Administering and Scoring of the Oral Reading Fluency and Maze Tests

*Path Driver for Reading™* uses two forms of curriculum-based measurements (CBMs) to monitor student reading development—oral reading fluency and maze assessments. These tests are short but technically sound formative assessments, designed to provide crucial information to teachers as they reflect on student progress and make plans for instructional modifications. The CBMs in *Path Driver for Reading* provide data at two levels of assessment intensity: universal screening and progress monitoring.

**Oral Reading Fluency Assessments**

*Path Driver for Reading* provides timed oral reading fluency assessments (ORFs) that can be used for universal screening and/or progress monitoring. Grade 1–10 passages are available for universal screening; students using this test type are automatically screened at their nominal grade level. But for ongoing progress monitoring, it’s better to assess students with passages written at their instructional level. For this reason, the progress-monitoring passages in *Path Driver for Reading* only span grades 1–8. It’s unlikely that students reading above grade level 8 will require progress monitoring with ORF assessments. For such students, the maze assessments, which target comprehension, are probably a more appropriate tool for measuring general reading ability.
Path Driver for Reading® ORFs are computer-administered, which frees teachers from the burden of sitting with students to administer these tests. Instead, the student sits at the computer and logs into his or her account. The probes begin with an explanation of the task, followed by a practice activity. Then a passage is presented for the student to read into a computer microphone for one minute. An audio-recording file of the oral reading is saved in the online Management System.

During universal screening, three of these one-minute readings are administered in a row and the Management System calculates the average score, which is then used as a baseline indicator of the student’s present performance. For progress monitoring, only one oral reading fluency test is administered at a time. The resulting score is plotted on a graph, and a trend line is generated that shows the trajectory of student growth. For more information about progress-monitoring reports, click For the Teacher under Resources in the left-hand menu bar and access the “Reports and Tools for Teachers” document.

**Tips for Testing**

The following tips can help ensure that the test session goes smoothly:

- Make sure you are familiar with the functionality of the assessments and the scoring system ahead of time.
- Print out a hard copy of all classes that are testing, with user names and passwords listed. Be ready to assist with logging in, especially for the fall universal screening test session, since this may be students’ first time using Path Driver for Reading.
- Introduce students to the oral reading fluency test. For universal screening, explain that students will be reading three passages aloud into a microphone, and they should follow the directions they hear online. For progress-monitoring test sessions, alert students that they will be taking one test only.
- Emphasize to students that as soon as they see the reading passage, they should start reading and not stop until the one minute is over. Recommend that they skip over unknown words.
- For students who have difficulty tracking, demonstrate using the mouse to hover over each line you are reading.
- Ensure that students work independently, without prompting or assistance.

**Scoring Oral Reading Fluency Recordings**

A teacher can sign into the Management System at any time to score an audio recording. He or she does so by counting the number of words read correctly during each one-minute test session. Recordings are saved and do not disappear after teachers have scored them. So, a teacher is able to play back recordings multiple times to increase the accuracy of scoring, if desired.
To access the student recordings, click the **Classes** tab. Then, from the left-hand menu bar, click **Scoring Tool**. A table will appear, listing all students in your class (Figure 1). Use the dropdown menu above the table to toggle back and forth between viewing **Unscored Recordings** and **All Recordings**.

When you are ready to begin, select a student to evaluate and double click the “Score” button in his or her row to launch the Scoring Tool player (Figure 2, on the next page). You may use the Scoring Tool player to evaluate each of the three critical aspects of fluent reading: word-reading accuracy, rate, and prosody.
Step-by-Step Instructions

1. Click the play arrow under the reading passage. Follow along with the text as you listen to the recording.

2. Click the up arrow in the Errors box each time you hear a mistake. Here are some tips for scoring:
   - A number, such as a year or a quantity, should be counted as a single word.
   - Words that are mispronounced, omitted, substituted, or reversed (including proper names) should be counted as errors.
   - If the student self-corrects within three seconds of making a mistake, then the word should be counted as correct.
• If the student hesitates for longer than three seconds while trying to read a word, then that word should be counted as an error.
• It’s best if teachers do not score their own students, to eliminate possible bias.

3 Click the last word in the reading passage that you heard students read. The Scoring Tool will automatically calculate the words correct per minute (WCPM) score by subtracting errors from the total number of words read.

4 You may adjust the length of a recording, if for example, the student took a few seconds to begin reading after the timed test session was underway. To do so, click the up arrow one time for each second missed. The Scoring Tool will automatically recalculate the student’s final WCPM score.

5 While not required, you may score a student’s prosody, or expression. Prosodic reading provides evidence that the reader understands what he or she is reading. The best way to assess prosodic reading is to use a rubric that scores a student on the elements of expression, volume, phrasing, smoothness, and pace. You can access the National Assessment of Educational Progress (NAEP) Oral Reading Fluency Scale from within the Scoring Tool by clicking Rubric inside the Fluency box. For additional rubrics, see the Appendix in the Path Driver for Reading Professional Development Handbook.

6 Record any comments about the student’s oral reading. For example, if you notice that a student has a predominant type of error, you may enter that information here, using up to 255 characters. These notes will appear on either the Student Progress Monitoring Report or the Student Universal Screening Report, depending on whether the test was given for progress monitoring or universal screening.

7 Click Save to ensure that all of your work is retained.

8 Once you have scored all recordings, click Scoring Tool in the left-hand menu bar to return to the student data table. In the data table, results will appear, along with a purple page icon next to the names of students who have scoring comments. Double click these icons to open and read the comments.

Error Analysis
When a student is not a fluent reader, you may need more information to determine which areas are causing that student trouble. For students who are not on course to meet their end of year WCPM goal, listen repeatedly to the recordings to try and determine if there are patterns of errors or specific areas of weakness. This may give you some insight into the kinds of intervention that each student requires. You may also wish to administer the Path Driver for Reading Diagnostic Assessments to gather more specific information about students’ specific reading deficits. The Case History tool in the Management System is a good place to record notes about the results of such analysis.
Maze Tests
While oral reading fluency probes were the first to be used in curriculum-based measurements, soon afterwards researchers began to investigate probe designs that might offer advantages in assessing older students and include a more direct and obvious comprehension component. Maze tests have been studied for more than twenty years and have an extensive amount of research supporting their use (Fuchs & Fuchs, 1992; Fuchs, Fuchs, Hamlett, & Ferguson, 1992). Using maze for CBMs is increasing in popularity (Mercer et al., 2012).

Starting in grade 2, each grade level of Path Driver for Reading offers maze probes for universal screening and/or progress monitoring. These probes are administered and scored online, freeing teachers from the burdens typical of many CBMs and allowing teachers to focus more of their time on teaching. Students are universally screened using maze passages that are written at their nominal grade level. For progress monitoring, teachers can assign students maze passages that are written either at grade level or at instructional level. **Note:** Students in grades 11 and 12 who are assigned maze tests for progress monitoring will automatically receive grade 10 passages; this level can easily be adjusted downward, if necessary.

During a universal-screening test session, three maze tests are administered in a row. The online Management System calculates the average score of these tests, which is then used as a baseline indicator of the student’s present performance. For progress monitoring, only one maze test is administered at a time. Each score is plotted on a graph, and a trend line is generated that shows the trajectory of student growth.

All maze test sessions begin with a practice activity. Then students click an arrow to start the test. Students are presented with a short reading passage; this time, however, every seventh word has been replaced with a blank line. For each blank line, students choose from three options to identify the word that best fits the context of the passage. Students have three minutes to choose as many correct answers as they can. The maze test is automatically scored by the computer. This score is called Words Correctly Restored (WCR).

Assignment to Progress Monitoring
Path Driver for Reading provides benchmarks for student achievement in the forms of both national and local norms. Each Universal Screening Report, at all three points during the year, includes an indicator as to the student’s placement in comparison to other students at the same grade level, either across the nation or in the local school district. If students’ scores on Path Driver for Reading universal-screening assessments indicate that their reading ability is below that of their peers, you should make instructional modifications, which may include intensifying instruction or supplementing your regular classroom instruction with a specialist’s attention. When such modifications are made, progress-monitoring assessments should be administered to your students to determine whether these instructional modifications have been effective.
Identifying Students for Progress Monitoring

To decide which students need to be progress monitored, first click the Classes tab. Then, from the left-hand menu bar, click Schedule Progress Monitoring Tests under Student Tools. When the page opens, you can select a class and view a summary of students’ fall, winter, or spring universal-screening assessment results (Figure 3).

A color-coded graph identifies risk level and clearly shows where student scores fall against national norms during each screening period, and which students’ ORF and/or maze test scores fall below the default cut point of the 25th percentile. The cut point can easily be modified, if desired, using the dropdown menu at the top of the page. A table beneath the graph entitled “Students below cut point” lists student
names and provides additional information about them, including grade level, reading proficiency level, and whether or not they have been assigned to work in the intervention program Academy of READING®.

**Scheduling Progress-Monitoring Tests**

To create a progress-monitoring schedule, you will use the Progress Monitoring Scheduler on the bottom half of the screen (Figure 4). Begin by selecting the checkboxes next to the names of students you wish to monitor in the “Students below cut point” section of the table. You may also choose students who have no universal screening results by clicking the arrow to expand the “Students without screening results” section. If capacity is a problem and your school does not have the resources to monitor all students who are at risk, consider choosing only the students who fall the furthest below the cut point, or students whose proficiency level is reported to be significantly below their nominal grade level.

![Figure 4](image.png)
Next, use the dropdown menus to customize the details of your students’ progress-monitoring schedule. Begin by selecting a start and end date and test frequency. Then choose which test type(s), to administer to students. If you are unsure whether to use ORF and/or maze tests for progress monitoring, consider the following:

- If students have low accuracy on oral reading fluency probes, those students usually need more instruction and practice in decoding and word recognition. Such students might benefit more from only using ORFs for progress monitoring, since maze tests would very likely prove to be too challenging.
- Many ELL students who are proficient silent readers score low on ORFs due to challenges with rate, prosody, and/or pronunciation. A more accurate snapshot of whether an ELL student is reading with comprehension might be better captured using a maze test.
- Many feel that maze tests offer more advantages in assessing older students than ORFs do because of their more direct and obvious comprehension component.
- Students who score at the 50th percentile and above on the ORF probe, but fall below the 25th percentile on maze tests, should probably use only maze tests for progress monitoring. Being a good “word caller” could be masking a real problem with reading comprehension.

Finally, select whether your students will be monitored using grade-level or instructional-level tests. Click Apply New Schedule to save your choices.

**Quantity of Progress-Monitoring Probes**

Path Driver for Reading provides 30 equivalent oral reading fluency probes for progress monitoring at grades 1–8. In addition, there are 30 equivalent maze tests at grades 2–10. This quantity allows for up to weekly administration of unique test content for both test types.

For schools with an extended school year, students could conceivably finish tests 1–30 before the year is over. In such cases, the Management System will deliver Test 1 (Test 2, Test 3, and so on) a second time. Because a significant amount of time will have passed between repeated tests, there should be no practice effect and results can be considered valid and reliable.

**References**

