

# Multidimensional reading data: How fluency and comprehension assessments go hand in hand



## The journey to reading is layered; the assessments should be, too

Recall, if you can, your learning-to-read journey. It's enmeshed with your learning-to-speak journey. As an infant, you began recognizing vocabulary ("mama") and hearing the sounds of speech. Then, you began to speak in phrases ("More, please!") and your oral language comprehension—what you were hearing—grew. Later, with guidance and early-reading books, you began to connect sounds (phonemes) with letters (graphemes), and started decoding a simple word like "b-a-l-l"—even as you were speaking in increasingly complex sentences: "I just read a book!"

Where does one journey start and the other begin? It's a lot less like a baton-relay—"first you learn sounds, then you learn letters, then you learn words, then you..."—and more like a concurrent track-and-field tournament. Less like isolated instruments and more like a symphony.

Just like the journey from speaking to reading, the journey from decoding words to reading for meaning is rich and layered—both different parts of each student's learning journey. Readers must decode letters, words, and phrases automatically or fluently enough to free up brain space for comprehension. Then, a reader with an already-strong grasp on our language conventions will leverage that strength as they read it. However, they must first crack the cipher of the text!

If they are layered experiences, it makes sense that teachers would need different assessments to support them as they help students along this journey as a reader. Teachers need to know:

1. Can you decode the text? Can you read this yourself?
2. Meanwhile—not secondly, but concurrently—can you understand read-aloud text?  
Can you follow the meaning of our spoken language?
3. How do these two factors work together to build reading comprehension?

## The Simple View of Reading

The [Simple View of Reading](#) is a respected, research-supported framework for how readers develop. It indicates that reading comprehension is the product of a reader's decoding skills and their language comprehension. Students need to grow both skill sets to make meaning of text—an abundance of one factor cannot compensate for a deficiency in the other.

$$RC = D \times LC$$

Reading Comprehension (RC) is the product of Decoding (D) and Language Comprehension (LC) proficiencies.

Formula adapted from Gough, Philip B., and William E. Tunmer. 1986. "Decoding, Reading, and Reading Disability." *RASE: Remedial & Special Education* 7: 6–10.

While reading comprehension (RC) is dependent on decoding and language comprehension, assessing for those factors does not assess reading comprehension directly. Educators also need insights into how well students read for meaning, make inferences, form opinions, understand semantics and syntax, etc., all from their own reading of the text. After all, the ability to read increasingly complex texts with understanding is the ultimate goal of reading instruction.

In terms of reading standards, these are often referred to as anchor standards that run throughout K-12. They represent unconstrained skills that will continue to develop into adulthood.

And yet, in order to read with comprehension, we know students need support with their Decoding (D) and Language Comprehension (LC). These skills, many of which are constrained skills limited to elementary grades, are often found in foundational reading standards where the capstone is related to reading with sufficient rate and accuracy to support understanding.

---

**"Assessment for students of all ages must supply enough information to specifically identify decoding skills and language comprehension abilities."**

- [Farrell, Hunter, Davidson, Osenga](#)

**How can we assess reading comprehension, decoding, and language comprehension skills in order to meet our readers where they are, especially understanding that in the “layered symphony” of reading, aspects of all three are developing simultaneously?**



## The “big five” components of reading

Remember that symphony mentioned earlier? In 2000, the National Reading Panel identified five major ingredients (instruments!) to build strong readers. Because reading is a rich ecosystem of blending spoken word with written word, constructing meaning as we associate symbols with sounds, these skills can develop adjacent to each other, rather than one before the other.

However, [experts agree](#) that strong decoding skills—phonics, phonemic awareness to build fluency—must be developed alongside language comprehension before independent reading comprehension can flourish.

The collective research on [the science of reading](#) supports explicit instruction around decoding. This means using a curriculum to teach phonics patterns in a logical and validated sequence as opposed to the other strategies like cueing or contextual and incidental absorption. Focusing on explicit instruction across the “big five” improves outcomes for all students—[especially English language learners and students with dyslexia](#).

Let’s take a look at the big five components of reading, how they are explicitly taught in classrooms, and therefore, how they can be assessed.

Component of reading	What is it?	In the classroom, looks like / sounds like...	An assessment should help detect things like...
<b>Phonological (sound) awareness</b>	How many discrete sounds are in a word; the ability to distinguish and manipulate different sounds within a word; includes rhyming, segmenting/blending.	<ul style="list-style-type: none"><li>“How many sounds do you hear in: C - A - T?”</li><li>“What starts with the ‘s’ sound and rhymes with ‘cat?’”</li><li>“What word will I say if I leave out the ‘t’ in ‘trip?’”</li><li>Identifying when sounds start and stop</li><li>Rhyming words</li><li>Substituting a sound for another, like removing the “a” sound from “fan” and replacing it with an “uh” sound for “fun”</li></ul>	Is the student working with individual sounds? Can the student manipulate different sounds? Is the student able to hear how many syllables?
<b>Phonics</b>	The relationship between graphemes (written symbol) and phonemes (that symbol’s relationship with sound).	<ul style="list-style-type: none"><li>“An ‘s’ looks like a curvy line, and its sound is made by expelling air from our mouth as we close our teeth: ‘ehss.’”</li><li>“What does the silent ‘e’ mean for the way we say this word: ‘rope’ or ‘ripe?’”</li><li>Distinguishing between similar symbols, like “d” and “p”</li></ul>	Is the student good with consonant-vowel-consonant (CVC) word decoding? Is a student still working on letter sounds? Does the student know what sounds correspond with what symbols?

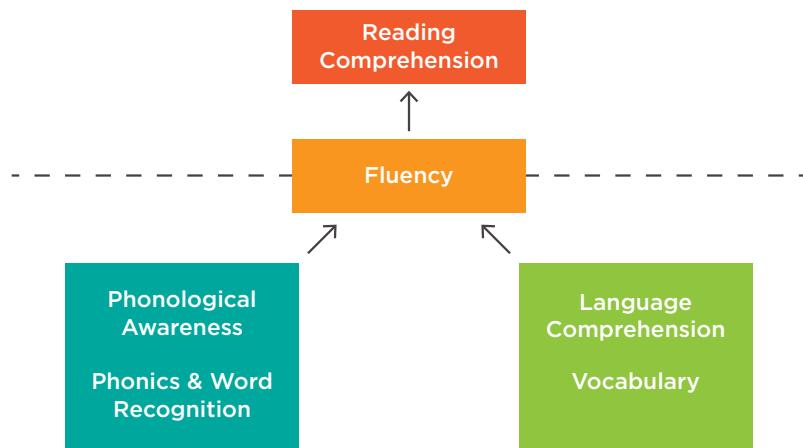
<b>Component of reading</b>	<b>What is it?</b>	<b>In the classroom, looks like / sounds like...</b>	<b>An assessment should help detect things like...</b>
<b>Fluency</b>	Includes a reader's ability to automatically decode words with increased rate, accuracy, and prosody; reading with expression/observed syntax.	<ul style="list-style-type: none"> <li>“Can you read that entire phrase for me?”</li> <li>“Can you observe those punctuation symbols, pausing for commas, stopping at periods, and phrasing things like questions if there’s a question mark?”</li> </ul>	<p>Does the student read with good rate and accuracy? (WCPM: Words Correct Per Minute)</p> <p>Is the student able to remember what they read (i.e., did their brain absorb meaning, or was it simply trying to decode letters and sounds)?</p> <p>Can the student read with expression, instead of barking words robotically?</p>
<b>Vocabulary</b>	The ever-growing body of words and their associated meaning(s). Embedded in learning about the world around us and how we describe it.	<ul style="list-style-type: none"> <li>“What word do you see inside ‘unkind’? What do you think ‘unkind’ means? What do you think the prefix ‘un’ means? Can you think of other words that start with ‘un?’”</li> <li>“We know the word ‘big.’ What other words can also mean ‘big?’”</li> </ul>	<p><b><i>This is continuously assessed on reading tests throughout K-12.</i></b></p> <p>Where is the student on their journey to increasingly comprehending new/unfamiliar words?</p> <p>Does the student have a grasp on the meanings of foundational words?</p> <p>Can the student take a “root word” and apply that knowledge to other forms of the word?</p>
<b>Independent reading comprehension<sup>1</sup></b>	Reading comprehension of written text in order to assess and evaluate meaning, intention, etc.	<ul style="list-style-type: none"> <li>“What do you think the author’s attitude toward his parents is?”</li> <li>“Why is the main character having a hard time with her friend?”</li> <li>“Based on the information in the passage, what choice seems best?”</li> <li>“Do you think the narrator is being truthful?”</li> </ul>	<p><b><i>This is continuously assessed on reading tests throughout K-12.</i></b></p> <p>Is the student able to put together the main idea of what they just read?</p> <p>Is the student making inferences based on the text?</p> <p>Can the student form text-supported opinions, assumptions, and predictions?</p> <p>Can the student detect humor, sarcasm, and other nuance in the text?</p>

<sup>1</sup> “Comprehension” can take many forms. Listening comprehension is something we do from infancy! Pre-readers’ comprehension growth is best distinguished/differentiated as “language comprehension” as opposed to reading comprehension. One usually designates comprehension from hearing (“Oral”/ “Listening”/ “Language”), and the other from reading (“Reading Comprehension”).

## As we build fluency, we approach independent reading comprehension

Foundational reading skills like phonics and phonological awareness (decoding) build fluency, which allows readers automaticity. The skills identified in these first two categories are discrete/constrained. Once they are mastered, there is little need to keep teaching them. For example, we as adult readers no longer need to review the alphabet or the relationship between phonemes and graphemes (phonics).

Yet, these skills are the key to moving forward as a reader. Only with these decoding and language comprehension skills can fluency develop—freeing up brain space to focus within written text on building unconstrained skills like vocabulary and reading comprehension. Reading comprehension continues to build with greater depth and complexity over a student's academic career and beyond. Adult readers are still growing these!



## The right tool for the job

Learning to read is a multifaceted, complex, and not-necessarily-sequential process.

To provide the right instructional supports, teachers need information on different aspects of a student's reading skills. Understanding if a student can understand the main idea of an informational text, for example, requires a different assessment design than understanding what decoding skills may be preventing a student from accurately reading a passage aloud.

When teachers have access to high-quality assessments to measure anchor reading standards that run throughout a student's academic career, as well as reliable tools that assess foundational standards and fluency skills critical to early reading development, they have a more complete picture of how to help each student learn. Having both types of assessments at their disposal ensures teachers aren't stuck with tools ill-suited to their needs, like trying to use a ruler to find out how much a student weighs.

That duality is important. Many early elementary teachers are bouncing back and forth between foundational standards and anchor standards in a given day—think about a kindergarten teacher moving from a letter identification game in one moment to circle time with a story in the next.

Assessments well-suited to measure each type of skill can help teachers come alongside learners in their reading development. It helps them answer a myriad of questions, like:

- Does the student need more support with phonemic awareness?
- Is the student reading aloud accurately, but only with great decoding effort, so they may struggle to make meaning of the text they just read?
- Can a student make comparisons from two related pieces of informational text—even if those texts are read aloud to the student?

All of these questions give teachers different information on where to continue developing their readers' skills. What's evident is that teachers need tools to assess where students are in their early reading development in foundational skills and reading comprehension—both before and after they are independent readers.

## **Teachers as symphonic conductors: Meeting readers where they are**

Teachers deserve robust assessment data in order to support their youngest emerging readers, so they can meet them where they are on their journey. Whether it's applying the right read-aloud strategies for a fluency intervention, or developing scaffolds so students can access challenging grade-level texts to stretch their growth, data from the right assessment helps teachers leverage their expertise in a way that improves outcomes for kids. And don't forget—high-quality professional learning can help even the most seasoned teachers strengthen and evolve their instructional practice.

And as they grow their readers, a different symphony might emerge: of turned pages, book recommendations, and enthusiastic reviews, all from an orchestra of avid readers.

---

**"Developing readers' comprehension continues to grow throughout their life, with increasingly complex texts. Yet, with decoding skills, you have to meet a reader where they are, and you need an assessment designed to help identify that."**

- Dr. Cindy Jiban



NWEA is a not-for-profit organization that supports students and educators worldwide by providing assessment solutions, insightful reports, professional learning offerings, and research services. Visit [NWEA.org](https://www.nwea.org) to find out how NWEA can partner with you to help all kids learn.

©2021 NWEA. NWEA is a registered trademark of NWEA in the US and in other countries..

AUG21 | KAP7487