



How To: Assess Reading Speed With CBM: Oral Reading Fluency Passages

A student's accuracy and speed in reading aloud is an obvious and readily observable indicator of that student's reading ability. Reading fluency is an essential component of a student's global reading skills (National Institute of Child Health and Human Development, 2000). Furthermore, up through grade 3, reading fluency is arguably the best predictor of future reading success (Hosp, Hosp, & Howell, 2007).

The curriculum-based measure to track student reading speed is termed Oral Reading Fluency (ORF). In CBM-ORF, the student is given a grade-appropriate passage and asked to read aloud for one minute. The examiner marks as incorrect any words that the student misreads or hesitates on for 3 seconds or longer. The passage is then scored for Correctly Read Words (CRW). Although CBM-ORF is simple in format and quick to administer, its results are sensitive to short-term student gains in reading skills and predictive of long-term reading success, making this assessment an ideal progress-monitoring tool for classroom use.

CBM-ORF: How to Access Resources. Teachers can access a toolkit of resources for CBM-ORF, including: (1) materials for assessment, (2) guidelines for administration and scoring, and (3) research-based norms.

- *Materials for assessment.* DIBELS NEXT: Here are 3 sources for free CBM-ORF materials:

DIBELS NEXT: Schools can obtain free ORF passages and ORF benchmarks for grades 1-6 from the DIBELS Next website: <http://dibels.org/next.html>

EasyCBM: The easyCBM website (<http://easycbm.com/>) has collections of CBM-ORF passages (referred to as 'Passage Fluency') for grades 1-8. Teachers can create a free account on this website to access materials and benchmarks.

Schools can also make their own CBM Oral Reading Fluency passages in PDF format based on text typed in by the user using the Reading Fluency Passages Generator, a free online application:

<http://www.interventioncentral.org/teacher-resources/oral-reading-fluency-passages-generator>

- *Guidelines for administration and scoring.* Instructions for preparing, administering, and scoring CBM-ORF assessments appear later in this document:
- *Research-based norms.* A table, *Curriculum-Based Measurement: Oral Reading Fluency Norms*, is included in this document. The norms include fluency benchmarks for grades 1-8 and accompanying growth norms (Hasbrouck & Tindal, 2005).

References

Hasbrouck, J., & Tindal, G. (2005). *Oral reading fluency: 90 years of measurement*. Eugene, OR: Behavioral Research & Teaching/University of Oregon. Retrieved from <http://brt.uoregon.edu>

Hosp, M.K., Hosp, J. L., & Howell, K. W. (2007). *The ABCs of CBM*. New York: Guilford.

National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, DC: U.S. Government Printing Office.



Curriculum-Based Measurement-Oral Reading Fluency (ORF): Guidelines for Use

CBM-ORF: Description

CBM-ORF measures a student's reading fluency by having that student read aloud for 1 minute from a prepared passage. During the student's reading, the examiner makes note of any reading errors in the passage. Then the examiner scores the passage by calculating the number of words read correctly.

CBM-ORF: Materials

The following materials are needed to administer a CBM-ORF passage:

- Student and examiner copies of a CBM-ORF passage (the process for creating ORF passages is described below)
- Stopwatch

CBM-ORF: Preparation

When assessing a student's Oral Reading Fluency skills, the examiner chooses 3 grade-appropriate passages. For children in the 1st and 2nd grades, each passage should be at least 150 words long, while passages of at least 250 words should be prepared for older students. Passages selected should not contain too much dialog and should avoid an excessive number of foreign words or phrases. In addition, only prose passages should be used in CBM assessments. Poetry and drama should be avoided because they tend to vary considerably and do not represent the kind of text typically encountered by students.

For ease of administration, the instructor will want to prepare examiner and student copies of each passage. Ideally, reading passages should be free of illustrations that may help a child to interpret the content of the text. The examiner copy should have a cumulative word total listed along the right margin of the passage for ease of scoring (see Figure 1).

It is strongly recommended that teachers use existing collections of well-constructed, reading passages organized by grade-level when conducting Oral Reading Fluency assessments. Here are 3 sources for free CBM-ORF materials:

DIBELS NEXT: Schools can obtain free ORF passages and ORF benchmark norms for grades 1-6 from the DIBELS Next website: <http://dibels.org/next.html>

Figure 1: Example of CBM Oral Reading Fluency Probe

Examiner Copy

Student Copy

Summertime! How lovely it was in the country, with	9
the wheat standing yellow, the oats green, and the hay all	20
stacked down in the grassy meadows! And there went the stork	31
on his long red legs, chattering away in Egyptian, for	41
he had learned that language from his mother. The fields and	52

Summertime! How lovely it was in the country, with
the wheat standing yellow, the oats green, and the hay all
stacked down in the grassy meadows! And there went the stork
on his long red legs, chattering away in Egyptian, for
he had learned that language from his mother. The fields and



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CBM-ORF: Directions for Administration (Hosp, Hosp, & Howell, 2007; Wright, 2007)

1. The examiner and the student sit across the table from each other. The examiner hands the student the unnumbered copy of the CBM reading passage. The examiner takes the numbered copy of the passage, shielding it from the student's view.
2. The examiner says to the student: "When I say, 'begin', start reading aloud at the top of this page. Read across the page [demonstrate by pointing]. Try to read each word. If you come to a word you don't know, I'll tell it to you. Be sure to do your best reading. Are there any questions? [Pause] Begin."
3. The examiner starts the stopwatch when the student says the first word. If the student does not say the initial word within 3 seconds, the examiner says the word and starts the stopwatch.
4. As the student reads along in the text, the examiner records any errors by marking a slash (/) through the incorrectly read word. If the student hesitates for 3 seconds on any word, the examiner says the word and marks it as an error.
5. At the end of 1 minute, the examiner says, "Stop" and marks the student's concluding place in the text with a bracket (]).
6. *Initial Assessment:* If the examiner is assessing the student for the first time, the examiner administers a total of 3 reading passages during the session using the above procedures and takes the median (middle) score as the best estimate of the student's oral reading fluency.
Progress-Monitoring: If the examiner is monitoring student growth in oral reading fluency (and has previously collected ORF data), only one reading passage is given in the session.

CBM-ORF: Directions for Practice

If the student is not yet familiar with CBM-Oral Reading Fluency probes, the teacher can administer one or more practice ORF probes (using the administration guidelines above) and provide coaching and feedback as needed until assured that the student fully understands the assessment.

CBM-ORF: Scoring Guidelines

Reading fluency is calculated by first determining the total words attempted within the timed reading probe and then deducting from that total the number of incorrectly read words.

The following scoring rules will aid the instructor in marking the reading probe:

- Words read correctly are scored as correct:
- Self-corrected words are counted as correct.
- Repetitions are counted as correct.
- Examples of dialectical speech are counted as correct.
- Inserted words are ignored.

- Words read to the student by the examiner after 3 seconds are counted as errors.

- Mispronunciations are counted as errors.
Example



Text: The small gray fox ran to the cover of the trees.

Student: "The *smill* gray fox ran to the cover of the trees."

- Substitutions are counted as errors.

Example

Text: When she returned to the **house**, Grandmother called for Franchesca.

Student: "When she returned to the **home**, Grandmother called for Franchesca."

- Omissions are counted as errors.

Example

Text: Anna could not compete in the last race.

Student: "Anna could not in the last race."

- Transpositions of word-pairs are counted as a single error.

Example

Text: She looked at the bright, shining face of the sun.

Student: "She looked at the shining, bright face of the sun."

Computing reading-fluency rate in a single passage

The scoring of a reading probe is straightforward. The examiner first determines how many words the reader actually attempted during the 1-minute reading sample. On the completed probe in Figure 2, for instance, the bracket near the end of the text indicates that the student attempted 48 words before his time expired. Next, the examiner counts up the number of errors made by the reader. On this probe, the student committed 4 errors. By deducting the number of errors from the total words attempted, the examiner arrives at the number of correctly read words per minute. This number serves as an estimate of reading fluency, combining as it does the student's speed and accuracy in reading. So by deducting the errors from total words attempted, we find that the child actually read 44 correct words in 1 minute.

Figure 2: Example of a scored reading probe

Summe r time! How lovely it was in the country, with	9	Total Read Words = 48
the wheat standing yellow, the oats green, and the hay all	20	
stacked down in the grassy meadows! And there went the stork s	31	Errors = 4
on his long red legs, chattering ing away in Egypt an , for	41	
he had learned that language from his mother. The fields and	52	Correctly Read Words = 44

Accommodating omissions when scoring . . .

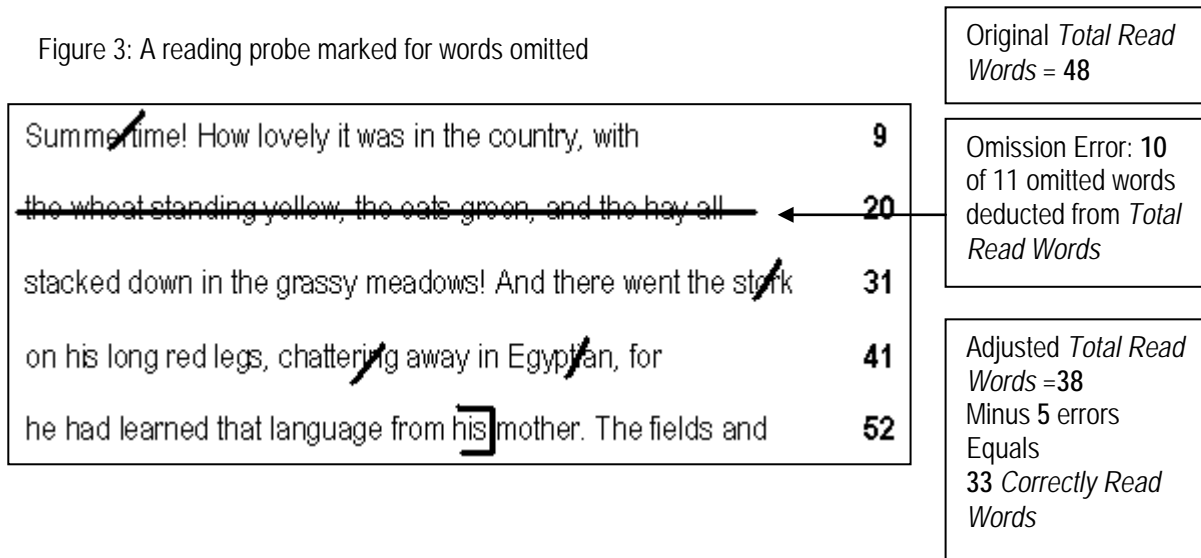
When a student skips several connected words or even an entire line during a reading probe, that omission creates a special scoring dilemma. An omission, after all, is considered to be a single error of tracking, no matter how many words were skipped at one time. However, if all words omitted in a line were individually counted as errors, the student's error rate would be greatly inflated. The solution is for the examiner to subtract all but one of the words in each omission before computing the total words attempted.

Let's see how that score adjustment would work. On the completed probe in Figure 3, the student omitted the text of an entire line while reading aloud. The examiner drew a line through all the connected words skipped by the child in that omitted line of text. Because a total of 11 words were omitted, the examiner drops 10 of those words before calculating the total words attempted.



When calculating the number of words the child attempted to read, the examiner notes that the child reached word 48 in the passage. Ten words are then deducted from the omitted lines to avoid inflating the error count. The adjusted figure for total words attempted is found to be 38 words. The child committed 5 errors (4 marked by slashes and 1 omission). These errors are subtracted from the revised figure of 38 total words attempted. Therefore, the number of correctly read words in this example would be 33.

Figure 3: A reading probe marked for words omitted



References

Hosp, M. K., Hosp, J. L., & Howell, K. W. (2007). *The ABC's of CBM: A practical guide to curriculum-based measurement*. New York: Guilford Press.

Wright, J. (2007). *The RTI toolkit: A practical guide for schools*. Port Chester, NY: National Professional Resources, Inc.



Curriculum-Based Measurement: Oral Reading Fluency Norms (Hasbrouck & Tindal, 2005)*

CBM-Oral Reading Fluency assesses general reading performance (Espin et al., 2010), as well as reading speed. In an oral reading fluency assessment, the student reads aloud from a passage for 1 minute. The reading sample is scored for words read correctly (WRC) and errors.

Grade	Percentile	Fall Oral Reading Fluency (Hasbrouck & Tindal, 2005)	Winter Oral Reading Fluency (Hasbrouck & Tindal, 2005)	Spring Oral Reading Fluency (Hasbrouck & Tindal, 2005)	Weekly Growth (Hasbrouck & Tindal, 2005)
1	50%ile		23	53	1.9
	25%ile		12	28	1.0
	10%ile		6	15	0.6
2	50%ile	51	72	89	1.2
	25%ile	25	42	61	1.1
	10%ile	11	18	31	0.6
3	50%ile	71	92	107	1.1
	25%ile	44	62	78	1.1
	10%ile	21	36	48	0.8
4	50%ile	94	112	123	0.9
	25%ile	68	87	98	0.9
	10%ile	45	61	72	0.8
5	50%ile	110	127	139	0.9
	25%ile	85	99	109	0.8
	10%ile	61	74	83	0.7
6	50%ile	127	140	150	0.7
	25%ile	98	111	122	0.8
	10%ile	68	82	93	0.8
7	50%ile	128	136	150	0.7
	25%ile	102	109	123	0.7
	10%ile	79	88	98	0.6
8	50%ile	133	146	151	0.6
	25%ile	106	115	124	0.6
	10%ile	77	84	97	0.6



References:

- Espin, C. Wallace, T., Lembke, E., Campbell, H., & Long, J. D. (2010). Creating a progress-monitoring system in reading for middle-school students: Tracking progress toward meeting high-stakes standards. *Learning Disabilities Research & Practice, 25*(2), 60-75.
- Hasbrouck, J., & Tindal, G. (2005). *Oral reading fluency: 90 years of measurement*. Eugene, OR: Behavioral Research & Teaching/University of Oregon. Retrieved from <http://brt.uoregon.edu>

***Reported Characteristics of Student Sample(s) Used to Compile These Norms:**

- **Hasbrouck & Tindal, 2005:** *Number of Students Assessed:* 88167 students in fall norming; 97237 students in winter norming; 112118 students in spring norming/*Geographical Location:* Nationwide/*Socioeconomic Status:* Not reported / *Ethnicity of Sample:* Not reported/*Limited English Proficiency in Sample:* Not reported.

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