Overview of the CBM R-MAZE Assessment Training Session

The purpose is to provide background information, data collection procedures, and practice opportunities to administer and score Reading MAZE.

Designed to accompany:
• Administration and Scoring of Reading R-MAZE for Use in General Outcome Measurement Training Workbook
• Standard R-MAZE Reading Passages
• AIMSweb Web-based Software
• Embedded QuickTime Examples, DVD or VHS Training Video

Training Session Goals

1. Brief review of Curriculum Based Measurement (CBM) and General Outcome Measurement (GOM).
   • Its Purpose
   • Its Origin
2. Learn how to administer and score CBM R-MAZE through applied practice.

Common Characteristics of General Outcome Measures (GOMS)

• Simple, accurate, and reasonably inexpensive in terms of time and materials.
• Considered so important to doing business well that they are routine.
• Are collected on an ongoing and frequent basis.
• Shape/inform a variety of important decisions.

General Outcome Measurements from Other Fields

• Medicine measures height, weight, temperature, and/or blood pressure.
• Federal Reserve Board measures the Consumer Price Index.
• Wall Street measures the Dow-Jones Industrial Average.
• Companies report earnings per share.
• McDonald’s measures how many hamburgers they sell.
Origins of CBM as General Outcome Measures

Curriculum-Based Measurement (CBM) was developed more than 20 years ago by Stanley Deno at the University of Minnesota through a federal contract to develop a reliable and valid measurement system for evaluating basic skills growth.

CBM is supported by more than 20 years of school-based research by the US Department of Education.

Supporting documentation can be found in more than 150 articles, book chapters, and books in the professional literature describing the use of CBM to make a variety of important educational decisions.

CBM is Designed to Provide Educators With...

The same kind of evaluation technology as other professions!

Powerful measures that are:

• Simple
• Accurate
• Efficient indicators of student achievement that guide/inform a variety of decisions

R-MAZE is Used for Scientific Reasons Based on Evidence

• It is a reliable and valid indicator of student achievement.
• It is simple, efficient, and of short duration to facilitate frequent administration by teachers.
• It provides assessment information that helps teachers plan better instruction.
• It is sensitive to the improvement of students’ achievement over time.
• It is easily understood by teachers and parents.
• Improves achievement when used to monitor progress.

Curriculum Based Measurement Reading R-MAZE

CBM R-MAZE is designed to provide educators a more complete picture of students’ reading skills, especially when comprehension problems are suspected.

<table>
<thead>
<tr>
<th>Area</th>
<th>Timing</th>
<th>Test Arrangements</th>
<th>What is Scored?</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBM R-MAZE</td>
<td>3 minutes</td>
<td>Individual, Small Group, or Classroom Group</td>
<td># of Correct Answers</td>
</tr>
</tbody>
</table>

Curriculum Based Measurement Reading R-MAZE (Continued)

• R-MAZE is a multiple-choice cloze task that students complete while reading silently.
• The students are presented with 150-400 word passages.
• The first sentence is left intact.
• After the first sentence, every 7th word is replaced with three word choices inside a parenthesis.
• The three choices consist of:
  1) Near Distracler
  2) Exact Match
  3) Far Distracler

Sample Grade 4 R-MAZE Passage

Sample Grade 4 R-MAZE Passage

Jason sat and waited for his grandfather to arrive. He always enjoyed his grandfather visits. "Jason, Saturday," said, "I could see the old car driven into the driveway."

"Grandpa, Grandpa," Jason shouted, "You're (same, here, house)!

"Hello, Jason. How is my favorite (backyard, waiting, grandfather)?"

Grandpa chuckled.

"Well, I'm just dandy," (said, for, played) Jason. "Thank you for asking."

"Grandpa (is, and, his), Jason walked into the house. Jason (played, like, helped) his grandfather carry his bags. They (were, spent, in) a wonderful day together playing in the (at, on, the) backyard. Jason sat by his grandfather's chair, that said, right!"
Examples of R-MAZE Workbook:

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Observation Questions

1. What did you observe about Emma’s and Abby’s R-MAZE performances?

2. What other conclusions can you draw?

Things to Always Remember About CBM R-MAZE

• Are designed to serve as “indicators” of general reading achievement.

• Are standardized tests to be given, scored, and interpreted in a standard way.

• Are researched with respect to psychometric properties to ensure accurate measures of learning.

Things to Always Remember About CBM R-MAZE (Continued)

• Are sensitive to improvement in Short Periods of time.

• Designed to be as short as possible to ensure its “do ability.”

• Are linked to decision making for promoting positive achievement and Problem-Solving.

Administration and Scoring of CBM R-MAZE

What examiners need to do . . .

• Before testing students

• While testing students

• After testing students

Items Students Need Before Testing

What the students need for testing:

• CBM R-MAZE practice test

• Appropriate CBM R-MAZE passages

• Pencils
Items Administrators Need Before Testing

What the tester uses for testing:
• Stopwatch
• Appropriate CBM R-MAZE answer key
• Appropriate standardized directions
• List of students to be tested.

Additional Assessment Aids

• A List of students to be tested
• Stopwatch (required—digital preferred)

Setting up Assessment Environment

Assessment environments are flexible and could include...

• The classroom if assessing the entire class.
• A cluster of desks or small tables in the classroom for small group assessment.
• Individual desks or “stations” for individual assessment.

Things You Need to do While Testing

Follow the standardized directions:
• Attach a cover sheet that includes the practice test so that students do not begin the test right away.
• Do a simple practice test with younger students.
• Monitor to ensure students are circling answers instead of writing them.
• Be prepared to “Prorate” for students who may finish early.
• Try to avoid answering student questions.
• Adhere to the end of timing.

CBM R-MAZE Standard Directions

1) Pass R-MAZE tasks out to students. Have students write their names on the cover sheet, so they do not start early. Make sure they do not turn the page until you tell them to.

2) Say this to the student(s):
   When I say ‘Begin’ I want you to silently read a story. You will have 3 minutes to read the story and complete the task. Listen carefully to the directions. Some of the words in the story are replaced with a group of 3 words. Your job is to circle the 1 word that makes the most sense in the story. Only 1 word is correct.

3) Decide if a practice test is needed. Say...
   Let’s practice one together. Look at your first page. Read the first sentence silently while I read it out loud: ‘The dog, apple, broke, ran after the cat.’ The three choices are apple, broke, ran. ‘The dog apple after the cat.’ That sentence does not make sense. ‘The dog broke after the cat.’ That sentence does not make sense. ‘The dog ran after the cat.’ That sentence does make sense, so circle the word ran. (Make sure the students circle the word ran.)

CBM R-MAZE Standard Directions (Continued)

Let’s go to the next sentence. Read it silently while I read it out loud: ‘The cat ran fast, green, for up the hill. The three choices are fast, green, for up the hill. Which word is the correct word for the sentence?’ (The students answer fast)

Yes, ‘The cat ran fast up the hill.’ is correct, so circle the correct word fast. (Make sure students circle fast)

Silently read the next sentence and raise your hand when you think you know the answer. (Make sure students know the correct word. Read the sentence with the correct answer)

That’s right. ‘The dog barked at the cat’ is correct. Now what do you do when you choose the correct word? (Students answer)

Circle it. (Make sure the students understand the task)

That’s correct, you circle it. I think you’re ready to work on a story on your own.
CBM R-MAZE Standard Directions (Continued)

4) Start the testing by saying . . .
   When I say 'Begin' turn to the first story and start reading silently. When you come to a group of three words, circle the 1 word that makes the most sense. Work as quickly as you can without making mistakes. If you finish a/ the page/first side, turn the page and keep working until I say 'Stop' or you are all done. Do you have any questions?
6) Monitor students to make sure they understand that they are to circle only 1 word.
7) If a student finished before the time limit, collect the student’s R-MAZE task and record the time on the student’s test booklet.
8) At the end of 3 minutes say: Stop. Put your pencils down. Please close your booklet.
9) Collect the R-MAZE tasks.

Things to Do After Testing

• Score immediately to ensure accurate results!
• Determine the number of words (items) correct.
• Use the answer key and put a slash (/) through incorrect words.

Making Scoring Efficient

1) Count the total number of items up to the last circled word.
2) Compare the student answers to the correct answers on the scoring template. Mark a slash (/) through incorrect responses.
3) Subtract the number of incorrect answers from the total number of items attempted.
4) Record the total number of correct answers on the cover sheet followed by the total number of errors (e.g., 35/2).

CBM R-MAZE Familiar Directions

1) After the students have put their names on the cover sheet, start the testing by saying . . .
   When I say ‘Begin’ turn to the first story and start reading silently. When you come to a group of three words, circle the 1 word that makes the most sense. Work as quickly as you can without making mistakes. If you finish a/ the page/first side, turn the page and keep working until I say ‘Stop’ or you are all done. Do you have any questions?
2) Then say: ‘Begin’. Start your stopwatch.
3) Monitor students to make sure they understand that they are to circle only 1 word.
4) If a student finished before the time limit, collect the student’s R-MAZE task and record the time on the student’s test booklet.
5) At the end of 3 minutes say: Stop. Put your pencils down. Please close your booklet.
6) Collect the R-MAZE tasks.

CBM R-MAZE Scoring

What is correct?
The students circles the word that matches the correct word on the scoring template.
What is incorrect?
An answer is considered an error if the student:
1) Circles an incorrect word
2) Omits word selections other than those the student was unable to complete before the 3 minutes expired

CBM R-MAZE Prorating

If a student finishes all the items before 3 minutes, the score may be prorated.
1) When the student finished, the time must be recorded and the number of correct answers counted. For example, the student may have finished in 2 minutes and correctly answered 40 items.
2) Convert the time taken in seconds.
   (2 minutes = 120 seconds)
3) Divide the number of seconds by the number correct.
   (120/40 = 3)
4) Calculate the number of seconds in the full 3 minutes.
   (3 minutes = 180 seconds)
5) Divide the number of full seconds by the calculated value from step 3.
   (180/3 = 60)
Summary

You now have the building blocks to begin CBM R-MAZE to ensure literacy growth.

- Practice to automaticity – You’ll become more efficient
- Check IRR using the AIRS for accuracy/efficiency with a colleague
- Stay in tune by periodically checking AIRS

Practice Exercise 1: Let’s Score

Practice Exercise 2: Let’s Score

Practice Exercise 3: Let’s Score

THE END.