

Fluent readers by grade 3. Challenges and solutions to a global goal

A resource from Science of Teaching, adapted from the 2025 Acceleration to Fluency Workshop.

Despite decades of investment and reform in foundational literacy, too many children in low- and middle- income countries are still not fluent readers by grade 3 (Crawford et al., 2024). This pre-read summarizes challenges behind this persistent issue and suggests practical solutions to respond.

What does it mean to be a fluent reader?

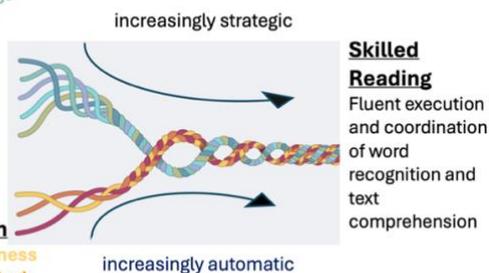
Fluency has three components: accuracy, rate, and expression (Hudson et al., 2005). When first learning to read, children start by decoding words slowly. With practice, they begin to read in meaningful phrases and adjust their expression to match the text. Fluency is not about speed; it's about automatic word recognition that allows the reader to focus on understanding the text.

Language Comprehension

Background Knowledge
Vocabulary Knowledge
Language Structures
Verbal Reasoning
Literacy Knowledge

Word Recognition

Phonological Awareness
Decoding (and spelling)
Sight Recognition



(Scarborough, 2001)

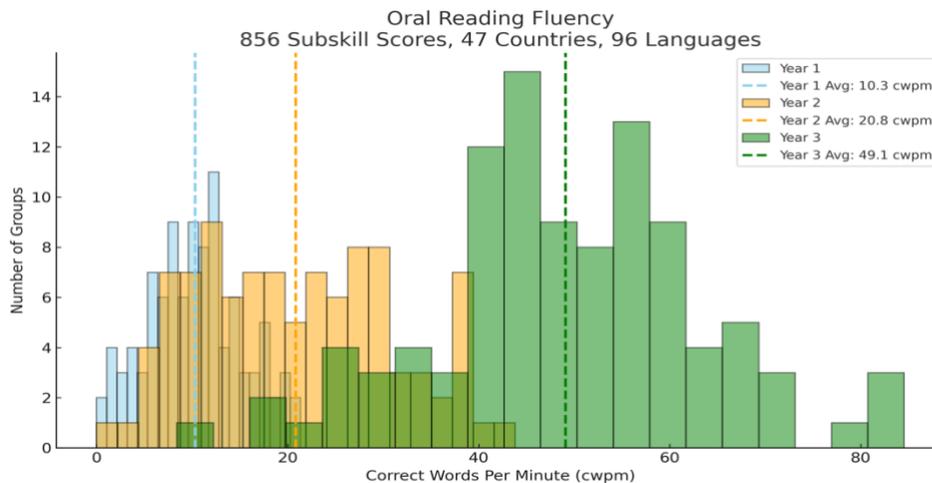
Scarborough's Reading Rope (2001) is a useful framework for showing how fluency connects word recognition with language comprehension. Fluent reading plays a central role in becoming a *skilled reader* – one who reads accurately, automatically at a pace approaching normal speech, and understands a variety of age-appropriate text they read for different purposes (GEEAP, in press).

This brief was originally developed as a pre-read for the *Acceleration to Fluency Workshop* (2025), convened in Accra, July 2025. It has since been published as a resource by Science of Teaching to support global dialogue and practical action. Written by Margaret "Peggy" Dubeck, Independent Literacy Researcher

Challenge 1: Children are not reading fluently

Even after several years of formal instruction too many children are unable to read. Across many studies, oral reading fluency (ORF) growth may be statistically significant, but the changes to children's reading abilities aren't meaningful (Piper & Dubeck, 2024). The results show minimal progress, even after substantial hours of instruction.

Figure 1. Year 1 to Year 3 Oral Reading Fluency Distributions and Averages



Crawford and colleagues (2024) compiled oral reading fluency (ORF) results from 47 low- and middle-income countries, across 96 languages.

Figure 1 shows the spread of Year 3, with raw¹ averages

of 10, 21, and 49 correct words per minute, respectively. Yet these results tell only part of the story. They don't include children who never enrolled or children who left school—and they obscure that in many countries, outcomes are worse than the global averages suggest. To meet grade 3 level expectations, the goal is for a reading rate that approaches normal speech in that language.

Challenge 2: Difficulty Describing Reading Growth

Describing reading growth has been a persistent issue. Oral reading fluency, which captures both accuracy and rate, offers a sensitive, reliable, and practical way to track change over time using the same text. While comprehension is widely valued for its intuitive appeal, it has been inconsistently measured. And although fluency, strongly correlates with comprehension - Crawford et al (2024) report ($r = .769$) across 96 languages – it has not been broadly accepted as a proxy.

By focusing on the fluency-comprehension link, we've often overlooked growth in the foundational skills needed to read fluently. Changes in precursor skills such as oral language and print knowledge are rarely monitored. Writing, too, has been largely ignored, even though spelling – a productive, instructionally transparent task – strongly correlates with reading and provides valuable insight into literacy development.

¹ Raw scores may inflate averages. Crawford et al.'s model-based estimates were lower due to adjustments for uncertainty.

Growth benchmarks have also been limited, often drawn from underperforming cohorts across just two early grades rather than aligned with what's needed for reading success in a given language. Instead, fluency benchmarks should be set to reflect that trajectory which will also help to account for the orthographic and other linguistic features that shape how reading develops by language.

Challenge 3: Inadequate Phonics Instruction

Sound-symbol relationships have not been consistently emphasized, and many programs lack structured, systematic phonics instruction due to missing or inadequate teacher guides and learner books. Without enough decodable text or opportunities to practice through spelling and writing, children struggle to build the word reading accuracy needed for automaticity – both the quality and quantity of this foundational instruction remain limited.

Challenge 4: Insufficient Reading Practice; Minimal Writing

Literacy instructional time is often too brief and lacks meaningful exposure to text. The limited instructional minutes have focused mostly on reading instruction, with little remaining for reading practice or for writing. This is due in part to the lack of anything to read beyond, at most, a textbook. Decodable texts and storybooks should not be considered 'supplemental readers' – they're essential instructional materials for developing fluency and comprehension, which only emerge through frequent engagement with new text.

Challenge 5: Instruction Rarely Responds to Learner Needs

Even in the early grades, children show a wide range of reading skills – from those who are learning letters to others ready for more advanced texts. Instruction rarely adjusts to meet this diversity, leaving many children behind or unchallenged.

Challenge 6: Limited Teacher Preparedness and Support

Many teachers lack the skills and support needed to teach reading and writing effectively. Most crucially, too many are unprepared to engage children with text, deliver phonics instruction, or adjust lessons to meet children's need. Support and improved approaches to adult learning remain a priority.

Challenge 7: External Factors Influence Reading Instruction

Family literacy habits, socio-economic status, nutrition, class sizes, school access, and competing demands for children's time, all shape reading outcomes. These external influences must be acknowledged when considering how and why children learn to read.

Classroom Solutions: What can be done right now?

We want every child to come to school ready to learn – healthy, well-nourished, and supported by their families. Once in the classroom, they should be engaged in high quality instruction with sufficient attention to phonics, engage with a variety of texts, receive targeted feedback from their teacher, and have regular opportunities to read, write, and discuss text for different purposes. While some of these conditions depend on support from

home and community, the following solutions focus on practical steps that can be implemented directly in classrooms. They're organized under three areas: Classroom Management, Curriculum Adjustments, and Instructional Choices.

<p>Classroom Management</p>	<p>Solution 1: Classroom routines to maximize instructional time. More instructional minutes for literacy would help, but even within existing time, simple routines can improve how that time is used. Interventions might include setting up systems for distributing books without involving the teacher, teaching children how to find page numbers efficiently, and rotating which children sit in the front so the teacher consistently engages with different children. These small changes help maximize the use of available time, minimize disruptions, and keep the focus on learning.</p> <p>Solution 2: Human resources as an asset. The teacher-to-learner ratio is often seen as a constraint, but the number of learners in the classroom can also be viewed as a resource. Instead of relying solely on teacher-led practice, routines can be designed so all children stay meaningfully engaged in activities while the teacher circulates to provide feedback. With purposeful routines, even a high ratio can support rather than stall learning.</p> <p>Solution 3: Homogenous grouping for part of the school day. Children should receive instruction at their developmental literacy level for part of the school day, every day. Even short, focused time in skill-based groups can create the conditions for faster progress and more responsive teaching.</p>
<p>Curriculum Adjustments</p>	<p>Solution 4: Emergent literacy skills added to the grade 1 curriculum. Grade 1 instruction should prioritize teaching the relationship between sounds and the letters that represent them. But children also need earlier foundational experiences such as how print works and why it matters. The first formal year of schooling should include more read-alouds, conversations about print, playful work with sounds and words, name writing, and support in developing a concept of word in text.</p> <p>Solution 5: Writing is expected daily. Reading and writing are mutually reinforcing, and spelling can be a regular part of phonics instruction. Writing for purpose, such as logging the weather, helps reinforce that writing is integral to learning to read. And with low-cost writing materials, writing for meaning can be a routine.</p> <p>Solution 6: Foundational literacy and numeracy thresholds first. Children should reach a predetermined threshold in reading and math before significant time is spent on other subjects. Foundational literacy and numeracy should dominate instructional time until a set proportion of learners meet that threshold.</p> <p>Solution 7: Adaptive software to facilitate targeted practice. Yes, tablets are expensive and not without challenges. Yes, large language models don't yet support every language. And no, we don't want to replace teachers with robots. But in the right contexts – where adaptive software is viable, and the language of instruction is supported – children can benefit from using it for just 20 minutes a day as part of the instructional routine.</p>

<p>Instructional Choices</p>	<p>Solution 8: Refine existing practices. Teachers tend to rely on pedagogies they know, and introducing entirely new behaviors can be difficult. Instead, programs can identify existing practices that can be adjusted to better advance children’s literacy. For example, if teachers regularly use songs, they can be complimented on that for developing oral language and encouraged to display printed versions of the lyrics for children to follow. This addition supports print awareness.</p> <p>Solution 9: Speaking and listening are meaningful. Instruction too often relies on passive listening, with either one child responding or the whole class answering in unison. Pedagogy can shift to give all children a chance to speak and be heard. For example, the teacher might ask a question and have children turn to a neighbor to each discuss their answer, while the teacher circulates to listen in and offer support. These moments make speaking and listening purposeful for every child.</p> <p>Solution 10: Read alouds, the ultimate opportunity for all literacy skills. Every literacy teacher should be able to engage with children around stories, poems, and informational text. The text can be oral, written on the chalkboard, or printed on oversized paper (i.e., it doesn’t require images). Read alouds can develop multiple literacy skills such as:</p> <p>Foundational skills: Read-alouds allow teachers to model fluent reading by demonstrating pace, intonation, and expression. They can point to words to support print awareness and emphasize syllables and sounds to build phonological awareness such as rhymes or alliteration. Teachers can draw attention to specific letters and words, for example, “This starts with ‘B’. What sound does ‘B’ make?”</p> <p>Oral language skills: Read-alouds create opportunities for children to discuss the story and repeat or role-play key phrases. Teachers can also play with words to build vocabulary and expressive language. For example, asking, “Can you say ‘whisper’? Now say it quietly.”</p> <p>Print concepts: During read-alouds, teachers can model how to hold a book and track print across the page. They can highlight features such as the title, author, and the direction of reading. Punctuation can be discussed with questions like, “What does this exclamation mark tell us?” Word lengths can be compared or attention drawn to capitalization.</p> <p>Comprehension skills: Read-alouds support comprehension by giving teachers a chance to ask prediction questions like, “What do you think will happen next?” and to pause for understanding with prompts such as, “Why did the character do that?” Vocabulary can be discussed in context. For example, “Stumbled. What does that mean?” After the story, children can retell or summarize what they heard. Teachers can also connect the text to lived experiences by asking, “Has this happened to you?” and deepen thinking by asking ‘why’ and ‘how’ questions, not just ‘what’.</p>
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Conclusion

Getting children to become fluent readers by grade 3 requires rethinking how we define, measure, and teach reading. The challenges are known, it is time for us to be realistic and responsive in the solutions.

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