

# MOBY.READ

## Moby.Read Scoring Guide

Supporting Moby.Read v1.9

## Table of Contents

<b>INTRODUCTION</b> .....	<b>2</b>
<b>TARGET AUDIENCE</b> .....	<b>2</b>
<b>ACCESSING STUDENT TEST RESULTS</b> .....	<b>2</b>
SCORE REPORTS .....	2
PROGRESS CHARTS .....	3
<b>SCORE COMPONENTS</b> .....	<b>4</b>
MOBY.READ LEVELS .....	5
COMPREHENSION .....	7
ACCURACY .....	8
ACCURATE READING RATE (RATE) – GRADES 1-5 .....	8
EXPRESSION – GRADES 1-5.....	9
EXCEPTION SCORING – GRADES 1-5.....	9
<b>REVIEWING AUDIO RECORDINGS OF STUDENT PERFORMANCE</b> .....	<b>10</b>
HOW TO USE STUDENT RECORDINGS .....	11
<b>REFERENCES</b> .....	<b>11</b>
<b>FOR MORE INFORMATION</b> .....	<b>12</b>

## Introduction

Moby.Read is a self-administered oral reading fluency (ORF) benchmark assessment that runs in a Chrome browser or on an iPad and is automatically scored. The test is designed for students in grades K through 5. Moby.Read uses automatic speech recognition (ASR) and natural language processing (NLP) technologies to score oral reading fluency and comprehension in English. Test scores and audio recordings are immediately available online and support effective decision-making for improving student performance.

Moby.Read provides reliable results of key oral reading fluency measures – Accurate Reading Rate, Accuracy (Words Correct Per Minute), Comprehension, Expression, and Reading Level. Moby.Read scores are color-coded to facilitate interpretation. Test scores can be used for a variety of administrative and pedagogical purposes. For example, teachers can use test scores to group students with similar scores for tailored instructional intervention. Scores on multiple aspects of student performance can also help teachers identify skill areas in need of instructional intervention. Furthermore, as a benchmark assessment designed to be administered three times a year, Moby.Read scores can be used to track student progress over the course of an academic year.

## Target Audience

The Moby.Read Scoring Guide is intended for educational professionals tasked with evaluating the oral reading ability of students in grades K through 5. Educators should familiarize themselves with the information in this guide to ensure student scores are interpreted appropriately and used fairly. For an in-depth discussion of the development of Moby.Read content, automated scoring systems, and the validation of Moby.Read scores including correlation with other ORF instruments, refer to the [Moby.Read Technical Manual](#).

## Accessing Student Test Results

Shortly after a student completes a Moby.Read assessment, test results are made available for review on amiteacher.com and the Moby.Read app.

You need a Moby.Read account to access student score reports. Registration is by invitation only. Contact your School Administrator to request access. If you are a School Administrator, refer to the *Moby.Read User Management Guide* for information on how to register users.

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**Note:** *Any person accessing student score reports must adhere to FERPA rules if the educational agency or institution is receiving funding from the U.S. Department of Education.*

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## Score Reports

Moby.Read score reports display the latest test results for students of a given grade and year.



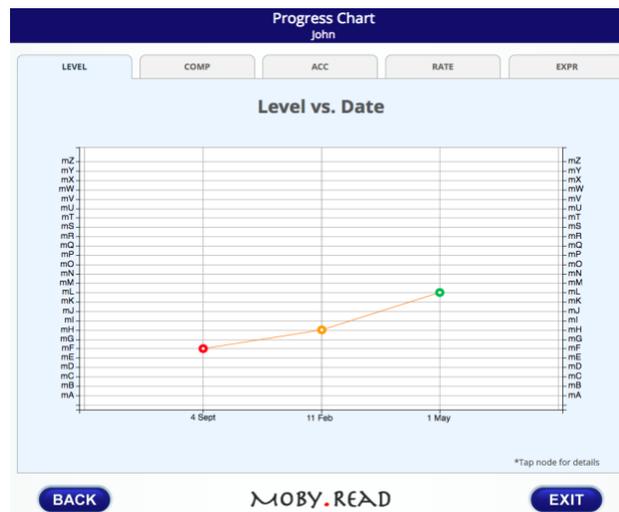
**Figure 1: Online grade-level score report**

You can access Moby.Read score reports in two ways:

- Visit [www.amiteacher.com](http://www.amiteacher.com) and sign in. All registered Moby.Read users can review scores. Refer to the *Moby.Read User Management Guide* for specific access permissions to student scores per user role.
- On the Moby.Read iPad app, tap **View Class Roster** for an overview of test results. You must have a Teacher account to access test results on the mobile app.

## Progress Charts

Scores are linked to Progress Charts for easy tracking of progress over time. Select the score you wish to review for a given student to display the corresponding chart.



**Figure 2: Moby.Read Level Progress Chart**

Progress Charts display current and previous test scores along with corresponding testing dates. Each node represents a score for a given test date. Color-coded longitudinal performance graphs provide a quick view of the student's progress. For kindergarten assessments, Progress Charts display green or orange color codes only.

- Green      Scores are at or above grade level
  - Orange      Scores are slightly below grade level
  - Red      Scores are below grade level
- Select any of the tabs at the top of the screen to display other Progress Charts for a given student.
  - Hover over a node to view the test score and date. Select the node to review student recordings for that date.
  - To return to the Class Roster page:
    - If you are logged into [www.amiteacher.com](http://www.amiteacher.com), click **BACK** at the bottom left corner of the Progress Chart. Do not click **EXIT**; it will log you out!
    - On the iPad, tap **EXIT** to return to the main menu, then tap **View Class Roster**.

## Score Components

Moby.Read evaluates different aspects of a student's oral reading performance that are combined into a summary Moby.Read Level. Score reports include the following components:

**Table 1: Moby.Read scores at a glance**

Grade	Score Component	Description	Scale
K-5	<a href="#">Moby.Read Levels</a>	The student's overall reading level as a combination of three ORF components: Rate, Comprehension, and Accuracy.	mA – mZ, or ✖
K-5	<a href="#">Comprehension</a>	Measures how well the student understands the material based on retellings and answers to content questions.	0-8
K-5	<a href="#">Accuracy</a>	Percentage of correctly read words out of the total number of words attempted.	0-100%
1-5	<a href="#">Accurate Reading Rate (Rate)</a>	The rate at which the student reads words correctly, reported as words correct per minute (WCPM).	0-250 WCPM
1-5	<a href="#">Expression</a>	Measures the student's ability to read with meaningful phrasing, timing, and intonation.	0-4

For kindergarten assessments, Moby.Read reports only three score components: Moby.Read Level, Comprehension, and Accuracy. Accuracy is reported by color code—green or orange—rather than as a numeric value. Level and Comprehension scores are always coded green, if scores are produced.

## Moby.Read Levels

The Moby.Read Level reflects the student's overall oral reading fluency ability. Levels consider the reader's Rate, Comprehension, and Accuracy, and are reported on an alphabetic scale from mA (Moby.Read A) through mZ (Moby.Read Z). Levels reflect how well the student is able to read the assigned passages given the difficulty of the passages, the student's grade level, and time of year.

Both grade level and time of year of the assessment are factors determining the color codes. If a student's score is two or three Levels below target, the Level is tagged orange, indicating a need for instructional intervention. If the student's score is four or more Levels below target, the student is at risk and the Level is marked in red.

**Table 2: Moby.Read Levels associated with grade and time of year**

<b>Moby.Read Level</b>	<b>Grade</b>
mA	K (spring)
mB	
mC	1st (fall)
mD	
mE	1st (winter)
mF	
mG	1st (spring)
mH	
mI	2nd (fall)
mJ	2nd (winter)
mK	2nd (spring)
mL	3rd (fall)
mM	3rd (winter)
mN	3rd (spring)
mO	4th (fall)
mP	4th (winter)
mQ	4th (spring)
mR	5th (fall)
mS	5th (winter)
mT	5th (spring)
mU	6th (fall)
mV	6th (winter)
mW	6th (spring)
mX	above 6th
mY	above 6th

Moby.Read Level	Grade
mZ	above 6th
✖	Scoring exception. See <a href="#">Exception Scoring – Grades 1-5</a> for more information.

Assessing a student's Moby.Read Level accurately works best when you use forms that closely match the reader's level. You may need to test repeatedly to pinpoint this level. It is recommended that at the beginning of the instructional year, administration starts with the student's grade level in order to obtain a grade-appropriate baseline. If the student performs several levels below a reliable measurement on a test of that grade, the score report will display a minus sign (-) after the level, for example, mD-. Likewise, the report will show a plus sign (+) if the student's level exceeds the upper bound, for example, mK+. To pinpoint the Moby.Read Level, you can retest the student with an easier or more difficult test using the table above. For example, if the student's Level was reported as mD-, consider retesting the student with the 1<sup>st</sup> Grade fall test, which is associated with the Level mD. If the student's Level was mK+, you might retest using the 2<sup>nd</sup> Grade spring test.

### Using Moby.Read Levels to Select Reading Texts

Moby.Read Levels are useful for individualizing instruction. Because Moby.Read Levels are linked to text difficulty, Level scores can suggest appropriate reading materials for students in need of instructional intervention.

To help link to other programs with text leveling, use the Fountas & Pinnell Equivalence Table shown in Figure 3. Click **Level Equivalence** on the Class Roster page to display the table. The Fountas & Pinnell levels aligned with the Moby.Read Levels are Instructional Levels.

**Fountas & Pinnell Equivalence Table**

Moby.Read Reading Level	Fountas & Pinnell
Below mD	A-E
mD	F
mE	G
mF	H
mG	I
mH	J
mI	K
mJ	L
mK	M
mL	N
mM	O
mN	P
mO	Q
mP	R
mQ	S
mR	T
mS	U
mT	V
Above mT	W-Z

Key
K or beginning 1st Grade
1st Grade
2nd Grade
3rd Grade
4th Grade
5th Grade
6th Grade

**Figure 3: Moby.Read Levels mapped to the Fountas & Pinnell Text Level Gradient™**

It is common practice to match student ORF levels closely with texts in specific level ranges. However, research has shown that with the right instructional support, students who practice reading texts at levels that are more difficult than their instructional level can improve reading ability (Brown, Mohr, Wilcox, & Barrett, 2017; Morgan, Wilcox, & Eldredge, 2000). Therefore, when selecting appropriate reading material for a student, teachers familiar with the student's reading ability are encouraged to select texts based on careful evaluation of the student's individual ability and goals.

## Comprehension

Comprehension scores convey a student's understanding of the reading materials. Teachers can use Comprehension scores to evaluate whether a student needs help decoding and constructing meaning from texts. For grades 1 to 5, scores range from 0 to 8 and are based on students' retelling of the passages in their own words and on two short-answer questions about each passage. For kindergarten assessments, scores also range from 0 to 8 but are only based on responses to two short-answer questions. Table 3 provides guidance for interpreting Comprehension scores.

**Table 3: Moby.Read Comprehension scores**

Score	Performance	Interpretation
0 or 1	Retellings and responses were silent, unintelligible, or irrelevant.	No evidence of comprehension

Score	Performance	Interpretation
2	The reader attempted a few responses, but most responses were silent, unintelligible, or inaccurate.	Minimal evidence of comprehension
3	A few responses were accurate and complete, but most provided only partial information.	Limited comprehension
4	Some responses were accurate and complete, but some provided only partial information.	Partial comprehension
5	Most responses were accurate and complete. The reader missed a few questions or provided partial answers but included enough information to suggest understanding of major passage concepts.	Satisfactory comprehension
6	Most responses were accurate and complete. The reader could have provided more detail for some responses, but responses included major and minor concepts of the passage, main narrative path, and sequential logic.	Good comprehension
7 or 8	Responses were accurate and complete. Responses conveyed comprehension of the major and minor concepts of the passage, the main narrative path, and sequential logic.	Complete comprehension

The Moby.Read Comprehension scale is identical across grade levels. Color-coding reflects the expectations and standards considered developmentally appropriate for the respective grade corresponding test form. For example, a Comprehension score of 2 is marked in red, indicating below grade level performance for higher grades (4 and 5), but not for lower grades (K through 3).

## Accuracy

Accuracy is reported as the percentage of correctly read words out of the total number of words attempted by the student when reading a passage. A “correctly read” word is read without significant mispronunciation, omission, or substitution with another word. Low accuracy scores may mean that a student needs practice in decoding, sight words, and/or word recognition.

Research suggests that when a student reads less than 90% of a text accurately, the text is at a difficulty level that might cause frustration for the student (Johnson & Kress, 1965). Therefore, Moby.Read marks accuracy scores below 90% as red.

## Accurate Reading Rate (Rate) – Grades 1-5

Accurate Reading Rate (reported as Rate) is the rate at which a student reads words correctly. Accurate Reading Rate is reported as words correct per minute (WCPM) and typically ranges from 0 to 250 WCPM. The reported Rate is the median of the three WCPMs across the three scored passages.

Published norms from Hasbrouck and Tindal (2017) are used to identify below-target scores. For each grade and time of year, the median WCPM in Hasbrouck and Tindal (2017) is considered at grade level. Scores that are 10 to 19 words below the median

are marked as orange to indicate below grade-level performance. WCPM scores of 20 or more below the median are marked as red to identify at-risk readers.

A Rate score of zero means that not enough words were read to calculate a WCPM score. Students with a Rate score of zero may need to be retested with a lower grade form or may require hand administration. Reasons for a score of zero may vary; therefore listening to recordings of the student's responses can guide your decision regarding whether or not to retest. Some students whisper or remain silent. Some of these students may need practice reading out loud with confidence. For others, easier reading material may elicit enough audible speech for scoring.

## Expression – Grades 1-5

The Moby.Read Expression score measures how well a student reads the passage with appropriate phrasing, emphasis, intonation, and pausing. Expression scores can help identify students who may need more practice in meaningful phrasing to capture the meaning of passages. Scores range from 0 to 4. Table 4 provides descriptions of the Expression scores and their relationship to performance targets.

**Table 4: Moby.Read Expression scores**

Score	Performance	Interpretation	Target
0	Responses were silent or provided an insufficient sample of speech for rating Expression.	No evidence of Expression	● Below target. Intervention required
1	The reader's rendition of the text was mostly word-by-word reading with no reflection of word, phrase, or sentence meaning.	Word-by-word reading	● Slightly below target
2	The reader's rendition of the text was a mixture of word-by-word reading and larger word groupings that conveyed some text structure and meaning.	Partially fluent and expressive reading	● At or above target
3	Most of the reader's phrasing, pausing and intonation was appropriate to the meaning of the text.	Mostly fluent and expressive reading	● At or above target
4	The reader's phrasing, pausing, emphasis and intonation appropriately expressed the structure and meaning of the text.	Fully fluent and expressive reading	● At or above target

## Exception Scoring – Grades 1-5

The Moby.Read scoring algorithm returns an exception if any of the following events occur:

- Speech time is less than ten seconds.
- Less than ten correct words are recognized (12 for Expression scoring).
- Words Correct Per Minute (WCPM) is below ten or above 300.

If one of three scored passages triggers an exception, the scores are calculated from the remaining two passages.

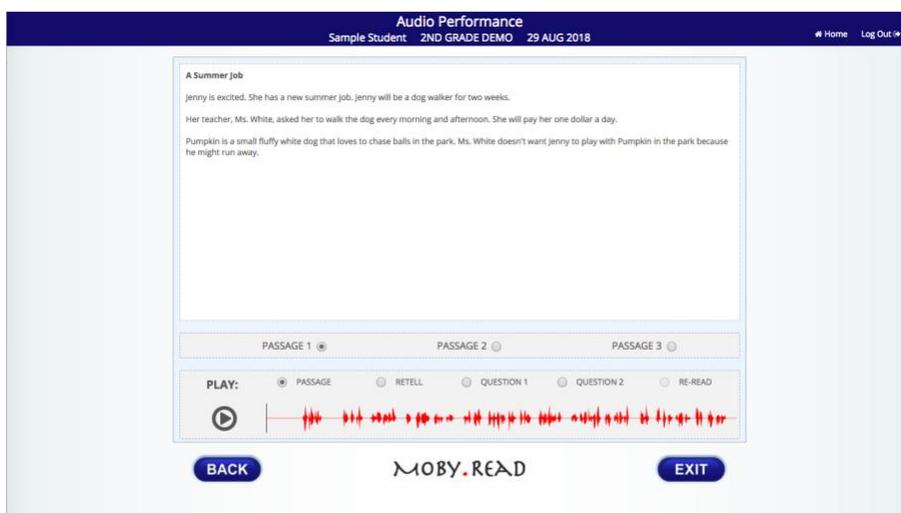
If two or more scored passages trigger an exception, Moby.Read reports all scores as zero or **X** and no Moby.Read Level is assigned. Refer to Figure 1, ID 41006, for an example.

When exceptions occur, try to understand the reason for the exception. Sometimes students remain silent or need encouragement to speak with confidence or to attend to the task. Background noise can also present a problem. Once the reason for the exception is addressed, consider repeating the test.

In the Progress Chart, scoring exceptions are marked with an **X** on the x-axis at the corresponding assessment date.

## Reviewing Audio Recordings of Student Performance

Moby.Read captures audio recordings of student's oral performances for all three scored passages (the first passage is a practice passage and is not scored) on the Audio Performance Page. For each scored passage, the Audio Performance page displays four or five recordings: the student's first reading, the student's retelling of the passage, the student's answers to the two short-answer questions, and the second reading of the passage after listening to a model reading (optional).



**Figure 4: Moby.Read Audio Performance page**

You access the Audio Performance page from the Class Roster page. The Class Roster page provides two ways to review student recordings.

- To review recordings for the current test:
  1. Click play  in the Audio column for a given student.
  2. Play back the student's retelling of the first passage (default recording) or use the radio buttons to select recordings of other passages and response components for playback.
- To review student recordings in the context of previously administered tests:
  1. Click a level score to load the Progress Chart for a given student (Figure 2).

2. Select and click a score node for a specific test date to access student recordings for that date.

By going through a student's Progress Chart, you can listen to recordings of tests that were administered previously in the year. This is useful if you want to compare beginning of the year and end of year reading performances.

By default, the Audio Performance page loads a recording of the student reading the first scored passage in the test. At the top of the page the text of the passage is displayed. The bottom of the page provides the audio controls. Click play to repeat the recording and replay certain sections of it.

Use the radio buttons labeled Passage 1, Passage 2, and Passage 3, to select other passages for playback. Use the radio buttons below a given passage to select different responses for the passage including: Passage (reading), Retell, Question 1, Question 2, and Re-Read.

## How to Use Student Recordings

There are many ways in which you can use Moby.Read student recordings, for example, you can:

- Listen to a student's oral performance to gain insight into the types of reading errors a student is making. Observe a student's decoding skills or evaluate distinct aspects of the student's expression. These observations can guide individualized instruction.
- Share insights gained from recordings with reading specialists, parents, and with the students themselves. The recordings provide a way to monitor progress.
- Determine whether the environment is too noisy, whether the student is not speaking loud enough, or is talking to another student. This type of information can help clarify the validity of test scores and guide decisions regarding retesting.

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## For more information

Visit us at [www.analyticmeasures.com/moby-read](http://www.analyticmeasures.com/moby-read). Download related documentation [here](#).

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