LOWELL PUBLIC SCHOOLS
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**To:** Liam Skinner, Superintendent
**From:** Oneida Fox Roye, Assistant Superintendent of Academics and Instruction
**Date:** January 10, 2025
**RE:** Report on Reading and Math Performance

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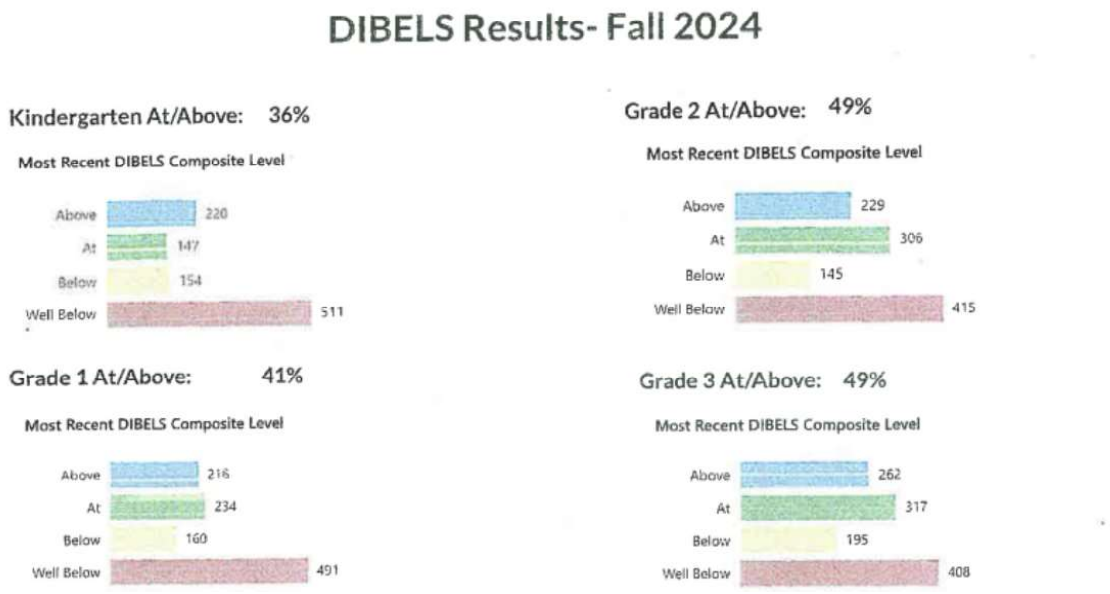
The following is in response to the motion submitted by Eileen DelRossi on 08/21/24. *Request the superintendent to collaborate with the proper departments to extract proper reading and math student performance levels in order to begin to implement a stronger cohesive reading and math curriculum most practical to our student population.*

Reading levels are determined through a combination of factors that assess both the difficulty of the text and the reader's ability to comprehend it. Here are the primary methods used:

- Text Complexity:
  - Vocabulary: How hard the words are.
  - Sentence Structure: Simple vs. complex sentences.
  - Themes: Easy vs. complex ideas.
  - Length: Longer texts tend to be harder.
- Reader's Ability:
  - Decoding: How well the reader can translate written words into speech.
    i. Phonological awareness: How to recognize and manipulate sounds in spoken language and essential for decoding and early reading skills. A strong precursor to support reading development, enabling readers to tackle more complex words and texts as their skills progress.
  - Word Recognition: How easily the reader identifies words.
  - Fluency: Reading speed and smoothness.
  - Comprehension: How well the reader understands the text.
    i. Language skills affect both decoding and comprehension. Strong skills help readers manage complex vocabulary, sentence structures, and ideas, enabling them to handle more advanced texts.

Reading Performance Levels as measured by DIBELS (Dynamic Indicators of Basic Early Literacy Skills) measures early literacy development in young children. DIBELS is an assessment used to measure early literacy skills in students from kindergarten to third grade. It assesses:

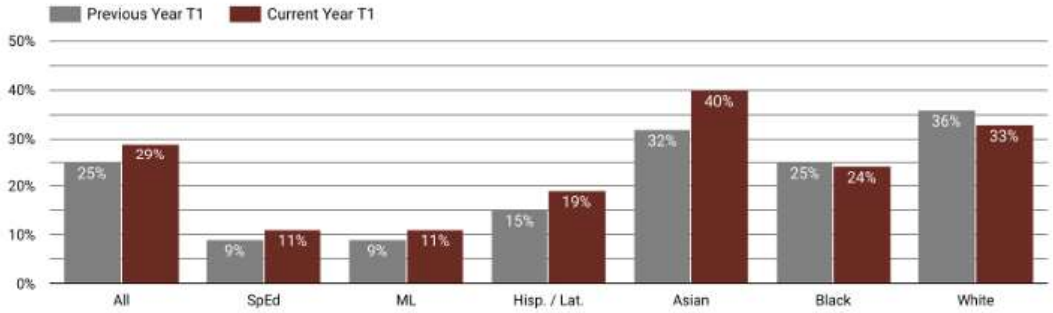
1. Phonemic Awareness: Recognizing and manipulating sounds in words.
2. Alphabetic Principle: Understanding letter-sound relationships.
3. Fluency: Reading quickly and accurately.
4. Vocabulary: Understanding word meanings.
5. Reading Comprehension: Understanding what is read.



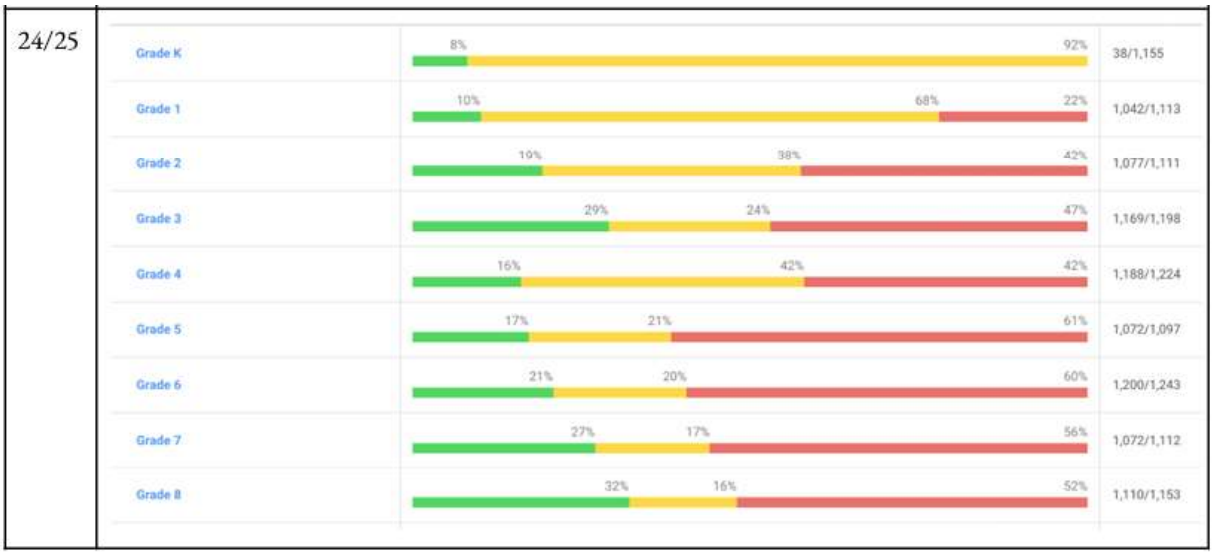

Based on our data, the percentage of students meeting or exceeding expectations on the DIBELS assessment is:

- 36% in kindergarten
- 41% in first grade
- 49% in second grade
- 49% in third grade

i-Ready ELA (English Language Arts) diagnostic assessment is designed to assess students' abilities in key literacy skills. The assessment adjusts to each student's skill level as they take it. In Lowell Public Schools, we use the i-Ready assessment for students in grades K* through 9. It evaluates strengths and areas for improvement in several literacy areas, including reading comprehension and vocabulary.




**Reading Performance Levels:** i-Ready data shows that nearly 30% of Grade 3 students are meeting or exceeding expectations, which is a 4% increase compared to last year, even though the testing was conducted earlier this school year.




ELA iReady Diagnostic Data by Grade Level and Proficiency:

- Green means the student is performing at or above grade level.
- Yellow means the student is performing 1 year below grade level.
- Red means the student is performing two or more years below grade level.

Based on i-Ready data, the percentage of students meeting or exceeding expectations is as follows:

- *Kindergarten: 8%
- Grade 1: 10%
- Grade 2: 19%
- Grade 3: 29%
- Grade 4: 16%
- Grade 5: 17%

- Grade 6: 21%
- Grade 7: 27%
- Grade 8: 32%

*Please note that the Kindergarten ELA assessment is not required and represents data from only one school location.

Math Performance Levels can cover a wide range of topics depending on the grade level and curriculum being assessed. Some key areas that math diagnostic assessments might assess include:

Numeracy Skills
- Addition, subtraction, multiplication, and division
- Number sense and place value (understanding of whole numbers, decimals, fractions)

Algebraic Understanding
- Solving simple and complex equations
- Understanding variables and expressions
- Factoring, simplifying, and expanding algebraic expressions

Geometry
- Understanding shapes, properties, and spatial reasoning
- Measurement (length, area, volume, perimeter)
- Angles, symmetry, and transformations (translations, rotations, reflections)

Data and Probability
- Interpreting and analyzing graphs (bar, line, pie charts, etc.)
- Understanding measures of central tendency (mean, median, mode)
- Basic probability concepts and calculations

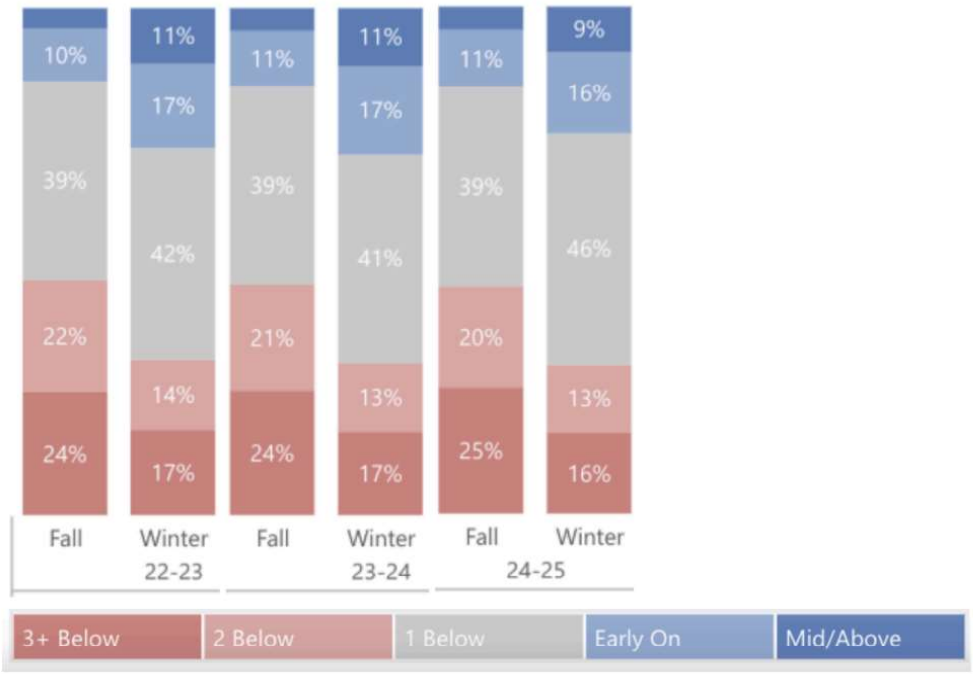
Problem-solving and Critical Thinking
- Application of mathematical concepts in real-world problems
- Logical reasoning and pattern recognition

Mathematical Communication
- Ability to explain reasoning and strategies used to solve problems
- Mathematical vocabulary and notation

i-Ready Math diagnostic assessment is designed to evaluate students' mathematical skills and provide learning pathways. It assesses students' current level of understanding and proficiency in math. This test adapts to each student’s responses, making it a computer-adaptive assessment. It tailors the difficulty of questions to each

student's ability, ensuring that the results accurately reflect their skills and gaps in knowledge.

**Figure 3: i-Ready Overall Placement Levels Over Time (Fall/Winter Comparison)**



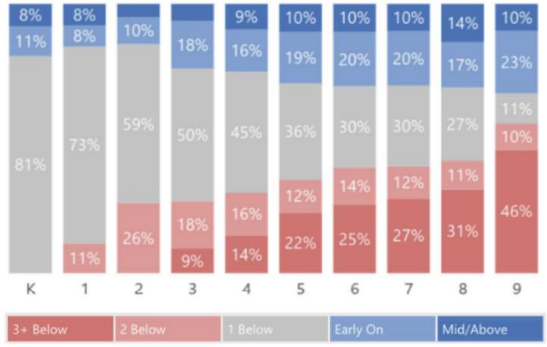

According to i-Ready data, 25% of students are performing at or above grade level in mathematics.

While overall student performance is generally positive, there are noticeable differences between demographic groups. The Spring 2024 MCAS Math results show that only 10% of Lowell's Multilingual Learners (MLs) and 7% of Students with Disabilities are meeting or exceeding the standards, compared to 30% of all students combined.

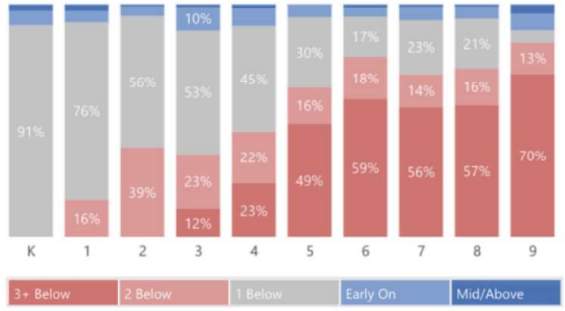
Looking at the i-Ready Middle of Year (MOY) math diagnostic data for these groups (see Figure 4), we see that the proportion of students performing at or above grade level is much lower than in the general student population. Additionally, the number of students who are two or more grade levels behind has been increasing each year, with the exception of grade 7, which has not followed this trend.

**Figure 4:**

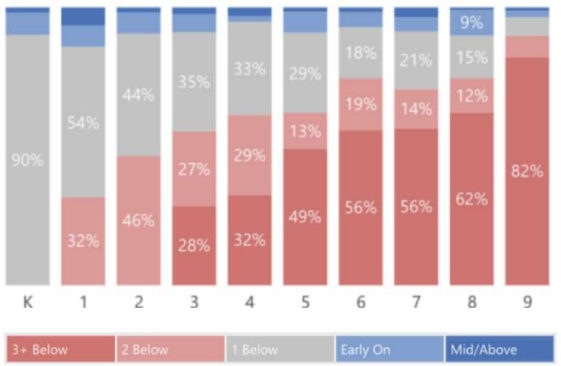
***i-Ready* MOY 2024-2025 Diagnostic Overall Placement**
**All Students**




***i-Ready* MOY 2024-2025 Diagnostic Overall Placement**
**Multilingual Learner Education Students**




***i-Ready* MOY 2024-2025 Diagnostic Overall Placements**
**Special Education Students**



Based on i-Ready data, the percentage of students performing at or above grade level in mathematics overall is as follows:

- Kindergarten: 19%
- Grade 1: 16%
- Grade 2: 10%
- Grade 3: 18%
- Grade 4: 25%
- Grade 5: 29%
- Grade 6: 30%
- Grade 7: 30%
- Grade 8: 31%
- Grade 9: 33%

The Massachusetts Department of Elementary and Secondary Education defines High-Quality Instructional Materials (HQIM) as materials that are based on solid research evidence. These materials feature a well-organized sequence of lessons designed to help students learn grade-level skills and build knowledge. They use high impact teaching strategies that are backed by research and include engaging content, as well as an inclusive design. HQIM are most effective in improving student learning when teachers also receive ongoing, curriculum-specific professional development.

**Recommendations based on data:**

In ELA, Lowell Public School will provide ongoing support for teachers, including:

- Curriculum Support: Assisting teachers with evidence-based instructional practices and aligned standards.
- Inclusive Practices: Ensuring lessons are accessible for all students through collaboration among school leaders and educators.
- Professional Learning: Providing ongoing professional learning that incorporates our prioritization plan, focusing on areas such as language development, teaching routines, lesson planning, and using student data to enhance instruction.

This approach ensures sustained support, inclusivity, and effective math teaching for all students.

Additionally, we are in the process of a curriculum audit, which is a comprehensive review of the content, structure, and delivery of an ELA tier 1 curriculum and

instruction in the district. The goal is to assess whether the curriculum aligns with educational standards, meets the diverse needs of students, and fosters the desired learning outcomes. The audit process will lead to a more data-informed, equitable, and effective ELA curriculum that better supports student success.

In mathematics, Lowell Public Schools adopted the following curricula:

- **Eureka Math2** for Grades K-5 starting in the 2023-2024 school year.
- **Illustrative Math (IM)** for Grades 6-8 starting in the 2022-2023 school year.
- **Reveal Math** for Grades 9-12 starting in the 2024-2025 school year.

**Recommendations based on the data:**

We will provide ongoing support to help teachers implement the HQIM math curriculum effectively. This includes:

- Curriculum Support: Assisting teachers in using new math materials.
- Inclusive Practices: Ensuring lessons are accessible for all students through collaboration among school leaders and educators.
- Professional Learning: Offering continuous training on math language, teaching routines, lesson planning, and using student data to improve instruction.

This approach ensures sustained support, inclusivity, and effective math teaching for all students.