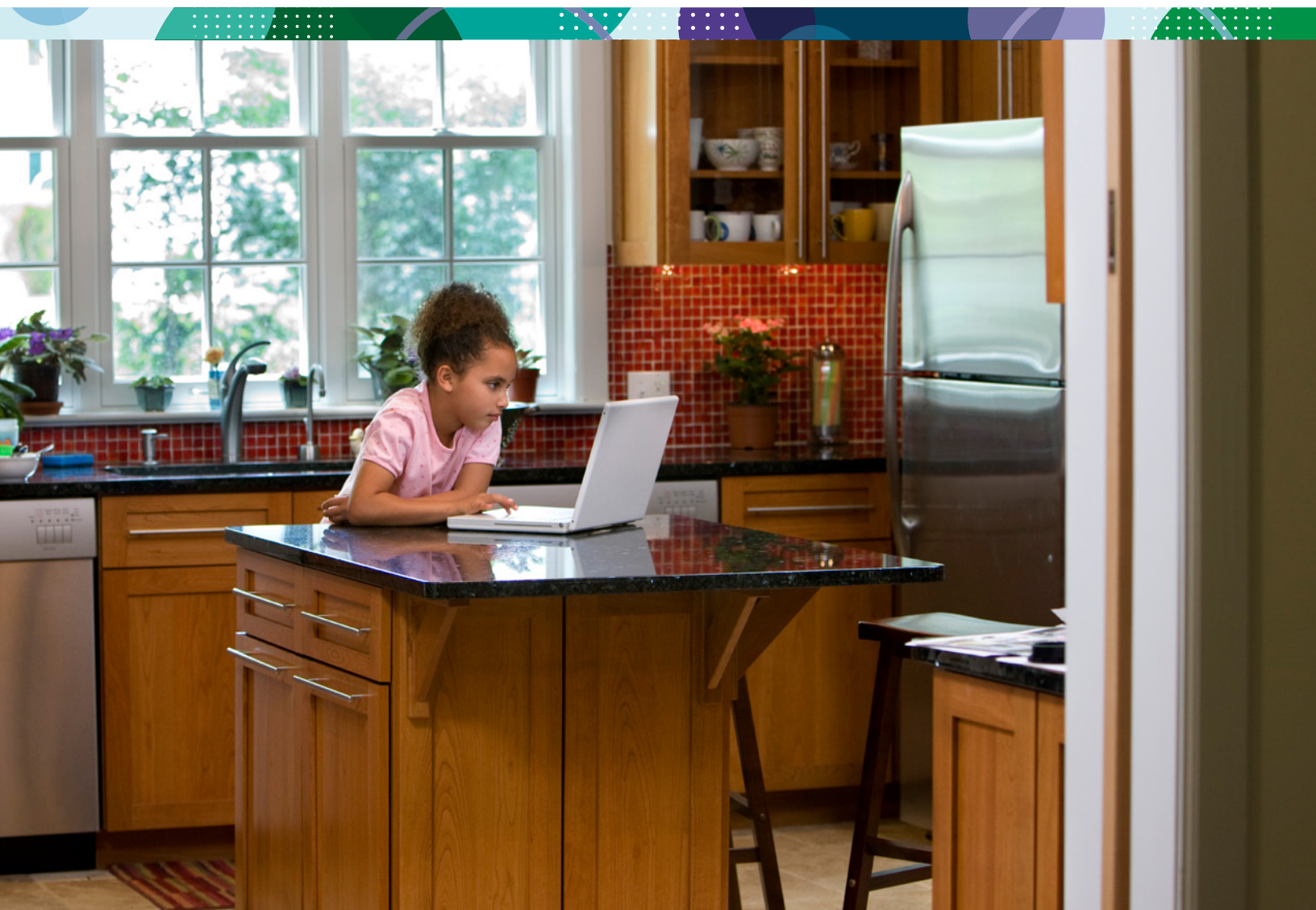


WHITE PAPER

Turning a New Page: Guiding Instruction and Using MAP Growth amid COVID-19 School Closures

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Executive summary

This paper addresses specific instructional and assessment strategies for NWEA® partners preparing for the 2020–21 school year. School closures in response to the COVID-19 pandemic have contributed to historic interrupted learning, with many consequences for students’ academic, social-emotional, and community lives. We describe components of MAP® Growth™ reporting and score interpretation that, as part of a balanced assessment system, support understanding and mitigating the effects of this interrupted learning. We also recommend concrete instructional strategies to support effective use of assessment data to cultivate student ownership of learning and support goal setting during this extraordinary period. We will update this paper with relevant guidance as it becomes available to support schools as they prepare for the coming academic year.

Introduction

The events of spring 2020 disrupted traditional schooling to an extent unlike anything in modern history:

- In March, schools around the country and the world closed in response to the spread of the COVID-19 pandemic. While educators have made valiant and heroic efforts to provide students access to learning at home, substantial portions of planned curriculum have been presented incompletely, or not covered at all. The impacts of this loss are likely greater for historically disadvantaged students, who already tend to be further behind in their learning.
- Quickly after schools closed, teachers, students, and families were asked to adapt to at-home learning, bringing a steep technological learning curve and new learning environments to nearly all educators and students. Many students are participating partially in at-home learning; some may not be participating at all. Students lost many of the benefits of the routine of school, the opportunity to interact with friends in person, and a variety of academic and extracurricular resources.

- Many students may face acute trauma resulting from the relentless news about a global pandemic, combined with the impact of serious illness affecting many families. Moreover, students may experience the death of a close family member or may care for family members who are ill. Emerging evidence suggests the health impacts of COVID-19 will be most deeply felt within communities of color (Artiga, Orgera, Pham & Corallo, 2020).
- Finally, the economic recession that has accompanied the spread of the pandemic has created instability in housing, food, transportation, and childcare that affect the well-being of many families and the ability of students to focus their attention on learning.

These transitions contribute to interrupted learning: learning that occurs irregularly, with breaks in established routines and inconsistencies in meeting the academic, social, emotional, technological, and/or physical needs of learners. While similar in some ways to the types of interruption that have occurred after natural disasters, migrations, political instability, or other large-scale events (Cohan & Honigsfeld, 2017; DeCapua, 2016), this interruption is unique in its scope and duration.

In turn, we anticipate dramatic impacts on student learning. An analysis of MAP Growth data suggests students may return to school having lost up to 30% of a typical year's progress in English language arts, and 50% or more of a year's progress in mathematics (Kuhfeld & Tarasawa, 2020). Because individual students' experiences with interrupted learning will vary, progress within grades of students will also vary in significant and challenging ways (Kuhfeld et al., 2020). Differences in the routines of schooling next year will likely further impact student progress.

This crisis is far from over. As this paper is released, schools and districts are still deciding how best to serve students next year, in cooperation with public health officials. School may look different in several ways:

- As individual community situations change, districts may be forced to again close schools and resume at-home instruction, or split time between instruction in schools and instruction at home. Students will continue to have different levels of access to technology and other resources that can support learning.
- The economic crisis may lead to increased student mobility and absenteeism. Moving forward, older students may be asked to withdraw from school to provide care for younger siblings, change schools as their caretakers change jobs, or go without other important resources. Families may choose to keep children home from school to protect them from getting sick.
- Emerging evidence from nations where school has resumed suggest social distancing may change many of the desirable features of traditional schooling, like recess, family conferences, student library access, and teacher collaboration (Kamenetz, 2020; Kingsley, 2020).

Within the context of this uncertainty, this document provides guidance on the use of MAP Growth as part of a balanced assessment system to continue the vital work of helping all students grow. Balanced assessment will play a critical role in understanding the impact of school closures on student outcomes and in crafting individualized student plans to address unfinished learning. This document describes the path toward those plans through regular use of formative assessment and

student goal-setting practices. By using these strategies to understand and act on unfinished learning, educators during this crisis can give their students as much normalcy as possible, while providing the positivity and opportunities for success that will encourage their academic and emotional growth.

Knowing that students' learning will vary during this period, we recommend use of fall MAP Growth scores as a new benchmark for understanding where student learning stands at the beginning of the new school year. When student progress has been more uneven than usual, it becomes even more crucial to know where students' learning stands today and what learning gaps may stand in the way of progress. Most importantly, educators must be able to identify where each student's learning needs to go next in order to help students take ownership of their learning, set goals, and continue their progress. This document provides three ways to use MAP Growth to understand how school closures will affect student achievement and which students need targeted support to meet those challenges.

Finally, we believe balanced assessment systems serve a critical role in educational equity. This document concludes by identifying pitfalls in assuming what students know and describes how assessment strategies can counteract their negative impacts.

Continuing the path toward growth

Despite the challenges of the present moment, we believe that students can emerge as well-rounded, independent learners. Success requires steadfast attention first to students' social and emotional needs: ensuring students are cared for as people, just as they are cared for as learners. Success also requires making difficult choices balancing a variety of academic and pedagogical aims. Teachers will need to balance their grade-level content with areas where students are struggling, with content that was missed or underemphasized in the previous spring, and with the social and emotional challenges of this unprecedented time in students' lives. A balanced assessment system, adjusted specifically for periods of interrupted learning, provides educators the tools they need to make those decisions well.

This section describes two key strategies for providing students meaningful instruction in the context of unfinished learning: individual student goal setting and appropriate use of formative assessment techniques. Alongside implementation of an effective interim assessment like MAP Growth, these classroom strategies use a balanced assessment system to provide timely and in-depth information on what students know and can do, and to allow teachers to act on that information to drive relevant, individualized instruction.

Use individual student goal setting to establish a new growth trajectory

The return of students to school is an opportunity to provide them new paths for learning, focusing on their strengths and their individual learning needs. Clear goals help students stay engaged in the classroom and persist when they face challenges. Goals for growth need to be connected to tangible next steps so students know which steps they must take to achieve success. Goals should also balance what is meaningful and relevant for students with what provides them reasonable opportunities for



success. Through building goals with their teacher, students examine their past learning, set short-term targets for additional learning, and plan the specific steps needed to get there.

Bringing goal setting into classrooms does not require strict adherence to a set approach. Our research with partners who use goal setting effectively (Nordengren, 2019) finds that many strategies work well depending on the students and the context. These strategies share five key principles:

- **Start early:** As early as kindergarten, students can begin setting individual behavioral or academic goals. This process allows students to get used to the process of setting goals and make it part of their educational culture.
- **Do it often:** Individual goals should be short term—often about four to six weeks. Successful educators use regular weekly check-ins with students to evaluate progress toward goals, adjust as necessary, and prevent students from feeling discouraged. Short-term goals on individual skills and content units can accompany and help advance longer-term goals, like improvement on MAP Growth.
- **Make it visual:** Effective goal-setting techniques involve tools like anchor charts, data walls, personalized learning plans, data notebooks, or other student-accessible resources. These allow students to directly identify their goal, describe the steps they should take to get there, and ultimately provide evidence the goal has been reached.
- **Create personal relevance:** The best goal-setting processes begin in conversation with students about what matters to them. Teachers can use students' personal aspirations, areas of interest, or their own personal experiences as jumping-off points to discuss why setting a goal matters.

- **Center student choice:** Regardless of process, students should feel they are in charge of what and how they learn. Centering their choices provides opportunities for self-reflection and agency that are critical for empowering learners.

Between test administrations, setting goals allows students to understand their learning, reflect on that learning, and proactively work to improve

A better way is possible today

To help students close gaps and make the gains they need, a good-enough assessment isn't enough. Without data that is precise, valid, objective, and reliable, educators run the risk of making ill-informed decisions that can have lasting consequences.

Trustworthy data helps educators make informed decisions to help students make transformational learning gains. The decisions are too significant—and students too important—for anything less.

Used in tandem with scaffolded instruction, individual student goals allow teachers to differentiate content without permanently tracking students. Scaffolding is a teaching method designed to support students by breaking learning into manageable chunks—manageable experiences, strategies, structures, and processes—to build stronger conceptual understanding and greater student independence with standards and skills at grade level. In practice, scaffolding means providing students activities that allow them to interact with content in different ways depending on their existing skill levels, interest, and engagement. Student goals help make the logic of scaffolding transparent by clearly showing students why they are working on a task and connecting that task to an individualized instructional plan.

The goal setting module of MAP Growth, contained inside the Student Profile report, provides one tool for setting student goals appropriately. This tab presents a student's MAP Growth scores alongside their projected growth, which is estimated based on the growth of similar students in the same grade and subject area and with the same starting achievement level and instructional exposure between test events. Using this data, teachers can set alternative goals for students beyond their growth projections that can help students attain an achievement level that is both meaningful (related to an action plan with specific instructional next steps) and realistic (based on information on how much growth might expect to be observed over a given period of time).

For example, a meaningful growth goal for students may be attaining grade-level proficiency on the state summative test by the end of the year. However, attaining that level of growth in this environment may be a steep challenge for many students in a single year—it may not be particularly realistic. While exposing these students to grade-level content and complex text is an essential steppingstone on that journey, so too is providing opportunities for success along the way. Goal setting provides a path to realistic, achievable academic accomplishments for all students.

Use formative assessment to better understand unfinished learning

The power of any one interim assessment, including MAP Growth, is limited: it cannot speak to mastery across several content domains or measure changes in student learning in real time. Supplementing interim assessments with formative assessment—the planned, ongoing processes used to elicit and use evidence of student learning (Formative Assessment for Students and Teachers State Collaborative on Assessment and Student Standards, 2018)—is the key to unlocking in-depth information on what students know and can do. Rather than focusing on a specific test, formative assessment focuses on practices teachers undertake during learning that provide information on student progress toward learning outcomes. Using strategies that expose misconceptions, support higher-level thinking within a subject, and engage students in academic discourse, formative assessment provides the real-time feedback necessary to dynamically adjust instruction to meet learner needs as they emerge and change.

Although the magnitude of learning losses during this period is likely substantial, no two students will experience interrupted learning in quite the same way. For some students, personal or familial hardship will limit their opportunity to remain on an upward learning track during the spring and summer. For other students, moving between schools or districts may change their scope and sequence, causing them to repeat content they have already mastered or miss critical skills for future content. Even under normal circumstances, students move through content at different speeds and in different ways (Heritage, 2013), meaning two students starting from the same origin may take different paths to the destination.

Formative assessment is a critical tool for understanding these individual differences and identifying key areas of focus for students as they progress toward mastery. To ensure each day's instruction is focused on the most important content students need to reach their



goals, teachers must make careful and deliberate choices about the most essential scaffolds to support that learning (TNTP, 2020).

When first learning plotting coordinate points, students may make similar errors for distinct reasons: they may misunderstand the meaning of words like “vertical” and “horizontal,” they may reverse the order of an ordered pair of coordinates, or they may incorrectly order the quadrants of the plane. Formative assessment provides the tools to quickly identify the misconceptions at play, support with appropriate instruction, and ensure that rigorous and timely instruction sticks.

Well-executed formative assessment practices also provide teachers critical opportunities to reengage students in the work of learning. Formative assessment—sometimes called “assessment for learning”—begins and ends with a focus on cultivating self-directed learners (Clark, 2012). Through formative assessment, students are asked to proactively reflect on what they have learned, understand their learning in relation to their peers, and proactively raise lingering questions or ongoing learning needs. For example, formative assessment practices may ask students to self-assess their knowledge of a new topic, seek feedback on a project from peers, and/or journal or discuss what they hope to learn next.

Finally, formative assessment plays an important role in an ongoing goal-setting strategy. For students to set a goal, they must understand both where they start from and where they intend to end up. Formative assessment strategies provide data in support of goal setting that is appropriately timed, tailored to the specific skills or standards targeted by the goal, and meaningful to students because of their participation in developing and analyzing the information.

Learning from home is a new experience. While some students may take on the level of independence and ownership of learning necessary to succeed outside a classroom, other students may not be ready to learn in a self-directed way. The return of students to school is a key opportunity to build independence for students who have begun that process and to use formative assessment to better understand the barriers to independence for others. Using formative assessment, teachers can create multiple, clear opportunities for students to understand what they should be ready to learn and the steps they will take to get there. These values are critical in classrooms under any circumstances, but they are particularly important when students may spend less of their learning time in schools with their teachers than ever before. Given the unpredictable nature of the school year to come, it is crucial to take early and frequent opportunities to build students’ skills.

The role of MAP Growth

While these strategies provide ongoing evidence of student learning, interim assessments like MAP Growth can help teachers and administrators understand the extent to which the pandemic has affected student achievement. In addition, these assessments can help educators determine what they can do to help their students make up for lost learning and get back on a track toward academic success during the year.

As teachers plan for how to best support student needs when school resumes, they will need valid and reliable information on student achievement and growth to plan whole-group instruction, allocate resources, and inform curricular planning. The MAP Growth assessment will support this need by offering:

- Flexibility in when and how students test
- Revised achievement and growth norms
- Guidance for interpreting scores using new reports and resources

When and how students test

How, when, and should students test will be central questions if and when schooling resumes in the fall. While test results can provide useful information to educators about student learning needs, schools may want to prioritize instruction on content missed in the prior academic year immediately upon students' return to school. Other schools may want to assess students early in the year to begin planning instructional differentiation based on MAP Growth results. Educators are in the best position to judge when and how to assess their students. We focus our guidance on supporting schools in the application and use of MAP Growth results irrespective of when testing occurs.

When school resumes, many schools will likely begin the year with some combination of in-person and at-home instruction, with large variations in approach within and across states. Many partners have asked about the feasibility of administering MAP Growth assessments remotely. Remote MAP Growth test results can serve a critical role in informing student instructional needs; however, other uses of MAP Growth results—particularly those tied to accountability or other high-stakes purposes—merit caution. This caution extends to normative interpretations of student test results, given that the norms describe achievement and growth trends in “normal” years, and testing conditions and approach in fall 2020 will likely be much different than normal.

NWEA recommends caution when using remote MAP Growth test results for high-stakes purposes, such as evaluations of teacher or school performance or for student placement decisions. Further, districts need to take steps to ensure that these results are valid estimates of student achievement and free from bias that could result from increased student disengagement (i.e., rapid guessing), a lack of consistent accommodations, students receiving outside help when completing their test, and other factors. For more information on the NWEA policy on remote testing, see [here](#).

2020 norms and scale maintenance

On July 24, 2020, NWEA will release updated nationally representative achievement and growth norms. Among many other changes, the 2020 norms will include growth norms from spring to fall, which can help districts that completed testing before school closures contextualize changes in student achievement over the summer months.

Schools may also want to examine student achievement in the fall in comparison to student achievement in prior terms or evaluate the gains made by students from fall 2019 to fall 2020. For these cross-year comparisons, it is important that schools apply the 2020 norms across all student test results to maintain consistency in the norming standard used to interpret student scores. Historical reports will automatically populate with 2020 normative data, so these should be rerun as necessary once the new norms are released. Student data in the fall can provide insight into current student achievement levels, how variable student achievement is, and student performance in individual instructional areas. The data can also provide actionable information to educators about which students need the greatest amount of instructional support and in which areas.

The 2020 norms also include results of planned scale maintenance work on the MAP Growth K–2 assessment. This new approach should mitigate drops in student RIT scores when transitioning assessments. However, these adjustments mean student test results on the MAP Growth K–2 test before July 2020 (and before COVID-related school closures) should not be directly compared to MAP Growth K–2 scores attained after this date. While historical MAP Growth K–2 scores in the NWEA reporting system will not be updated to reflect this new scoring approach, school and district administrators can access rescored historical MAP Growth K–2 data in the K–2 Scale Maintenance RIT Score conversion file.

Garfield Elementary’s instructional leadership team wants to understand the full impact of interrupted learning on incoming fifth-graders. Comparing average RIT scores, differences in the standard deviation of achievement, and the achievement percentile rank (using the 2020 school norms) of fall 2019 fifth-graders to fall 2020 fifth-graders can show:

1. How student achievement has changed (e.g., Is the average RIT score and percentile rank of fifth-graders notably different in 2020 compared with 2019?)
2. How variation in student achievement has changed (e.g., If there is greater variation in fall 2020 compared to fall 2019, how can instruction be further differentiated to better meet the needs of students?)

When interpreting MAP Growth scores, educators should always consider the instruction students were provided between test events. Scores on a test obtained during the second week of instruction mean something different from scores obtained during the eighth week of instruction. The 2020 norms continue to allow districts to adjust normative information based on the timing of test administration. To provide added flexibility this fall, NWEA will also adjust this system to provide normative information based on test results obtained during the first weeks of the school year, before the delivery of any instruction (i.e., Instructional Week 0). This change will afford schools greater latitude when deciding when it is most appropriate to provide MAP Growth to their students.

Using MAP Growth scores in 2020 and beyond

The nature of interrupted learning due to school closure—and all the associated challenges and trauma—will produce a host of new questions about student achievement and growth. MAP Growth can address some of these questions in three specific ways.

Shifts in achievement

First, educators may ask if school closures had a greater negative impact in different school settings, at different grade levels, or across various subgroups of students. By itself, data from a fall MAP Growth assessment can illustrate where students are starting the year, identify which students have the lowest levels of achievement, and highlight how varied student achievement is within a classroom, grade level, or school. NWEA reports can also compare mean achievement

If the fifth-graders at Garfield Elementary start the 2020–21 school year at the 30th percentile in mathematics and grow at the rate we might expect over the course of the year, their achievement at the end of the year will remain at or near the 30th percentile. However, for those students most affected by school closures, simply maintaining the same level of achievement will not be sufficient. A meaningful growth goal might be a return to the achievement levels at which these students were before school closures. If this year’s incoming fifth-grade class achieved at the 40th percentile in fall 2019 but dropped to the 30th percentile in fall 2020, MAP Growth norms can provide information about what level of growth these students would need to attain over the course of the year to return to achieving at the 40th percentile.

between fall 2019 and fall 2020 to show how both average achievement and variation have changed.

Through identifying major shifts in achievement within and between grade levels, educators can discern the grade levels, content areas, and students most in need of immediate support. At any school in each grade level, comparing last year's students with this year's students can show whether students' scores are notably different year-over-year and suggest where individual students or groups of students need further differentiation to account for greater variance in achievement.

Establishing growth goals

Understanding how student achievement has changed tells only half the story. More importantly, once it is clear where—and to what extent—student achievement has changed, educators should note which steps will help students be as successful as they can be. Using the 2020 school norms, educators can understand how much growth might be expected from a group of students based on four primary characteristics: the students' average achievement level, their grade, the subject area, and the amount of instructional exposure between test events. These growth norms inform how much growth students tend to demonstrate under normal conditions.

However, current conditions are far from normal. For some students, attaining the growth necessary to stay at the same achievement percentile may not be sufficient and may still leave them far behind their peers. Wide gaps may exist between the projected growth trajectories for these students and trajectories needed to return students to prior normative achievement levels. As a result of interrupted learning, educators may want to set new kinds of goals, such as achievement at the 50th percentile, readiness to be on track for proficiency on a state summative test, or performance corresponding with college

readiness standards. Growth norms can help educators set new and meaningful milestones for these students by quantifying the amount of growth it would take for students to hit these targets over the short or long term.

Comparisons between MAP Growth scores and these milestones can provide sources of meaning that can inspire student progress. Of course, this sense of urgency must be balanced by understanding the concrete realities facing students during challenging times. Comparing an aspirational growth goal with the projected level of growth can help educators balance realistic and meaningful expectations for students and establish reasonable timetables for progress. A growth goal set well above projected growth may require two or three years of effort if it requires unrealistically lofty short-term growth.

Garfield Elementary's fourth-grade mathematics scope and sequence emphasizes geometry during the spring quarter, including angles of measurement and identifying types of triangles. Students engaged in at-home learning had different opportunities to interact with this content. Using the Learning Continuum, Garfield's fifth-grade teachers can identify which standards in geometry individual students are ready to learn. Supplemental learning resources like the NWEA Instructional Connections can provide opportunities for additional practice and scaffolding above or below the level of the standard.

Understanding these different growth trajectories for groups of students is important, but the most impactful goal setting occurs when educators establish growth goals with their individual students (Bruce, 2015; Moeller, Theiler, & Wu, 2012). Using the 2020 student norms, educators

can help establish growth goals that balance what is meaningful with what is realistic for each of their students and be sensitive to the fact that is what is meaningful and realistic for one student will likely not be the same for every student.

Gaps in content and instruction

To achieve aspirational growth during extraordinary circumstances, educators will face tough decisions about prioritizing missed curriculum. While some students have engaged with at-home instruction, others will have missed two to three months of schooling. Additionally, student transience means some educators will serve students in the fall who did not engage in their district's specific at-home learning strategy in the spring. Schools cannot simply return to an instructional scope and sequence put on pause in the spring and continue at the same pace without some students falling further behind. Because each student has experienced this period differently, assessment data plays a critical role in understanding where gaps exist in what students know and have learned.

The characteristics of high-quality instruction involve deeply understanding the coherence of educators' content and aligning the rigor of instruction to grade-level standards. From MAP Growth, student instructional area scores can illustrate general areas where students appear to be performing well (relative to their overall score) and which areas require greater focus and support. From there, the Learning Continuum (alongside other data sources—including formative assessment information, an understanding of students' social and emotional context, and other diagnostics) can support understanding the level of conceptual difficulty for which students are prepared.

By linking specific skills, standards, and RIT scores, the Learning Continuum shows whether the conceptual difficulty of a standard is likely within a student's zone of proximal development. This provides information on if the student is

instructionally ready for the standard, if they need further scaffolding to reach the standard, or if they need enrichment to grow beyond the standard. Supplemental supports—such as small-group tutoring or individual practice—can provide additional scaffolding and enrichment, alongside core instruction. These data sources can also support reflection on the standards and skills that come before or after the standard being taught, providing additional opportunities to provide rigor at each student's instructional level.

Using balanced assessment to build equity

COVID-19 presents an exceptional and sizable challenge to the pursuit of educational and social equity in the United States and beyond. Economic demands in many families may continue to drive chronic absenteeism or increased mobility as these students are asked to change schools and care for family members. The acute traumas brought by this period will likely affect student persistence and engagement in other ways. Students from the communities hardest hit by the pandemic may have the most difficulty accessing instruction during interrupted learning.

These impacts are only compounded, however, when educators make assumptions about the content individual students are ready to learn. Research on stereotype threat has long found that students tend to rise or fall based on the expectations their educators place on them (Spencer, Logel, & Davies, 2016). While we can estimate the general impact of interrupted learning on students, we cannot predetermine how individual students will be impacted: whether students will find themselves behind, near the same achievement level, or in rare cases above their achievement level before school closure. Building learning for all students requires providing additional support to students below grade level, challenge to students above grade level, and access to grade-level content to all students, regardless of background or personal circumstances.

While unfinished learning may be more extensive and more prevalent when schools reopen, the time available for learning will likely remain the same. Differentiated instruction, whatever it looks like, will have to take place within the same day-to-day instructional context that students on grade level experience. To ensure equity and effective use of resources, Tier I instruction should remain the main way students learn, while educators still seek to engage students from their areas of strength. Using a variety of instructional activities and frequent formative assessment to monitor learning is key to ensuring students receive the instruction they need without leaving them permanently behind their peers.

Despite the many ways our culture and our schools may change because of this crisis, what will remain the same is the ability of a teacher to change students' lives. The challenges brought by moments like these are also opportunities to reaffirm our commitment to helping teachers combat inequality and inequity through the deliberate use of data to encourage students, challenge them to achieve at their highest potential, and celebrate their success.



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