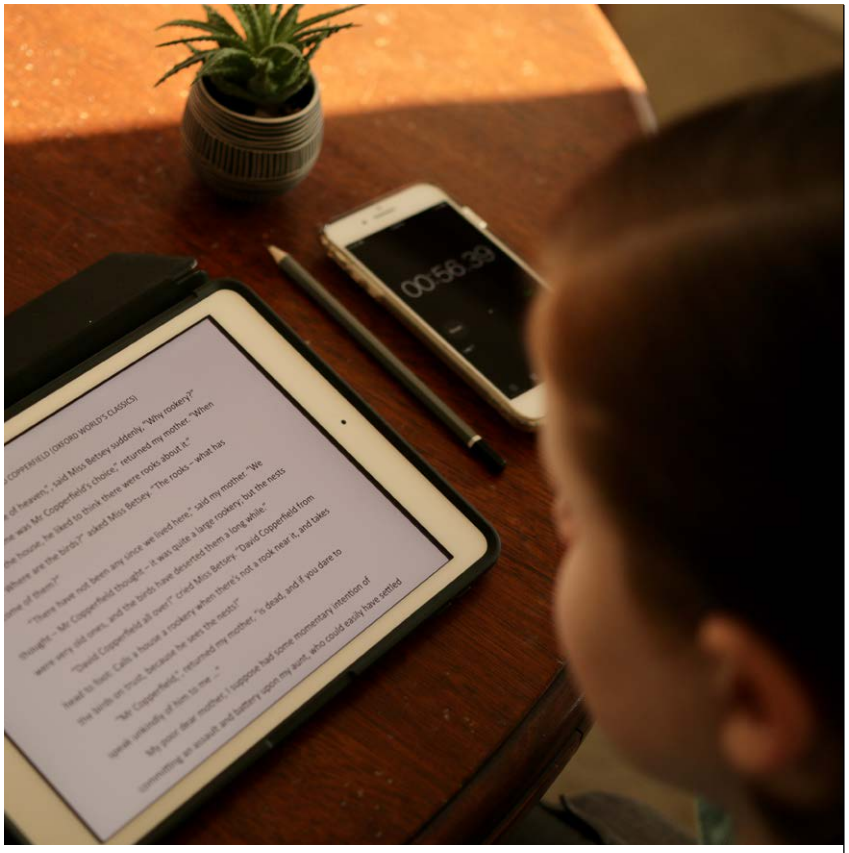

# Special issue: Reading fluency

In this keynote article **Dr Jan Hasbrouck** teases out the components of reading fluency, explains the Oral Reading Fluency measure, and clarifies some of the common confusions surrounding the topic.

# Understanding reading fluency

We have long known that for readers to fully comprehend what they have read they must have a certain level of fluency. Most definitions of reading fluency include three observable, measurable components: accuracy, rate, and expression (sometimes referred to as prosody). Hasbrouck and Glaser (2019) define fluency as: Reasonably *accurate* reading, at an *appropriate* rate, with *suitable* expression, that leads to accurate and deep comprehension and motivation to read. Within this definition, three specific technical terms can be precisely defined (accuracy, rate, expression), while other words used to describe the performance standards for each component are intentionally left ambiguous (*reasonably* accurate, *appropriate* rate, *suitable* expression).

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When we read, the 'levels' of accuracy and rate and expression should vary depending on the purpose of the task. We need to read more accurately if we are studying for an important test or reading the directions for taking a new prescription medicine, but we can relax our accuracy if we are simply reading a fun novel to pass the time. It is sometimes quite appropriate to read fast and other times we should read more slowly. Parents reading a story aloud to their children will be more appreciated if their expression is much more exaggerated than their normal, daily speech. However, there are standards that have been established by research to determine the optimal levels of accuracy, rate, and expression to optimize comprehension.

## Accuracy

Researchers have determined that if a reader reads fewer than 95% of the words correctly, comprehension will be impaired or limited (Rasinski et al., 2011). We need to teach our students to read words carefully and accurately so when they are reading independently, they can maintain a level of accuracy that supports comprehension - 95% accuracy or higher. The recommendations are somewhat different for beginning, emergent readers (PreK-early Grade 2). For these younger students, researchers suggest that we should only have them read text in which it will be relatively easy for them to maintain accuracy levels of 97-98%. At this early stage, readers are just learning to read words and simple text accurately, and we want them all to experience success and a sense of accomplishment. Anxiety can be an impediment to children's success in early reading (Ramirez et al., 2019). Keeping the text at an 'easy' level helps encourage them to keep working at this new and sometimes challenging task. We also want their practice to be 'perfect'. We often hear people say that 'practice makes perfect' but that is actually not true. Practice makes *permanent*, so practice must be perfect to make learning perfect! (Archer & Hughes, 2011).

## Rate

Rate is often mistakenly used as a synonym for fluency. However, rate technically refers only to the speed with which students read text. Fluency is far more complex than rate alone. Another common fallacy about rate is that 'faster is better,' although most teachers likely know from experience that this is not true. Most teachers have had experiences with students who read quickly but still may not have good comprehension. Speed alone does not enable comprehension, and a fast reader is not necessarily a fluent reader. In fact, faster readers may be reading inaccurately or reading too quickly to think about what they are reading. The rate at which text is decoded and recognized represents an important aspect of fluency. However, reading fast is not the same as reading fluently!

To assess a student's rate, Hasbrouck and Glaser (2019) recommend using the curriculum-based measure of oral reading fluency (ORF). (For an explanation of curriculum-based measurement or CBM, see: https://www.readingrockets.org/article/what-curriculum-based-measurement-and-what-does-it-mean-my-child). Oral reading fluency (ORF) assesses words read correctly per minute, and this therefore measures accuracy + rate (or automaticity). ORF has a strong research base from over 30 years of studies that support its use for both benchmark/screening decisions and monitoring students' progress. ORF has been shown to have a moderate-to-strong correlations with reading comprehension. (Fuchs, L. et al., 2001; Hosp et al., 2016; Wayman et al., 2007). ORF will be discussed further below.

## Expression

Reading with appropriate expression – the volume, pitch, tone, emphasis, and phrasing – is a clear mark of a fluent reader. Although expression is difficult to define objectively, several rating scales have been developed. Daane et al. (2005) proposed a four-point scale based on the use of meaningful phrase groups, and Hudson, Lane and Pullen (2005) provided a checklist based on the appropriateness of vocal tone, inflection and pauses. Developmental norms for evaluating prosody have not been developed, so for the purpose of making instructional decisions it is useful for teachers simply to make routine qualitative observations of students' prosody, and to ensure that students are reading with appropriate phrasing, expression and intonation when speed and accuracy are at appropriate levels.

## What is Oral Reading Fluency (ORF)?

ORF is an individually administered measure of students' oral reading. Students read aloud for 60 seconds from an unpractised passage. The completed ORF is then scored for 'words correct per minute' (WCPM) by subtracting the number of errors from the total numbers of words read by the student. The standardised ORF assessment protocol requires students to perform a 'cold read' of a passage or set of passages. This means that the passage(s) should be unfamiliar to the students and they should not have had a chance to practise reading the passage(s) before the assessment begins.

As the student reads, the examiner follows along and tallies errors on a separate copy of the passage. Each word omitted, mispronounced, or transposed is recorded as an error. Insertions are ignored and self-corrections are counted as correct if provided by the students within 3 seconds. If the student pauses longer than 3 seconds when trying to identify a word, the examiner supplies the word for the student and counts it as an error. Repeated errors are counted each time the error is made. At the end of 1 minute, the examiner tells the student to stop reading. The score is calculated as a total number of words read correctly in 1 minute (WCPM) by taking the total number of words read minus the total number of errors. For example, a student who read 87 words in 1 minute and made 13 errors would have a score of 74 WCPM (87 - 13 = 74 WCPM).

The WCPM score is then compared to established benchmarks for the student's grade placement and the time of year (beginning, middle, and end of the school year). Researchers generally agree that performance at the 50th-75th percentile range of ORF norms such as those compiled by Hasbrouck and Tindal (2017) can serve as a reasonable benchmark for determining an appropriate reading rate.

## Common Confusions Regarding ORF

ORF is used by reading specialists, special educators, and classroom teachers around the world, primarily in English-speaking countries. Despite its widespread use, there are four common misconceptions or confusions about the ORF measure:

**Common Confusion #1:** The belief that oral reading fluency (ORF) measures fluency. How could people possibly get this idea, that a measure called 'oral reading fluency' measures the skill of reading fluency? The problem is that ORF was misnamed back in the mid-to-late 1980s when ORF and other CBM measures were first developed. Certainly, at a very basic level, 'fluency' can be understood as the combination of accuracy + rate. However, we now understand that reading fluency is far more complex than simply the accuracy and rate with which someone reads. The expression or prosody that a reader uses when reading orally is another important component of reading fluency. In addition, there are underlying mechanics that must be in place for a reader to be considered fluent including metacognition, knowledge, vocabulary, along with the context of the passage and the purpose for reading (Hasbrouck & Glaser, 2019). The CBM measure that involves having a student read aloud for 60 seconds from an unpracticed passage which is then scored as 'words correct per minute', is a valuable measure of reading performance but it is not a measure of the complex skill of reading fluency. It is better conceptualized as a measure of automaticity (Hosp & Suchey, 2014). ORF, unfortunately, was misnamed.

**Common Confusion #2:** A higher ORF score is better. As we have discussed, ORF does not measure fluency. ORF is a measure that combines accuracy (words correct) and rate (per minute). In order for fluency to support comprehension, fluent reading needs to occur at approximately the same speed as spoken language because that is the optimal rate for our brains to comprehend information that is coming in from either visual sources such as reading, or auditory sources such as speech. Researchers have found that ORF scores around the 50th-75th percentiles of norms, such as those compiled by Hasbrouck and Tindal (2017), are in fact optimal. Faster reading is not fluent reading; reading fast is not the same as reading fluently. Both reading too slowly (below the 50th percentile) or too quickly can be detrimental to reading comprehension.

**Common Confusion # 3:** We really should be assessing comprehension. This confusion is very understandable. Certainly, the most important feature of reading, along with motivation, is how well a reader can comprehend text. However, one thing we know for certain about comprehension is that it is an extremely complex construct and therefore challenging to assess accurately. We do have validated measures of reading comprehension but all of them are very time-consuming to administer. Over 30 years of research has shown that ORF is a reasonable indicator of how well a reader is likely to comprehend text and, because it is a measure that can be completed in one minute, it is very efficient.

**Common Confusion # 4:** Students with low ORF scores need a fluency intervention. The correct answer here is not 'yes' or 'no' but rather 'maybe'. We should understand that ORF functions in the same way that a thermometer does. Both have proven reliability and validity, and both can be used very quickly. Both ORF and thermometers provide a numeric 'score' that is compared to an established benchmark. A 'score' from a thermometer can indicate whether or not a person has a fever. It cannot determine the cause of that fever, nor can it determine that a person has no physical problems if there is no fever present. A broken leg, while serious, rarely causes a fever. Neither thermometers nor ORF assessments are diagnostic. Both are very valuable tools but only provide one piece of information. The presence of a fever alone cannot tell a physician if a patient needs surgery or a prescription for an antibiotic; more assessments would need to be done.

*…while ORF scores quickly provide us with trustworthy (reliable) and valuable, useful (valid) information just as a thermometer does, it can never be used as the only tool to identify struggling readers or correctly target a suitable intervention plan.*

If a teacher finds that a student has a low ORF score, it may be that this student does need an intervention that targets reading fluency. But as we have discussed here, fluency is a complex skill. Is this student reading text accurately but too slowly? That would require one kind of intervention. Is the student reading accurately but only with text below grade level? That would indicate the need for a different kind of intervention. Is the student struggling to read words accurately? Is this caused

by weakness in phonemic awareness or basic phonics skills or orthographic mapping? Once again, we should plan a completely different intervention for that student. Again, while ORF scores quickly provide us with trustworthy (reliable) and valuable, useful (valid) information just as a thermometer does, it can never be used as the only tool to identify struggling readers or correctly target a suitable intervention plan.

Reading fluency is a necessary component of skillful reading. It is multifaceted and complex, and as professional educators we should take the responsibility for deeply understanding what reading fluency is, the role it plays in our students' comprehension and motivation to read, and how to accurately assess reading fluency.

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# Slow Reader

I – am – in – the – slow
read – ers – group – my – broth
er – is – in – the – foot
ball – team – my – sis – ter
is – a – ser – ver – my
lit – tle – broth – er – was
a – wise – man – in – the
in – fants – christ – mas – play
I – am – in – the – slow
read – ers – group – that – is
all – I – am – in – I
hate – it.


From Please Mrs Butler: Verses by Allan Ahlberg, illustrated by Fritz Wegner. Puffin Modern Classics.