How to Read Implementation Status and Implementation Reports for Math

The Accelerated Math Live™ Implementation Progress Report and the Implementation Status Report reflect the success of your implementation. You can use these reports to measure progress over time and to compare performance among schools, grades, or classrooms. This document focuses on a few key indicators in the reports and how they can help you make data-driven decisions.

Key Indicators

Among the data in these reports, there are four key indicators. As you begin to implement Accelerated Math™ best practices, you’ll want to work toward the goals listed below for each of these indicators. Don’t expect to see these results during your first year with the program; consider them to be goals that will indicate when you have reached full implementation.

<table>
<thead>
<tr>
<th>Key Indicators</th>
<th>Goal at Full Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives mastered per week</td>
<td>4 objectives (grades 3–12)</td>
</tr>
<tr>
<td></td>
<td>2 objectives (grades 1–2)</td>
</tr>
<tr>
<td>Average percent correct on practice assignments</td>
<td>75%</td>
</tr>
<tr>
<td>Percentage of students scoring above 85% correct on tests</td>
<td>90%</td>
</tr>
<tr>
<td>Engaged math time</td>
<td>40 minutes (grades 3–12)</td>
</tr>
<tr>
<td></td>
<td>20 minutes (grades 1–2)</td>
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This document describes these four indicators in detail. Keep in mind that if you are using Accelerated Math for a part-time program, such as summer school, after school, or intervention, your goals may need to be adjusted.
Objectives Mastered per Week: The Most Important Indicator

Objectives mastered per week are a measure of the quantity of student math work. They indicate whether students are mastering the recommended number of objectives.

What to Look for
We recommend that students master four objectives per week (or two per week for students in grades 1 and 2). The Accelerated Math libraries vary in length, so educators should adjust their pacing accordingly throughout the school year to be sure they address all of the standards for their grade level.

What to Do When Objectives Mastered per Week Are Low
While we hope that students will complete the recommended number of objectives per week, it is important to encourage students to work at their own pace. Naturally, some students will work more quickly than others. As the level of challenge fluctuates throughout the year, so will the pace at which students master objectives. Some objectives are easier to master than others. Remember that personal circumstances, such as illness, can affect a student’s work pace.

If a particular class is working at a slow pace, it may be that students are practicing without adequate instruction beforehand or are working with objectives that are too difficult. Encourage teachers to assign objectives from lower and higher libraries as needed, provide both whole-group and small-group instruction, and use the Status of the Class Report to determine when students are ready for more work.

Percent Correct
The Implementation Status Report and Implementation Progress Report provide average-percent-correct data that shows how students are scoring on Accelerated Math assignments. This data can alert teachers to students who are struggling; if students fall below these averages, it is unlikely that they are mastering many objectives or retaining understanding of the concepts.

What to Look for
You can use the reports to look at percent correct in two ways:

- **The average percent correct on practice assignments.** Students working in the appropriate library and receiving proper instruction should average at least 75 percent on practices. Note that this goal is lower than the goal of 85 percent correct for tests. This is because students who are just being introduced to new skills may need to practice them a couple times. For example, a student may get four out of six problems correct the first time he practices an objective, and then five out of six the second time. By the time the student tests, he has successfully practiced the objective; naturally, the goal is higher.

  On the Implementation Status Report, the scores in the Average % Correct column should be viewed in conjunction with the % Students At/Above 75% scores for practice assignments. Remember, if the Average % Correct for a group of students is 75 percent, many students may be scoring below 75 percent. Set a goal for a school average that is higher than 75 percent. Students who maintain a higher average, such as 90 percent, show greater growth in math skills.

- **The percentage of students scoring above 85 percent correct on tests.** This data is shown on both the Implementation Status Report and the Implementation Progress Report. Ideally, one
hundred percent of students will meet this goal. Since perfection is usually not possible, your goal should be that at least 90 percent of students achieve this average.

**What to Do When Practice Average Percent Correct Is Low**

If students are not maintaining an average of at least 85 percent, first make sure teachers are monitoring their students’ math practice every day by checking the Status of the Class Report. We recommend that teachers view the Status of the Class Report daily to plan for classes and identify students who may need extra help working on certain objectives. Doing so has proven to be singularly important to successful implementations.

Students who score low on practice assignments may not be receiving enough instruction before practicing. Teachers may want to meet with individual students or small groups during the next class period to reteach objectives. Encourage teachers to work closely with struggling students to determine the cause for low practice scores. Also consider the following if students are not maintaining practice averages of at least 85 percent:

- Are students struggling with basic math facts? Could they be rushing to complete assignments?
- Do any students have objectives flagged for intervention? Are others struggling with the same ones?
- Is each student working in the appropriate library, or do some students lack the prerequisite skills for the objectives in their assigned library?

**What to Do When a Low Percentage of Students Scores above 85 Percent on Tests**

If the percentage of students scoring above 85 percent on tests is low, students may be struggling with some of the same difficulties outlined for low practice scores. In addition, some students might be getting too much help on practice assignments, so when they work independently on tests, they score poorly. Others might suffer from test anxiety.

Talk with teachers and consider the following questions:

- Are teachers providing group instruction on key concepts?
- Should they provide individual or small-group instruction for students who are struggling with a particular content area?

**Engaged Math Time**

Engaged math time is an estimate of student engagement during math practice time. For each student, engaged math time is calculated by multiplying the number of objectives mastered during the reporting period by 50 minutes. (The allotted average time to master an objective is 50 minutes.) This number is then divided by the number of teaching days in the reporting period.

**What to Look for (Grades 3–12)**

The ideal engaged math time for students in grades 3 through 12 is 40 minutes per day. This is based on the recommendation of mastering four objectives per week, at 50 minutes per objective. In other words, a student will need 200 minutes per week to master four objectives, or 40 minutes per day in a five-day school week. If students have an engaged time higher than 40 minutes, they are mastering more objectives than expected during the reporting period. If engaged time is lower, students are mastering fewer objectives than expected.
What to Look for (Grades 1–2)
The ideal engaged math time for students in grades 1 and 2 is 20 minutes. This is based on the recommendation of mastering two objectives per week, at 50 minutes per objective. A student will need 100 minutes per week to master two objectives, or 20 minutes per day in a five-day school week. If students have an engaged time higher than 20 minutes, they are mastering more objectives than expected during the reporting period. If students have a lower engaged time, they are mastering fewer objectives than expected.

Tips for Reviewing Reports

- **At first, focus on the percentage of students scoring above 85 percent correct on tests.** Once you see progress on this indicator, focus on objectives mastered per week and engaged math time per day.
- **Look for consistency in the information.** For example, you may notice that a class with a low average percent correct has a high number of objectives mastered per week. Are students rushing to complete objectives before receiving adequate instruction?
- **Seek additional information to understand low scores.** Observe classes with low scores. Gather the Diagnostic and Status of the Class reports for these classes to get more information about individual student performance.

What to Do With the Data

Data alone will not improve student performance. Data combined with action improves results! Here are tips for converting information into interventions:

- **Note strengths.** Which teachers or grades are doing especially well? Are they doing anything differently?
- **Celebrate progress.** Reports reflect student and class progress. Monitor reports regularly to view improvements as students gain experience with the program. Success for both teachers and students is the most important motivator as well as the most important goal. Draw attention to progress to create a culture that inspires more success.
- **Build sustainability.** Provide opportunities for teachers to collaborate. Identify teachers who can act as mentors for other teachers who are struggling. Be specific about strategies that foster success. For example, teachers who use the Status of the Class Report every day typically have better results than teachers who do not. Determine which types of additional training will address any concerns you have.