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eBook

A better way to assess
oral reading fluency



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Learning to read is a major milestone for early learners; it's the gateway to a lifetime of acquiring knowledge. On the Teach. Learn. Grow. blog from NWEA®, we've been exploring the topics of early literacy and learning to read with our NWEA experts, including Cindy Jiban, PhD, a former teacher and special educator. The first in the Best of Teach. Learn. Grow. eBook series, check out Cindy's most popular posts on learning to read—and how you can find a better way to assess early reading development.



One of the most fascinating things on this earth is how kids learn to read. I can't get enough of it, seeing this magic unfold.

When I think back to my own journey to reading fluently, I see so many pieces that mattered: the full bookshelves in my home, the language-rich environment, the Saturday morning trips to the library, and the adults who read to me or to themselves as part of the evening ritual. I had a lot of enchanted ingredients thrown into the mix, and—voila: I turned into a reader.

But what about other kids? How do they become fluent, comprehending readers? As it turns out, there's a lot more than just magic going on in learning to read.

As young kids develop reading fluency, they typically move toward greater and greater comprehension of what they read.

That's good: reading with comprehension is the point of learning to read fluently.

But not all kids have enough of what they need to get to reading comprehension. Some kids have strong phonics and word recognition skills, but still fail to comprehend. Others show solid, insightful comprehension when you read TO them, but fall down in comprehending what they read on their own. What gives?

An important model for reading comprehension is one asserted by Gough & Tunmer (1986). Their model, the **Simple View of Reading**, is described by a simple formula:

$$RC = D \times LC$$

Reading Comprehension is the product of Decoding and Language Comprehension

This is “simple” because it only has two moving parts: the D and the LC. **Decoding (D)** is the ability to turn printed words into the right word sounds, more and more automatically. Phonics instruction aims toward increasing decoding proficiency. **Language Comprehension (LC)** is the ability to understand

spoken words in sentences. When we speak with easier words and less complex structures to very small kids, we are reaching toward their less proficient language comprehension.

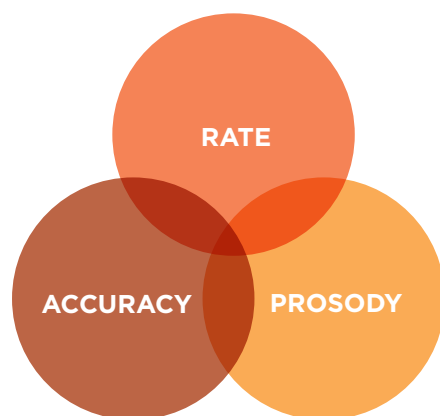
How do teachers know where to start?

Ask any primary grades teacher about reading fluency, and you are likely to hear something about **WCPM** from one-minute oral readings. (That's **words correct per minute**, a bit like miles per hour.) You might even hear some benchmark numbers that describe how this number goes up in the primary grades. It's true: in first and second grades, students are typically increasing their reading speed limit from about 8 WCPM to over 80 WCPM (*Hasbrouk & Tindal, 2006*).

That might not be NASCAR-worthy acceleration, but going from 8 to 80 really ends up being one of the Great Wonders of the World. Consider this: at 8 WCPM, a young student is totally consumed by the task of sounding out or recognizing each word, one by one. No one listening to him read aloud will be able to follow the story—including himself. But by a year or so later, this student will be reading 80 WCPM and understanding many phrases and sentences as he is reading them. A whole world opens up to him, by way of reading comprehension.

How does fluency work this magic? Pulled apart, three key elements each play a huge role in that move to reading with comprehension.

Rate matters mostly because it gives us a window into how much effort it takes kids to decode each word. When each word is a puzzle, it's really hard to attend to the meaning that is accumulating across whole sentences. Words must be read with sufficient **accuracy**, too: you can't build the right meaning with too many wrong words. Together, rate and accuracy make up what



LaBerge and Samuels (1974) called “automaticity.” For students with automatic enough word recognition, the mental processing resources required for decoding are minimized. This frees up attention so the reader can attend to meaning.

A student's WCPM predicts reading comprehension, especially in the primary grades time while rate is accelerating (*Garcia & Cain, 2014*). Kids who can read 40 WCPM are not as likely to understand what they read as kids who read 80 WCPM. Accuracy also becomes an excellent window into how well a student might understand different levels of text, particularly once students have gathered some initial speed in their reading. This is because a student with higher accuracy is likely using all kinds of clues to figure out if a word is what they think it is. They don't just use decoding skills, but context and meaning clues as well (*Valencia & Buly, 2004*).

**We can't forget about prosody, though:
it's already the neglected
stepchild in the fluency family.**

Prosody means expression and phrasing that support meaning: it's that certain something that many primary grades teachers do so well in read-alouds. We want kids reading with prosody, too. We don't want them “barking at text,” which means calling out words as if they are a list. Prosody works as a bridge from automaticity to comprehension. Research is showing that when we attend to a student's prosody, in addition to their rate and accuracy, we get better insight into their path to reading with comprehension (*Basaran, 2013*).

So yes, WCPM is accelerating across the primary grades, through various numbers and benchmarks. But of course, this is NOT a speedway. We don't want kids accelerating just to go fast but get nowhere. Instead, there is a destination: reading with comprehension, in more and more challenging text. Fluency is not the end goal; fluency is the **horsepower** that takes kids to this exciting new world. It combines well-tuned rate, accuracy, and prosody—turns out, there's a lot going on under the hood.

It's not all about WCPM

Oral reading fluency is a key indicator of reading proficiency. But it's got some issues, as it's currently implemented in some schools. One of these is that we have a cadre of kids who are getting the wrong message: we're teaching them that they can **fast talk** their way into reading success.

**“Faster reading is better reading”
is the wrong message to send.**

We've done a pretty good job of selling that idea to some kids and families these days. Millions of kids read aloud for one minute on grade-level passages each season; teachers gauge their WCPM as a metric of fluency. If Sally's “fluency” is 120 WCPM and Jane's is 125, then we all know who wins. And when Sally reads aloud for one minute next season, she's going to be very focused on getting those words out faster than she did last time. When we teach kids that more and more WCPM is the goal, we steer them wrong on how literacy for future learning will work. Unless, of course, their career aspiration is to become a fast-talking auctioneer.

Even back in 1985, proponents of fluency measurement warned that without an associated focus on reading comprehension, the one-minute oral reading approach presents some risk of unwanted results (*Deno, 1985*). Sure enough: researchers have found that the pervasiveness of this isolated WCPM metric moves many teachers towards a “faster is better” orientation as they teach reading (*Newman, 2009; Deeney, 2010*).

WCPM does not tap into text complexity

Lots of schools assess all second graders in oral reading fluency, and they use a second-grade level of text. Sally and Jane are second graders, and as you might recall, they are zipping through their reading. Do we really want to know how fast these girls can read, anymore? No—they're both good enough on that front. We want to know what they can read with *understanding*. If they comprehend second-grade texts, let's see what happens with harder text, of more

complexity. Maybe Jane has poor comprehension even on grade-level text, despite her automaticity. Maybe Sally can keep right on reading with accuracy and solid comprehension, even when we bump her up to fifth-grade text.

Now that's news you can use. Jane may read a bit faster, but Sally's instructional reading level is significantly higher than Jane's. We need these girls—and teachers—solidly oriented toward this kind of growth.

We need two critical adjustments to our oral reading fluency assessment approach:

- If we want kids to know that reading is for comprehension, then we need to ask them to demonstrate comprehension of what they read
- If we want to frame growth in reading as understanding harder and harder text, then we need to get beyond assessing all kids only on grade-level text

**The goal is not to read faster and faster.
The goal is to read harder and harder
text with good comprehension.**

What about readers below zero?

For a child who reads zero WCPM, and then two months later reads zero WCPM, this measure reveals no growth at all. However, most of those kids are developing rapidly on their literacy trajectories. So, what do kids grow on that matters, before they can read from passages?

When oral reading fluency was taking off, some researchers worked long and hard to address the subzero problem. The solution that is most widely recognized is probably DIBELS, which extends fluency assessment downward into other timed oral tasks. In this kind of system, kids take one-minute fluency assessments in phonological awareness, letter knowledge, or early phonics.



What's wrong with this model?

There are a couple of features worth noting about the “extend fluency downward” approach to the subzero problem. First, each measure is still typically designated for a particular season in a particular grade, so that a whole class might be assessed on letter sounds or phoneme blending—even the kids who are already reading. This is problematic because each of these targets of measurement are **constrained skills**—they only reflect meaningful growth for a particular, brief window in reading development (*Paris, 2005*). Some kids in the class are not in that window at the time of the assessments.

For kids who mastered all their letter sounds last summer with grandma, it is no longer meaningful to assess how many letter sounds they can name per minute now—we learn nothing from knowing if they are faster still than they were when they first mastered it. Instead, they might be ready for a measure of word decoding, or even passage reading. A better solution would place kids in assessment content not by grade and season, but by their stage in reading development. A better solution would be individually adaptive and assess oral language.

Reading as an extension of oral language

If we think about reading as an extension of oral language, it is easy to see why language learners might struggle. It is also easy to see that the job of learning to read for these students will require more than an understanding of phonics and fluency. Being able to connect letter sounds to their symbols is an important component of reading, but it is generally not the challenge that these students face. Most times, these students are struggling with reading comprehension. They struggle because they have limited vocabulary knowledge, limited or confused knowledge of sentence structure, and limited experience with abstract language, such as metaphors, idioms, or multiple-meaning words. Or they simply have limited life experiences, which is also known as background knowledge. We sometimes forget that students with different cultural experiences have a different “scaffold” upon which they build new learning.

A second feature of the “extend fluency downward” approach is this: it focuses all attention on the skills that feed word decoding. There

are measures in letter knowledge, phonemic awareness, and even nonsense word reading. What got left out? Oral language got left out, and that's problematic. It reminds us that both decoding and language comprehension are necessary components for eventual reading with comprehension.

Some kids are on track toward word decoding, but they struggle with understanding language as well as their typically developing peers. Demographic trends continue to show a rise in English Language Learners. We can't just focus on phonics and decoding and expect that all kids will get to reading with understanding (*Valencia & Buly, 2004; Foorman, Herrera, Petscher, Mitchell, & Truckenmiller, 2015*). A better solution is to attend to vocabulary and listening comprehension as well. A better solution would also assess not-yet-reading kids in both early decoding skills AND in oral language skills.

A better solution would save instructional time

How much time does oral reading fluency assessment take today? In many schools, all students in kindergarten through third grade are given a set of one-minute oral reading fluency assessments, administered one-on-one and then scored by the teacher for WCPM. An efficient teacher might test her whole class in three days of reading

block time... then do that again in winter and in spring. It's easy to see how several days of literacy support can be lost to assessment.

In some schools, the classroom teacher is off the hook. Instead, an interventionist—from Title 1 or special education, often—collects fluency data on all kids. That can mean weeks of literacy intervention for our most at-risk students, lost.

Finally, in some schools, the WCPM approach has been supplanted with richer, informal one-to-one literacy assessments. These tools typically include oral reading accuracy and rate, comprehension checks, and adapting text-level based on a student's performance. For most of these tools, half an hour per child is typical. Half an hour per child easily means 15 hours for a whole class—perhaps three weeks of literacy instruction, re-designed to accommodate assessment needs.

What do we trade for this good data? The cost is 15 hours when a teacher cannot move about the classroom, monitoring for what happens when kids write or explore books on their own—or for why they don't. Those hours are time stolen from differentiated small group instruction, from pumping up opportunities to respond, and from conversations that extend language and vocabulary development.



Where to now?

When NWEA took on the challenge of next-generation fluency assessment, we designed an approach that was individually adaptive. We focused on both decoding and language comprehension, including for kids who are not yet reading sentences—essentially those in grades K–3. Enter **MAP® Reading Fluency™**, the first and only K–3 computer-adaptive oral reading fluency assessment using speech recognition technology with automatic scoring. The 20-minute assessment of oral reading fluency, comprehension, and foundational reading skills is delivered online, enabling group administration and saving teachers hours of time.

Teachers receive immediate, objective results, actionable data, and instructional guidance to support individualized reading development for every student. Passages are recorded, saved, and automatically scored using advanced speech-scoring technology. Teachers can also listen to the recordings again and share them with parents and other teachers.

MAP Reading Fluency has been years in the making, and having great technology was critical. NWEA partnered with LanguaMetrics™, Inc., the leader in speech-enabled education applications. LanguaMetrics uses patented speech recognition and scoring technology EduSpeak® from SRI International®*. EduSpeak is one of the first speech engines

that is specific to children ages four through eight, and addresses beginning reader behaviors, like word skips.

A complement to MAP® Growth™ and part of the MAP® Suite of assessments, MAP Reading Fluency is computer adaptive, so it adjusts to accommodate pre-, early, and fluent readers. Using a headset and microphone, students self-pace through activities, including reading passages aloud and answering comprehension questions.

Teachers can use results for differentiated and group instruction, guided interventions, and in screening for response to intervention. The student recordings allow teachers to further evaluate prosody and analyze miscues.

At NWEA, we're excited to bring this new K–3 oral reading assessment to educators because it helps solve a lot of early reading assessment challenges. It adapts to the student's level; it measures reading comprehension; it tackles foundational skills, like decoding and oral language; and it gives instructional time back to teachers. We look forward to sharing stories of how this new way to assess oral reading fluency is helping classroom teachers and early learners find reading success over at **Teach. Learn. Grow.**, the education blog. Be on the lookout for more in our series of the Best of Teach. Learn. Grow. eBooks from NWEA.



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