample Students' Fall Análisis Actual del Texto Scores, 2018–2019, 2019–2020, 2020–2021



at mid-year and year-end, 89% of data were available, except for the Conceptos del Text Impreso task, which had 77% of data available.

To visualize the differences between the groups, we created a line plot for each of the six Instrumento de observación tasks using means from the Descubriendo la Lectura students, by status group, and the random sample students. Unlike the means that were calculated in Table 9, the means for the plots were calculated only from students who had scores at all three time points (i.e., fall, mid-year, and spring). For the Descubriendo la Lectura status groups combined, about 75% of the data were available to calculate the means for all tasks, except the Conceptos del Text Impreso task, which only had 47% of the data available. For random sample students, about 98% of the data were available for calculating the means for all tasks, except the Conceptos del Text Impreso task, which only had 76% of data available. Although our sample sizes were reduced because we calculated the means for the plots only from students who had scores at all three time points, doing so allowed the numbers of students in each group to be the same across all time points. Generally, the means in Table 9 were similar to the means used to create the plots in Figure 7.

As seen in Table 9 and Figure 7, Descubriendo la Lectura students in the Accelerated Progress group had mid-year and year-end mean scores on the six individual Instrumento de observación tasks that exceeded the mean scores of the random sample students despite having Instrumento de observación mean scores in the fall that were lower than those of the random sample students. Progressed students also started the school year with scores on the Instrumento de observación tasks that were lower than the random sample students

Table 9. Instrumento de observación Task Mean Scores and Percentages of Available Data for Descubriendo la Lectura Students by Status and for Random Sample Students, 2020–2021

	Descubriendo la Lectura Students						Random Sample Students	
	Accelerated Progress		Progressed		Recommended			
Task	Mean	%Data	Mean	%Data	Mean	%Data	Mean	%Data
Análisis Actual del Texto								
Fall	0.8	61	0.1	73	0.2	88	3.2	92
Mid-year	17.2	100	10.7	100	3.8	100	8.9	89
Year-end	19.9	100	14.4	93	5.6	92	15.5	89
Identificatión de Letras								
Fall	43.9	61	44.0	73	32.3	88	48.3	92
Mid-year	59.6	100	59.0	100	53.5	100	54.7	89
Year-end	59.5	100	59.5	93	53.8	92	57.4	89
Prueba de Palabras								
Fall	6.0	61	5.8	73	2.1	88	10.2	92
Mid-year	19.7	100	19.4	100	13.5	100	16.2	89
Year-end	19.7	100	19.1	93	12.7	92	17.3	89
Conceptos del Texto Impreso								
Fall	9.1	51	8.8	53	8.4	47	12.7	70
Mid-year	19.1	95	17.1	87	14.4	92	16.3	77
Year-end	19.5	98	17.9	93	15.4	88	18.3	77
Oir y Anotar los Sonidos								
Fall	21.0	61	15.1	73	9.9	88	25.0	92
Mid-year	38.1	100	36.2	100	30.0	100	34.0	89
Year-end	38.2	100	36.6	93	30.9	92	35.7	89
Escritura de Vocabulario								
Fall	7.8	61	6.3	73	4.0	88	13.4	92
Mid-year	42.9	100	32.8	93	22.6	100	27.7	89
Year-end	45.1	100	38.7	87	26.8	92	38.8	89

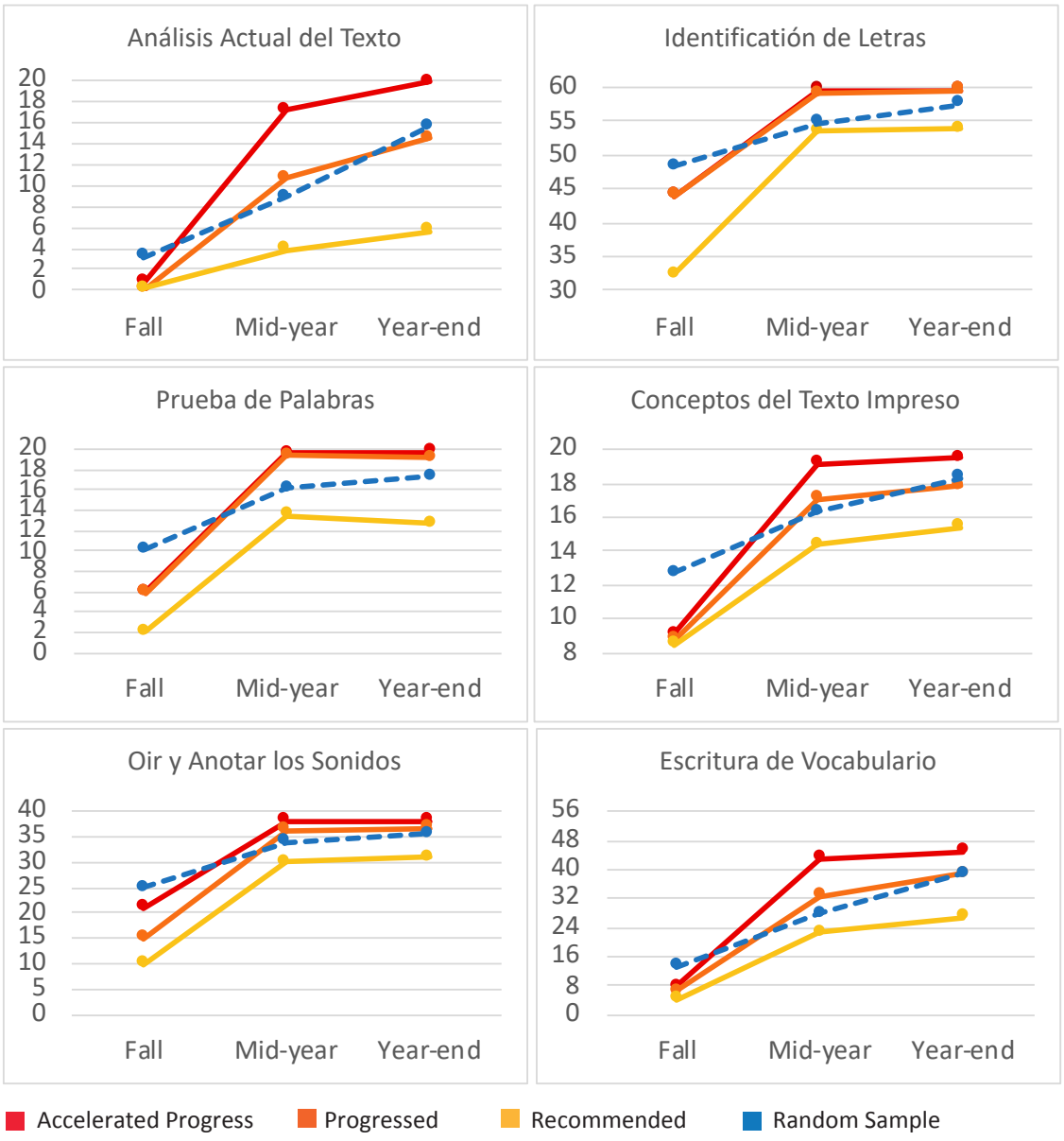
NOTE: The percentage of available data are provided in the table for each task, by status group, and for the random sample students to provide additional information on the sample sizes on which the means were calculated. Full sample sizes for each of the groups were Accelerated Progress students, n = 41; Progressed students, n = 15; Recommended students, n = 64; random sample students, n = 59.

yet they had mean scores that were similar to or exceeded those of the random sample students at mid-year and year-end. Mean scores for Recommended students were the lowest compared to Accelerated Progress, Progressed, and random sample students on the six Instrumento de observación tasks at the three time points, though their mean scores rose steeply from fall to mid-year on the Identificatión de Letras, Prueba de Palabras, Conceptos del Text Impreso, and the Oir y Anotar los Sonidos de la Palabras tasks.

Research question three

Mean scores on the six Instrumento

Figure 7. Plots of Mean Scores by Time Point on the Instrumento de observación Tasks for Descubriendo la Lectura Students by Status and for Random Sample Students, 2020–2021



NOTE: Means for each of the plots were calculated using data from students who had scores at all three time points. Four of the Instrumento de observación tasks have ceiling effects due to the limited range of scores for these tasks (i.e., Identificatión de Letras, Prueba de Palabras, Conceptos del Texto Impreso and Oir y Anotar los Sonidos).

de observación tasks from Descubriendo la Lectura students, by status group, and random sample students in fall, mid-year, and year-end of the 2020–2021 school year and demographic characteristics of students in these groups were used to answer research question three. Examining the means and plots of the mean scores on the six Instrumento de observación tasks (Table 9 and Figure 7) allowed us to compare the literacy growth of the Progressed students with Accelerated Progress, Recommended, and random sample students. Of the six tasks, the differences in mean scores on the Análisis Actual del Texto task at mid-year and year-end between the Accelerated Progress students and the Progressed students were the greatest (i.e., mid-year = 6.5, and year-end = 5.4) while the mid-year Progressed students' mean score on this task was 1.8 points higher than the mean score of the random sample students. At year-end, the random sample students mean score was 1.1 points higher than the Progressed students mean score. This pattern of differences was repeated on the Conceptos del Texto Impreso and Escritura de Vocabulario tasks, though the differences were small at year-end on both tasks (i.e., 0.4 and 0.1, respectively). On the other three Instrumento de observación tasks (i.e., Identificatión de Letras, Prueba de Palabras, and Oir y Anotar los Sonidos de la Palabras), the Progressed students' mean scores were higher than the random sample students' mean scores at mid-year and year-end despite starting the year with fall mean scores on these tasks that were lower than the random sample students' mean scores.

As seen in Table 10, regarding the gender of the students, compared to the random sample group greater proportions of Descubriendo la Lectura students in all status groups were boys. Recommended students have the highest proportion of boys (i.e., 59%) and the proportions of boys were similar for students in the Accelerated Progress and Progressed groups (i.e., 54% and 53%, respectively). Only about 59% of schools reported federal lunch status, and generally the proportions of students who were reported as being eligible for free or reduced lunch were similar for all groups. Proportions of ELL students in the Progressed and Accelerated Progress groups were 100% for both groups, but proportions of ELL students in the Recommended and random sample groups were also high (i.e., 97% and 95%, respectively). Differences in proportions of Progressed students who had been identified with a disability (14%) were larger than proportions of Accelerated Progress and random sample students (i.e., both had 2%, a difference of 12%). The Recommended students had the highest proportion of students with an identified disability (i.e., 21%).

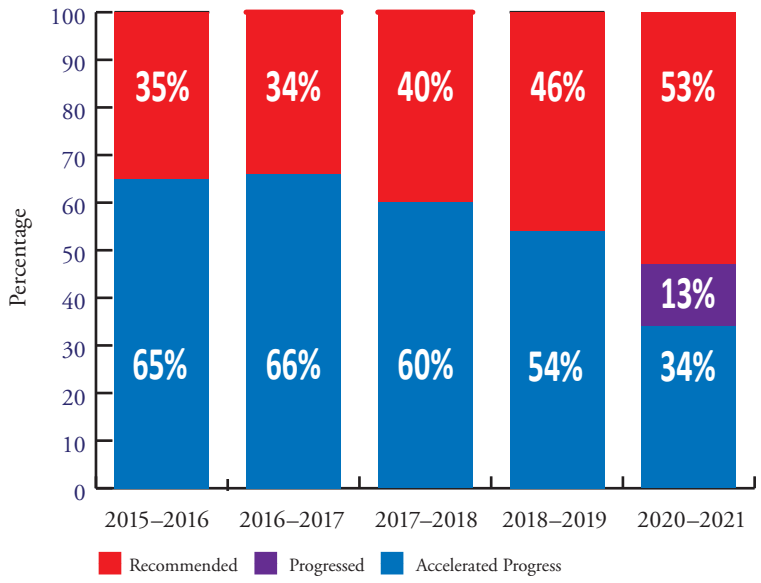
In addition, the proportions of Descubriendo la Lectura students by status in 2020–2021 were compared to the proportions of Descubriendo la Lectura students by status in the 2015–2016 through 2018–2019 school years. As indicated above, status group proportions during the school year when schools closed due to the COVID-19 pandemic (i.e., 2019–2020) were not used for this comparison because a disproportionate number of students were assigned an outcome status of None of the Above in 2019–2020 compared to any other year. As seen in Figure 8, the proportions of students who were Recommended for additional support were similar in 2015–2016 and 2016–2017 (i.e., 35% and 34%, respectively) and steadily increased in 2017–2018, 2018–2019, and 2020–2021, from 40% to 53%. Inversely, the proportions of students who made Accelerated Progress were similar in 2015–2016 and 2016–2017 (i.e., 65% and 66%, respectively) and steadily decreased in 2017–2018, 2018–2019, and 2020–2021, from 60% to 34%. Given this pattern, the small sample sizes in the 2020–2021 school year when the Progressed status category was added, and the comparison of the demographic characteristics of the Progressed students (Table 10)

Table 10. Demographics of Descubriendo la Lectura Students by Status and Random Sample Students, 2020–2021

	Descubriendo la Lectura Students			Random Sample Students
Demographic	Accelerated Progress (*n* = 41)	Progressed (*n* = 15)	Recommended (*n* = 64)	(*n* = 59)
Male	54%	53%	59%	44%
Free/Reduced Lunch*	97%	89%	97%	93%
ELL	100%	100%	97%	95%
Disability**	2%	14%	21%	2%

NOTE: *41.5% of schools did not report federal lunch status. ELL = English language learners.). **Some form of disability indicated at entry to intervention.

Figure 8. Proportions of Descubriendo la Lectura Students by Status Group, 2015–2016 Through 2018–2019, and 2020–2021



make it difficult to draw conclusions about who the Progressed students of 2020–2021 were. It will be useful to continue to compare the demographic characteristics and proportions of students in each of the status groups in the coming school years.

This past school year has been a challenging one for Descubriendo la Lectura. Participation in 2020–2021 was only about half what it was in the previous school year. Fall Instrumento de observación scores have seen a steady decline since 2018–2019. However, examining Descubriendo la Lectura students' mean scores by status group (Table 9, Figure 7) allowed us to observe the great progress in literacy skills that Descubriendo la Lectura students made regardless of their status category. Continuing to examine demographic characteristics and Instrumento de observación task means for students by status group will help us better understand the characteristics of the students in these groups and how we can best serve them.

For decades, tens of thousands of children in the U.S. have benefited from participating in the Descubriendo la Lectura intervention. In the 2020–2021 school year, as in previous years, most first-grade students who completed the intervention showed gains in their literacy skills that exceeded the gains made by the typical first graders at their schools. Many children's literacy skill development was interrupted and/or delayed because of the changes in how school was structured due to the COVID-19 pandemic. Now more than ever, a literacy intervention is needed that works for Spanish-speaking students who are learning to read and write in Spanish. The findings in this report provide support for the efficacy of the Descubriendo la Lectura intervention.

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NOTE: All data are from the IDEC national summary reports for Reading Recovery and Descubriendo la Lectura in the United States for the respective academic years cited.

About the Authors

Susan A. Mauck is a research scientist with the International Data Evaluation Center. She was a public elementary teacher for 30 years before completing her PhD in quantitative research, evaluation and measurement at The Ohio State University in 2019.

Jeff Brymer-Bashore is the former director and coprincipal investigator at the International Data Evaluation Center where he worked for more than 20 years. He currently is senior web development analyst at The Ohio State University Wexner Medical Center.

Team Members Share Value of Improvement Science Hub Work

Jennifer Flight, Winnipeg, Manitoba, Canada
Amy Smith, Richmond, KY

The North American Reading Recovery Improvement Science Hub is a professional learning community of stakeholders coordinating Reading Recovery's improvement efforts.

The Hub was established in 2019 as a leadership team to continue the work initiated by the North American Trainers Group (Forbes et al., 2019). Since that time, Hub members have worked to build their understanding of improvement science, developed and trialed change ideas, and communicated our efforts with the Reading Recovery community. In 2021–2022, a primary Hub goal has been expanding our membership and our work throughout the entire network. Our efforts toward this goal have included adding Hub members to represent Descubriendo la Lectura (DLL) and Intervention préventive en lecture-écriture (IPLÉ).

Improvement Team Work and Member Perspectives

Hub members have been coaching improvement teams in understanding and using improvement science methodologies to investigate problems and trial innovative change ideas. Below we briefly share their work and comments from team members.

Trainer Improvement Team

Nine trainers from across the U.S. and Canada explored ways of improving communication among trainers. Facilitated by Betsy Kaye, the team led the larger trainer group through a process of developing and trialing norms of collaboration for use in meetings.

"I learned how to engage in the process from the other members of the trainer group and enjoyed working with them."

"We addressed a problem that was identified by our members. In the process of trialing change ideas, we had the opportunity for productive conversations and even uncovered further challenges that we will continue to address."

Teacher Leader Improvement Team

Facilitated by Jeff Williams, this team is made up of seven teacher leaders from across the U.S. and Canada and has supported two Plan Do Study Act (PDSA) inquiries started by the Hub. The team has studied the data collected related to the use of two modified forms to identify and trial an improvement, as well as, to study and explore tools used to measure improvement.

"I have learned about PDSAs and that small changes can have a big impact on a system."

"The most important benefit is that we collaborate with Reading Recovery teacher leaders from across the U.S. and Canada to continue to grow our learning and work on problems of practice in helpful ways."

"As we've engaged in the work of improvement science, we discuss deep theoretical underpinnings of literacy acquisition, processing, and instructional excellence. And because we believe that language truly is a mediating tool for learning, these conversations with the group deepen my own understanding and ability to teach, lead, and lift others."

Administrator Improvement Team

This team is made up of three administrators, including site coordinators/liaison administrators, superintendents, and a building administrator. Facilitated by Karen Scott, team members are exploring improving collaboration among district administrators, school administrators, Reading Recovery teacher leaders, and teachers. The team members, in collaboration with a teacher leader, designed introductory observation-based training for principals to support literacy leadership in schools.

"I've appreciated learning other ways that Reading Recovery is successfully implemented at high levels in other places."

"I have truly appreciated the concerted and focused efforts we are taking as an administrator team to focus on how to support school-based leadership and minimize variability in site-based capacity and understanding. It has been an honor to struggle through this work with respected colleagues outside of my immediate network."

DLL Improvement Team

This team is facilitated by Carmen Lipscomb. This year, Carmen and her DLL colleagues, Hille Elwood and Elva Maldonado-Gonzales, began the process of engaging teachers in identifying problems and constructing a fishbone diagram to illustrate leverage points for improvement within DLL. The team also translated a modified running record form initially trialed in English and has initiated a PDSA to test the translated running record.

"I am excited about the possibility of improvement science as a mechanism to help us understand the ways in which we can help DLL grow and improve. Our teachers and TLs are excited to be part of this work so we have new ways to understand the problems we are facing and to find avenues to address them."

IPLÉ Improvement Team

This year, Lisa Harvey will begin the process of engaging her IPLÉ teacher leader colleagues in identifying opportunities for improvement within IPLÉ.

In Closing

We are excited about what we've accomplished as well as the potential growth we will achieve by the work of these improvement teams. The best evidence that this work matters is in the words of individual team members.

"Get involved in the process if you want to see a change."

"There are always ways to improve to become more efficient and more effective with teaching students as well as teaching teachers. I love that Reading Recovery professionals are always looking for ways to improve. It is a never-ending journey."

"If you have the opportunity … I highly encourage you to engage in the improvement science work. You will learn so much from the team members about our practice, engage in deep level conversations, and take action where you can see an impact."

"… for any educator that embraces the craft of teaching there is always so much to learn. That's what is so exciting about our work — we have so much to learn from the children and from each other. If you can find communities where you can be part of that culture of improvement, I would highly encourage you to join!"

About the Authors

Jennifer Flight is a Reading Recovery trainer at the Canadian Institute of Reading Recovery, Western Region, Winnipeg, Manitoba. She has experience as an early years classroom teacher, and as a Reading Recovery teacher and teacher leader. She currently serves as co-director of the Hub.

Amy Smith is a Reading Recovery teacher leader in Richmond, KY, where she serves both suburban and rural districts. Prior to becoming a teacher leader in 2001, she was a primary classroom teacher in a university laboratory school and a Spanish-immersion magnet school. Amy is immediate past president of RRCNA and currently serves as co-director of the Hub.

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For More Information

If you would like additional information or are interested in joining an improvement team, participating in a PDSA inquiry, or sharing a change idea with the Hub, please complete the survey linked to the QR code.

President's Message

Working Together to Clean Up the Literacy Landscape

RRCNA President Leslie McBane

This past fall, I shared my mom's analogy of how the barrenness of winter reveals the structure of living things and how our community's navigation of the pandemic unveiled some unexpected strengths and celebrations. As I wrote that message, we had no idea what this past winter would bring. Who could have predicted the effects of the Omicron variant on our schools and our families?

While it is a welcome thing to see the last of winter, its departure does expose debris uncovered by the receding snow. As I drive to work each morning, I am astounded by the amount of litter along the highway. I think of the huge task of clearing it away. Frankly, I'm bothered by it. I'm tempted to stop and begin picking it up. I find it unsightly and distracting. It's obscuring my view.

In some ways, our receding winter has exposed some detritus and distractions in our community as well. The challenge is to determine what merits our attention and what we leave for others to address. It is critical for us to decide what steps and structures will advance our stated vision of ensuring "the competencies necessary for a literate and productive future for children learning to read and write." If we want such a future for the children we teach, we need to keep our own theories on teaching and learning robust and clutter-free.

First, what might constitute the 'litter' in our community? It is found in the clamor of voices, the clutter, if you will, of opinions and viewpoints that make a mess of the landscape

> Whether we are speaking with a school board member, administrator, or fellow teacher, we must learn how to be what Clay (2016) describes as "charmingly negative," if necessary (p. 183).

but do not really achieve anything of value. The distractions that get our attention but aren't worthy of our time and energy. The social media pettiness and noise that sap our energy. We've got some litter defacing our garden. When is it our responsibility to pick up the trash and when must we leave it to decompose?

Back in 1991, Marie Clay was prescient when she stated, "I find the big debates divisive, for people feel obligated to take up opposing positions on matters like phonological awareness, the reader's use of context, and the nature of getting meaning from texts" (updated 2016, p. 3). She knew that holding a complex theory of literacy development would serve to keep us out of the weeds of oversimplified conclusions. We are attempting to grow readers and writers, while narrow views and simplistic theories are threatening to starve these tender sprouts by withholding needed nutrients — such as continuous text, responsive teaching, and books with natural language patterns. Instead, let's make sure they thrive by clearing away the weeds of compromise.

To clear the way for spring growth, we need like-minded partnerships with friends outside the Reading Recovery Community. Happily, these friends have become a part of our family through our advocacy initiatives, and their presence is creating a stronger and healthier garden. We need to nourish these relationships, ensure their cultivation, and seek to expand them even more. Helpfully, our offense-based messaging strategy has created more visibility and increased opportunities for others to

align with our purpose and join our efforts. We are also able to support these new friends as they seek to actualize their own goals and aspirations. It is very much like the work done each spring in my neighborhood's tiny park: Friends from all walks come together for our spring cleanup so that we can all enjoy the green space. And we appreciate it even more because we had a hand in filling those bags of yard waste.

Litter is not only an eyesore, it is depressing. But in contrast, our message is attracting others because it is attractive. We have a joyful message. There are countless stories of cheerful readers and writers who, guided by us along different paths, have entered the world of literacy with competence and success. My current student, Tyler, approaches reading and writing with exuberance, agency, and good humor. When I recently cut a word in his cut-up sentence into parts he exclaimed, "Get a medic!" Tyler has a can-do spirit in part because he has successfully learned how to look at print. And my hope for each of us is that we, too, learn how to look. To train our eyes to see possibilities among the problems. To see growth emerging through the garbage.

As we move into this new season, what litter should we focus on collectively and what should we let go? First, as a community, we can speak up against misinformation and oversimplification. I have a tiny garden in a historical neighborhood, and I have had to learn how to create and maintain an attractive outdoor space. I've had master gardeners teach me how to plant herbs and divide hostas. In the same way, we are learning from others how to speak up and speak out in knowledgeable ways. Kivvit—our master gardener—is helping us create powerful and attractive messaging. And we can now respond to real time legislative happenings through our legislative response team. In Clay's words, we are "strengthening our range" (2016, p. 106). Together, we are engaged in cleaning up the literacy landscape. We may not be able to attend to every piece of detracting information, but we are able to achieve much as we combine our efforts.

Closer to home, my responsibility is to respond thoughtfully to those who may not agree with me. Think of it as making sure that my personal space is clutter free. Individually, this requires refining how I describe my work, and using all my ingenuity to clarify what I say and do when others misrepresent Reading Recovery theory and practice. In our own backyards, we must become adept at presenting our viewpoints with more than just fervor. Whether we are speaking with a school board member, administrator, or fellow teacher, we must learn how to be what Clay (2016) describes as "charmingly negative," if necessary (p. 183).

It is heartening to be able to say goodbye to winter. In the spirit of spring cleaning, let's rid ourselves of what might be littering our landscape. Let's tend our gardens shoulder to shoulder, so that young learners can thrive in the sun.

Reference

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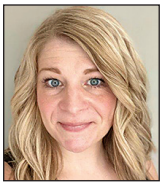
RRCNA Board of Directors Election Results

We are pleased to share results of the recent election for terms beginning July 1, 2022.

Vice President
Allyson Matczuk

Reading Recovery Trainer
Winnipeg, Canada



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Stephanie Smyka

Site Coordinator and Teacher Leader
Spencerport, NY

Teacher Representative
Latonia Arthur

Reading Recovery Teacher
Louisville, KY

Secretary
Kathleen Brown

Early Literacy Program Specialist and Reading Recovery Teacher Leader
Long Beach, CA

Executive Director's Message

Doing Whatever It Takes to Serve Our Students' Needs

RRCNA Executive Director Billy Molasso

In a recent reunion with long-missed friends, we rehashed the past 2 years of COVID struggle with a sense of awe from all the positive outcomes of pandemic isolation.

We spoke fondly of new pets adopted, hobbies we reembraced or tried for the first time, the remodeled spaces in our homes, and recipes adapted out of the necessity of barer-than-usual store shelves. We marveled at how our habits had changed as we learned to adapt to new circumstances like masks and Zoom meetings and wondered aloud how we would take these fresh skills into the "after times."

Rose-colored glasses firmly in place, we counted the merits of difficult times, and applauded our own flexibility — and not just with the living room yoga we finally had time to try.

Get your **Whatever It Takes** *tee in the Reading Recovery Store!*

It's no surprise to members of the Reading Recovery Community that flexibility is a virtue. This community has always embraced the concept of doing *whatever it takes* to serve our students' needs no matter how insurmountable the challenge. I'm in constant awe of the lengths that educators go to—even in the best of times—to reach their kiddos. And even amidst the struggles of COVID times, teachers continued to "level-up" by turning their porches into makeshift virtual classrooms and using a system of soup cans to prop up books to their webcam (two real-life scenarios from our own Community heroes).

Teachers provide everything from a well-needed high five, to nourishment, to financial support out of their own pockets, and that's all on top of the subject matter expertise outlined in the job description! In short, they do what Reading Recovery teachers have always done: *Whatever it takes.*

Flexibility isn't just a virtue, nor is it simply a necessity of the job; it's a privilege … and it's one that is threatened.

As every Reading Recovery professional knows, every child is different, and their needs vary. We meet the child where they are and give them *whatever it takes* to help them catch up. And we know that forcing one method when we know another will work better for the individual child's needs is always the wrong path to take.

Yet, legislations that restrict teacher choice and undermine teacher expertise continue to pop up with the persistence and stubbornness of weeds on the lawn. Proposed legislations under the guise of accountability and fiscal responsibility have the potential to hamper teachers' ability to do whatever it takes, whether by enforcing restrictive mandates or prescribing the use of a particular program.

It is becoming increasingly important to stay on top of the legislative issues in your state so you don't miss upcoming legislation that may hamper your ability to choose flexibility tomorrow. Visit https://readingrecovery.org/act-now/ to stay informed of some of the most pressing issues, and take a few moments using our advocacy tools to voice your concerns and share your literacy expertise with your local legislators. Or better yet, proactively and regularly invite legislators to a behind-the-glass lesson so they can see the power of Reading Recovery in action, so they are on your side when it comes time to vote for your right to do *whatever it takes* on behalf of your students.

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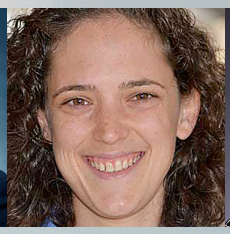

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Reading Recovery Community

Connect With Reading Recovery Teachers On Meta

Social media can be a virtual whirlwind of information. The Reading Recovery Teachers Meta (formerly known as Facebook) group is a private, closed space where Reading Recovery professionals can connect and engage. Members actively discuss strategies for student success, ask questions about working with district teachers and administrators, and explore ways to advocate for Reading Recovery. Search for Reading Recovery Teachers on Meta to join!

Community Forum Offers You Exclusive Access

READING RECOVERY COMMUNITY FORUM

Engage with other members in the Reading Recovery Community Forum. As an active member of RRCNA, you already have exclusive access — click the Community link at rrcna.org. This space is dedicated to our Community, where you can connect with like-minded colleagues, share ideas and best practices, and celebrate success. Plus, the popular Listening Library has found its new home in the forum. Enjoy audio recordings of past presentations from greats like Maryann McBride, Noel Jones, Mary Fried, and more!

Reserve Your Room for TLI in Louisville

The Reading Recovery Community is thrilled to be gathering in person for this year's Teacher Leader Institute. Held in legendary Louisville, KY, at the Galt House Hotel from June 21-24, the Institute will feature content focused on advocacy, agency, and acceleration.

This year will also have a new Site Coordinator Summit with sessions tailored specifically for this critical role.

Thank you to Institute co-chairs K. Journey Swafford, Jamie Lipp, Tracee Farmer, and Sandy Brumbaum for your dedication in planning the event. To register, visit the TLI webpage on the RRCNA homepage under Events. Reserve your room at the Galt House by June 5, 2022.

LitCon 2022: Incredible Professional Development From Our Screens to Yours

Teachers, administrators, and literacy advocates joined together for a week of wonderful learning at LitCon: National K–8 Literacy & Reading Recovery Conference, Jan. 29–Feb. 6, 2022. While we truly missed welcoming the Reading Recovery Community to our annual in-person conference, another year of virtual learning allowed us to reach more attendees than would have been able to travel without sacrificing quality content from literacy experts!

A total of 1,837 attendees (a 19% increase from LitCon 21!) from nearly every state and five countries worldwide enjoyed more than 100 sessions on Classroom Literacy, Children's Literature, Leadership in Literacy, Literacy Coaching, and Reading Recovery. Through both live and recorded sessions, attendees enjoyed a powerful mix of best practices and practical takeaways to take back to their schools.

This year's keynote speakers wowed the crowd with powerful insights into the landscape of literacy education. **Gay Su Pinnell** (top right) inspired with her mission-driven affirmation that, "Teaching is a relentless quest, and one that takes courage." Author **Carmen Agra Deedy** (middle right) charmed the audience with stories and inspiration of how books can change a reader's life. And **Lucy Calkins** (bottom right) brought the fire with an impassioned reminder to "Be fierce" in championing for our students and their right to learn how they learn best.

Mark your calendars for LitCon's triumphant return to downtown Columbus, OH, Jan. 28–31, 2023. It will truly be a homecoming of literacy leaders, and we can't wait to welcome you back, in person, for the biggest and best K–8 literacy conference in North America!

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✓ Advocating at both the state and federal level around literacy learning legislation, funding, and administrative regulations

✓ Expanding funding awards for professional development experiences for Reading Recovery and classroom teachers

✓ Expanding the integration of Improvement Science initiatives, establishing Carnegie Improvement Science as a central strategy to improve early literacy intervention, specifically, Reading Recovery

✓ Developing pro-school, pro-teacher, and pro-student resources and strategies to reach struggling readers

✓ Creating professional development resources for Reading Recovery and classroom teachers to improve their skills and impact students

✓ Engaging with Advocates for Literacy, a coalition of professional associations with a focus on literacy efforts

✓ Partnering for school and district improvement initiatives through the Council of Chief State School Officers Collaboratives

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LEARN MORE

readingrecovery.org/foundation

LitCon Professional Development Awards

While another year of virtual LitCon learning provided flexibility for attendees, it once again allowed limited opportunities for photos. We look forward to seeing everyone in person for more photo ops when we are all back in Columbus next year. In the meantime, we would like to recognize the names of this year's award recipients.

A total of 47 awards were presented by generous donors to help offset the cost to attend the conference. Awards are given to Reading Recovery teachers, teachers-in-training, teacher leaders, university trainers, or administrators who support the implementation of Reading Recovery.

Teacher Leader Training Awards


Dana Hagerman


Lisa Lawrenz


Sharon Smith

Three teacher leaders are in training thanks to funding from Pioneer Valley Books, dedicated to producing the highest-quality books for early literacy learners: **Dana Hagerman** from National Louis University, Lisle, IL; **Lisa Lawrenz** from the School District of Waukesha, Waukesha, WI; and **Sharon Smith** from Gwinnett Public Schools, Gwinnett, GA.

Applications for the 2022–23 Teacher Leader Training Awards are now available **(see page 75).**

Tenyo Family Foundation funded 22 Professional Development Awards. Founded by the late Sophie Tenyo, the foundation supports charitable, religious, scientific, literacy, and educational endeavors for the public welfare and well-being of humankind.

Karen Barcenas
Sarasota County Schools
Sarasota, FL

Bobbie Barrier
Wayne County Schools
Monticello, KY

Wendy Beitel
Rochester Community Schools
Rochester Hills, MI

Sarah Blair
Fayette County Public Schools
Lexington, KY

Kristie Epperson
Fayette County Schools
Lexington, KY

Michelle Gagnon
Auburn School Department
Auburn, ME

Melissa Greenlee
ISD 196
Eagan, MN

Kaye Hendricks
Logan County Schools
Russellville, KY

Lisa Hoover
Chignecto Central Regional Centre for Education
Truno, BC

Lauren Johnson
Beaufort County Schools
Chocowinity, NC

Lisa Jonas
Wythe County Public Schools
Wytheville, VA

Amanda Leach
Langly SD 35
Langly, BC

Amy Littlefield
King Center Charter School
Buffalo, NY

Melissa Misnik
King Center Charter School
Buffalo, NY

Tunde Olson
Sarasota County Schools
Sarasota, FL

Lissette Sandoval
Pinellas County Schools
Clearwater, FL

Carrie Smith
Monett R-1 School District
Monett, MO

Stephanie Smith
Henderson County Schools
Henderson, KY

Kimmi Sorg
Plainfield Community Consolidated School District 202
Plainfield, IL

Tracy Vitale
King Center Charter School
Buffalo, NY

Tamara Watson
Auburn School Department
Auburn, ME

Hannah Winkler
Cleveland Metropolitan School District
Cleveland, OH

Geri Stone Memorial Fund was established to remember the leadership of Geri Stone who passed away in 2002. Geri was one of Michigan's first Reading Recovery teachers and served as the Reading Recovery teacher leader for the Livonia, Farmington, and Utica Public School systems.

Penny Baran
Fieldcrest CUSD 6
Minonk, IL

Liz Dodge
Fieldcrest CUSD 6
Minonk, IL

Debbi Klendworth
Fieldcrest CUSD 6
Minonk, IL

Jennifer Roman
Grand Blanc Community Schools
Flushing, MI

Amy Shiever
Orange City School District
Pepper Pike, OH

Jennifer Taylor
Grass Lake Community Schools
Grass Lake, MI

Lynn Tjaden
Fieldcrest CUSD #6
Minonk, IL

Debby Wood Memorial Fund was established in memory of Debby Wood, Reading Recovery Teacher Leader in Prince George's County, MD.

Debra Switalski
Prince George's County Public Schools
Landover, MD

Rose Mary Estice Memorial Fund was established in memory of Rose Mary Estice, one of the original Reading Recovery teachers trained at The Ohio State University.

Shanoe Singh
Cleveland Metropolitan School District
Cleveland, OH

MaryRuth Books offers instructional, clever books that provide reading practice using photos and illustrations to facilitate word recognition and engage the young reader. MaryRuth Books is the proud publisher of the Danny series of books that not only provide reading practice, but also support the development of a lifelong love of reading.

Amy DeWitt
Tucson Unified School District
Tucson, AZ

LaShaunta Lake
Orange City School District
Pepper Pike, OH

Blueberry Hill Books were written by a certified Reading Recovery teacher and carefully designed to enhance a child's strategic thinking and develop comprehension skills. Recurring characters inhabit stories filled with humor and excitement in the leveled storybooks.

Nancy Lane
LaRue County Schools
Hodgenville, KY

Cheryl Panchur
Cleveland Metropolitan School District
Cleveland, OH

Hameray Publishing Group/Yuen Family Foundation is dedicated to publishing innovative literacy materials for today's educators by combining a sound research-based approach with cutting-edge classroom solutions.

Christina Bradley
Rudyard Area Schools
Rudyard, MI

Catherine Finlay
Teton County School District 1
Jackson, WY

Jamie Groff
King Center Charter School
Buffalo, NY

Heinemann Publishing has provided professional and educational resources for teachers, kindergarten through college, for over 40 years. Heinemann strives to give voice to those who share their respect for the professionalism and compassion of teachers and who support teachers' efforts to help children become literate, empathetic, knowledgeable citizens.

Amy Bates
Sarasota County Schools
Sarasota, FL

Connie Orman
ISD 196
Eagan, MN

Julie Olsen Professional Development Fund was established in honor of Dr. Julie Olson, retired director of ISD 196 elementary education and Reading Recovery site coordinator, to honor her commitment and passion for Reading Recovery, literacy, and learning.

Kallista Grueneich
ISD 196
Eagan, MN

Lizabeth Kyser
ISD 196
Eagan, MN

Teresa Douglas Professional Development Fund was established in honor of long-time Reading Recovery Teacher Leader and donor Teresa Douglas from ISD 196, to honor her generosity and love of teaching.

Lynette Roland
ISD 196
Eagan, MN

Reading Recovery Teacher Leader Professional Development Award was funded by the generosity of donors to the Foundation for Struggling Readers.

Gail Hunter
Great Prairie Area Education Agency
Fairfield, IA

The Last Word

Our readers say The Last Word column in *The Journal of Reading Recovery* is one of their favorite things to read. **We need more of your great Reading Recovery stories**. Please share in an email to vfox@readingrecovery.org.

Sharing Joy

In addition to helpful conversations, the Reading Recovery Teachers Facebook (now Meta) Group page can brighten a dull day with posts like this one.

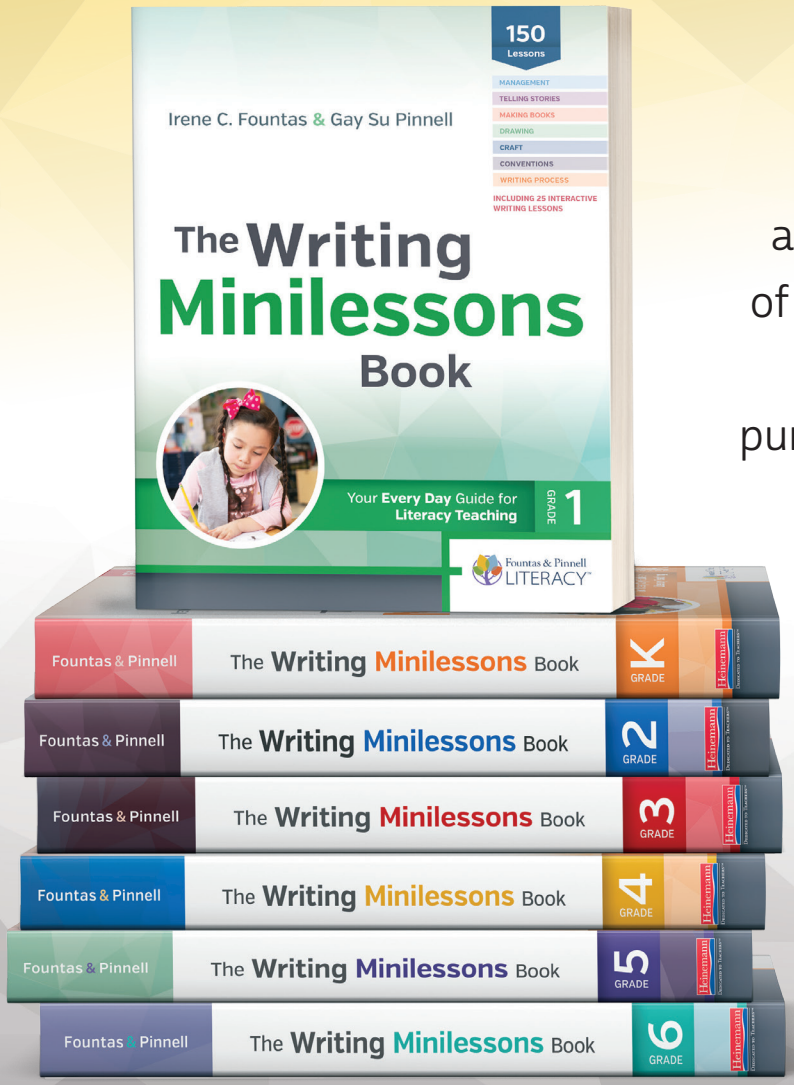
Here's a chuckle if you need one for the day. My student was reading "The Ocean" by Michele Dufresne. She got to the part where Bella told Rosie there were bones in the boat to make her get in. My student responded with, "Human bones? That's creepy! Rosie you're always such a drama queen; just get in that boat already."

I love how these kids think Bella and Rosie are truly their dogs, too. Thanks, Michele, for creating such joyful stories for our young readers.

Missy Zilm
Reading Specialist
Crystal Lake, IL

Michele shared a smile with Bella and Rosie and commented on Missy's post.

Foster Joyful writing with **Writing Minilessons**



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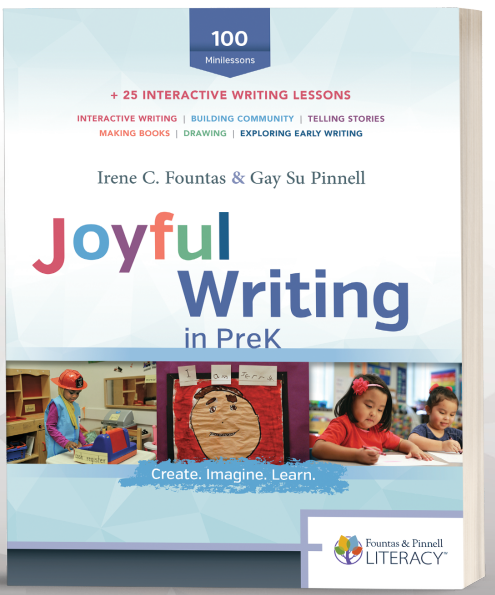

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