Curriculum Based Measurement is a standardized and systematic method of formative assessment

- Empirically validated method of progress monitoring
  - Over 20 years of research on effectiveness of CBM

CBM has been linked to:

- Improved student academic outcomes
- More effective instruction
- Higher student achievement
- Increased student responsibility for learning
- Relationship between CBM and high stakes testing
- Better communication between parents and teachers
  (Fuchs, Deno, Mirkin, 1984; Fuchs, Fuchs, & Hamlett, 1993, Good, Simmons, & Kameeuni, 2001)

Characteristics of CBM:

- Probes are brief and easy to administer
- Administered weekly or as benchmarks
- Each probe samples curriculum for an entire school year
- Each probe is different, but each form assesses the same types of skills at same level of difficulty
- CBM can be used to:
  - Monitor student learning outcomes
  - Evaluate intervention effectiveness
  - Guide instruction and cue instructional changes
  - Measure AYP
  - Monitor annual goals and objectives

Types of CBM in Reading:

- Letter-sound fluency
  - Students identify the sounds each letter makes when shown a list of letters
- Word Identification
  - Students read a list of common words
- Nonsense-word fluency
  - Students read nonsense words that follow regular phonemic patterns (e.g. naf, zest)
- Passage-reading fluency
Also known as Oral Reading Fluency; Students read passages and words read correctly are counted

- Maze fluency
  - Students read a passage with blanks in place of words removed from the passage and choose a word to fill in the blanks. Words replaced correctly are counted.

**CBM Steps:**

1. Administer Probes
   - (3 probes - find the median score)
2. Plot median score on the Graph
3. Select appropriate growth rate for the student
4. Calculate goal
   - Initial median score + (growth rate x number of weeks of instruction)
   - 55(initial median score) + (.75 weekly growth rate) x 30 weeks = 77.5 (goal)
5. Draw goal line

### Making Decisions using CBM Data

Look at the last 3 data points.

**If the data points are:**

<table>
<thead>
<tr>
<th>Close to the goal line (all on the line, or some above and some below)</th>
<th>Continue your instruction as implemented</th>
</tr>
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<tbody>
<tr>
<td></td>
<td><em>If your student has an increasing slope with gains at or near your aimline, then he/she is responding to your instruction - so keep doing what you are doing</em></td>
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| All below the goal line                                               | Change your instruction                 |
|                                                                      | *If at least 3 consecutive scores have fallen below the aimline, the student is not responding optimally to instruction. Try something new.* |

| All above the goal line                                               | Change your goal for the student and maintain your instruction as implemented |
|                                                                      | *If at least 3 consecutive scores are above the aimline, your instruction is very effective for the student and you can increase the goal for the student.* |

**Resources:**

National Center on Student Progress Monitoring  

Children, 52, 219-232.

National Center on Response to Intervention


The IRIS Center for Training Enhancements - http://iris.peabody.vanderbilt.edu


Sources of CBM Reading Probes:
AIMSweb
http://www.aimsweb.com/

Dynamic Indicators of Basic Early Literacy Skills (DIBELS)
https://dibels.uoregon.edu/

Vanderbilt Kennedy Center
http://kc.vanderbilt.edu/site/services/education/page.aspx?id=445