



# How To: Track Growth in Written Expression in the Elementary Grades With CBM

The act of writing is complex. Translating thought into written expression requires that the student master a host of foundation writing skills, including the physical production of text; and mastery of rules of capitalization, spelling, punctuation, and syntax (Robinson & Howell, 2008).

Tracking student growth in emerging writing skills can be confusing and time-consuming for teachers. However, Curriculum-Based Measurement-Written Expression (CBM-WE) is an efficient, reliable method of formative student assessment that yields numeric indicators that are instructionally useful—such as total words written, correctly spelled words, and correct writing sequences (Gansle et al., 2006). CBM-WE probes are group-administered writing samples with an administration time of about 4 minutes. CBM-Written Expression is therefore a powerful means to monitor a student's progress in the mechanics and conventions of writing.

**CBM-Written Expression: What It Measures.** Teachers have several assessment options to choose from when using CBM-Written Expression (Gansle et al., 2006; Wright, 1992):

- *Total Words Written (TWW):* This measure is a count of the total words written during the CBM-WE assessment. Teachers might select Total Words Written as a progress-monitoring target if the student needs to focus on writing fluency (getting more words onto the page).
- *Correctly Spelled Words (CSW):* This measure is a count of correctly spelled words written during the CBM-WE assessment. If poor spelling is a blocker to student writing, the teacher may select this monitoring target.
- *Correct Writing Sequences (CWS):* This measure is a tabulation of correct 'writing sequences' written during the CBM-WE assessment. One Correct Writing Sequence is scored whenever two adjacent units of writing (e.g., two words appearing next to each other) are found to be correct in their punctuation, capitalization, spelling, and syntactical and semantic usage. When the student is expected to have mastered the basic mechanics and conventions of writing, Correct Writing Sequences are a useful method to track this group of interrelated skills.

**CBM-Written Expression Fluency Measures: How to Access Resources.** Teachers who wish to screen their students in basic writing skills can obtain these free CBM-Written Expression assessment resources: (1) materials for assessment, (2) guidelines for administration and scoring, and (3) research-based norms.

- *Materials for assessment.* Schools can create their own CBM Written Expression Fluency assessment materials at no cost, using the Written Expression Probe Generator, a free online application:  
<http://www.interventioncentral.org/tools/writing-probe-generator>

This program allows the user to customize and to generate printable story-starter worksheets in PDF format.

- *Guidelines for administration and scoring.* Instructions for preparing, administering, and scoring CBM-Written Expression assessments appear later in this document:
- *Research-based norms.* A table, *Curriculum-Based Measurement: Written Expression Fluency Norms*, is included in this document. The norms include fluency benchmarks for grades 1-6 (Malecki & Jewell, 2003) and growth norms for grades 1-4 (Tadatada, 2011).

## References



Gansle, K. A., VanDerHeyden, A. M., Noell, G. H., Resetar, J. L., & Williams, K. L. (2006). The technical adequacy of curriculum-based and rating-based measures of written expression for elementary school students. *School Psychology Review, 35*, 435-450.

Malecki, C. K., & Jewell, J. (2003). Developmental, gender, and practical considerations in scoring curriculum-based measurement writing probes. *Psychology in the Schools, 40*, 379-390.

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Robinson, L. K., & Howell, K. W. (2008). Best practices in curriculum-based evaluation & written expression. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology V* (pp. 439-452). Bethesda, MD: National Association of School Psychologists.

Tadatada, A. (2011). *Growth rates of curriculum-based measurement-written expression at the elementary school level*. Unpublished master's thesis, Western Kentucky University, Bowling Green.

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# Curriculum-Based Measurement-Written Expression: Guidelines for Use

## CB-Written Expression: Description (McMaster & Espin, 2007)

CBM-Written Expression probes are simple to administer and offer several scoring options. Written-expression probes may be given individually or to groups of students. The examiner prepares a lined composition sheet with a story-starter sentence or partial sentence at the top. The student thinks for 1 minute about a possible story to be written from the story-starter, then spends 3 minutes writing the story. The examiner collects the writing sample for scoring. Depending on the preferences of the teacher, the writing probe can be scored in several ways, as explained below (from Wright, 1992).

## CBM-Written Expression: Materials

The following materials are needed to administer CBM-Written Expression probes:

- Student copy of CBM writing probe with story-starter (the process for creating story-starters is described below)
- Stopwatch
- Pencils for students

## CBM-Written Expression: Preparation

Before administering CBM-Written Expression, the teacher selects a 'story starter' (a brief introductory sentence or partial sentence) to serve as a prompt to elicit student story writing. The teacher selects a story-starter and places it at the top of a lined composition sheet. The story-starter should avoid wording that encourages students to generate lists. It should also be open-ended, requiring the writer to build a narrative rather than simply to write down a "Yes" or "No" response.

Schools can create their own CBM Written Expression Fluency assessment materials at no cost, using the Written Expression Probe Generator, a free online application: <http://www.interventioncentral.org/tools/writing-probe-generator>

This program allows the user to customize and to generate printable story-starter worksheets in PDF format.

The CBM writing probe in Figure 1 is an example of how a such a probe might be formatted. (This particular probe was used in a 5th-grade classroom.):

Figure 1: Example of a CBM writing probe

<p><b>CBM Writing Probe</b></p> <p>Name: _____ Grade: _____ Date: _____</p> <p>One day, I was out sailing. A storm carried me far out to sea and wrecked my boat on a desert island. _____</p> <p>_____</p> <p>_____</p>
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### CBM-Written Expression: Directions for Administration

1. The examiner distributes copies of CBM writing probes to all the students in the group. (Note: These probes may also be administered individually).
2. The examiner says to the students: *I want you to write a story. I am going to read a sentence to you first, and then I want you to write a short story about what happens. You will have 1 minute to think about the story you will write and then have 3 minutes to write it. Do your best work. If you don't know how to spell a word, you should guess. Are there any questions? For the next minute, think about . . .* [insert story-starter].
3. The examiner starts the stopwatch. At the end of 1 minute, the examiner says, *Start writing.*
4. While the students are writing, the examiner and any other adults helping in the assessment circulate around the room. If students stop writing before the 3-minute timing period has ended, monitors encourage them to continue writing.
5. After 3 additional minutes, the examiner says, *Stop writing.* CBM writing probes are collected for scoring.
6. *Initial Assessment:* If the examiner is assessing the student for the first time, the examiner administers a total of 3 CBM:WE probes during the session, using the above procedures and takes the median (middle) score as the best estimate of the student's CBM:WE skills.  
*Progress-Monitoring:* If the examiner is monitoring student growth in computation (and has previously collected CBM:WE data), only one CBM:WE probe is given in the session.

### CBM-Written Expression: Directions for Practice

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

### CBM-Written Expression: Scoring Guidelines

The instructor has several options when scoring CBM writing probes. Student writing samples may be scored according to the:

1. Total Words Written (TWW),
2. Correctly Spelled Words (CSW), or
3. Correct Writing Sequences (One Correct Writing Sequence is scored whenever two adjacent units of writing (e.g., two words appearing next to each other) are found to be correct in their punctuation, capitalization, spelling, and syntactical and semantic usage.)

Scoring methods differ both in the amount of time that they require of the instructor and in the type of information that they provide about a student's writing skills. Advantages and potential limitations of each scoring system are presented below.

*Total Words Written (TWW).* The examiner counts up and records the total number of words written during the 3-minute writing probe. Misspelled words are included in the tally, although numbers written in numeral form (e.g., 5, 17) are not counted. Calculating total words is the quickest of scoring methods. A drawback, however, is that it yields only a rough estimate of writing fluency (that is, of how quickly the student can put words on paper) without examining the accuracy of spelling, punctuation, and other writing conventions. A 6th-grade student wrote the CBM writing sample in Figure 2. Using the total-words scoring formula, this sample is found to contain 45 words, including misspellings.



Figure 2: CBM writing sample scored for Total Words Written:

I woud drink water from the ocean	7 words
and I woud eat the fruit off of	8 words
the trees. Then I woud bilit a	7 words
house out of trees, and I woud	7 words
gather firewood to stay warm. I	6 words
woud try and fix my boat in my	8 words
spare time.	2 words
	<b>Total=45 words</b>

*Correctly Spelled Words.* The examiner counts up only those words in the writing sample that are spelled correctly. Words are considered separately, not within the context of a sentence. When scoring a good rule of thumb is to determine whether--in isolation--the word represents a correctly spelled term in English. If it does, the word is included in the tally. Assessing the number of correctly spelled words has the advantage of being quick. Also, by examining the accuracy of the student's spelling, this approach monitors to some degree a student's mastery of written language. As seen in figure 3, our writing sample is contains 39 correctly spelled words.

Figure 3: CBM writing sample scored for Correctly Spelled Words

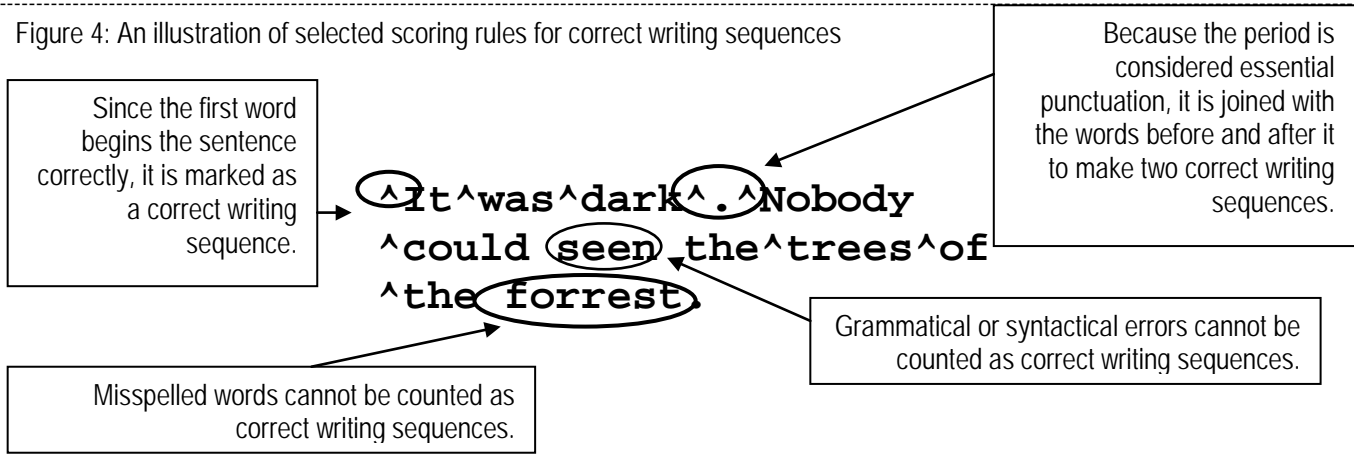
I woud drink water from the ocean	6 correctly spelled words
and I woud eat the fruit off of	7 correctly spelled words
the trees. Then I woud bilit a	5 correctly spelled words
house out of trees, and I woud	6 correctly spelled words
gather firewood to stay warm. I	6 correctly spelled words
woud try and fix my boat in my	7 correctly spelled words
spare time.	2 correctly spelled words
	<b>Total=39 correctly spelled words</b>

*Correct Writing Sequences.* When scoring correct writing sequences, the examiner goes beyond the confines of the isolated word to consider units of writing and their relation to one another. Using this approach, the examiner starts at the beginning of the writing sample and looks at each successive pair of writing units (writing sequence). Words are



considered separate writing units, as are essential marks of punctuation. To receive credit, writing sequences must be correctly spelled and be grammatically correct. The words in each writing sequence must also make sense within the context of the sentence. In effect, the student's writing is judged according to the standards of informal standard American English. A caret (^) is used to mark the presence of a correct writing sequence.

Figure 4: An illustration of selected scoring rules for correct writing sequences





The following scoring rules will aid the instructor in determining correct writing sequences:

- Correctly spelled words make up a correct writing sequence (reversed letters are acceptable, so long as they do not lead to a misspelling):

Example

^Is^that^a^red^car^?

- Necessary marks of punctuation (excluding commas) are included in correct writing sequences:

Example

^Is^that^a^red^car^?

- Syntactically correct words make up a correct writing sequence:

Example

^Is^that^a^red^car^?

^Is^that^a^car red?

- Semantically correct words make up a correct writing sequence:

Example

^Is^that^a^red^car^?

^Is^that^a read car^?

- If correct, the initial word of a writing sample is counted as a correct writing sequence:

Example

^Is^that^a^red^car^?

- Titles are included in the correct writing sequence count:

Example

^The^Terrible^Day

Not surprisingly, evaluating a writing probe according to correct writing sequences is the most time-consuming of the scoring methods presented here. It is also the scoring approach, however, that yields the most comprehensive information about a student's writing competencies. While further research is needed to clarify the point, it also seems plausible that the correct writing sequence method is most sensitive to short-term student improvements in writing. Presumably, advances in writing skills in virtually any area (e.g., spelling, punctuation) could quickly register as higher writing sequence scores. Our writing sample in Figure 5 is found to contain 37 correct writing sequences.



Figure 5: CBM Writing sample scored for Correct Writing Sequence (Each correct writing sequence is marked with a caret(^)).

^I woud drink^water^from^the^ocean	5 correct writing sequences
^and^I woud eat^the^fruit^off^of	6 correct writing sequences
^the^trees^.^Then^I woud bilit a	5 correct writing sequences
^house^out^of^trees, ^and^I woud	6 correct writing sequences
gather^firewood^to^stay^warm^.^I	6 correct writing sequences
woud try^and^fix^my^boat^in^my	6 correct writing sequences
^spare^time^.	3 correct writing sequences
	<b>Total = 37 correct writing sequences</b>

### References

McMaster, K., & Espin, C. (2007). Technical features of curriculum-based measurement in writing: A literature review. *Journal of Special Education, 41*(2), 68-84.

Wright, J. (1992). *Curriculum-based measurement: A manual for teachers*. Retrieved September 23, 20011, from <http://www.jimwrightonline.com/pdfdocs/cbaManual.pdf>





## Curriculum-Based Measurement: Written-Expression Fluency Norms

(Gansle, VanDerHeyden, Noell, Resetar, & Williams, 2006; Malecki & Jewell, 2003; Tadatada, 2011)\*

**CBM-Written Expression** assessments measure the mechanics and conventions of writing and can yield numeric indicators such as total words written, correctly spelled words, and correct writing sequences (Gansle et al., 2006). CBM-Written Expression probes are group-administered writing samples with an administration time of about 4 minutes.

**Total Words Written (TWW):** This measure is a count of the total words written during the CBM-WE assessment.

Grade	Fall TWW (Malecki & Jewell, 2003)	Fall: +/-1 SD (≈16th%ile to 84th%ile)	Spring TWW (Malecki & Jewell, 2003)	Spring: +/-1 SD (≈16th%ile to 84th%ile)	Weekly Growth (Tadatada, 2011)
1	8	3↔13	14	7↔21	0.45
2	24	14↔34	31	19↔43	0.43
3	36	23↔49	36	24↔48	0.35
4	41	30↔52	46	30↔62	0.25
5	51	34↔68	67	43↔91	--
6	44	31↔57	58	44↔72	--

**Correctly Spelled Words (CSW):** This measure is a count of correctly spelled words written during the CBM-WE assessment.

Grade	Fall CSW (Malecki & Jewell, 2003)	Fall: +/-1 SD (≈16th%ile to 84th%ile)	Spring CSW (Malecki & Jewell, 2003)	Spring: +/-1 SD (≈16th%ile to 84th%ile)	Weekly Growth (Tadatada, 2011)
1	5	1↔9	10	3↔17	0.45
2	20	10↔30	27	15↔39	0.46
3	32	19↔45	33	21↔45	0.37
4	38	26↔50	44	29↔59	0.26
5	48	31↔65	65	42↔88	--
6	42	29↔55	56	41↔71	--

**Correct Writing Sequences (CWS):** This measure is a tabulation of correct 'writing sequences' written during the CBM-WE assessment. One Correct Writing Sequence is scored whenever two adjacent units of writing (e.g., two words appearing next to each other) are found to be correct in their punctuation, capitalization, spelling, and syntactical and semantic usage.

Grade	Fall CWS (Malecki & Jewell, 2003)	Fall: +/-1 SD (≈16th%ile to 84th%ile)	Spring CWS (Malecki & Jewell, 2003)	Spring: +/-1 SD (≈16th%ile to 84th%ile)	Weekly Growth (Tadatada, 2011)
1	2	0↔4	7	1↔13	0.36
2	15	5↔25	24	11↔37	0.44
3	28	14↔42	31	18↔44	0.35
4	38	25↔51	42	26↔58	0.22
5	46	28↔64	63	40↔86	--
6	41	27↔55	54	37↔71	--



**References:**

- Gansle, K. A., VanDerHeyden, A. M., Noell, G. H., Resetar, J. L., & Williams, K. L. (2006). The technical adequacy of curriculum-based and rating-based measures of written expression for elementary school students. *School Psychology Review, 35*, 435-450.
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**\* Reported Characteristics of Student Sample(s) Used to Compile These Norms:**

**Malecki & Jewell, 2003:** *Number of Students Assessed:* 946 Total; Grade 1: Fall:133 -Spring:123; Grade 2: Fall:200 -Spring:156; Grade 3: Fall:168 -Spring:109; Grade 4: Fall:192 -Spring:182; Grade 5: Fall:127 -Spring:120; Grade 6: Fall:57 -Spring:54/*Geographical Location:* Northern Illinois: Sample drawn from 5 suburban and rural schools across three districts/*Socioeconomic Status:* Not reported/*Ethnicity of Sample:* Not reported/*English Language Learners in Sample:* Not reported.

**Tadatada, 2011:** *Number of Students Assessed:* 1,004 Total; Grade 1: 207; Grade 2: 208; Grade 3: 204; Grade 4: 220; Grade 5: 165/*Geographical Location:* Bowling Green, KY: Sample drawn from 5 elementary schools in single district/*Socioeconomic Status:* Not reported/*Ethnicity of Sample:* 64% White; 18% African-American; 13% Hispanic; 3% Asian; 3% Other/*Limited English Proficiency in Sample:* 19%.

**Where to Find Materials:** Schools can create their own CBM Written Expression Fluency assessment materials at no cost, using the Written Expression Probe Generator, a free online application:

<http://www.interventioncentral.org/tools/writing-probe-generator>

This program allows the user to customize and to generate printable story-starter worksheets in PDF format.

**Limitations of These Research Norms:** Norms generated from small-scale research studies--like those used here--provide estimates of student academic performance based on a sampling from only one or two points in time, rather than a more comprehensive sampling across separate fall, winter, and spring screenings. These norms also have been compiled from a relatively small student sample that is not fully representative of a diverse 'national' population. Nonetheless, norms such as these are often the best information that is publically available for basic academic skills and therefore do have a definite place in classroom instruction decision-making.

These norms can be useful in general education for setting student performance outcome goals for core instruction and/or any level of academic intervention. Similarly, these norms can be used to set performance goals for students with special needs. In both cases, however, single-sample norms would be used only if more comprehensive fall/winter/spring academic performance norms are not available.