Three third-grade students are seated across a table from their teacher, ready to read aloud. Lizzey goes first, reading the first paragraph of the story slowly, deliberately, and accurately. Isaac reads the next two paragraphs rapidly but makes several errors, which the teacher corrects. Leah reads the rest of the page smoothly and quickly. She makes one error but immediately corrects herself. As the students read, the teacher monitors their performance. Among the things she watches for is the accuracy with which the children read, as well as their rate.

This combination of accuracy and rate is known as oral reading fluency (ORF). It is expressed as “words correct per minute.” Fluency is an important skill to measure because it is considered a mark of a skilled reader. In general, less fluent readers have poorer comprehension (Carnine, Silbert, & Kameenui, 1990).

Teachers know that it is important to observe both accuracy and rate. When rate alone is considered, a student reading 100 words per minute with no errors appears to have the same proficiency as a student reading 100 words per minute with many errors. When only accuracy is considered, two students, both making five errors on a passage, may appear to have the same skill level, whereas one may have taken more than 3 minutes to complete the passage while the other read it in less than 1 minute. ORF is superior to both rate and accuracy alone, because it differentiates both kinds of students.

Assessments of oral reading fluency are used by teachers and specialists to make important classroom decisions including the following:

- Screening and determining eligibility of students for special programs (Marston, Mirkin, & Deno, 1984).
- Setting instructional goals and objectives (Deno, 1986; Deno & Fuchs, 1987).
- Placing students into instructional groups (Wesson, Vierthaler, & Haubrich, 1989).
- Monitoring academic progress toward achievement of goals and objectives (Fuchs & Fuchs, 1986).
- Making necessary adjustments to or changes in instruction (Fuchs, Deno, & Mirkin, 1984).

Placement and monitoring decisions require individually referenced information in which a student’s performance of a skill is measured over time and the results of prior efforts are compared to current performance (Tindal & Marston, 1990). Other decisions such as screening, determining program eligibility, and setting instructional goals and objectives require peer-referenced information involving comparisons with comparable peers (Deno, 1985). In these cases, performance standards are necessary so that teachers will know what is an “average” or “typical” performance to guide their decision making.

**Norms for Oral Reading Fluency**

Performance standards are typically derived from the scores of groups of students who take the same test (Gronlund, 1985). These standards are called norms, and they serve as benchmarks (often expressed as percentiles) to rank students’ performances. A percentile is interpreted as the percentage of individuals receiving scores equal to or lower than a given raw score (Gronlund, 1985). Ideally, norms are created from the performance of large numbers of students and over a consistent and stable standard.

Norm-referenced evaluations help teachers interpret their students’ performance. For example, teachers who want to evaluate students’ reading fluency could compare their ORF scores to norms.
compiled from a large group of students at the same grade level. If their performance was shown to be low compared to the norms, teachers could informally predict the need for remedial or specialized instructional programs for those students.

No large-scale norms currently exist for oral reading fluency. Researchers have offered normative standards for oral reading, but all of these standards have problems that limit their effectiveness, including (a) use of a scale too broad for making instructional decisions (e.g., giving only one ORF score for all second-grade readers), (b) unclear assessment or scoring procedures used with the original norm group, and (c) lack of information about the students in the norm group (program placement, geographic representation, and curriculum used for their reading instruction).

Starlin and Starlin (1974) suggested that students in grades 1 through 3 read 50 to 70 words per minute with two or fewer errors and readers in grades 4 through adult read between 100 and 200 words per minute with two or fewer errors. Such broadly defined norms, however, do not give enough information to teachers who need guidelines for placement, monitoring, or instructional decisions for individual students. For example, a fourth-grade student’s average ORF performance of 89 words per minute with three errors appears to fall below the guidelines. But is this student slightly below average or severely below? What are reasonable goals for improving the student’s oral reading?

Carnine, Silbert, and Kameenui (1990) presented guidelines for desired reading rates at various levels of instructional materials for students in grades 1 through 4.
and above. Since students in first through third grades typically make rapid and dramatic growth in their oral reading performance, the authors divided the first two grades into 3-month intervals and grade 3 into the first and second half of the school year and specified different rates within each of these divisions. This provides more sensitive and realistic comparisons than Starlin and Starlin’s (1974) guidelines. The rates suggested by Carnine and colleagues are listed by the instructional level of the materials, which may not be the students’ grade level. These guidelines appear to be for rate only, as opposed to fluency. Apparently errors are not considered, because the scores are listed as “words per minute on first reading” (p. 239). Carnine and colleagues (1979) stated that their suggested rates were based on their “observations, a review of rates specified on standardized tests and a study in which rates of students who did relatively well on comprehension tasks were recorded” (p. 301). The study to which they referred was not cited and no guidelines were given for selecting a sample passage or conducting and scoring the oral reading assessment.

These currently available guidelines for oral reading performance clearly leave room for improvement. School districts can develop local norms by collecting data on their own students’ ORF performance (Anastasi, 1988; Elliott & Bretzing, 1980; Kamphaus & Lozano, 1984). Much attention has been focused in the past few years on the use of curriculum-based measurement (CBM) by school districts for reliable and valid assessment and for creating useful local norms (see Shinn, 1989, for more information about CBM theory and procedures). Since the early 1980s, many school districts across the United States have been collecting data on students’ oral reading fluency using CBM procedures. Most of these districts have established local norms for screening students with special educational needs.

Unfortunately, existing ORF norms are inadequate since they (a) do not provide information on sensitive and useful scales; (b) are not always compiled from systematically collected data using standardized and validated procedures; and (c) do not represent a wide range of student abilities, geographic regions, and curriculum materials. This article presents new large-scale norms for oral reading fluency that address these three concerns.

Data Collection Procedures

All the districts contributing results to these large-scale norms used typical CBM data collection procedures to collect ORF data with these procedures. A 1-minute timed sampling of students’ oral reading was collected from at least two passages selected from the basal readers used in the classroom (Shinn, 1989). Students read passages from their grade-level text, regardless of their instructional level (e.g., a 5th-grade book). The passages should be representative in difficulty of the grade-level basal textbook or reader from which they are taken (Deno & Fuchs, 1987). Some districts using these procedures applied readability formulas to the selected passages to ensure reasonable grade-level difficulty. Others eliminated passages containing exceptionally difficult vocabulary or phrasing. The passages used in these normings were read “cold” and unpracticed by the students.

Districts assessing their students’ reading using CBM procedures conducted assessments consistently and systematically using trained personnel to employ the standardized procedures. All districts used the directions and scoring procedure suggested by leading proponents of CBM (see Figure 1).

Data were collected from 1981 through 1990 from 7,000 to 9,000 students in grades 2 through 5 in five mid-western and western states. These data were compiled to establish large-scale ORF norms. The students were sampled from entire school programs, and students from remedial or compensatory and special education programs were represented in numbers typical of average school districts.

Although the data were all collected using standardized CBM procedures, there were notable differences among the test groups. First, the schools in which the assessments were administered varied in nature, ranging from a large urban district to racially mixed suburban and small city districts, to a rural cooperative district comprised of many small, isolated schools.

Second, the types of curriculum materials were diverse. All districts provided reading instruction primarily from the published basal programs, but some used curricula that emphasized decoding skills while others used readers based on principles of whole-word reading, with large numbers of high-utility, irregular words in their stories. The programs included the Bookmark Reading Program (Harcourt, Brace,
Jovanovich, 1979), the *Scribner Reading Series* (Scribner Educational Publishers, 1987), and *An American Tradition Series* (Scott, Foresman, 1987), as well as others.

Finally, in most cases, school districts contributing to this database compiled their own local percentile norms for three time periods: fall, winter, and spring. In some cases, however, the districts collected ORF data only once or twice per year. The ORF “words correct per minute” scores from the 75th, 50th, and 25th percentiles from each district were used when available; otherwise the median score (or 50th percentile) from a grade was used. ORF scores compiled from eight school districts’ CBM norms are presented in Table 1. These scores demonstrate the range of ORF rates between students at the bottom and top 25% of their grade (25th and 75th percentiles) during three periods of the school year.

### Classroom Uses For ORF Norms

Given the large number of students in this database, the range of population demographics and reading curriculum materials represented, and the fact that the data were systematically collected over a 9-year period using standardized and validated procedures, these compiled norms can be considered stable benchmarks.

---

**Figure 1**

**Curriculum-Based Measurement Procedures for Assessing and Scoring Oral Reading Fluency**

*Say to the student:* When I say ‘start,’ begin 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?

**Say, Start.**

Follow along on your copy of the story, marking the words that are read incorrectly. If a student stops or struggles with a word for 3 seconds, tell the student the word and mark it as incorrect. Place a vertical line after the last word read and thank the student.

The following guidelines determine which words are to be counted as correct:

1. **Words read correctly.** Words read correctly are those words that are pronounced correctly, given the reading context.
   a. The word “read” must be pronounced “reed” when presented in the context of “He will read the book,” not as “red.”
   b. Repetitions are not counted as incorrect.
   c. Self-corrections within 3 seconds are counted as correctly read words.

2. **Words read incorrectly.** The following types of errors are counted: (a) mispronunciations, (b) substitutions, and (c) omissions. Further, words not read within 3 seconds are counted as errors.
   a. Mispronunciations are words that are misread: dog for dig.
   b. Substitutions are words that are substituted for the stimulus word; this is often inferred by a one-to-one correspondence between word orders: dog for cat.
   c. Omissions are words skipped or not read; if a student skips an entire line, each word is counted as an error.

3. **3-second rule.** If a student is struggling to pronounce a word or hesitates for 3 seconds, the student is told the word, and it is counted as an error.

for oral reading fluency. Since it is likely that locally developed ORF norms would mirror the results of these compiled norms, school districts interested in establishing CBM norms for oral reading fluency can avoid the considerable time and expense involved in conducting a full-scale norming.

Teachers with students in grades 2 through 5 can use the well-established, systematic CBM procedures for collecting ORF data along with these new empirically based norms to make peer-referenced judgments about their students’ oral reading fluency skills as a basis for the following important instructional decisions:

1. Teachers can develop IEP goals for their students’ oral reading fluency with increased confidence and accuracy because the norms give a clear picture of typical progress in reading fluency of low-performing students across the year and across grades. Therefore, teachers can set ORF goals that can reasonably be achieved.

2. Monitoring students’ progress toward achievement of ORF goals can be accomplished accurately and systematically because the well-defined CBM assessment procedures can be used consistently by teachers and instructional assistants.

3. Special programs in reading often require systematic screening procedures and standards for determining eligibility (Shinn, 1989). ORF norms can be used to determine criteria for these important decisions.

4. ORF norms can help teachers provide more complete information about students’ progress to their parents. In addition to individually referenced comparisons (“Your child is reading 15 more words correctly per minute than at the beginning of the year”), a teacher can give parents information about how their child is reading in comparison to others at his or her grade level.

5. Other important classroom-level decisions such as groupings; selecting appropriate reading materials; and changing the pace, sequence, or content of reading instruction (Carmine, Silbert & Kameenui, 1990; Wesson, Vierthaler, & Haubrich, 1989) can also be assisted by the use of these curriculum-based ORF norms.

Jan E. Hasbrouck (CEC Chapter #375) is a doctoral candidate and Coordinator of the Consultation Training Programs, and Gerald Tindal (CEC Oregon Federation) is an Associate Professor, Division of Special Education, College of Education, University of Oregon, Eugene.
References


Tindal, G.A., Marston, D.B. (1990), Classroom-Based Assessment, Columbus: Merrill.