Mrs. Bertram sat at her desk and sighed as she read the multifactored evaluation in front of her. Mario, one of her fifth-grade inclusion students, had just been evaluated and found eligible for special education services in reading, math, and written expression. She felt confident about developing meaningful individualized education program (IEP) goals and objectives for reading and math, but writing was in many ways more difficult to target. First, there are so many sub-skills involved in writing that she felt overwhelmed with trying to prioritize his deficits in order to write goals and objectives for his IEP. Second, the assessment of written expression was so much more subjective. Mario could write a thoughtful and creative narrative that she rated as rather good, but that his language arts teacher, Mr. Martin, found too riddled with errors to merit a passing grade. The 4-point rubric that Mr. Martin used to assess student writing was not a sensitive enough measure to capture the small improvements that students make in written expression. She knew Mario should be writing every day, but assessing that much writing took much of her time. His general education teachers often did not require much writing, so she had to somehow include it in his resource room time, but she admitted she found it difficult to find the time to have her students write in class, so they often wrote for homework. They typically wrote so very little that she couldn’t tell if they were improving or not. Mario, in fact, often did not write enough for Mr. Martin to even provide a score on the 4-point rubric.

How could she develop goals and objectives for written expression that could be reliably measured by either her or Mr. Martin? Were there fluency measures for writing similar to those for reading and math? Were there easy-to-use, reliable, and valid writing assessments that could help her determine what skills Mario should be working on?

What’s the Problem?
Setting meaningful individualized education program (IEP) goals and objectives is one of the challenges that special education teachers face. In written expression, this task is even more difficult. Not only is assessing writing a subjective and difficult endeavor, but writing itself is a complicated task. Proficient writing is a demonstration of many skills including, but not limited to, spelling, usage, punctuation, capitalization, sentence structure, ideation, summarization, and critical thinking. Because many students with disabilities struggle with written expression, these skills should be targeted for instruction, but it is unrealistic for teachers to create IEP objectives for each skill area. Teachers need to know how to prioritize each student’s written expression deficits, and they need access to measures that are efficient indicators of overall writing performance.

What’s the Solution?
Curriculum-based measurement (CBM), an alternative to informal observation and standardized testing (Deno, 1985), is one tool teachers can use to assess academic skills, develop meaningful IEP objectives, and target instruction. This article provides teachers with information about CBM, various measures for written expression, and how to use those measures in assessment and throughout the IEP cycle (i.e., setting goals, informing instruction, monitoring progress, and sharing performance data).

What Is CBM?
CBM is a fluency-based evaluation approach intended to give teachers a means to monitor a student’s progress...
within the curriculum, encouraging immediate instructional adjustment when necessary. CBM is characterized by direct, reliable, and valid measures; simple, efficient, and inexpensive protocols; and easy-to-understand graphic displays of data (Deno, 1985).

Examples of common curriculum-based measures are number of words read aloud correctly in 1 minute for reading and number of correct digits written in 2 minutes for math. There are several curriculum-based measures used in written expression including total words written, words spelled correctly, correct writing sequences, correct writing sequences minus incorrect writing sequences, correct punctuation marks, and total different words.

**Why Should I Use CBM?**

There are many compelling reasons for using CBM in written expression. First, for special education teachers, using CBM can be an integral part of the IEP. Teachers who use CBM for progress monitoring are easily able to write meaningful, measurable goals and objectives for their students. CBM can (a) support IEP teams in meeting legal mandates for progress monitoring (Etscheidt, 2006); (b) give teachers an alternative to holistic and percent-correct measures that impose artificial ceilings (see box, "The Limitations of Holistic Scoring and Percent Correct"); (c) provide measures that are valid, reliable, and sensitive to incremental changes (see box, "What Does the Research Say About Using CBM to Assess Writing Skills?"); (d) allow for frequent assessment of writing without requiring students to produce fully developed pieces; and (e) provide a "picture" of student performance to facilitate sharing of information about progress with students, families, and other IEP team members.

CBM also improves instruction by informing teachers of the need to change or improve teaching strategies (Deno, 2003). The IEP document itself is only useful if it is an effective tool for instruction, that is, if it is created not only to fulfill the letter of the law but also as a guide to produce student progress and achievement (Heward, 2008).

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For 2 decades, CBM has gradually become more visible, particularly in reading and mathematics (e.g., Crawford, Tindal, & Stieber, 2001; Ysseldyke, Betts, Thill, & Hannigan, 2004). Use of CBM to monitor student progress in written expression has not seen the same popularity. Only in recent years has the research literature seen an increase in the use of CBM in written expression as schools and teachers face the realities of federal legislation that requires more specific accountability and high-stakes testing, particularly in the special education population. In the current climate of accountability, and with the trend of response-to-intervention (RTI) models, CBM also provides teachers with data they can use to document student progress (see box, "The Era of Accountability and Response to Intervention").

**How Do I Use CBM?**

To allow for comparison among students and to track intra-individual growth, teachers should administer writing probes using consistent procedures. Specifically, teachers should provide students with a writing prompt (i.e., story starter); a minute of "think time"; and 3 minutes of writing time (Powell-Smith & Shinn, 2004). Once students have finished writing, teachers should collect their samples and score them using one or more of the measures.

**Measures**

There are several metrics that are used as curriculum-based measures in written expression. The appropriate meas-
The Limitations of Holistic Scoring and Percent Correct

Curriculum-based measurement in written expression offers an alternative for teachers who are struggling with ways to assess and score their students’ writing. Not only are CBM measures valid and reliable, CBM is more sensitive than traditional holistic scoring to incremental growth over time. A holistic scoring system may require that teachers assess students’ writing on a scale of 1 to 4. For a student to move up on such a scale takes a significant amount of time and instruction. How do teachers track the incremental growth that they hope is occurring as students’ skills are moving them from a score of 1 to 2 or 2 to 3? And unfortunately, a student can improve on components of his or her writing and still earn the same holistic score. Even more important, how does a teacher know when a student is not making adequate progress? With CBM, these sensitive changes in the data are available to teachers so they can make appropriate and important instructional decisions.

Additionally, CBM is a better alternative than the percent correct measure often used in IEP development. Because CBM includes fluency measures, there is no artificial ceiling imposed as there is when teachers use percent correct as a benchmark (Binder, 2003). A student accomplishing an academic task with 100% accuracy demonstrates a higher level of achievement if he does so with greater speed. A commonly accepted example of increased mastery that is due to fluency occurs in the content area of reading: A student who reads 109 words accurately in 1 minute is achieving at a higher level than a student who reads only 60 words accurately in that 1 minute. Using percent correct as the only measure in reading would mask any improvements either student makes in speed, and therefore, fluency. This same principle of fluency applies to written expression. A student who writes five sentences or 42 words with minimal errors is likely writing at a more advanced level than a student who writes two sentences or 17 words with minimal errors. If each student had the same ratio of errors to words, an accuracy-only measure such as percent correct would reveal identical scores, an incomplete—if not inaccurate—picture of performance. Although these students may have different holistic scores, any incremental improvement might not “show up” until overall significant improvement is noted, and without a fluency measure, an instructor might not have the information needed to provide the feedback necessary for performance improvement.

Further, CBM provides a kind of “picture” of student performance that holistic scores and percent correct numbers do not. These pictures of performance capture and show the incremental changes that lead to larger, more noticeable-to-the-naked-eye results, which facilitate sharing information about progress with students, families, and other IEP team members.

CBM process by teaching them to count and graph these data using bar graphs (Kasper-Ferguson & Moxley, 2002; Stotz, Itoi, Konrad, & Alber-Morgan, 2008).

Words Spelled Correctly. As students get older, it becomes important not only to measure how much a student is writing but also to attend to the quality of that writing, including spelling. To score a writing sample for words spelled correctly (WSC), the teacher simply reads the sample, circles any words that are spelled incorrectly, and then subtracts the number of words spelled incorrectly from TWW.

(Powell-Smith & Shinn, 2004). These data can be plotted on the same graph as TWW so that there is a visual display documenting the discrepancy between TWW and WSC.

Correct Writing Sequences. To get an even better measure of writing quality, teachers can use the same 3-minute writing samples and count correct writing sequences (CWS). A CWS is defined as “two adjacent correctly spelled words that are acceptable within the context of the phrase” (Videen, Deno, & Marston, 1982, p. 3); correct capitalization and punctuation are considered when counting CWS. To determine CWS, the scorer marks each writing sequence as correct (✓) or incorrect (✗). For example, the following sample contains 8 CWS:

> My mom took me to the park yesterday.

Incorrect Writing Sequences Minus Correct Writing Sequences. For more mature writers, the number of correct writing sequences minus the number of incorrect writing sequences (CWS-IWS) is a better predictor of writing quality (Espin et al., 2000). To determine CWS-IWS, subtract the number of IWS from the number of CWS. For example, the following sentence contains 8 CWS and 3 IWS, resulting in a CWS-IWS of 5:

> My mom took me to the park yesterday.

Correct Punctuation Marks. Another emerging measure is number of correct punctuation marks (CPM; Gansle, Noell, VanDerHeyden, Naquin, & Slider, 2002; Gansle, et al., 2004). Using the same 3-minute writing sample, teachers simply count the number of punctuation marks students used correctly in their writing. For example, the following writing sample, which is correctly punctuated, contains four CPM:

Next, you take the peanut butter, jelly, and bread to the counter.

This sample, on the other hand, only includes one CPM (i.e., the period):

Next you take the peanut butter jelly and bread to the counter.
What Does the Research Say About Using CBM to Assess Writing Skills?

Curriculum-based measures have been found to be valid and reliable indicators of overall writing performance for students without disabilities and those with high-incidence disabilities. These measures serve as particularly strong indicators in the elementary grades and become less technically adequate in the higher grades. Although the bulk of the research has been conducted with younger students and those with less involved disabilities, we encourage all teachers of older students and those with more severe disabilities to supplement their current assessment practices with some form of curriculum-based measurement.

Reliability

It is important to use reliable measures so that when a teacher compares a student’s growth over time there is relative certainty that the results are consistent. The following measures have been found to be reliable: total words written, words spelled correctly, and correct writing sequences (e.g., Espin, Scierka, Skare, & Halverson, 1999; Espin et al., 2000).

Validity

It is also important that measures are valid so that the 3-minute writing samples serve as accurate indicators of writing performance. In order to assess validity, researchers have correlated various CBM measures with standardized writing tests, district writing assessments, and teachers’ ratings of student writing and found that different measures are valid for different age groups (Powell-Smith & Shinn, 2004). As students’ writing gets more sophisticated, so too should the measures used to assess their writing. The following measures have been found to be valid for elementary students: total words written; words spelled correctly (Deno, Marston, & Mirkin, 1982); correct writing sequences (Parker, Tindal, & Hasbrouck, 1991); and correct punctuation marks (Gansle, Noell, VanDerHeyden, Naquin, & Sli- der, 2002; Gansle, et al., 2004). Valid measures for middle school students include correct writing sequences and correct writing sequences minus incorrect writing sequences (Espin et al., 2000). There is less research available identifying which CBM metrics are quality indicators for high school students. However, there is some evidence supporting a combination of measures (Espin, Scierka, Skare, & Halverson, 1999). We recommend that teachers of students of all ages consider using a combination of measures and select measures that target their students’ needs (see Table 1). What is most important is that in addition to collecting data, teachers should use the error analysis matrix to drive their instruction.

The Era of Accountability and Response to Intervention

The federal legislation known as No Child Left Behind requires that states assess students in reading, math, and science. Schools that do not make progress toward yearly proficiency goals (i.e., that do not make adequate yearly progress, or AYP) face sanctions. Although written expression is not specified in the law, many of the states’ reading, math, and science tests require students to write to demonstrate knowledge in those content areas.

When IDEA was reauthorized and amended in 2004, one important change and one important clarification gave practitioners an alternative option to identify students with specific learning disabilities. In the previous ideation, a discrepancy needed to be present, that is, a student had to fail to achieve in the presence of adequate overall ability. In the reauthorization, that discrepancy model for identification was changed from “mandatory to nonmandatory status” (Zirkel, 2006). Congress also clarified “that the criteria adopted by the State must permit the use of a process based on the child’s response to scientific, research-based intervention” (Assistance to States, 2006, p. 46543).

Response to intervention (RTI), an emerging approach to identifying students with disabilities, is just such a process.

RTI is a three-tiered approach to providing “increasingly intensive help to our most academically vulnerable children” (Fuchs & Deshler, 2007, p. 129). Tier 1 consists of delivering scientifically validated instruction and assessment to a large group of students (e.g., an entire grade level in a school; Johnson, Mellard, Fuchs, & McKnight, 2006). In Tier 2, more intensive, small group instruction is provided for students who, through progress monitoring and assessment, have demonstrated lack of achievement at a predetermined level (Johnson et al.). The predicted small percentage of students who still fail to achieve in Tier 2 are provided even more intensive instruction and/or supports in order to facilitate academic success at the predetermined and aforementioned level; individualization of supports might be necessary, hence, students not progressing and/or achieving in Tier 2 might be eligible for special education (Johnson et al.).

Because RTI requires frequent progress monitoring of student performance, CBM is a logical choice for use in this model. Effective progress monitoring is done frequently (e.g., weekly) and, in order to be more teacher/user-friendly, is best when done in short, timed sessions with easy-to-use measures. Curriculum-based measures fit the bill for these criteria.
Number of Different Words. Teachers may also be interested in using these writing samples to collect information about students' vocabulary development because varied word choice is an indication of writing quality. Minner, Prater, Sullivan, and Gwaltney (1989) suggest counting the number of different words in a student's writing sample in order to capture his or her vocabulary usage. Specifically, teachers should read the sample, mark each repeated word, and then count all unmarked words to yield the total number of different words. For example, the following sample contains eight different words:

I have a big dog, a big cat, and a big house.

This sample, on the other hand, includes 11 different words.

I have a big dog, an enormous cat, and a mammoth house.

Determining Strengths, Needs, Goals, and Objectives

Stecker (n.d.) recommends using CBM to assist with writing present levels of performance and goals and objectives for IEPs. Specifically, IEP teams can use the same language and format for the present level of performance and the objectives. For example, a statement within a student's present level of performance (PLOP) may read, "When given a story starter and 1 minute of think time, Juan is currently able to write 27 correct writing sequences in 3 minutes." An annual goal for that student might read, "When given a story starter and 1 minute of think time, Juan will be able to write 43 correct writing sequences in 3 minutes." To determine short-term objectives, or benchmarks, the team then simply subtracts the student's current performance score from the goal and divides that difference by the number of progress reporting periods that will occur over the next year. In this example, benchmarks would be determined using the following formula:

\[
\text{benchmark} = \frac{\text{goal} - \text{PLOP}}{\# \text{ of progress reporting periods}}
\]

or

\[
\text{benchmark} = \frac{43 \text{CWS} - 27 \text{CWS}}{4 \text{ reporting periods}} = 4 \text{ CWS per benchmark}
\]

Therefore, each benchmark should represent an increase of 4 CWS over the previous benchmark. Juan's benchmark marks, then, would be written as follows:

- When given a story starter and 1 minute of think time, Juan will be able to write 31 correct writing sequences in 3 minutes.
- When given a story starter and 1 minute of think time, Juan will be able to write 35 correct writing sequences in 3 minutes.
- When given a story starter and 1 minute of think time, Juan will be able to write 39 correct writing sequences in 3 minutes.
- When given a story starter and 1 minute of think time, Juan will be able to write 43 correct writing sequences in 3 minutes.

As the example illustrates, the final benchmark (or short-term objective) is the same as the annual goal.

What may present a challenge for teachers and other team members is determining how much growth to expect in a year. What amount of increase represents an ambitious, yet realistic, target? There is no one exact formula that will work for all children; however, teachers should base their decisions on a combination of professional judgment, input from all members of the IEP team, and normative local norms.

Establishing Local Norms

For some measures, published norms are not available, so teachers may want to establish local norms. Kaminski and Good (1998) describe the following procedure for establishing local norms. The first step in this process is to define the term local. Specifically, determine the reference group to which you wish to compare student performance: individual classroom, building, or district. Next, collect data (i.e., in this case, administer and score writing samples) for all students in the group. Then rank order the students' scores to determine who is most in need of intervention. The average (mean or median) of the group's scores might then serve as a reasonable target (Hosp, Hosp, & Howell, 2007), particularly for lower performing students. However, Hosp et al. caution that in schools or districts that are performing poorly, using the average scores may not encourage setting ambitious goals.

Another suggestion involves using teacher nomination of competent writers. For example, at the end of the school year, classroom teachers could nominate students who passed the state writing test and who they considered competent writers (i.e., not necessarily their strongest writers but those students who met grade level expectations). These students' end-of-year, 3-minute writing samples could then be scored using various CBM measures. The median scores for each of these measures could then be used as targets for the next group of students entering that grade level.
Internet Resources to Assist Teachers With Curriculum-Based Measurement

http://www.aimsweb.com/

This is a commercial Web site named for a system that is directed toward large user groups, although individual teachers can benefit from the program. Participation in the program has a cost associated, but there is some useful information provided at no cost. A national sample of normed data and expected rates of improvement are available, as well as probe materials and scoring protocols.

http://www.precisionteachingresource.net/

This Web site provides instruction, tools, and performance standards for improving academic and social behaviors using the instructional measurement practice called Precision Teaching. Precision Teaching utilizes fluency measures charted on a standard celeration chart. This site provides several free downloads, including a compilation of performance standards, practice sheets for charting, charting tutorials, and links to related sites, including where to access free celeration charts.

http://www.studentprogress.org/

Sponsored by the U.S. Office of Special Education Programs (OSEP), this Web site provides information on monitoring student progress including what it is, how it works, what the benefits and challenges are, and who should do it.

http://www.progressmonitoring.net/

A University of Minnesota-sponsored Web site for the Research Institute on Progress Monitoring (RIPM) federally funded by OSEP, this site provides resources related to progress monitoring research but also provides some potentially useful downloads, including one on utilizing CBM for the secondary population.

http://www.interventioncentral.org/

A site developed especially for educators, it provides information about CBM and other strategies that promote academic success, including interventions and assessment tools. Downloadable content includes video and manuals. Links to Internet tutorials are also provided, as are various useful online tools, such as a CBM chart maker and a behavior report card generator.

data (i.e., established benchmarks, published rates of improvement, and/or local norms; see boxes: “Establishing Local Norms” and “Internet Resources to Assist Teachers With Curriculum-Based Measurement”). Generally, it is better to err on the side of goals that are too ambitious as research has shown that more ambitious goals lead to greater gains in achievement (Fuchs, Fuchs, & Deno, 1985). Determining reasonable annual goals may seem challenging at first; however, as teachers become more practiced with this method, their confidence estimating expected growth will increase.

Once the teacher or team has determined an appropriate goal for the student, an aimline should be drawn on the graph so that the student’s progress over time can be compared to the expected growth. Simply stated, an aimline is a diagonal line segment that connects the student’s current performance (baseline data) with the performance goal. To be sure the baseline data accurately reflect the student’s current performance, it is wise for the teacher to collect a minimum of three baseline data points (West, Young, & Spooner, 1990). The teacher can then use the median baseline score as the starting point for the aimline (see Figure 1 for an example of a graph depicting a student’s baseline data). As the teacher collects CBM data over the course of the grading period or school year, these data are plotted on the graph. As each data point is plotted, the teacher should ask, “Is the student at or above the aimline?” If the student is progressing right along the aimline, the teacher can assume that instruction is appropriate for that student.

However, if the student’s data begin to show a trend below the aimline (e.g., three consecutive points below the aimline), the teacher should seriously examine his or her instruction and other classroom factors that may be affecting the student’s performance. Does this student need supplemental minilessons? Might this student benefit from a self-monitoring intervention? Which specific areas need to be target-

![Figure 1. Sample Graph](image-url)

James’s Writing Progress

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Three Baselines Points</th>
<th>Median Baselines Points</th>
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**Written Expression Error Analysis for Biweekly 3-Minute Writing Probes**

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<th>Skills</th>
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<td>Example: Blends and digraphs errors</td>
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<td><strong>Style</strong>: ✓ means sufficient/competent; — means needs to be targeted for instruction</td>
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ed (see Figures 2 and 3)? Teachers should not lower the goal, particularly if this goal was written into an IEP, until all other options have been exhausted and the IEP team reconvenes. Conversely, for a student whose data are consistently above the aimline (e.g., six consecutive points above the aimline), it might be prudent to raise the student’s goal. Again, if this goal was written in the student’s IEP, it is a good idea to reconvene the team to discuss this option.

**Using CBM to Facilitate Student and Family Involvement in the IEP Process**

Another advantage of using CBM to monitor student progress is that it can help facilitate student and family involvement in the IEP process. Because the data are displayed graphically, it is easy to show students and their families how a student is doing. When it is time to send home a progress report, teachers can send a graph along with a narrative. Parents and students can see at a glance how the student is doing in relation to the aimline. It is clear: Is the student progressing along the aimline or above or below it? Empowered with information, families can initiate action prior to the annual review and be more active participants in IEP meetings and parent-teacher conferences.

Additionally, if students learn how to self-monitor and self-graph CBM data, they can be in charge of sharing their own graphs at IEP meetings. As they get more involved in collecting their own data, students can also learn to write their own present levels of performance, IEP goals and objectives, and progress reports. This is a good way to facilitate student-led conferences and help students see that the IEP is more than just a meeting but rather a cycle that continues throughout the year. For more practical tips on how to involve students throughout the IEP cycle, see Konrad (2008).

**Informing Instruction**

One critical advantage of using CBM is its usefulness in informing instruction. Having a visual display of students'
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<td>Commas between 2 independent clauses</td>
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<td><strong>Style:</strong> ✓ means sufficient/competent; — means needs to be targeted for instruction</td>
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Figure 3. Sample Error Analysis Matrix

Written Expression Error Analysis for Biweekly 3-Minute Writing Probes

Student: Camille W. School Year: 2008-09

N.O. = no opportunity (i.e., the student did not have the opportunity to use the writing skill)

performance in relation to an aimline equips teachers with important information about whether or not their instruction is working. One tool to help teachers make instructional decisions is an error analysis matrix (see Figures 2 and 3). When teachers score their students' writing samples using a quality metric such as CWS, not only should they mark corrects and incorrects, but they should be examining the incorrects to see what types of errors their students are making. The matrix can be individualized to each teacher's curricular goals and/or to each student's specific needs. The teacher simply lists the types of errors most often seen (using the actual samples and/or grade-level expectations) and then tallies the errors in the students' writing samples. The style evaluation portion of the error analysis matrix is also important because there may be students who compose errorless writing samples that are unsophisticated (e.g., lack of sentence variety, weak organization). Information obtained from the matrix is then used to make decisions about what to teach and to whom. When several students are making similar kinds of errors, the teacher should design group instruction (e.g., mini-lessons) to target these skills. If only a few students are making certain errors, teachers should design some small-group or one-on-one lessons to help these students with their specific needs.

**How Often Do I Collect CBM Data?**

Teachers may wonder how often they need to collect CBM data. There is no single best answer to this question because the frequency may depend on several factors, such as the needs of
CBM is a simple way of assessing student work objectively.

the student, the frequency of IEP progress reports, and contextual factors (e.g., school schedules). At a minimum, teachers should collect and score samples when it is time to send home IEP progress reports to parents (e.g., every 6 weeks or every quarter). However, to be truly effective, teachers should be collecting and examining data much more frequently than this, and the greater the needs of the student, the more frequent data collection should take place. We recommend aiming for weekly writing samples. Given that the probes can be administered to a group of students (rather than one-on-one) and that they only take a few minutes to administer and score, this is a reasonable goal for most classroom teachers.

Using CBM Within the Writing Process
Given that the writing process takes time from prewriting to “publishing” a final product, teachers’ schedules and competing demands prevent producing—and assessing—more than a few fully developed pieces a year. CBM allows for frequent assessment with writing samples that do not need to be fully developed. With CBM, teachers can have students frequently produce brief writing samples that can be scored. Although these samples are not fully developed, they serve a purpose for both teacher and student. Teachers can monitor progress on an ongoing basis, whereas students can practice writing frequently. To increase practice opportunities, teachers should allow for students to write for longer periods, but need only assess the first 3 minutes of writing. In this case, have students make a mark at the end of the 3-minute-period and let them continue writing. Because fully developed pieces are an important part of a child’s writing portfolio, Alber-Morgan, Hessler, and Konrad (2007) suggest that students use “ideas from CBM samples” as a launch into the prewriting stage” (p. 124) to produce final products, which may then be scored holistically.

Summary
CBM is an approach to monitoring student progress through direct measurement of academic skills (Marston, 1989). CBM is a simple way of assessing student work objectively. It allows for frequent assessment points so teachers can determine whether instruction or intervention is working and then make changes to their teaching accordingly. CBM allows for an easy display of students’ data so that students and parents can be involved in the assessment process. As teachers hone their skills using CBM, they may want to access additional resources to improve student outcomes in written expression and other skill areas (see box: “Internet Resources to Assist Teachers With Curriculum-Based Measurement”).

In addition, although the research to date has focused on children with less involved or no disabilities, there is an emerging body of research that indicates that students with intellectual disabilities can learn to express themselves with writing. As the field begins to include students with more involved disabilities in academic instruction, there will be a need to develop measurement procedures that are appropriate for this population. We encourage teachers of students with low-incidence disabilities to experiment with adapting CBM measures to supplement the assessment methods already in use for monitoring their students’ progress.

Mrs. Bertram sat at her desk and heaved a sigh...of relief! She had just finished scoring her class’s weekly CBM writing samples and graphing the resulting data. She could easily tell from the graphs that her students were progressing nicely along their aim-lines. They were all producing more written language, which made it easier for her to provide essential feedback (e.g., praise for creative word choices and correction of errors). Their longer writing samples also gave her feedback on what she needed to target in her minilessons. Using her checklists, she

noted that next week she should teach comma use in a series. She was looking forward to this evening’s parent-teacher conferences in which her students were going to practice their student-led conferencing skills. Mario especially was excited to share his graph showing steady upward movement of his total words written and correct writing sequences. He was also proud to show off what he considered the best piece from his writing portfolio, “Shipwrecked!”—a story that started as one of the weekly progress monitoring prompts that he had chosen to take through the entire writing process. He thought it was a good story and the longest he had ever written, and Mr. Martin had given it a 3, which on the 4-point rubric that Mr. Martin uses was definitely high enough to pass the state writing assessment. Mr. Martin has been so impressed with Mario’s improvement that he has begun progress monitoring using CBM, too. Mrs. Bertram has been asked by her principal to teach other special education teachers how to use CBM to identify IEP goals and inform their instruction. Although it is still challenging, she finally feels comfortable and confident teaching and assessing written expression.

References


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