Curriculum-Based Measurement for Written Expression (CBM-W):
The “How To” Guide

Kristen McMaster, Ph.D.
University of Minnesota
Step 1: Select Materials

- Select type of measure based on:
  - Grade level
  - Purpose of progress monitoring
  - What will provide YOU with the most meaningful information.

- Determine the number of prompts needed.
  - How many weeks do you plan to monitor progress?
  - How often do you plan to monitor progress?

- Create prompts that…
  - Tap background knowledge that your students are likely to have.
  - End mid-sentence (if narrative/story starters).
  - Include a “tell why” component (if expository).

- Print prompts at top of pages that students will write on.

Tip
Keep materials and procedures consistent throughout the Monitoring period.

“If you want to measure change, don’t change the measure!”

Sample Prompts

**Narrative (Story Starters)**
- One night I had a strange dream about…
- It was the last day of school so I decided to…
- One day, when I got home from school…
- One day my friend told me the strangest story…
- I was walking home when I found a $100 bill on the sidewalk and…
- One day I went to school but nobody was there except me, so I…
- I was talking to my friends when, all of a sudden…
- One day I woke up and was invisible and…
- One day I found the most interesting thing and…
- One summer I went on a trip and…
- I was walking down the street when I saw…

**Expository**
- Describe a game you like to play and tell why you like it.
- Describe your favorite day of the week and tell why you like it.
- Describe your favorite time of the year and tell why you like it.
- Describe your favorite thing to do and tell why you like it.
- Describe a place you like to go and tell why you like to go there.
- Describe the clothes that kids wear in your school and tell why kids wear them.
- Describe the friends you have and tell why they are your friends.
Sources for Prompts

- Research Institute on Progress Monitoring  
  http://www.progressmonitoring.org

- Write Source  
  http://www.thewritesource.com

- NWREL  

Prompts for Beginning Writers

- Words and sentences were drawn from Minneapolis first-grade language arts curriculum (Houghton-Mifflin).

- These reflect high-frequency words used with early elementary students.

- Prompts are available on RIPM website:  
  http://www.progressmonitoring.org
Step 2. Administer CBM-W

- Read prompt to students
- Give students 30 seconds to think
- Reread prompt
- Give students X minutes to write (choose time based on grade level, and stay consistent all year)

Tip
See handouts; beginning writing procedures are on RIPM website.

Score CBM-W: Procedures

- **Words Written (WW):**
  - The number of words written in the sample.
  - A “word” is defined as a sequence of letters separated by a space from another sequence of letters.
Score CBM-W: Procedures

• **Words Spelled Correctly** (WSC):
  
  – The number of correctly spelled words written in the sample.

  – In some studies, words correct are counted regardless of whether they are used correctly within the context of the sentence (e.g., “I saw a **bare** when I was camping.”), and in others, only when the words are used correctly within the context.

Score CBM-W: Procedures (cont.)

• **Correct word sequences** (CWS) (Videen et al., 1982): The number of adjacent, correctly spelled words that are syntactically and semantically correct within the context of the sample.

  “Capitalization and punctuation are taken into account.”

  **Example:**
  “^The^man^saw^a **bare** in^the^tree^and **began** to^run^.”

  CWS=9.
Score CBM-W: Procedures (cont.)

- **Correct minus incorrect word sequences** (CIWS) (Espin et al., 1999). The number of incorrect word sequences subtracted from the number correct sequences.

Example:

“\(^{\text{The}}^{\text{man}}^{\text{saw}}^{\text{a}}^{\text{bare}}^{\text{in}}^{\text{the}}^{\text{tree}}^{\text{and}}^{\text{began}}^{\text{to}}^{\text{run}}^{.}\)"

CWS=9.

IWS=4.

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Score CBM-W: Procedures (cont.)

• **Correct minus incorrect word sequences** (CIWS; Espin et al., 1999). The number of incorrect word sequences subtracted from the number correct sequences.

  **Example:**
  “The man saw a bare in the tree and began to run.”

  CWS = 9.
  IWS = 4.
  CIWS = 5.

Graphing Data

• Baseline: Collect 2-3 samples. Graph the scores.

  **Example:**
  • Baseline Day 1 = 25 CWS
  • Baseline Day 2 = 24 CWS
  • Baseline Day 3 = 23 CWS
Graph Baseline Scores

Baseline

Graphing Data (cont.)

- Baseline: Collect 2-3 samples. Graph the scores.
- Draw a vertical line to separate the baseline data from the first phase of instruction.
Graphing Data (cont.)

- Baseline: Collect 2-3 samples. Graph the scores.
- Draw a vertical line to separate the baseline data from the first phase of instruction.
- Draw a goal line corresponding to the desired weekly increase for the total number of weeks of instruction.
### Setting the Goal

- There are no set guidelines for determining desired rate of progress.
- You might wish to use:
  - Published norms (e.g., AIMS website [http://www.aimsweb.com](http://www.aimsweb.com))
  - Local school or district benchmarks
  - Classwide data

**Tip**
Set reasonable/attainable yet ambitious goals.

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**Setting the Goal**

- Determine the following:
  - \( b \): Student’s baseline performance
    - Example: \( b = 24 \) CWS (median of 25, 24, 23)
  - \( m \): Desired rate of progress
    - Example: \( m = 1.5 \) CWS per week
  - \( x \): Amount of time the student will be monitored
    - Example: \( x = 35 \) weeks
- Solve for \( y \) (the student’s goal):
  \[
  y = mx + b
  \]

**Example:**
\[
\begin{align*}
  y &= (1.5 \text{ CWS per wk} \times 35 \text{ weeks}) + 24 \text{ CWS} \\
  y &= 52.5 + 24 = 76.5 = \text{goal in 35 weeks}
\end{align*}
\]
Setting the Goal: Practice

- \( b = \) baseline: 27 CWS, 32 CWS, 22 CWS
  - Use median or mean
    - Median (middle score) = 27
    - Mean \( (27 + 32 + 22)/3 = 27 \)

- \( m = \) Desired rate of progress: 2 CWS per week

- \( x = \) Monitoring period: 20 weeks

- Goal: \( y = mx + b = \)
Setting the Goal: Practice

- \( b \) = baseline: 27 CWS, 32 CWS, 22 CWS
  Use median or mean
  - Median (middle score) = 27
  - Mean \( \frac{27 + 32 + 22}{3} = 27 \)

- \( m \) = Desired rate of progress: 2 CWS per week

- \( x \) = Monitoring period: 20 weeks

- Goal: \( y = mx + b = (2 \times 20) + 27 = 67 \)

Case study: Annie

Annie is a 16-year old tenth grader who has yet to pass the statewide graduation test in writing.

She has been placed in a standards English class in an effort to help her pass the high-stakes tests.

Her English teacher, Mrs. Penn, decides to monitor her writing progress using CBM.

Mrs. Penn will use this progress monitoring data to decide whether her instruction is effective.
Annie

- Which type of writing prompt would you select?
- For how many minutes would you administer each probe?
- What scoring procedure would you use?

Narrative
- Which type of writing prompt would you select? Narrative
- For how many minutes would you administer each probe? 7-10
- What scoring procedure would you use? CWS or CIWS
Annie’s Writing Sample

The cave was very dark. I try to close my eyes, so I couldn’t see anything, but that didn’t help. Then I hear some one breathing. I try to stream, but nother came out. The breathing became close and close to me, and the worst Part was that I couldn’t see athing. At first I thought meself that I am Just emaging stuff.

Scoring Practice: Words Written

The cave was very dark. I try to close my eyes, so I couldn’t see anything, but that didn’t help. Then I hear some one breathing. I try to stream, but nother came out. The breathing became close and close to me, and the worst Part was that I couldn’t see athing. At first I thought meself that I am Just emaging stuff.

Words written = 58
**Scoring Practice: WSC**

*The cave was very dark.* I try to close my eyes, so I couldn’t see anything, but that didn’t help. Than I hear some one breathing. I try to stream, but *nother* came out. The breathing became close and close to me, and the worst Part was that I couldn’t see *athing*. At first I thought *meself* that I an Just *emaging* stuff.

<table>
<thead>
<tr>
<th>Words written = 58</th>
</tr>
</thead>
<tbody>
<tr>
<td>Words spelled correctly = 54</td>
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**Scoring Practice: WSC**

*The cave was very dark.* I try to close my eyes, so I couldn’t see anything, but that didn’t help. Than I hear some one breathing. I try to stream, but *nother* came out. The breathing became close and close to me, and the worst Part was that I couldn’t see *athing*. At first I thought *meself* that I an Just *emaging* stuff.

<table>
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<tr>
<th>Words written = 58</th>
</tr>
</thead>
<tbody>
<tr>
<td>Words spelled correctly = 54 OR 43</td>
</tr>
</tbody>
</table>
The cave was very dark. I try to close my eyes, so I couldn’t see anything, but that didn’t help. Then I hear some one breathing. I try to stream, but neither came out. The breathing became close and close to me, and the worst Part was that I couldn’t see anything. At first I thought myself that I am just imagining stuff.
Score incorrect word sequences first.

The cave was very dark. I try to close my eyes, so I couldn’t see anything, but that didn’t help. Than I hear some one breathing. I try to stream, but nothing came out. The breathing became close and close to me, and the worst Part was that I couldn’t see anything. At first I thought myself that I an Just imaging stuff.

Then score correct and incorrect word sequences.

The cave was very dark. I try to close my eyes, so I couldn’t see anything, but that didn’t help. Than I hear some one breathing. I try to stream, but nothing came out. The breathing became close and close to me, and the worst Part was that I couldn’t see anything. At first I thought myself that I an Just imaging stuff.

Correct = 36
Incorrect = 27
Correct minus incorrect = 9
Case Study: Annie’s Graph

CBM Writing - Annie

Correct Minus Incorrect Sequences

Dates of Probes:
- 29 Oct
- 5 Nov
- 19 Nov
- 1 Dec
- 17 Dec
- 17 Jan
- 27 Jan
- 12 Feb
- 28 Feb

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0
0
10
20
30
40

Baselin
Case Study: Annie’s Graph

CBM Writing - Annie

Correct Minus Incorrect Sequences

Dates of Probes

Case Study: Annie’s Graph

CBM Writing - Annie

Correct Minus Incorrect Sequences

Dates of Probes
Case Study: Annie’s Graph

CBM Writing - Annie

Correct minus incorrect sequences

Baseline Direct Instruction Intervention 1

Dates of Probes

Case Study: Annie’s Graph

CBM Writing - Annie

Correct minus incorrect sequences

Baseline Direct Instruction Intervention Intervention 2

Dates of Probes
Questions for Discussion

• Writing is a complex, multi-dimensional process. How might you account for changes in the quality of student writing?

• How might you use CBM-W to monitor your own students’ progress and to make instructional decisions?

References
