Administration and Scoring of Written Expression Curriculum-Based Measurement (WE-CBM) for Use in General Outcome Measurement

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This manual is to be used as a supplement to the
AIMSweb WE-CBM Power Point Training Presentation.

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Big Ideas About General Outcome Measurement (GOM)

Medicine measures height, weight, temperature, and blood pressure; the Federal Reserve Board measures the Consumer Price Index; Wall Street measures the Dow-Jones Industrial Average; companies report earnings per share; and even McDonald's measures how many hamburgers they sell. What do these measures have in common? They all assess general outcomes so decisions are data-based and timely.

Although these measures do not assess all health, economic, stock market, business or even fast food sales behavior, they are indicators considered so important to outcomes that they are routine. These measures are simple, accurate, and reasonably inexpensive in terms of time and materials. They are collected on an ongoing basis over time. They shape a variety of important decisions.

Education has its own set of indicators of general basic skill success. Derived out of the research base generated by a set of assessment procedures called Curriculum-Based Measurement (CBM), these General Outcome Measures allow us to make important statements about our students' reading, spelling, written expression, and mathematics computation skills.

CBM was developed more than 25 years ago by Stanley Deno at the University of Minnesota, and first implemented in schools by Gary Germann, with the idea of giving educators simple, accurate, and efficient indicators of student achievement. School-based research on CBM with real students and real teachers continues to this day. The references included in this workbook provide extensive information about how CBM was developed and validated, and how CBM can be used to make a variety of general and special education decisions.

Originally, CBM was designed to assess growth and development in students' specific curricula. In spelling, teachers would create their own individual set of CBM spelling lists based on what they were teaching and would use the information to determine students' rates of progress and make changes in instruction as needed. This tie to curriculum had high instructional validity but lacked the necessary other technical features of reliable and valid measurement.

It soon became apparent that the positive effects of testing from materials selected from an individual teacher's curriculum were offset by the lack of standard information about students' progress. Some teachers had "no curriculum," the curriculum would change year to year, and the differences between schools, between teachers within schools, and so on, made accurate decisions about students' progress very difficult. Furthermore, teachers were too often burdened by the business of creating their own testing materials. In addition to being more time consuming, the variability in assessment practices was a concern.

After considerable research, it has been demonstrated that a perfect correspondence between what CBM assessed and students' specific curricula was not necessary. In fact, by using standard assessment materials, the same judgments about students' level of spelling skill and spelling progress, could still be made accurately, as well as provide appropriate, standards of growth and development across varied curricula, teachers, schools, and school districts.

What emerged from this school-based research was the following conclusion: Achievement can be improved by testing students (1) using standard, valid tests, (2) that measured something important, (3) on tasks of about equal difficulty tied to general curriculum (4) over time. CBM provided the assessment procedures to be able to do Numbers 1, 2, and 4. By developing graded and equivalent assessment materials of about equal difficulty tied to general curriculum, (Number 3) General Outcome Measurement (GOMs) evolved. Thus, the assessment procedures known as CBM are used in an assessment approach called General Outcome Measurement.
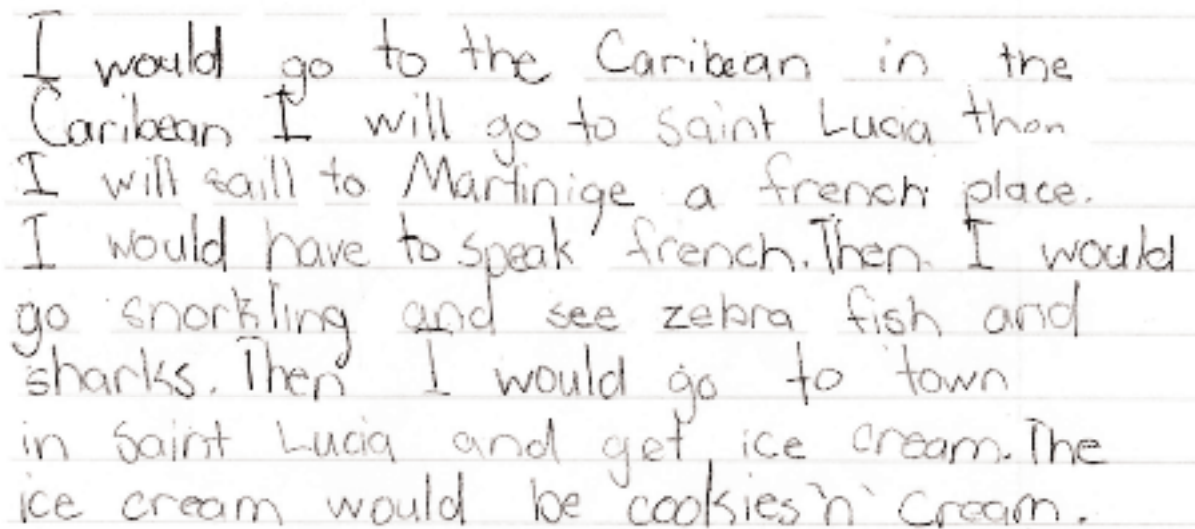
The Written Expression Curriculum-Based Measure (WE-CBM)

Being able to communicate thoughts and ideas in writing is a fundamental basic skill that is valuable throughout life. From leaving notes for family members, to writing term papers and theses, writing skills are fundamental. Assessment of writing or written expression skills is typically viewed as something that is complex, time-consuming and subjective. All three of these assessment characteristics are problematic for frequent progress monitoring, which, by its nature, needs to be as simple as possible, time-efficient, and objective.

More than 25 years ago, educational scientists sought to identify reliable and valid ways of assessing elementary students' written expression skills that would allow frequent progress monitoring. The results of this research resulted in a testing practice called Written Expression-Curriculum-Based Measurement (WE-CBM).

School-based research (Deno, Marston, & Mirkin, 1982; Deno et al., 1982; Marston, 1989; Marston & Deno, 1981; Marston, Lowry, Deno, & Mirkin, 1981; Videen, Deno, & Marston, 1982) has shown that having students write a story for 3 minutes given an age-appropriate story starter is a reliable and valid general outcome measure of general written expression for typically achieving students through Grade 6 and for students with severe writing problems.

Compare the WE-CBM samples obtained from two beginning-of-the-year Grade 3 students below. Both were asked to write the best story they could, given the story starter "You've been invited to a vacation anywhere in the World. Write about what you would like to do." The first student, Amy, wrote the following:

> I would go to the Caribean in the Caribean I will go to Saint Lucia then I will saill to Martinige a french place. I would have to speak french. Then I would go snorkling and see zebra fish and sharks. Then I would go to town in Saint Lucia and get ice cream. The ice cream would be cookies 'n' cream.

Amy produced 60 Total Words Written (TWW) in her story and 47 Correct Writing Sequences (CWS). Her story communicates ideas clearly and has an understandable relationship among the order of words and sentences. In terms of mechanics, 51 of the TWW are produced correctly in terms of spelling and capitalization and she uses periods as appropriate.

Jessica wrote the story above. She produced only 25 Total Words Written (TWW) in her story and 16 Correct Writing Sequences (CWS). Her story communicates ideas significantly less clearly. In terms of mechanics, 1/5 of the TWW are produced incorrectly.

Using Written Expression Story Starters

Both Amy and Jessica in the above examples responded to a prompt referred to as a story starter. Story starters are short orally presented ideas that give students something to write about. They are designed to stimulate narrative writing and are formatted such that students avoid writing "yes" or "no" (e.g., Did you like your teacher last year?) or writing lists (e.g., Write about what you would do with the money you earned by mowing your neighbor's lawn). Story starters are available as part of the AIMSweb system.

Administration of Written Expression-CBM (WE-CBM)

This workbook section covers administration of WE-CBM and what examiners need to do (1) before testing students, (2) while testing students, and (3) after testing students.

Things You Need to Do Before Testing

Before testing students, examiners must have a set of story starters, short orally presented ideas that give students something to write about, and other testing materials set up in an appropriate assessment environment. A set of story starters is available as part of the AIMSweb System.

Things You Need Before Testing:

1. Story starter(s)
2. Lined paper for student(s) responses.
3. A stopwatch.

Arranging the Testing Environment

Getting accurate assessment results depends on how the testing environment is arranged. Testing WE-CBM typically is completed in a large group (full class) or small group (3-4 students) setting. If completing WE-CBM via group administration (e.g., as a whole class) try to ensure that no disruptions occur. It also is desirable to have more than one adult present during the testing to monitor the students to ensure they produce the best writing sample they can.

WE-CBM also can be completed by testing students individually. If testing is conducted 1 to 1, it is best to set aside a place in the classroom that has a small table or desk and is quiet and away from distractions (sinks, water fountain).

A Number of Things Must Be Kept in Mind

- It's about testing, not teaching—The standardized directions should always be used. This means keeping the testing a "test." WE-CBM is not to be used as instruction. Students shouldn't practice completing story starters, nor should they have errors corrected by the examiner during the testing. In general, the results from one of the scores, the number of Total Words Written, is not shared with students as feedback because sometimes students will simply add more words without increasing the quality of their writing. Importantly, taking a WE-CBM should not be the only writing they do as part of their written expression instructional program.

- Best versus fastest writing—The testing conditions should be established to prepare the student to do their "best," not their fastest writing. Students are timed to ensure that the testing is standardized, not to motivate the students to write as fast as they can. Therefore, timing should be "in the background," should be subtle, and not "in the student's face." Examiners should always emphasize "best work."

- Sit across from, not beside during 1 to 1 testing—When we assess students individually, we sit across from them. We want the students to be looking at their work, not what we, the examiners, are doing with respect to note taking or timing.

What Students Write About

Students write their stories after being given an orally presented prompt called a Story Starter such as the ones found below. An extensive list of story starters that have been used successfully in schools nationwide are available as part of the AIMSweb System.

- • Yesterday, a monkey climbed through the window at school and…
- • I opened the front door very carefully and …
- • Yesterday the children went for a picnic and …
- • The missile landed on the moon and …
- • The mother and her daughter were walking in the park and …
- • It was a hot, dry day and I had been walking for hours without food or water when …
- • We were paddling on a beautiful lake in the woods when our boat tipped over and …
- • The day was warm and sunny and we were the only ones to see …
- • I waved out the window at my family as …

You'll note that these story starters are designed to stimulate narrative writing and are formatted such that students avoid writing "yes" or "no" (e.g., Did you like your teacher last year?) or writing lists (e.g., Write about what you would do with the money you earned by mowing your neighbor's lawn).

What The Examiner Scores

Examiners will score students' written products using one of three scoring metrics detailed later in this manual: Total Words Written (TWW), Correct Writing Sequences (CWS) and Words Spelled Correctly (WSC).

Things You Need to Do While Administering the Test

Because WE-CBM is a standardized test, we must give the test the same way every time and differences among examiners must be minimized. The following standardized directions should be read to the student(s). A reproducible copy can be found in Appendix A.

General Considerations:

- • If testing is done in large or small groups, it is important to monitor students' performances. If students stop writing for about 10 seconds before the test is finished, point to their paper and say to them "Keep writing the best story you can." This prompt can be repeated to students should they pause again or stop writing.

- • Do not answer questions such as "How do I spell the word…..?" Do not provide corrections to miswritten words on the paper. As noted previously, WE-CBM is about testing. We want "examiner talk" to be kept to the minimum to allow student writing to be maximum.

Written Expression Curriculum-Based Measurement (WE-CBM) Standardized Directions

1. Select an appropriate story starter.

2. Provide the student with a pencil and a sheet of lined paper.

3. Say these specific directions to the students:

"You are going to write a story. First, I will read a sentence, and then you will write a story about what happens next. You will have 1 minute to think about what you will write, and 3 minutes to write your story. Remember to do your best work. If you don't know how to spell a word, you should guess. Are there any questions? (Pause). Put your pencils down and listen.

For the next minute, think about ... "(insert story starter)."

4. After reading the story starter, begin your stopwatch and allow 1 minute for students to "think." (Monitor students so that they do not begin writing).

    After 30 seconds say: *"You should be thinking about... (insert story starter)."*

5. At the end of 1 minute say: *"Now begin writing."* Restart your stopwatch.

6. Monitor students' participation. If individual students pause for about 10 seconds or say they are done before the test is finished, move close to them and say *"Keep writing the best story you can."* This prompt can be repeated to students should they pause again.

7. After 90 seconds say: *"You should be thinking about... (insert story starter)."*

8. At the end of 3 minutes say: *"Stop. Put your pencils down."*

If students want to finish their story, it is allowable to do so as long as they complete it on a separate piece of paper.

Things You Need to Do After the Testing

After the student has completed the writing task, score the writing sample as soon as you can. Your most important task is to determine the number of Total Words Written (TWW). Determining TWW is a straightforward, economical score that serves as a valid indicator of general written expression skills for most students through Grade 6 and for older students with written expression difficulties. It typically takes less than 30 seconds to count TWW. Examiners simply underline the words the students produced and sum the number of underlines.

With some students, you may want to also consider scoring the number of Correct Writing Sequences (CWS). These students may produce an appropriate number of TWW, but their written expression skills are much lower with respect to producing "quality words." Their words may not be mechanically, semantically, or syntactically correctly. With these students, we recommend counting the number of CWS. Caret marks (^) indicate CWS, pairs of words that are mechanically, semantically, and syntactically correctly.

A third option, Words Spelled Correctly (WSC), can be useful in some circumstances, but usually, when they are serious spelling concerns with specific students, counting CWS is a better metric than WSC. In some instances, Words Spelled Correctly (WSC) are tallied independently of TWW and CWS. Examiners simply circle the words the students spells incorrectly, sums the number of circles, and subtracts from TWW.

Complete details regarding how to score TWW, CWS, WSC, are detailed in the next section.

Scoring of Written Expression-Curriculum-Based Measurement (WE-CBM)

Total Words Written (TWW)

Instructions

Underline in pencil or pen **_Words_** that are produced in the WE-CBM sample. Sum the number of words. This score is recorded, but typically NOT shared with students as some students will write more words in the next assessment that may not be indicative of real improvement.

What Is A Word?

Any letter or group of letters separated by a space is defined as a word, even if the word is misspelled or is a nonsense word.

The sky was blue	**TWW** = 4
The sky was blew	**TWW** = 4
I tuk a baf	**TWW** = 4
I tuka baf	**TWW** = 3

Rule 1.   Hyphenated Words. Each morpheme separated by a hyphen(s) is counted as an individual word if it can stand alone.

My daughter-in-law had a baby boy.   **TWW** = 8

Rule 2.   Hyphenated Words. If one or more of the morphemes separated by a hyphen(s) cannot stand alone, the entire sequence is counted as one word.

We had to re-evaluate the case.   **TWW** = 6

Rule 3.   Abbreviations. Commonly used abbreviations are counted as words.

Chris watched T.V.   **TWW** = 3

Rule 4.   Story Titles or Endings. Words written in the title or as an ending are counted in the TWW.

The Big Run
On the fourth of July, I ran the Boston Marathon.
The End.   **TWW** = 15

Rule 5.   Numbers. With the exception of dates and currency, numbers that are not spelled out are not counted as words.

<u>3</u> <u>men</u> <u>ran.</u>	**TWW** = 2
<u>Three</u> <u>men</u> <u>ran.</u>	**TWW** = 3
I <u>went</u> <u>2</u> <u>a</u> <u>party.</u>	**TWW** = 4
<u>It</u> <u>is</u> <u>June</u> <u>10,</u> <u>1989.</u>	**TWW** = 5
I <u>won</u> <u>$100.</u>	**TWW** = 3
I <u>won</u> <u>100.</u>	**TWW** = 2
I <u>won</u> <u>100</u> <u>dollars.</u>	**TWW** = 4

Rule 6.   Unusual Characters. Symbols used in writing such as (%, &, $, #, @), that are not spelled out, are not counted as words.

I <u>won</u> <u>$100.</u>	**TWW** = 3
I <u>won</u> <u>100.</u>	**TWW** = 2

Correct Writing Sequences (CWS)

Instructions

First, circle *Words* that are spelled incorrectly in the WE-CBM sample. This will help in determining pairs of correct adjacent words. Second, place a caret "^" between words that are (1) mechanically (spelled correctly, appropriate capitalization), (2) semantically, and (3) syntactically correct. Sum the number of carets "^"s. Scoring CWS requires more inferences about what the student intended such as whether a sentence "ended" when a period was omitted.

What is a Correct Writing Sequence?

Two adjacent writing units (words and punctuation) that are correct within the context of what is written.

Scoring Correct Writing Sequences

A caret "^" is used to mark each unit of the correct writing sequence. There is an implied space at the beginning of the first sentence.

^The^sky^was^blue.^	**CWS** = 5

Rule 1.   Pairs of Words Must Be Spelled Correctly

^All^of^the^kids^started^to^laugh.^	**CWS** = 8
^All^of^the^kids^started^to_laghf. _	**CWS** = 6

Rule 2.   Words Must Be Capitalized and Punctuated Correctly with the Exception of Commas.   Correct punctuation must be present at the end of the sentence. The first word of the next sentence must be capitalized and be spelled correctly for a correct writing sequence to be scored.

^The^sky^was^blue.^ ^It^was^pretty.^	**CWS** = 9
^The^sky^was^blue.^ it was^pretty	**CWS** = 6

Rule 3.   Words Must Be Syntactically Correct. Sentences that begin with conjunctions are considered syntactically correct.

^I^had^never^seen^the^wolves^before.^	**CWS** = 8
^I^never_seen^the^wolves^never.^	**CWS** = 6
^And^then^the^boy^gave^the^duck^some^bread.^	**CWS** = 10

Rule 4.   Words Must Be Semantically Correct

^Jamaal^went^to^the^library.^	**CWS** = 6
^Jamaal^went_too_the^library.^	**CWS** = 4
^My^dad^made^the^treehouse^especially^for^me.^	**CWS** = 9
^My^dad^made^the^treehouse_specially_for^me.^	**CWS** = 7

Rule 5. Contractions . Apostrophes are required if the word cannot stand alone without it.

^I^went^to^Sam's^house.^	**CWS = 6**
^I^went^to Sams house.^	**CWS = 4**

Rule 6. Words with Reversed Letters. Words containing reversed letters are included in the total CWS count unless the reversed letter causes a word to be spelled incorrectly.

^There^was^a^bad^storm. ^	**CWS = 6**
^There^was^a^dad^storm. ^	**CWS = 6**
^The^dolphin^swam^in^the^sea.^	**CWS = 7**
^The bolphin swam^in^the^sea.^	**CWS = 5**

Rule 7. Story Titles and Endings. Words written in the title or endings that are capitalized and spelled correctly are included in the total CWS.

^The^Big^Run^	**CWS = 4**
the ^Big ^Run^	**CWS = 3**
the big run	**CWS = 0**
^The^End.^	**CWS = 3**
^The end.^	**CWS = 2**

Rule 8. Abbreviations. Commonly used abbreviations that are spelled correctly are included in the total CWS count.

^Jan^lives^on ^Sunset ^Blvd. ^	**CWS = 5**

Rule 9. Hyphens. Hyphenated words are counted in the total CWS count as long as each morpheme separated by hyphens is spelled correctly

^My^sister-in-law^graduated^from^school.^	**CWS = 6**
^My siter-in-law graduated^from^school.^	**CWS = 4**

Rule 10. Numbers. With the exception of dates, numbers that are not spelled out are not included in the total CWS count.

3 men^ran.^	**CWS = 2**
^Three^men^ran.^	**CWS = 4**
^It^is^June^10, ^2004.^	**CWS = 4**

Rule 11. Unusual Characters. Symbols used in writing that are not spelled out are not included in the total CWS count.

^I^won^a^prize @ the^carnival.^	**CWS = 6**

Words Spelled Correctly (WSC)

Instructions

Put a circle around words that are spelled incorrectly in the WE-CBM sample. Sum the number of circled words and subtract it from the number of TWW.

What Is A Correctly Spelled Word?

A word is considered spelled correctly within a low-inference judgment regarding appropriateness of context within the English language. With some low-performing students, this contextual appropriateness is difficult to determine without making high-level inferences as to what the student intended to write. For this manual, a box around a word represents a "circled" or incorrectly spelled word.

Bill will read the book.	**WSC = 5**
Bill will reed the book.	**WSC = 4**
Bill wa reed mmus reddy	**WSC = 1**
and can rat pake	**WSC = 3**
dzq ran down the rode	**WSC = 4**

Rule 1a. Hyphenated Words – Each morpheme separated by a hyphen(s) is counted as an individual word if it can stand alone and is spelled correctly.

My dauta -in-law had a baby girl	**WSC = 7**
My daughter-in-law had a baby girl	**WSC = 8**

Rule 1b. Hyphenated Words – If one or more of the morphemes separated by a hyphen(s) cannot stand alone, the entire sequence is counted as one word if it is spelled correctly.

I had to re-evluate the case.	**WSC = 5**
I had to re-evaluate the case.	**WSC = 6**

Rule 2. Abbreviations – Commonly used abbreviations (Dr., Mrs., Blvd.) are counted as words

Jan lives on Sunset Blvd.	**WSC = 5**

Rule 3. Story Titles – If students include a title, words spelled correctly in the title are included.

The Big Run

On the fourth of July, I ran the Boston Marathon.

The End.	**WSC = 15**

Rule 4. Capitalized Words – Proper nouns must be capitalized to be considered as correct. Capitalization of the first word in a sentence is not required for the word to be spelled correctly. If a name can also be a word (e.g., bill) it does not have to be capitalized if a high-level inference would be required to determine contextual appropriateness.

Mary saw the book.	**WSC =** 4
we crossed the Mississippi	**WSC =** 4
⬚vicki⬚ sat with the rose	**WSC =** 4
⬚vicki⬚ sat with rose	**WSC =** 2
⬚vicki⬚ sat with the bill	**WSC =** 4

Rule 5. Words with Reversed Letters – Words containing reversed letters are counted as correctly spelled words unless the reversed letter causes a word to be spelled incorrectly. This rule applies most frequently to the letters p, b, q, d, n, and u.

There was a bad storm.	**WSC =** 5
There was a dad storm.	**WSC =** 5
The dolphin swam in the sea.	**WSC =** 6
The ⬚bolphin⬚ swam in the sea.	**WSC =** 5
Joe's pig won first place at the fair.	**WSC =** 8
Joe's ⬚qig⬚ won first place at the fair.	**WSC =** 7

Rule 6. Contractions – For a contraction to be counted as a correctly spelled word, an apostrophe in the correct place in the word is required if the word cannot stand alone.

I won't go.	**WSC =** 3
I ⬚wont⬚ go.	**WSC =** 2
Rick's hungry	**WSC =** 2

Assessing the Qualitative Features of Written Expression as part of WE-CBM

The richness of information about a child's writing skills obtained with WE-CBM is evident and we believe that decision making is enhanced by occasionally adding your professional judgments about the quality of a student's writing, as well as the "quantity" of student writing, especially as part of Benchmark Assessment. The checklist included below is a simple way of structuring your observations and includes a number of skills displayed by good writers that are lacking in many poor writers.

Qualitative Features Checklist

After students complete 2-3 WE-CBM probes, examiners can evaluate the degree to which important features of writing are observed using the Qualitative Features of Writing Checklist. A reproducible, full-sized copy of this checklist can be found in Appendix A. In addition, two sample completed checklists are included in Appendix B.

Qualitative Features of Writing Checklist

Communication

_____ Story communicates thoughts and ideas
_____ Story has a logical organizational structure or sequence
_____ Has effective strategies for organizing information
_____ Story has sentence-to-sentence and word-to-word relationships

Mechanics

_____ Uses planning skills
_____ Observes spelling rules
_____ Uses appropriate sentence structure
_____ Uses correct syntax,
_____ Writing is semantically correct
_____ Uses appropriate vocabulary accurately
_____ Observes punctuation rules

Additional Comments:

_____

_____

_____

_____

_____

A more detailed analysis can also be conducted using the WE-CBM Error Tracking Checklist as shown below in reduced size. A full-size, reproducible version also is found in Appendix A. Two sample completed error tracking checklists are included in Appendix B.

WE-CBM Error Tracking Checklist

Type of Error	Number of Errors
Capitalization – Beginning of sentence not capitalized	
Capitalization – Proper noun not capitalized	
Capitalization – Of a word that should not be capitalized	
Illegible words	
Incomplete sentence	
Punctuation – Missing or incorrect at end of sentence	
Punctuation – Omission of comma in a list	
Punctuation – Inappropriate punctuation mark in middle of sentence	
Run-on sentence	
Semantics – Word in sequence semantically incorrect (e.g., "I went too the library)	
Spelling (e.g., plase instead of place)	
Spelling – Contraction (e.g., "dont" instead of "don't")	
Spelling – Hyphenation (e.g., "dauta-in-law")	
Spelling – Incorrect for context of what's written	
Syntax – Noun/Verb disagreement (e.g., "I never seen…")	
Syntax – Adjective/Adverb incorrect (e.g., "She ran quick")	

Note: **bold** denotes errors reflected in CBM scoring (Total Words Written, Words Spelled Correctly, or Correct Writing Sequences)

Qualitative Features of Written Expression

Determining Inter-Scorer Agreement

Getting accurate student writing results should not depend on who assesses the students. Because no testing is without error (i.e., perfectly reliable), we need to know how much different examiners agree. This process of obtaining Inter-Scorer agreement is not done just after training but periodically to ensure that examiners are consistent in administration and scoring.

A simple formula for calculating Inter-Scorer agreement is:

Agreements/(Agreements + Disagreements) x 100

For 2 examiners who scored Susie as 50 TWW and 48 TWW, their Inter-Scorer agreement would be 96% as follows:

- They agreed that Susie wrote 48 TWW.

- They disagreed on 2 TWW.

- Agreements (48)/Agreements + Disagreements (48 + 2) = 48/50 = .96

  .96 x 100 = 96%

Inter-Scorer agreement can be determined for more than 1 pair as follows. Each pair of scores are compared for agreements and disagreements, and then entered into the formula.

For 3 examiners (1, 2, 3) who score Susie as 50TWW, 48 TWW, and 47 TWW, their Inter-Scorer agreement would be 96% as follows:

- Examiner 1 and 2 agreed on 48 TWW and disagreed on 2

- Examiner 1 and 3 agreed on 47 TWW and disagreed on 3

- Examiner 2 and 3 agreed on 47 TWW and disagreed on 1

- Agreements (48 + 47 + 47)/Agreements + Disagreements ((48 +2) + (47 +3) + (47 + 1) = 142/148 = .96

  .96 x 100 = 96%

Checking Accuracy in Testing Administration

Getting accurate student written expression results should not depend on who assesses the students. If we use the WE-CBM standardized instructions and score correctly, different examiners should obtain about the same results. To ensure that examiners are consistent in administration and scoring, we recommend "check outs," the process of observing each other administer WE-CBM. This check out process is accomplished using the Accuracy of Implementation Rating Scale-Written Expression (AIRS-WE) shown in reduced size format in the following table and provided in full size in Appendix A. After watching a trainee administer WE-CBM, complete the AIRS-WE, calculate Inter-Scorer agreement and provide feedback. This will ensure accurate and consistent standardized testing.

Accuracy of Implementation Rating Scale Written Expression-CBM (AIRS-WE-CBM)

X = completed accurately   O = incorrectly completed

Testing Procedure	Observation			
	1	2	3	4
Selects an appropriate story starter	___	___	___	___
Seated appropriate distance from student	___	___	___	___
Provides student with a pencil and sheet of lined paper	___	___	___	___
Says standardized directions verbatim	___	___	___	___
Says "For the next minute think about (insert story starter)"	___	___	___	___
Starts stopwatch	___	___	___	___
Provides prompt at 30 seconds into 1 minute think time	___	___	___	___
Stops stopwatch at the end of one minute	___	___	___	___
Says "Now begin writing…" and restarts stopwatch	___	___	___	___
Provides prompt at 90 seconds into 3 minute writing time	___	___	___	___
Monitors student attention to task—gives encouragement/prompts if student stops writing or is looking around	___	___	___	___
Times for 3 minutes	___	___	___	___
Says "Stop. Put your pencil down"	___	___	___	___
Stops stopwatch	___	___	___	___
Determines appropriate scores (TWW, WSC, CWS)	___	___	___	___

Additional Comments:

_____

_____

_____

_____

References

WE-CBM References

Baker, S., & Hubbard, D. (2002). Best practices in the assessment of written expression. In A. Thomas and J. Grimes (Eds.), *Best Practices in School Psychology IV*. (4th edition, pp. 867-883). Bethesda, MD: National Association of School Psychologists.

Deno, S., Marston, D., & Mirkin, P. (1982). Valid measurement procedures for continuous evaluation of written expression. *Exceptional Children*, 48 (4), 368-371.

Deno, S. L., Mirkin, P. K., Marston, D., & (1980). *Relationships among simple measures of written expression and performance on standardized achievement tests* (Research Report No. 22). Minneapolis: University of Minnesota Institute for Research on Learning Disabilities, University of Minnesota.

Deno, S. L. (2003). Developments in Curriculum-Based Measurement. *The Journal of Special Education*, 37, 184-192.

Espin, C. A, Scierka, B. J., Skare, S., & Halverson, N. (1999). Criterion-related validity of curriculum-based measures in writing for secondary school students. *Reading & Writing Quarterly*, 14, 5-27.

Espin, C., Shin, J., Deno, S., Skare, S., Robinson, S., & Benner, B. (2000). Identifying indicators of written expression proficiency for middle school students. *The Journal of Special Education*, 34 (3), 140-153.

Fewster, S., & Macmillan, P. D. (2002). School-based evidence for the validity of curriculum-based measurement of reading and writing. *Remedial and Special Education*, 23 (3), 149-156.

Gansle, K. A., Noell, G. H., VenDerHeyden, A. M., Naquin, G. M., & Slider, N. J. (2002). Moving beyond total words written: The reliability, criterion validity, and time cost of alternative measures for curriculum-based measurement in writing. *School Psychology Review*, 31 (4) 477-497.

Malecki, C. K., & Jewell, J. (2003). Developmental, gender, and practical considerations in scoring curriculum-based measurement writing probes. *Psychology in the Schools*, 40 (4), 379-390.

Marston, D. (1982). *The technical adequacy of direct, repeated measurement of academic skills in low-achieving students*. Unpublished doctoral dissertation, Minneapolis: University of Minnesota.

Marston, D., & Deno, S. L. (1981). T*he reliability of simple, direct measures of written expression* (Research Report No. 50). Minneapolis: University of Minnesota Institute for Research on Learning Disabilities, University of Minnesota.

Marston, D., & Deno, S. L. (1982). *Implementation of direct and repeated measurement in the school setting* (Research Report No. 106). Minneapolis: University of Minnesota Institute for Research on Learning Disabilities, University of Minnesota.

Parker, R., Tindal, G., & Hasbrouck, J. (1991). Countable indices of writing quality: Their suitability for screening-eligibility decisions. *Exceptionality*, 2, 1-17.

Shinn, M. R. (1981). *A comparison of psychometric and functional differences between students labeled learning disabled and low achieving*. Unpublished doctoral dissertation, Minneapolis: University of Minnesota.

Tindal, G., Germann, G., & Deno, S. (1983). *Descriptive research on the Pine County norms: A compilation of findings* (Research Report No. 132). Minneapolis: University of Minnesota Institute for Research on Learning Disabilities, University of Minnesota.

Tindal, G., Marston, D., & Deno, S. L. (1983). *The reliability of direct and repeated measurement* (Research Report No. 109). Minneapolis: University of Minnesota Institute for Research on Learning Disabilities, University of Minnesota.

Tindal, G, & Parker, R. (1989). Assessment of written expression for students in compensatory and special education programs. *The Journal of Special Education*, 23 (2), 169-183

Videen, J., Deno, S. L., & Marston, D. (1982). *Correct word sequences: A valid indicator of proficiency in written expression* (Research Report No. 84). Minneapolis: University of Minnesota Institute for Research on Learning Disabilities, University of Minnesota.

Watkinson, J. T., & Lee, S. W. (1992). Curriculum-based measures of written expression for learning-disabled and nondisabled students. *Psychology in the Schools*, 29, 184-191.

References

Appendices

Appendix A

Standardized Directions

Qualitative Features and Error Checklists

Accuracy of Implementation Rating Scale

Written Expression Curriculum-Based Measurement (WE-CBM) Standardized Directions

1. Select an appropriate story starter.

2. Provide the student with a pencil and a sheet of lined paper.

3. Say these specific directions to the students:

"You are going to write a story. First, I will read a sentence, and then you will write a story about what happens next. You will have 1 minute to think about what you will write, and 3 minutes to write your story. Remember to do your best work. If you don't know how to spell a word, you should guess. Are there any questions? (Pause) Put your pencils down and listen.

For the next minute, think about ... "(insert story starter)."

4. After reading the story starter, begin your stopwatch and allow 1 minute for students to "think." (Monitor students so that they do not begin writing).

    After 30 seconds say: *"You should be thinking about…"* "(insert story starter)."

5. At the end of 1 minute say: *"Now begin writing."* Restart your stopwatch.

6. Monitor students' participation. If individual students pause for about 10 seconds or say they are done before the test is finished, move close to them and say *"Keep writing the best story you can."* This prompt can be repeated to students should they pause again.

7. After 90 seconds say: *"You should be writing about* (insert story starter)."

At the end of 3 minutes say: *"Stop. Put your pencils down."*

Qualitative Features of Writing Checklist

Student Name: _____

Rater:_____

Date: _____

Testing Material: _____

After having the student complete WE-CBM probes, judge the degree to which you observe these important features of successful writing. Note that some of these features may not be observed.

Communication

_____ Story communicates thoughts and ideas

_____ Story has a logical organizational structure or sequence

_____ Has effective strategies for organizing information

_____ Story has sentence-to-sentence and word-to-word relationships

Mechanics

_____ Uses planning skills

_____ Observes spelling rules

_____ Uses appropriate sentence structure

_____ Uses correct syntax,

_____ Writing is semantically correct

_____ Uses appropriate vocabulary accurately

_____ Observes punctuation rules

Additional Comments:

_____

_____

_____

_____

WE-CBM Error Tracking Checklist

Type of Error	Number of Errors
Capitalization – Beginning of sentence not capitalized	
Capitalization – Proper noun not capitalized	
Capitalization – Of a word that should not be capitalized	
Illegible words	
Incomplete sentence	
Punctuation – Missing or incorrect at end of sentence	
Punctuation – Omission of comma in a list	
Punctuation – Inappropriate punctuation mark in middle of sentence	
Run-on sentence	
Semantics – Word in sequence semantically incorrect (e.g., "I went too the library")	
Spelling (e.g., plase instead of place)	
Spelling – Contraction (e.g., "dont" instead of "don't")	
Spelling – Hyphenation (e.g., "dauta-in-law")	
Spelling – Incorrect for context of what's written	
Syntax – Noun/Verb disagreement (e.g., "I never seen…")	
Syntax – Adjective/Adverb incorrect (e.g., "She ran quick")	

Note: **bold** denotes errors reflected in CBM scoring (Total Words Written, Words Spelled Correctly, or Correct Writing Sequences)

WE-CBM Error Tracking Checklist

Accuracy of Implementation Rating Scale
Written Expression-CBM (AIRS-WE-CBM)

X = completed accurately O = incorrectly completed

Testing Procedure	Observation			
	1	2	3	4
Selects an appropriate story starter	___	___	___	___
Seated appropriate distance from student	___	___	___	___
Provides student with a pencil and sheet of lined paper	___	___	___	___
Says standardized directions verbatim	___	___	___	___
Says "For the next minute think about (insert story starter)"	___	___	___	___
Starts stopwatch	___	___	___	___
Provides prompt at 30 seconds into 1 minute think time	___	___	___	___
Stops stopwatch at the end of one minute	___	___	___	___
Says "Now begin writing…" and restarts stopwatch	___	___	___	___
Provides prompt at 90 seconds into 3 minute writing time	___	___	___	___
Monitors student attention to task—gives encouragement/prompts if student stops writing or is looking around	___	___	___	___
Times for 3 minutes	___	___	___	___
Says "Stop. Put your pencil down"	___	___	___	___
Stops stopwatch	___	___	___	___
Determines appropriate scores (TWW, WSC, CWS)	___	___	___	___

Additional Comments:

_____

_____

_____

_____

Appendix B

Practice Examples

Total Words Written

Correct Writing Sequences

Words Spelled Correctly

Completed Qualitative Features Checklist Examples

Completed Error Tracking Checklist Examples

Appendix B

Practice Exercises for Total Words Written

Written Expression Example 1a

Scott, Grade 2

Yesterday, a monkey climbed through the window at school and…

and he was jumping on descs and when we tride to get him he would cLimb up on top of the cupberds and we could not reach him. When we went up their on a Ladder he would jump on a Light.

TWW = _____

Answer Key Written Expression Example 1a

Scott, Grade 2

Yesterday, a monkey climbed through the window at school and…

and he was jumping on descs and when we tride to get him he would cLimb up on top of the cupberds and we could not reach him. When we went up their on a Ladder he would jump on a Light.

TWW = __42__

Practice Exercises for TWW

Written Expression Example 1b

Mike, Grade 2

Yesterday, a monkey climbed through the window at school and…

how ere thay. I dont kno I wont sum Frit. Sed The mucy. Were is The Frit I dont no. Litts tllk

TWW = _____

Answer Key Written Expression Example 1b

Mike, Grade 2

Yesterday, a monkey climbed through the window at school and…

how ere thay. I dont kno I wont sum Frit. Sed The mucy. Were is The Frit I dont no. Litts tllk

TWW= __22__

Written Expression Example 1c

Amy, Grade 3

I would go to the Caribean in the
Caribean I will go to Saint Lucia than
I will saill to Martinige a french place.
I would have to speak french. Then. I would
go snorkling and see zebra fish and
sharks. Then I would go to town
in Saint Lucia and get ice cream. The
ice cream would be 'cookies'n' cream.

TWW = _____

Answer Key Written Expression Example 1c

Amy, Grade 3

I would go to the Caribean in the

Caribean I will go to Saint Lucia then

I will saill to Martinige a french place.

I would have to speak french. Then I would

go snorkeling and see zebra fish and

Sharks. Then I would go to town

in Saint Lucia and get ice cream. The

ice cream would be cookies-n-cream.

TWW = ___60___

Written Expression Example 1d

Jessica, Grade 3

I am going to florda
for spring bryka I wand
to go there because
I like the hot wether and I
trke swimming and their

TWW = _____

Answer Key Written Expression Example 1d

Jessica, Grade 3

I am going to florida

For spring brake I want

to go there because

I like the hot wether and I

trke swimming and their

TWW = __25__

Practice Exercises for CWS

Written Expression Example 2a

Scott, Grade 2

Yesterday, a monkey climbed through the window at school and…

and he was jumping on descs and when we tride to get him he would cLimb up on top of the cupberds and we could not reach him. When we went up their on a Ladder he would jump on a Light.

TWW = ___42___

CWS = _____

Answer Key Written Expression Example 2a

Scott, Grade 2

Yesterday, a monkey climbed through the window at school and…

^and^he^was^jumping^on descs and^when^we tride to ^get^him^he^would^cLimb^up^on^top^of^the cupberds and^we^could^not^reach^him^. ^When^we^went^up their on^a Ladder he^would^jump^on^a Light.

TWW = ___42___

CWS = ___32___

Written Expression Example 2b

Mike, Grade 2

Yesterday, a monkey climbed through the window at school and…

how ere thay. I dont kno I wont sum Frit. Sed The mucy. Were is The Frit I dont no. Litts tllk

TWW = __22__

CWS = _____

Answer Key Written Expression Example 2b

Mike, Grade 2

Yesterday, a monkey climbed through the window at school and…

how ere thay.^I dont kno ^I wont sum Frit. Sed The mucy. Were is The Frit ^I dont no. Litts tllk

TWW = __22__

CWS = __3__

Written Expression Example 2c

Amy, Grade 3

I would go to the Caribean in the
Caribean I will go to Saint Lucia then
I will saill to Martinige a french place.
I would have to speak french. Then. I would
go snorkling and see zebra fish and
sharks. Then I would go to town
in Saint Lucia and get ice cream. The
ice cream would be 'cookies'n' cream.

TWW = ___60___

CWS = _____

Answer Key Written Expression Example 2c

Amy, Grade 3

^I^would^go^to^the Caribean in the

Caribean I^will^go^to^Saint^Lucia^then^

I^will saill to Martinige a french place^.

^I^would^have^to^speak french. ^Then^I^would

^go snorkling and^see zebra fish and^

sharks^. ^Then^ I^would^go^to^town

^in^Saint^Lucia^and^get^ice^cream^. ^The^

ice^cream^would^be^cookies-n-cream^.

TWW = ___60___

CWS = ___47___

Written Expression Example 2d

Jessica, Grade 3

TWW = ___25___

CWS = _____

Answer Key Written Expression Example 2d

Jessica, Grade 3

^I^am^going^to florida

*for^spring brake   I^want^*

*to^go^there^because^*

I^lik^the^bot wether and^I

trke swimming^and their

TWW = ___25___

CWS = ___16___

Written Expression Example 2e

Charlie, Grade 8

If you were the teacher of this class, write about what it would be like.

If I were the teacher of this class, I would not give homework and the students would be able to eat in class. Then I would give them a choice of assiments they did, but the would have to chose one to turn in. I would give them

TWW = ___48___

CWS = _____

Answer Key Written Expression Example 2e

Charlie, Grade 8

If you were the teacher of this class, write about what it would be like.

*^If^I^were^the^teacher^of^this^class,^I^*
*would^not^give^homework^and^the^students^would^be^*
*able^to^eat^in^class.^^Then^I^would^give^*
*them^a^choice^of assiments they^did,^but ^the would^*
*have^to chose one^to^turn^in.^^I^would^*
give^them

TWW = ___48___

CWS = ___45___

Written Expression Example 2f

Andy, Grade 8

If you were the teacher of this class, write about what it would be like.

Their wood be alot of partys, no work games I don't no about t.v but free time all the Time. We would have aLot fun. pop candy enthy you want It wood be Like Never Land

TWW = __36__

CWS = _____

Answer Key Written Expression Example 2f

Andy, Grade 8

If you were the teacher of this class, write about what it would be like.

Their wood be alot of partys, no^work games I^don't no about t.v but^free^time^all^the Time ^We^would^have aLot fun.^pop candy enthy you^want^It wood be Like^Never Land

TWW = __36__

CWS = __13__

Written Expression Example 2g
Desmond, Grade 4

One day we went to school and the teacher had turned into a …

invisable person. We could not find, where she was. She was walching us the whole time we were looking for her. We told the principal. He looked for her too. He said he heard her laughing from somewhere. He did'nt know where either. He told the secretary. She looked and tried also.

TWW = __52__

CWS = _____

Answer Key Written Expression Example 2g
Desmond, Grade 4

One day we went to school and the teacher had turned into a …

invisable person.^^We^could^not^find,^where^she

^was.^^She^was walching us^the^ whole^time^we

*^were^looking^for^her.^^We^ told^the^principal.^*

*^He^looked^for^her^too.^ ^He^said^he^heard^her^*

*laughing^from^somewhere.^ ^He did'nt know^*

*where^either.^^He^told^the^secretary.^^She^looked^*

*and^tried^also.^*

TWW = __52__

CWS = __55__

Written Expression Example 2h

Katie, Grade 4

One day we went to school and the teacher had turned into a….

The teaer thrnt into a mean mean globin and she was so mean that we could not look at her. And she could not evin

TWW = __25__

CWS = _____

Answer Key Written Expression Example 2h

Katie, Grade 4

One day we went to school and the teacher had turned into a….

*^The teaer thrnt into^a^mean^mean globin and^she^was^*

so^mean^that^We^could^not^look^at^her.^^And^she^could^not evin

TWW = __25__

CWS = __20__

Practice Exercises for WSC

Written Expression Example 3a
Scott, Grade 2

Yesterday, a monkey climbed through the window at school and…

^and^he^was^jumping^on desks and^when^we tride to ^get^him^he^would^cLimb^up^on^top^of^the cupberds and^we^could^not^reach^him^. ^When^we^went^up their on^a Ladder he^would^jump^on^a Light.

TWW = ___42___

CWS = ___32___

WSC = _____

Answer Key Written Expression Example 3a
Scott, Grade 2

Yesterday, a monkey climbed through the window at school and…

^and^he^was^jumping^on | desks | *and^when^we* | tride | *to ^get^him^he^would^cLimb^up^on^top^of^the* | cupberds | *and^we^could^not^reach^him^. ^When^we^went^up their on^a Ladder he^would^jump^on^a Light.*

TWW = ___42___

CWS = ___32___

WSC = ___39___

Written Expression Example 3b

Mike, Grade 2

Yesterday, a monkey climbed through the window at school and…

bow ere thay.^I dont kno ^I wont sum Frit. Sed The mucy. Were is The Frit ^I dont no. Litts tllk

TWW = __22__

CWS = __3__

WSC = ____

Answer Key Written Expression Example 3b

Mike, Grade 2

Yesterday, a monkey climbed through the window at school and…

bow | *ere* | *thay* | . ^*I* | *dont* | *kno* | ^*I* | *wont* | *sum* | *Frit* |.
Sed | *The* | *mucy* |. *Were* | *is The* | *Frit* | ^*I* | *dont* | *no.* | *Litts* | *tllk*

TWW= __22__

CWS = __3__

WSC = __9__

Written Expression Example 3c

Amy, Grade 3

I would go to the Caribean in the
Caribean I will go to Saint Lucia then
I will saill to Martinige a french place.
I would have to speak french. Then I would
go snorkling and see zebra fish and
sharks. Then I would go to town
in Saint Lucia and get ice cream. The
ice cream would be cookies'n'cream.

TWW = __60__

CWS = __47__

WSC = _____

Answer Key Written Expression Example 3c

Amy, Grade 3

^*I*^*would*^*go*^*to*^*the* | *Caribean* | in the

| *Caribean* | *I*^*will*^*go*^*to*^*Saint*^*Lucia*^*then*^

I^*will* | *saill* | to | *Martinige* | a | *french* | *place*^.

^*I*^*would*^*have*^*to*^*speak* | *french* |. ^*Then*^*I*^*would*

^*go* | *snorkling* | *and*^*see* | *zebra* | *fish* | *and*^

sharks^. ^*Then*^*I*^*would*^*go*^*to*^*town*

^*in*^*Saint*^*Lucia*^*and*^*get*^*ice*^*cream*^. ^*The*^

ice^*cream*^*would*^*be*^*cookies-n-cream*^.

TWW = __60__

CWS = __47__

WSC = __51__

Written Expression Example 3d

Jessica, Grade 3

TWW = __25__

CWS = __16__

WSC = _____

Answer Key Written Expression Example 3d

Jessica, Grade 3

^I ^am ^going^ to | *florida* |

for ^spring | *brake* | *I^ want^*

*to^ go^ there ^because^*

I^ like ^the ^hot | *wether* | *and^ I*

| *trke* | *swimming ^and* | *their* |

TWW = __25__

CWS = __16__

WSC = __20__

Written Expression Example 3e
Charlie, Grade 8

If you were the teacher of this class, write about what it would be like.

^*If*^*I*^*were*^*the*^*teacher*^*of*^*this*^*class,*^*I*^

would^*not*^*give*^*homework*^*and*^*the*^*students*^*would*^*be*^

able^*to*^*eat*^*in*^*class.*^^*Then*^*I*^*would*^*give*^

them^*a*^*choice*^*of assiments they*^*did,*^*but* ^*the would*^

have^*to chose one*^*to*^*turn*^*in.*^^*I*^*would*^

give^*them*

TWW = ___48___

CWS = ___45___

WSC = _____

Answer Key Written Expression Example 3e
Charlie, Grade 8

If you were the teacher of this class, write about what it would be like.

^*If*^*I*^*were*^*the*^*teacher*^*of*^*this*^*class,*^*I*^

would^*not*^*give*^*homework*^*and*^*the*^*students*^*would*^*be*^

able^*to*^*eat*^*in*^*class.*^^*Then*^*I*^*would*^*give*^

them^*a*^*choice*^*of* [*assiments*] *they*^*did,*^*but* ^*the*

would^*have*^*to* [*chose*] *one*^*to*^*turn*^*in.*^^*I*^*would*^

give^*them*

TWW = ___48___

CWS = ___45___

WSC = ___46___

Written Expression Example 3f

Andy, Grade 8

If you were the teacher of this class, write about what it would be like.

Their wood be alot of partys, no^work games

I^don't no about t.v but^free^time^all^the Time

*^We^would^have aLot fun.^pop candy enthy you^*

want^It wood be Like^Never Land

TWW = __36__

CWS = __13__

WSC = _____

Answer Key Written Expression Example 3f

Andy, Grade 8

If you were the teacher of this class, write about what it would be like.

| Their | | wood | be alot of | partys | , no^work games

I^don't no about | t.v | but^free^time^all^the Time

*^We^would^have | aLot | fun.^pop candy | enthy | you^*

want^It wood be Like^Never Land

TWW = __36__

CWS = __13__

WSC = __29__

Written Expression Example 3g
Desmond, Grade 4

One day we went to school and the teacher had turned into a …

invisable person.^^We^could^not^find,^where^she

^was.^^She^was walching us^the^ whole^time^we

*^were^looking^for^her.^^We^ told^the^principal.^*

*^He^looked^for^her^too.^ ^He^said^he^heard^her^*

*laughing^from^somewhere.^ ^He did'nt know^*

*where^either.^^He^told^the^secretary.^^She^looked^*

*and^tried^also.^*

TWW = __52__

CWS = __55__

WSC = _____

Answer Key Written Expression Example 3g
Desmond, Grade 4

One day we went to school and the teacher had turned into a …

| invisable | person.^^We^could^not^find,^where^she

^was.^^She^was | walching | us^the^ whole^time^we

*^were^looking^for^her.^^We^ told^the^principal.^*

*^He^looked^for^her^too.^ ^He^said^he^heard^her^*

*laughing^from^ somewhere.^ ^He | did'nt | know^*

*where^either.^^ He^told^the^secretary.^^She^looked^*

*and^tried^also.^*

TWW= __52__

CWS= __55__

WSC = __49__

Written Expression Example 3h

Katie, Grade 4

One day we went to school and the teacher had turned into a….

^*The teaer thrnt into^a^mean^mean globin and^she^was^*

so^mean^that^We^could^not^look^at^her.^^And^she^could^not evin

TWW = __25__

CWS = __20__

WSC = ____

Answer Key Written Expression Example 3h

Katie, Grade 4

One day we went to school and the teacher had turned into a….

^*The* | *teaer* | | *ithrnt* | *into^a^mean^mean* | *globin* | *and^she^was^*

so^mean^that^We^could^not^look^at^her.^^And^she^could^not | *evin*

TWW= __25__

CWS= __20__

WSC = __21__

Written Expression Evaluation Probe

James, Grade 5

I was walking my dog and all of a sudden a pack of wolves came running out and…

ate my dog so I started running away and I climbed a tree. Then finally the wolves went away and I got out of the tree and state for my house. I told my mom what had happened. So we got a new dog and I never seen the wolves ever

TWW = _____

CWS = _____

WSC = _____

Qualitative Features of Writing Checklist (SAMPLE)

Student Name: ___Amy_____

Rater: _____

Date: _____

Testing Material: _____

After having the student complete WE-CBM probes, judge the degree to which you observe these important features of successful writing. Note that some of these features may not be observed.

Communication

__Yes__   Story communicates thoughts and ideas

__Yes__   Story has a logical organizational structure or sequence

__Yes__   Has effective strategies for organizing information

__Yes__   Story has sentence-to-sentence and word-to-word relationships

Mechanics

__Yes__   Uses planning skills

__No__   Observes spelling rules

__Yes__   Uses appropriate sentence structure

__Yes__   Uses correct syntax,

__Yes__   Writing is semantically correct

__Yes__   Uses appropriate vocabulary accurately

__Yes__   Observes punctuation rules

Additional Comments:

Amy does not observe spelling rules consistently. Minor spelling errors were observed along with spelling errors on

proper nouns.

_____

_____

_____

_____

Qualitative Features of Writing Checklist

WE-CBM Error Tracking Checklist

SAMPLE for Amy

WE-CBM Error Tracking Checklist	
Type of Error	Number of Errors
Capitalization – Beginning of sentence not capitalized	0
Capitalization – Proper noun not capitalized	4
Capitalization – Of a word that should not be capitalized	0
Illegible words	0
Incomplete sentence	0
Punctuation – Missing or incorrect at end of sentence	1
Punctuation – Omission of comma in a list	0
Punctuation – Inappropriate punctuation mark in middle of sentence	0
Run-on sentence	1
Semantics – Word in sequence semantically incorrect (e.g., "I went too the library)	0
Spelling (e.g., plase instead of place)	5
Spelling – Contraction (e.g., "dont" instead of "don't")	0
Spelling – Hyphenation (e.g., "dauta-in-law")	0
Spelling – Incorrect for context of what's written	0
Syntax – Noun/Verb disagreement (e.g., "I never seen…")	0
Syntax – Adjective/Adverb incorrect (e.g., "She ran quick")	0

Note: **bold** denotes errors reflected in CBM scoring (Total Words Written, Words Spelled Correctly, or Correct Writing Sequences)

Qualitative Features of Writing Checklist (SAMPLE)

Student Name: ____Jessica_____

Rater: _____

Date: _____

Testing Material: _____

After having the student complete WE-CBM probes, judge the degree to which you observe these important features of successful writing. Note that some of these features may not be observed.

Communication

__Yes__ Story communicates thoughts and ideas

__Yes__ Story has a logical organizational structure or sequence

__Yes__ Has effective strategies for organizing information

__No__ Story has sentence-to-sentence and word-to-word relationships

Mechanics

__Yes__ Uses planning skills

__No__ Observes spelling rules

__No__ Uses appropriate sentence structure

__Yes__ Uses correct syntax,

__No__ Writing is semantically correct

__Yes__ Uses appropriate vocabulary accurately

__No__ Observes punctuation rules

Additional Comments:

Though she did not make a high number of any one kind of error, Jessica's writing showed a variety of errors. These

errors included spelling, syntax and punctuation. In addition, most of her writing was one long run on sentence.

_____

_____

_____

_____

_____

WE-CBM Error Tracking Checklist
SAMPLE for Jessica

WE-CBM Error Tracking Checklist	
Type of Error	**Number of Errors**
Capitalization – Beginning of sentence not capitalized	1
Capitalization – Proper noun not capitalized	1
Capitalization – Of a word that should not be capitalized	0
Illegible words	1
Incomplete sentence	0
Punctuation – Missing or incorrect at end of sentence	1
Punctuation – Omission of comma in a list	0
Punctuation – Inappropriate punctuation mark in middle of sentence	0
Run-on sentence	1
Semantics – Word in sequence semantically incorrect (e.g., "I went too the library)	1
Spelling (e.g., plase instead of place)	1
Spelling – Contraction (e.g., "dont" instead of "don't")	0
Spelling – Hyphenation (e.g., "dauta-in-law")	0
Spelling – Incorrect for context of what's written	2
Syntax – Noun/Verb disagreement (e.g., "I never seen…")	0
Syntax – Adjective/Adverb incorrect (e.g., "She ran quick")	0

Note: **bold** denotes errors reflected in CBM scoring (Total Words Written, Words Spelled Correctly, or Correct Writing Sequences)

Appendix C

Summary of Reliability and Validity Studies

Summary of Reliability and Validity Studies

Summary of WE-CBM Reliability Studies

Study	Subjects	Type of Reliability	Results
Espin, Scierka, Skare, & Halverson (1999)	9 LD students, 138 general education students in grade 10	Interscorer agreement	TWW = 100% WSC = 99.5% CWS = 97.4%
Espin, Shin, Deno, Skare, Robinson, & Benner (2000)	11 special education students, 101 general education students in grades 7 & 8	Alternate Form	TWW = .73-.77 [a] WSC = .72-.76 [a] CWS = .75-.80 [a]
Fuchs, Deno, & Marston (1983)	78 3rd to 6th grade low achieving students	10 parallel forms, 1week apart 2 samples 4 samples 6 samples 8 samples 10 samples	 WSC = .55 WSC = .72 WSC = .85 WSC = .88 WSC = .89
Gansle, Noell, VenDerHeyden, Naquin, & Slider (2002)	179 students in grades 3 & 4	Interscorer agreement Alternate Form	TWW = 96% WSC = 95% CWS = 86% TWW = .62 WSC = .53 CWS = .46
Maleki & Jewell (2003)	946 students in 1st – 6th grades	Interscorer agreement	TWW = >99% WSC = >99% CWS = >98%

[a] Ranges represent alternate-form reliabilities for 3 and 5 minute story writing and descriptive writing samples.

Study	Subjects	Type of Reliability	Results
Martson (1982)	83 low achieving students in 3rd-6th grades	Test –restest (10 weeks)	TWW = .42 WSC = .46
		10 parallel forms, 1 week apart	TWW = .58 (mean) WSC = .59 (mean)
		Parallel forms determined by averaging 3 weekly measures	TWW = .70 - .84 (range)
Marston & Deno (1981)	28 LD students, grades 1 to 6	Test-retest (1 day)	TWW = .91 WSC = .81
		Test-retest (3 weeks)	TWW = .64 WSC = .62
Marston & Deno (1981)	161 students, grades 1 to 6	2 parallel forms, same day	TWW = .95 WSC = .95
Marston & Deno (1981)	105 students, grades 1 to 6	Split-half, minutes (2+5) with (3+4)	TWW = .99 WSC = .96
		Split-half, minutes (2+4) with (3+5)	TWW = .99 WSC = .97
		Cronbach's alpha	TWW = .87 WSC = .70
Marston & Deno (1981)	20 students, grades 1 to 6	Interscorer agreement	TWW = 98% WSC = 98%
Shinn (1981)	71 LD and low achieving 5th grade students	Test-retest (5 weeks)	TWW = .69 WSC = .73
		4 parallel forms, 1 week apart	TWW = .59 (median) WSC = .59 (median)
Tindal, Germann, & Deno (1983)	60 general education 5th grade students	Test-retest (2 weeks)	TWW = .56
Tindal, Germann, & Deno (1983)	60 general education 4th grade students	2 sets of 2 parallel forms, same time	TWW = .70

Summary of Reliability and Validity Studies

Summary of WE-CBM Reliability Studies (continued)

Study	Subjects	Type of Reliability	Results
Tindal, Marston, & Deno (1983)	566 general education students, grades 1 to 6	Test-retest (6 months) 2 sets of 2 parallel forms, same time Interscorer agreement	TWW = .70 TWW= .73 (mean) TWW= 98% (mean)
Watkinson & Lee (1992)	26 LD students, 26 general education students	Interscorer agreement	TWW= 99% WSC= 96% CWS= 95%

Summary of WE-CBM Validity Studies

Study	Subjects	Criterion Measure	Scoring Metric	Correlations
Deno, Marston, & Mirkin (1982)	44 LD students, 86 general education students, grades 3 to 6	Test of Written Language — Total Test	TWW WSC	.75 .80
		Test of Written Language — subtests	TWW WSC	.58-.65 (range) .57-.71 (range)
		Stanford Achievement Test — Word Usage Subtest	TWW WSC	.62 .67
		Developmental Sentence Scoring System	TWW WSC	.84 .76
Deno, Mirkin, & Marston (1980)	16 LD students, 16 general education students, grades 3 to 6	Test of Written Language — Total Test	TWW WSC	.63 .67
		Test of Written Language —s ubtests	TWW WSC	.41-.70 (range) .45-.67 (range)
Deno, Mirkin,& Marston (1980)	4 LD students, 24 general education students, grades 3 to 6	Test of Written Language — Total Test	TWW WSC	.81 .79
		Stanford Achievement Test — Word Usage Subtest	TWW WSC	.65 .69
Deno, Mirkin, & Marston (1980)	31 LD students, 51 general education students, grades 3 to 6	Developmental Sentence Scoring System	TWW WSC	.84 .84

Summary of WE-CBM Validity Studies (continued)

Study	Subjects	Criterion Measure	Scoring Metric	Correlations
Espin, Scierka, Skare, & Halverson (1999)	9 LD students, 138 general education students in grade 10	California Achievement Test — Language Arts Total	TWW WSC CWS	.13 .17 .29
		English Grades	TWW WSC CWS	.22 & .25 .25 & .29 .33 & .35
		Independent Ratings of Student Writing	TWW WSC CWS	.36 .41 .52
Espin, Shin, Deno, Skare, Robinson, & Benner (2000)	11 special education students, 101 general education students in grades 7 & 8	Teacher Ratings	TWW WSC CWS	.34-.46 [a] .38-.48 [a] .54-.60 [a]
		District Writing Test (8th grade students only)	TWW WSC CWS	.43-.47 [a] .46-.51 [a] .61-.65 [a]
Fewster & MacMillan (2002)	465 students in grades 6 & 7	School Grades in grades 8 - 10	WSC	.31 -.50 [b]
Parker, Tindal, & Hasbrouk (1991)	2522 students in grades 2-6, 8, & 11	Teachers' Holistic Judgments	TWW WSC CWS	.42 [c] .52 [c] .56 [c]

[a] Ranges represent correlations between criterion measures and CBM writing for 3 and 5 minute story writing and descriptive writing samples.

[b] Range across grades 8-10 in both English and Social Studies content areas.

[c] Average correlations across all grade levels.

Summary of WE-CBM Validity Studies (continued)

Study	Subjects	Criterion Measure	Scoring Metric	Correlations
Gansle, Noell, VenDerHeyden, Naquin, & Slider (2002)	179 students in grades 3 & 4	Teacher Rankings (n = 177)	TWW WSC CWS	.08 .21 .36
		Iowa Test of Basic Skills Total Language Score (3rd grade) (n =75)	TWW WSC CWS	.15 .24 .43
		Lousianna Educational Assessment Program – Write Competently subtest (4th grade) (n = 96)	TWW WSC CWS	.28 .29 .28
		Lousianna Educational Assessment Program – Conventions subtest (4th grade) (n = 96)	TWW WSC CWS	.16 .26 .41
Marston (1982)	57 Low achieving students grades 4 to 6	SAT Language subtest	TWW WSC	.47 .64
Tindal & Parker (1989)	30 special education students, 142 students in remedial programs in 6th to 8th grade	Holistic Ratings	TWW WSC CWS	.10 .31 .45

Study	Subjects	Criterion Measure	Scoring Metric	Correlations
Videen, Deno, & Marston (1982)	50 general education students grades 3 to 6	Test of Written Language	TWW WSC	.66 .92
		Developmental Sentence Scoring System	TWW WSC	.51 .52
		Teacher Wholistic Rating	TWW WSC	.85 .84