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The author alone is responsible for the text that follows.

EXECUTIVE SUMMARY

The Johns Hopkins Institute for Education Policy, supported by the Louis Calder Foundation and Chiefs for Change, has conducted the first in-depth case study of the use of acceleration strategies by public school districts. Through an analysis of documentation and assessment results, interviews with district leadership and school principals, and using multiple classroom observations, the Institute examined district policy and granular practices in math and ELA instruction at the middle school grade levels. Counter to expectations, we found that teachers in whole-class settings were closely following their respective high-quality curricula in both subjects—a key goal of acceleration. We found too that students were being regularly re-grouped for differential small-group and individualized online instruction—a key component of acceleration models. However, we found that the rigor of whole-class instruction was highly variable, even within the same school. We also found widespread skepticism on the part of principals as to the value of digital platform online learning. Finally, based on the assessment data and the observations we made, we can suggest the hypothesis that
acceleration works best for students who are modestly behind in their learning (roughly up to a year), but that for those who are several (or more) grade levels behind, more drastic interventions will be necessary.

**THE CONTEXT FOR ACCELERATION STRATEGIES**

The latest data from two major national assessment providers - NWEA and Curriculum Associates - make clear what many teachers, parents, and students already knew: COVID-19 substantially slowed the accumulation of academic learning in America’s schools. Recent NAEP (National Assessment of Education Progress) results in math and reading have confirmed the serious dimensions of learning loss. In their analysis of the NAEP data, McKinsey found that “Students in 2022 were on average about 15 to 24 weeks behind in math and nine weeks behind in reading compared with 2019, or a quarter to half a school year behind.”

As common sense suggests, and as Margaret Raymond at Stanford University has shown, it will take more than a return to business as usual to overcome these learning setbacks. Unless we implement more effective instructional strategies, the country risks locking in COVID-19-induced learning losses. But Raymond finds that “most of the programs school districts have implemented to address COVID learning loss are doomed to fail. Despite well-intended and rapid responses, solutions such as tutoring, or summer school will miss their goals.” What Raymond’s research suggests is that students (usually underprivileged) whose learning growth was already modest before COVID will need far more powerful strategies if COVID is not to prove a life sentence of underachievement.

Other research supports Raymond’s findings. For example, while tutoring is widely – and correctly – regarded as the most powerful of the traditional means to increase students’ learning, we know that unless that tutoring is done in very small groups (ideally, one-to-one) and with high dosage (at least 50 hours a semester) – an extremely expensive proposition for districts - the results will be modest. And even this high-dosage tutoring is rare. Research from the USC School of Education (2023) found that just “two percent of U.S. children receive high-quality tutoring,” where “high-quality” included a minimum of 30 minutes three times a week. Districts that made major investments in tutoring have seen consistently poor outcomes when dosage falls short of that target.¹

High-cost strategies such as intensive tutoring will become still more difficult to achieve once we reach the fall of 2024, when federal education ESSER (Elementary and Secondary School Emergency Relief) stimulus funds are no longer available. What the nation needs, it appears, is a strategy to re-structure and re-purpose the delivery of education such that learning loss is reversed, and, especially for student groups whose socioeconomic backgrounds disadvantage their readiness to learn, a set of interventions that can close the opportunity gap as soon as such students enter school. One such strategy is acceleration – or, accelerated learning.

¹ For example, Montgomery County Public Schools in Maryland aimed to provide high dosage tutoring for its challenged students. Yet fewer than 15% received the 50 hours recommended, and the results of the initiative were disappointing: “There was no overall effect of MCPS-provided tutoring found on students’ Grades 3–8 reading achievement.”
Acceleration: An Introduction

The overall purpose of acceleration is to reduce achievement gaps between less academically proficient and more academically proficient students without depressing the performance of the latter group. Acceleration strategies are intended to provide key learning opportunities for students who would otherwise be unable to access grade-level instruction. Addressing this opportunity gap is the key to reducing their opportunity to learn – and thus the achievement gap.

As an educational concept, acceleration focuses squarely on pedagogy, and in particular, the matching of pedagogical content to the knowledge and skills of each student to pinpoint what that student hasn’t learned to date. Put this way, acceleration is no different from remediation; remediation, too, focuses on meeting the student where she or he “is,” and tries to teach what students had been expected to learn - but didn’t.

But that is where the similarity ends. In theory, remedial pedagogy aims to identify the body of learning that a student either hasn’t adequately mastered or has missed altogether – where “adequately mastered” means achieving the expected grade-level mastery in a particular subject. This means that remediation looks backward – trying to re-teach what can be a very long list of missed skills and knowledge. In practice, it is rarely possible to identify everything a student has missed, and even with an incomplete list, the effort to re-teach what hasn’t been previously learned is a futile strategy – there is just too much material to cover. Research carried out by our Institute of Education Policy (IEP) at Johns Hopkins University - based on state-developed tests in Grade 4 and Grade 8 in 1651 schools in six states - found that just 1% of these schools consistently reduced the achievement gap and improved scores for the lowest-performing students.

Acceleration, by contrast, looks forward. It aims to identify the precise set of skills or content that the student needs to access a forthcoming standards-aligned grade-appropriate lesson and to teach that student just those skills and/or content before the teaching of that lesson. The core concept here is not to identify the entirety of a student’s missed learning. Rather, the idea is to identify just that learning that will enable access to the forthcoming lessons, and then to use diagnostic assessments to determine whether the student possesses that learning (some assessments attempt to do both the identification and the testing of the needed skills). In practice, if students lack too many pre-requisite skills or a sizable body of knowledge essential for such access, the school may need to reduce the scope of the standards-based curriculum to render it a manageable target for students to master.

The “Rebirth” of Acceleration

The key difference between remediation and acceleration is that the former takes as its starting point the potentially sizable body of educational material a student has failed to master. By contrast, acceleration focuses on an immediate target – upcoming standards-based instruction – and seeks to ensure that students are ready to learn them.

Early in 2020, Dan Weisberg (then at TNTP) and I realized that we had both been thinking about this concept, and we subsequently co-authored a brief introduction to its possible post-Covid use in schools (here). We emphasized that at its core, the idea wasn’t complex: Students who are behind would be taught “just-in-time” skills and knowledge that would enable them to access the grade-level
material – material that would otherwise be cognitively out of reach.\textsuperscript{2} In that piece, we referenced two schools that were working to implement something akin to the strategy (Concourse Village Elementary School in the Bronx and the Vanguard Academy network in South Texas).

There had been research on the use of differentiated instruction for gifted and talented students. A few research studies evaluated cases in which teachers pre-assessed students at the beginning of each new unit on the intended instructional and curricular goals; placed them into flexible groups based on current shared patterns of readiness, as evidenced by the use of formative data; and then designed learning activities to enhance learning for that group (Tomlinson & McTighe, 2006; Tomlinson, 2013). \textsuperscript{3} Differentiation centered on having all students master the same learning standards and objectives, but teaching was adjusted across content, process, product, and/or learning environment in such areas as the complexity of the task, abstractness of the ideas, amount of independence required, and the pace of learning. Implementation was often based on creating three levels of activity, where learning was adapted for students performing below grade level, at grade level, and above grade level (Tomlinson & McTighe, 2006).

While the research found largely positive outcomes for these studies, it also identified challenges. Teachers often received insufficient training in effective implementation of all aspects of differential instruction (Azano et al., 2011); they lacked planning time to develop needed pre-tests, formative assessments, and differentiated activities (Rubenstein et al., 2015); and teachers lacked access to materials that matched students’ needs.\textsuperscript{4} As we will see, a number of these challenges re-surface in contemporary acceleration efforts.

**Acceleration 2020 to the Present**

Since Weisberg’s and my article in 2020, the term “acceleration” has become ubiquitous in the K-12 landscape. In its guidance to states and districts in the use of American Rescue Plan Funds, for instance, the USDOE’s (United States Department of Education) headline reads: Supporting Learning Acceleration. In summary of what by then had become the widely accepted understanding of acceleration, the Department wrote:


Learning acceleration is a strategy designed to get students on grade-level by using evidence-based interventions to help close content and skill gaps as efficiently as possible. The goal of tailored acceleration is to ensure that all students attain college and career readiness regardless of where they may be starting. Research shows that learning acceleration is an important strategy for advancing equity and that students who experienced acceleration struggled less and learned more than students who started at the same point but experienced remediation instead (p.3).

To support this strategy, education reform organizations issued “how to” guidelines to schools and districts seeking to incorporate acceleration models into their schools. Based on early interactions with early-adopter districts, TNTP released two acceleration guides – here (subsequently updated) and here. The Carnegie Corporation of NY summarized early conclusions from their grantees who were in turn engaged with district-level efforts.

The advice – especially from TNTP – was partly strategic. For example, in the second TNTP guide referenced above, school districts were advised to align “vision, consensus, skills, incentives, resources and action plans” (here, p.13). But, most especially in their updated guide on implementing acceleration, TNTP’s advice was extremely granular and very extensive. For example:

Use TNTP’s Student Experience Assessment Guide and TNTP’s Classroom Observation Protocols to evaluate the quality of instruction your students are experiencing. Connect the data you collect to classroom demographic data to determine if there are gaps in access by classroom demographics. (p.9) ... Ensure that teachers diagnose students’ reading foundational skills (using an assessment like DIBELS) and reading fluency (using this guidance). Additionally, ensure that teachers are clear on which students have reading comprehension and writing skills below grade level (using high-quality, short assessments...) (p.14).

For its part, the Carnegie Corporation focused on basic goals, including “access to grade-level content despite the absence of some knowledge and skills from previous grades” and “identifying the most crucial knowledge and skills that students need and integrating those into lessons.” As to getting to those goals, districts should:

- Adopt an acceleration strategy.
- Invest in essential resources for effective acceleration.
- Focus on the whole child.
- Support educators as they implement acceleration.
- Engage families and other stakeholders in the acceleration process.

But drawing on the experience of its grantees, Carnegie also dispensed advice as to some crucial steps for districts undertaking acceleration. Under the bullet of investing in essential resources, the Corporation told districts to:

Ensure that high-quality instructional materials, embedded assessments, and prerequisite skill guidance are available for all grade levels and courses. Develop
flexible schedules that give grade-level and subject-matter teams substantive time each week to study the curriculum, practice selected lessons, plan for their students, and reflect on their progress. Deploy coaches and facilitators to support implementation of the acceleration strategy. Partner with organizations with demonstrated expertise with your curricula and acceleration.

In retrospect, it was understandable that in the face of an urgent situation, both encouragement (“the research shows”) and lots of well-intentioned advice were each provided to America’s school systems. The data showed a serious drop in learning growth, and the ESSER (Elementary and Secondary School Emergency Relief) stimulus funds intended to address that drop needed to be spent. The K-12 system was looking for answers, and remediation had never proved effective.

**The Impact of Acceleration: What we knew by 2021**

In supporting acceleration strategies, the field had only a slim research base to call on. Rather than being able to reference school district results, the research on acceleration impact came largely from individual schools. The most promising early research came from the use of a high-quality math curriculum – Zearn – but once again, it was based on results from, in this case, a small number of charter schools (Milwaukee College Prep).

There had been only one study – in elementary math – that offered strong support for the use of acceleration strategies at scale. The research once again came from using Zearn. Among its findings: “Students who experienced learning acceleration struggled less and learned more, completing 27% more grade-level math lessons than students who started at the same level but experienced remediation instead” and “Learning acceleration was particularly effective for students of color and those from low-income families, completing 49% more grade-level lessons than those who experienced remediation” (emphasis in the original).

**The Results of the Zearn Study**

(From https://about.zearn.org/insights/publications-learning-acceleration).

While promising, this research hadn’t been peer-reviewed; it was published by TNTP and Zearn. Additionally, the schools involved in the research already had already been using Zearn – a curriculum that was explicitly was designed to provide rich diagnostic analyses of student performance, thus

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facilitating subsequent focused teaching of missing skills.\textsuperscript{5} In short, Zearn was arguably one of the very few math curricula tailormade for acceleration – and the study’s students could not be fairly compared to those in “business as usual” classrooms.

A third difficulty is that Zearn also provided heavily revised scope and sequence guidance to teachers using its platform during the 2020-2021 school year which focused learning on a reduced number of math skills. While this revised set of learning goals was available to both teachers who chose to remediate and to those who chose acceleration, it favored acceleration by reducing the number of grade-level skills for which students had to be prepared. Finally, although their report included some (hypothetical?) examples of acceleration strategies, the report was silent about how schools incorporated acceleration into their overall pedagogy.

In short, because no school system had embraced acceleration in 2020 when the idea was introduced as a learning strategy, we entered the academic school year 2021-22 without much research to go on. We could still recommend using the approach, because two of acceleration’s key components had been strongly supported by research: differentiated instruction coupled with rigorous grade-level learning for all students. The research on both strategies is robust and compelling.\textsuperscript{6} Strong corroborating evidence, however, would lie in the future.

A second difficulty beyond the nascent state of acceleration research was operational: the advice districts received was so extensive as to be – arguably – unmanageable. TNTP’s guidance included more than twenty pages of “to dos,” including a panoply of new strategies and tools, for a district to implement acceleration. It was unlikely that a district could match these (somewhat idealized) requirements. Perhaps the most prescient advice in the 126-page Fordham Institute guide to acceleration was the small admonition on page 123, “Don’t bite off more than you can chew” (emphasis in the original). On the same page, the Fordham report cites the findings of Anna Erickson and Heather Hill, whose work on successful educational interventions emphasize four key issues that focused on the essentials:

- **Will:** Whether teachers actually use new materials.
- **Skill:** Whether teachers know how to use new materials.
- **Organizational Capacity:** Whether an organization has the tools, routines, and relationships necessary to use new materials.

\textsuperscript{5} As Zearn describes it: “As students complete Zearn digital lessons, an embedded daily diagnostic assesses each student’s understanding. When a student answers incorrectly, the program automatically provides additional support and scaffolding from prior grades or prior units; this is called a “Boost.” Students are then given a new problem to demonstrate understanding.” (https://tntp.org/assets/documents/TNTP_Accelerate_Dont_Remediate_FINAL.pdf)

\textsuperscript{6} For research on differentiated instruction, see for example Tieso, C. (2005). The effects of grouping practices and curricular adjustments on achievement. \textit{Journal for the Education of the Gifted}, 29(1), 60–89. See also: Tomlinson, C. A. (2000). Differentiation of instruction in the elementary grades. ED443572 2000-08-00 www.eric.ed.gov The report “The Opportunity Myth” provides evidence that across the United States we under-teach underprivileged children, giving them watered down materials and easier work. But evidence from Chicago when it challenged its students to tackle the rigorous IB Diploma programme (sic.) and from multiple school districts that made AP coursework more widely available to underprivileged children show that their performance rises when they are given access to more demanding materials. See here, here and here for the respective research (the third of these reports also provides more general evidence that rigorous coursework produces learning gains for less privileged students).
Contexts and Coherence: Whether new materials are aligned to the local settings’ needs, strengths, and weaknesses.

In the case studies that follow, this list will figure quite prominently.

Context for this Research Project

As schools across the nation edged back toward in-school learning in late 2021, district leaders knew that their students were struggling, and that business-as-usual was going to leave many locked into learning levels that would leave them permanently disadvantaged. By late 2021, districts had to start deciding how to spend almost $189 billion in COVID related relief funds, the majority of which had been released under the American Rescue Plan in March 2021.\(^7\) Districts across the country were adopting different models of support for struggling students, including an explicit effort to shift from remediation to acceleration. At the Johns Hopkins Institute for Education Policy (“IEP”), we saw an important opportunity to learn more about the design, implementation, and results of these efforts through an in-depth analysis of work on the ground.

With the generous support of the Calder Family Foundation, IEP was able to conduct case studies of acceleration in two districts in the school years 2021-2023. We focused on district policies and implementation of learning acceleration strategies in math and ELA in middle school (grades 6-8). Our district recruitment was done in tandem with longstanding partner Chiefs for Change, a member organization of reform-minded state and district leaders.

There were several reasons for choosing to focus on middle school: first, given the size of the districts, it would have been much harder to study a representative sample of elementary schools. Second, research suggests that middle school is a crucial period in American education. Third, the variation of curriculum use (in ELA) in one of the two districts we selected was much greater at the high school, making the use of acceleration much more difficult.

To enable access to district planning, documentation, and most importantly school-level practice, we agreed to preserve the anonymity of the districts.

It is important to note, however, that the two districts – located in different states – presented very different demographics. In terms of the required number of students in the middle-school grades, both districts met the study criteria of between 40,000 and 80,000 students. However, District 1 is a geographically concentrated urban district, educating a student body that is over 90% minority-majority, while District 2 is geographically large (hundreds of square miles), encompassing both urban, suburban, and rural communities, and has a 50% minority student enrollment. In District 1, over half the students are eligible for subsidized lunch (with that percentage evenly spread across almost all schools), while in District 2, a district average would be misleading: there are schools with 90% of students receiving free or reduced-price lunch, and schools with 0% of students in either category.

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7 For a summary of the funds and when they were released, see [here](#). For a discussion of how they were spent, see [here](#) and [here](#).
Our choice of these two very different school districts was deliberate. Since the intensity of the required research restricted us to two districts, we wanted as a minimum to unpack the work of acceleration in two very different educational contexts. While both sample districts had to be committed to accelerating student learning, we also wanted to work with districts whose approach to acceleration was envisioned in substantively different ways, once again to offer a broader set of insights to the field.

The report that follows focuses on these districts’ strategies that focused on accelerated academic learning. An important qualifier: in common with others, the two districts we studied engaged in multiple post-COVID-19 mitigation efforts. Both districts spent funds on improving the physical environment in schools, and in support for the social and emotional well-being of students. The purpose of this study is to examine strategies explicitly designed to boost the learning of academic content in mathematics and the English Language Arts (ELA).

Drawing on the theory of acceleration, the research record of differentiated instruction outlined above, and bearing in mind current “how to” guides mentioned above, IEP developed a theoretical model of how acceleration is intended to work. This model was then used to generate the research design, including strategies, questions, and subsequent site-level research. All of this is elaborated below.

PART 1: A MODEL OF EFFECTIVE ACCELERATION STRATEGIES

Our research project is focused on gathering observational and interview data to analyze the degree to which a school district was executing the strategies that are key to successful acceleration. Our analysis thus depended first on identifying the requisite strategies.

1. Engagement and Guidance

As the outline below suggests, a full-scale acceleration model is made up of multiple elements. Coordinating them to achieve strong efficacy is challenging. Throughout the effort, clear and continuous communication between the district and school leadership is essential, as is an active partnership with teachers.

A key set of district decisions will be the degree of autonomy districts grant to school leaders: too little autonomy risks acceleration plans that look uniform and strong in theory but may fall apart when schools with different capacities and circumstances try to implement them. By contrast, the provision of too much autonomy may result in school-level failure to implement key components of acceleration, for example, because they believe that these elements are too onerous.

2. Instruments and Plans

An effective acceleration strategy depends on considerable prior planning. The district will need to share with its schools an overall model of actions in the academic subjects in which it hopes to accelerate learning. That model in turn rests on several tools and processes:

A. The Curriculum and its Use:

No district or school can create and implement an effective acceleration strategy if teachers are creating and heavily relying on their unique instructional materials, or if the district’s
chosen curriculum is vague about the specific skills and concepts (in math) or about the skills and content (in ELA) that must be taught within a finite time (usually a semester). This is because acceleration depends on a school’s ability to prepare groups of students for a known set of future curriculum units. Given the extensive research on curricula quality, districts committed to effective acceleration strategies will also have implemented so-called HQIM (high quality instructional materials) that are rated “all green” by EdReports in their analysis of ELA and math materials. The two districts selected by IEP for analysis had both adopted such materials in both ELA and math. But IEP did not assume that adoption automatically meant that teachers were using these materials – that was a question to be answered by research.

B. Diagnostic Tools:

The district will need to establish which diagnostic tools will be used to evaluate what students know - and need to know - such that they can successfully access upcoming grade-level instruction. What “upcoming” means will vary. Ideally, the diagnostic will be fine-grained, meaning that it will pinpoint the skills/knowledge that students will need for the next weeks of instruction. In math, the diagnostic will focus on specific mathematical operations and concepts. In ELA, it may include vocabulary, appropriate levels of reading fluency, and background knowledge required to make sense of the forthcoming text(s). IEP’s operating assumption was that the looser the tie between the assessed skills/knowledge and the specific curricula materials to be taught, the less likely it would be that differentiated instruction built based on those assessments would be effective.

C. School-Site Processes:

Each school in the district will need to design a process for analyzing the results of the diagnostic assessments to enable the planning for and design of subsequent differentiated instruction. This involves ensuring its capacity for data analysis (unless it is done by the district), the instructional time available in ELA and math (assuming, for now, acceleration strategies in just those two subjects), and decisions about the acceptable level of pull-out of students from studies in non-core subjects (and the dosage of “push-in” for instructing small groups during whole-class instruction). Districts will have to decide if it is acceptable to remove the most academically challenged students from all subject matter except ELA, math, social studies, and science. Answering that question will also require a definition of “most challenged students” – 5%, 10%, or more of those who are unready for grade-level instruction.

A further decision will be to determine how often students are assessed. At one extreme is the model of “Teach to One 360” – which re-assesses students each day to determine the design of their instruction the next day. At the other end of the spectrum is the use of assessments once a semester to place students in groups or “tiers” (usually three) for the duration of that semester. The latter approach arguably cannot generate anything close to an ideal acceleration model, since no single test can generate enough information about the academic readiness of each student for each unit of study across multiple months of instruction.

The school will need to designate the size of student groups to be used in differentiated small-group instruction. Ideally, the group sizes should be small, helping to enable effective
instruction through a fine-grained identification of exactly what kind of instruction each group will receive. Larger groups will inevitably contain students who will exhibit a wider range of learning needs. However, each group requires separate instruction, and the absolute number will be constrained by available instructors (and potentially the possibility of bringing in outside expertise and/or tutors).

D. Modalities of Differentiated Instruction:

The district and its schools will have to consider a range of instructional modalities to deliver differentiated instruction:

The first consideration is what portion of whole-class instruction time will be devoted to differentiated, smaller-group, in-person teaching. Alternatively, the district may choose to replace some whole-class periods with small-group instruction.

Second, the district (and/or the school) will have to choose which online learning platforms (if any) it will use. In some cases, such platforms will have a live person conducting the teaching in concert with the online software; in other instances, the tutoring will be fully software-generated and asynchronous. One challenge for the field is the lack of accessible, reliable research on the efficacy of different online programs.

Third, the use of live tutors before, during, or after school. Such tutors may be provided by a third party or hired directly by the district or the school. Key questions for the district will include: Will tutors be using the same curriculum material as the classroom teachers? Have they had professional development on that curriculum? Do they know exactly where their students are in that curriculum?

RESEARCH STRATEGY

Based on this understanding of an effective acceleration model, we planned our research to investigate the degree to which practice at each district and at selected schools (see below for our selection method) matched, modified, or simply looked different from the practices implied in the model. Our research design was consistent across the two districts, and encompassed the following key elements:

• Through conversations with district leadership, we sought to understand so far as possible the operational context for the district’s thinking and planning around their acceleration policies. Multiple Zoom conversations took place with the leadership team in both districts during the initial period of research.

• Through further conversation and the study of documentation, we reviewed the districts’ planning for acceleration as it was initially conceived in late 2021 and then re-visited throughout 2022. As referenced below, IEP received multiple documents from both districts and excellent collaboration when we requested clarification or further information.

• IEP selected diverse middle schools from each district for deeper study. These were either schools that only had Grades 6-8, or K-8 schools in which we focused only on Grades 6-8.
Using historical test data, we chose a group of middle schools that were representative of the full range of academic performance in the district. School selections were finalized with district leadership. In some cases, principals suggested a substitution due to a particular issue (for example, a school undergoing a full-scale reorganization that simply couldn’t host our research). But in each case, the alternative middle school fulfilled our requirements for diverse representation of the district.

We worked with each school to organize school visits in both districts during the 2022-2023 academic year. In each case, those visits included principal interviews and spending time in ELA and math classrooms. We asked for – and in many cases received - lesson plans and additional school-level documentation prior to school visits.

Both school districts were invited to review a draft of this report to indicate any inaccuracies and identify instances in which including specific information would have led too directly to the identification of the district. Inevitably, judgments had to be made and are the responsibility of the author.

**Research Questions**

Given the elements of an acceleration implementation outlined earlier, IEP was interested in responding to the following key research questions. Our questions are followed by the strategy or strategies IEP employed in its research.

**A: District-Level Planning and Preparation**

An effective acceleration strategy depends on considerable prior planning. IEP sought to understand the degree to which a district made its plans and expectations clear to its schools and the degree to which the district was mandating or recommending acceleration-related strategies.

The resulting research questions became:

1. *How granular was the acceleration documentation and how extensive was the communication regarding the key elements identified above, namely:*

   - How much detail (for example, the amount of instructional time for differentiated instruction, and use of tutors) was evident in the districts’ expectations for school-site implementation?
   - How much guidance did the district provide on the identification of, and the frequency of use of, diagnostic assessments?
   - How much information did the district share about the “fit” between recommended diagnostics and the district-prescribed curriculum in ELA and math?
   - What guidance and/or explicit expectations did the district offer about the translation of diagnostic assessment results into sorting students into groups for small-group and individual instruction, both in person and online?
• How much professional development for teachers in the strategies of acceleration did the district offer?

2. To what extent, and regarding which elements of the district’s acceleration policy, did the district mandate school-level policy?

• Did the district clearly outline which elements of the overall acceleration strategy were mandatory, and which were to be left to individual school-level principals to determine?

Research Strategy:

• IEP informed the districts that sharing of district documentation about acceleration was a condition of participation in the research. In addition, IEP conducted several fact-finding video interviews with district leadership to better understand the intent and thinking behind the choice of acceleration strategies. Where possible, IEP also listened in on district-wide webinars/presentations to school-level personnel on the topic of acceleration.

B: School-level Planning and Implementation

The success of any district acceleration strategy depends on school-level implementation. IEP therefore sought to understand what was happening at the school level in response to the district’s adoption of acceleration strategies.

The resulting research questions became:

3. What strategies did schools adopt to support accelerated learning, and did those strategies support whole-class instruction in which teachers taught the district-adopted HQIM at the appropriate grade level and level of rigor?

• Did the school use diagnostic tests to sort students into groups for differentiated instruction, and if so, which tests and how often were they used?
• Was there a clear understanding on the part of teachers of the relationship between the performance metrics produced by diagnostic testing and the cognitive demands of the forthcoming curriculum units?
• Did the school have an established SOP (standard operating procedures) for how much time students would receive small-group instruction, individualized online instruction, and/or tutoring?
• To what degree did teachers (and tutors if applicable) receive PD to support their involvement in the acceleration strategies?
• If tutoring took place, did it involve the use of the same curriculum the students were using in their regular instruction?
• Were there substantial differences in how schools understood acceleration for math and ELA?
• To what degree were teachers in whole-classroom settings implementing the district-mandated curriculum with fidelity?

**Research Strategy:**
Evidence to answer these questions will primarily be found in the interviews with school principals - and where possible classroom teachers (and tutors) - to gather information about school processes, including asking about the frequency of diagnostic evaluations and the subsequent assignment of students for differentiated instruction.

**C: Classroom Activity**

At the core of any acceleration model is instruction – what is happening in the individual, small-group, and full-class learning environments. The key issue is the degree to which, at a school level, teachers and other specialists can effectively instruct students in relevant missing grade-level skills and content so that they can access grade-level instruction.

**The resulting research questions became:**

- Were teachers the ones actually doing the work of the lesson – or were students? (The work may be “on grade” level but if the teacher is “giving” them the information as opposed to students acquiring, processing, and demonstrating grade-level knowledge and skills, then learning isn’t taking place).
- Was the entire class learning or was the teacher focused on just a few students?
- Was instruction aligned to the state-adopted standards in ELA and math?
- Was the lesson aligned to the lowest possible interpretation of those standards and the specific curriculum? For example, teaching was based on the standards-aligned curriculum, but the questions teachers were asking were simplified and didn’t elicit standards-aligned learning.
- Was there evidence of differentiation (or subgrouping) during the main learning block?
- For individual computer-based instruction, were students on computers engaged or disengaged in their learning?
- In small-group instruction, was the teacher referring to previous skills or information that students are expected to bring to their current grade-level classroom?
- Did teachers directing small-group instruction explicitly use that time to prepare their students for forthcoming whole-class instruction?

**Research Strategy**
We sought to answer these questions through observations of online work, in-person tutoring, small-group instruction, whole-class instruction, and, where possible, informal conversations with teachers. The IEP team observed sixth, seventh, and eighth-grade instructional activity in math and ELA in nine middle schools in both districts.
Specifically:

- In small-group or tutoring sessions, IEP looked for evidence that instructors were explaining to students why they were learning particular content by referencing future standards-based lesson content and were addressing learning gaps as evidenced by prior diagnostic assessments.
- During whole-class instruction, IEP observed the time apportioned to on-grade-level teaching.
- Assuming that it was observing a class intended to be learning grade-level material, IEP - through its classroom observations and using the IPG rubric – evaluated the amount and rigor of standards-based instruction occurring in the classroom.
- Either through analyzing the district’s chosen math and ELA curriculum in advance – or at least having information about what content from the overall standards-based curriculum the teachers are supposed to be teaching - IEP also evaluated the degree to which the teacher was following the pacing and the content of the district-mandated curriculum.

**INTERVIEWS, AND OBSERVATIONAL PROTOCOLS**

**Principal Interviews**

The project PI interviewed the school principal of every school in which IEP undertook classroom observations. The core intent was to understand how principals interpreted the requirements and purposes of their district’s acceleration model, how they had translated that model into interventions in their schools, and their judgments about success and challenges. The principal interview questions were the same for both districts – in both cases, principals were encouraged to take questions in the directions they chose to be most informative, and follow-up questions often resulted.

**Principal Interview Questions**

1. **How long have you been principal at this school? Have you previously served in that role?**
2. **What are your responsibilities as an instructional leader? Could you share some specifics?**
3. **As you think about the consequences of COVID and the impact on learning at your school, can you tell me how successful you think your school has been to date at closing learning gaps?**
4. **What are the key interventions/academic supports that your school offers to support the learning of students who are the most behind in their academic learning? To what degree are they new?**
5. **How are students assigned to intervention groups?**
6. **In what ways, if any, would you say that the way you identify children for extra academic support and provide that support is different from what it used to be?**
7. **We are here because the district has made a commitment to supporting accelerated learning as one strategy to overcome the legacy of Covid: Can you share some thoughts on whether the concept of acceleration is something you find helpful and/or meaningful?**
8. **How would you assess the role of the district in the acceleration effort?**
9. *How are students assigned to intervention groups? Assuming that grouping is periodically changed, what information is used to change grouping, and at what frequency?*

10. *What does acceleration mean to you as an instructional approach – in theory and in the practices of your school?*

11. *What are the key issues (personnel, scheduling, financial) that you see as possible obstacles to implementing the practices you favor to close learning gaps and raise overall student performance?*

12. *What structures in the school currently support the teachers’ content knowledge and pedagogical development?*

13. *Are there additional thoughts you would like to share about leading your school at this challenging time?*

### Observation Protocols and Rubrics

IEP created an overall protocol for all school visits, with detailed observational rubrics.

The overall protocol for school visits in the two districts was almost identical. Slight differences arose as we shared the draft protocols with district leadership to ensure that the visits would enable maximum access to the different aspects of their respective acceleration strategies.

**The classroom observational rubrics were based on the following design principles:**

1. For whole-group lessons, IEP used the Instructional Practices Guide (IPG) in ELA and math.

2. For small-group lessons, IEP used the IPG in ELA and math, with the addition of the following items:
   - A. Evidence of lesson alignment based on student assessment data (e.g., Equip).
   - B. Evidence of a growth plan from the current standard to grade-level standard.
   - C. Evidence from the personalized learning policies (online platforms), if available, and personalized learning observation notes, to document the following:
     - The number of students engaged in online platforms during the observation.
     - The amount of time students are assigned to online platforms during the observation.
     - The actions of students assigned to online platforms.
     - The role of the teacher in supporting students’ use of online platforms.
   - Lesson/Instructional Focus
     - Does the online platform lesson appear to be targeted or general? Describe the evidence.
     - Is there evidence that the lesson is connected to regular classroom instruction? Explain.
   - Logistics
     - Evidence within the classroom of how frequently students work on online platforms.
     - Evidence within the classroom of length of online platform sessions.
     - Evidence within the classroom of variation in frequency and duration by student within the class.
• Evidence of how students are assigned to work on online platforms.

• Tutoring
  Evidence from the STEP Handbook and tutoring observation notes were used to document the following (based on research from Brown University):
  o Number of students in tutoring group
  o Lesson/Instructional Focus

• Materials Used
  o Evidence of alignment between tutoring and regular classroom instruction.
  o Evidence of the instructional materials quality.

• Logistics
  o How frequently is tutoring occurring?
  o How long is each tutoring session?
  o When does the tutoring session take place (e.g., within/outside of the school day)?
  o Is the tutoring in-person or remote?
  o How are students prioritized to receive this support?

It is important to note that IEP used documentation from the two districts as initial evidence for the districts' intended responses to some of these questions. Wherever possible, that evidence was re-interpreted based on in-school observations to establish what was happening on the ground. Second, the questions listed above were designed with an awareness that in some cases we wouldn’t be able to supply answers. For example, we might observe insufficient instances of practice to make meaningful conclusions. This proved especially true of tutoring, where our access turned out to be limited.

**Students’ Learning Outcomes**
Since the objective of acceleration is to impact the learning of less proficient students, IEP wanted to learn as much as possible about the impact of implementing acceleration strategies on student learning.

The resulting research question became:

• Was there any evidence of the impact of acceleration on the academic performance of middle school students in math and ELA in the selected districts?

IEP analyzed the available academic performance data from each district, drawing on both state test achievement data and i-Ready growth data. To the extent possible, we analyzed that data in math and ELA for several academic years before the COVID-19 epidemic, and then for the 2021-2023 academic years.
This data was not reviewed with the intent to make any causal claims. Multiple factors, including specific decisions about school re-opening dates, school leadership, levels of teacher retention, district decisions regarding the support of teachers and the social and emotional health of students, and the specific details of school-by-school acceleration practices will each impact academic outcomes independently from acceleration strategies. However, we believe it important to record the academic outcomes since, this is the key overall metric that will inevitably impact future judgments about acceleration as an instructional approach.

**Fall 2021-Spring 2021: A Challenging Context for Acceleration Interventions**

When the planning work on this project began in the late summer of 2021, most school districts assumed that the decline in severity of the Delta variant of COVID-19 would enable them to approach the 2021-22 academic year as a gradual “return to business as usual.” However, the lack of vaccination authority for children accompanied by the spread of the Omicron virus in the winter of 2021-22 meant that de facto, districts were still focused on basic issues of health, modalities of instruction (online, hybrid, and/or in-person), and challenges regarding student attendance at the start of the spring semester of 2022. At the same time, data from NWEA, Curriculum Associates, and McKinsey reinforced anecdotal evidence that children had lost considerable amounts of learning during the pandemic. Because these estimates themselves rested on assessing only those children who were back in school, the organizations releasing the findings rightly emphasized that their estimates of learning loss were almost certainly too low since less privileged students were the most likely to remain out of school at the time the assessments were conducted. In short, districts confronted something akin to the perfect storm.

**District 1: Initial Choices**

In the later part of 2021, IEP held multiple Zoom conferences with the leadership in District 1 and established a strong partnership. It was clear that District 1 leadership was committed to an acceleration strategy both at a macro and micro level. Materials shared across the district included the following core strategies:

1. Use high-quality materials (HQIM) in every subject.
2. Focus professional development on supporting curriculum-aligned classroom instruction.
3. Leverage diagnostic data to ensure support of important skills.
4. Design individualized instruction to support access to grade-level learning.

In support of these core strategies, District 1 specialist teams produced and presented detailed, subject-specific, blueprints for the design of acceleration (see the “Documentation” section, below). Subject-matter leads held planning sessions for their district-wide teams in which they discussed diagnostic assessments and detailed designs for the allotment of instructional time to allow for differentiated instruction. Senior district personnel (e.g., the chief academic officer, the head of teaching and learning, and the director of academic strategy) led meetings in which the plans were shared across subject-matter teams and subsequently through district-wide informational meetings with the entire teaching staff.

During all this planning, the district tried to be “real-world” in its design for school-level instruction. For example, given the COVID-19 learning loss, District 1 understood that teaching the entire set of
skills called for in grade-level math, and likewise teaching the full set of instructional units in ELA, was going to be unrealistic. Instead, District 1 adopted a more focused set of learning standards in math and cut the number of ELA curriculum units it was requiring of its schools.

**District 1: Challenges**

From the beginning, it was also clear that there would be challenges with the acceleration model. These can be summarized as follows:

1. The expectations for acceleration differed between math and ELA. The math guidance - using diagnostic assessments and the anticipated pathway to connect assessment results to the content to be taught to individual students - was detailed and granular. This was less the case for ELA in the middle school grades. While District 1 allocated a similar time in the two academic subjects to accelerate students who needed extra academic preparation, how these students would be identified was left less defined. In the case of ELA, teachers were advised (see District 1’s document “Resources and Alignment in Literacy,” below) to use a “contextualized and holistic approach” when it came to integrating “pre-requisite skills.” This points to a major issue: once students move from learning to read to reading to learn (as most students do in middle school), the education system lacks diagnostic assessments that are closely aligned with specific curricula. A further challenge in this instance may have been partially the result of pressure from the publisher of the district’s ELA curriculum. That publisher argued that each ELA unit could be accessed on its own, without the need for subgroup “pre-teaching” – a key element of acceleration.

2. When IEP reviewed the evidence for the assessment tools and curriculum content that were being used in District 1, we found many potentially competing instruments. The district had, in the past, kept adding programs and specialists without necessarily anticipating the need to build a coherent pedagogical program for students. An effective district-wide acceleration program, by contrast, would be pressure-tested by the fragmentation of the assessments and curricula materials. Leveraging diagnostic data to ensure support of important skills needed for access to the core curriculum would thus be challenging to achieve.

3. Elements of the acceleration model were documented in various guidance and presentations to schools. Communication from the district suggests that it viewed these elements as mandatory. It is clear however that there was wide variation in how schools implemented the guidance. This may have been the result of ambiguous language in the district documents: So, for example, the district’s guide in ELA stated, “We encourage students to engage in at least the minimum recommendations.” In math, highly detailed scheduling blueprints contained vocabulary such as “could include,” once again indicating non-mandated strategies (see the document “Resources and Alignment in Mathematics,” below). The results, as evidenced by what IEP found during our school-site visits, were a widely varying set of policies at the school level.

4. While it was clear that District 1’s leadership was aware of the strong research supporting the use of tutoring on student learning outcomes, and while the district in principle supported the

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8 In the earliest grades, teachers had access to multiple diagnostic assessments to identify their students’ reading levels.
school’s use of tutoring, tutoring is a strategy more focused on younger (elementary school) students. However, District 1 data does show that the number of middle schoolers receiving tutoring is rising, roughly doubling over the last three years.

**DISTRICT 2: INITIAL CHOICES**

District 2 took a different pathway to acceleration. Rather than design a model from scratch, the district looked to expand its previous work in RTI (Response to Intervention) and STEP (student tutoring and enrichment program). In both cases, District 2 informed us that those previous efforts had been underdeveloped and not implemented at scale, mainly due to a lack of funding. Faced with the learning loss from COVID-19, and supported by new federal funding, the district committed to the full implementation of both strategies in the spring 2022, re-casting them both as the key elements of an acceleration model. The fact that the RTI model had three Tiers of students built-in - those at grade level (Tier I), those modestly behind that level (Tier II), and those with substantial learning gaps (Tier III) offered a ready framework to design differentiated instructional interventions for Tiers II and III students respectively.

The district’s RTI plan included the use of the i-Ready diagnostic assessment in math and ELA, which was administered three times per academic year. District 2 created “through lines” that link specific performance levels on i-Ready elements to specific material to be taught. In addition, the RTI plan required that “progress monitoring” would be used to evaluate students’ academic performance, quantify a student’s rate of improvement (ROI) or responsiveness to instruction, and assess the effectiveness of instruction.

**District 2: Challenges**

As in District 1, but for different reasons, there were clear challenges from the start – at least when considering the details of the district’s acceleration model against the ideal standard of bringing the maximum number of students to readiness for grade-level instruction.

1. There was a written policy expectation that Tier II students would be expected to access grade-level instruction, but there was no stated expectation that Tier III students would do the same. This silence could be interpreted at the school level as a signal to accelerate only the former students – at least where it came to enabling access to Tier I curriculum materials.

2. As in the case of District 1, it was unclear to what degree the district-preferred designs for RTI-based instructional intervention were being mandated, or even fully expected, at every school. Once again, subsequent interviews and classroom observations would substantiate evidence of divergent practices at the school level.

3. As in the case of District 1, and despite the explicit intention to fortify, expand, and support a major increase in the use of tutoring, subsequent observations indicated that while a somewhat greater proportion of students were being tutored than in District 1, these efforts did not reach the scale that the district had initially hoped to achieve.
4. Finally, District 2 did not focus on changing the historical mindset when it came to preparing students for grade-level work. While the district leadership was clear in evidencing an understanding of the crucial differences between remediation and acceleration, it didn’t substantially re-do its earlier RTI documentation, so that the remaining pervasive vocabulary was still grounded in a remedial terminology. As indicated in the early part of this paper, “remediation” describes the effort to re-teach all the material students may have missed in the past – a task that has resulted in students falling further behind. District 2’s choice to re-use documentation built around remediation would contribute to some confusion at the school level, and most importantly, suggested to some principals that nothing much had changed.

PLANNING FOR ACCELERATION - DISTRICT GUIDANCE TO SCHOOLS

Despite the delays created by the ongoing persistence of COVID-19, both districts had done extensive planning to ensure that full acceleration interventions would take place during the 2022-2023 academic school year. In the case of District 1, the planning for accelerated learning had been extensive, with a series of blueprints for each academic subject already in place for 2021-2022. District 2, while basing its plans on previous RTI designs, had advanced plans for gathering assessment performance data and for feedback loops to apply the results of diagnostic assessments to future differentiated instruction.

Note on Identification of Materials
All diagrams in the following section have been edited for anonymity. References to specific items such as core curriculum and diagnostic assessments are maintained since hundreds of districts nationwide use these instruments.

District 1: Early (pre 2022-23) Plans for ELA

In District 1, the basic logic model of acceleration was the same in ELA and math. In each case, the district, using recommendations from the creators of the CCSS (common core state standards), selected a subset of the full list of grade-level standards for “prioritized” teaching and learning. The district next sought to identify the skills students would need to successfully access those standards. The third step was to test their students (diagnostic assessments) for their possession of such skills, and then - as required – to immediately teach them to students who lacked them. The end goal was to teach all students, in whole-classroom settings inclusive of small group differentiation, grade-level skills using a high-quality, standards-aligned curriculum. Here is the model in full in ELA:
One point needs clarification. Although the Learn Anywhere Plans (LAP) in the chart above references the work of Achievement Partners (authors of the CCSS), District 1 uses an LAP that serves as a guide and framework to a concentrated form of the full Wit & Wisdom ELA curriculum that District 1 mandates as the core curriculum for all middle school grade levels.

One challenge we found with the model to which District 1 did not find an ideal solution was the link between the diagnostic assessment tools and the grade-level curriculum. Schools were told to use iReady, but that assessment tests generic vocabulary and comprehension skills rather than the background knowledge or the specific language that would enable a student to access a particular Wit & Wisdom text. iReady also links students to its own curriculum materials, iReady Personalized learning, which are also not aligned with Wit & Wisdom. As we can see from the guidance above, the other diagnostic District 1 recommended was the “last Question Set” from each Wit & Wisdom curriculum module. Those questions, however, had been designed for use after the student had read and understood the text in question.

To support the acceleration entire cycle, District 1 generated instructional resource guides for each grade band. In middle schools, besides the use of Wit & Wisdom as the core ELA curriculum, the district pinpointed other elements of that curriculum – together with iReady resources – to be used in small-group instruction settings. These included Wit & Wisdom’s own “Deep Dive” materials (explicit instruction in language structures and vocabulary) and “Fluency” guides to strengthen comprehension skills. However, the anchor tool the district recommended to its teachers was Wit & Wisdom in Sync – an online platform focused “on knowledge-building and on the core ELA competencies of reading complex texts and practicing text-based writing.” This is the platform that provides the online material that makes up the content of the “Learn Anywhere Plan” referenced above.

District 1 designated iReady personalized learning for online one-on-one instruction for specific amounts of time every week.
The early overall guidance for the middle school grades looked like this:

<table>
<thead>
<tr>
<th>Content/Activity</th>
<th>Minutes</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Whole Group (WG) ELA (Includes Reading, Writing, Speaking &amp; Listening &amp; Language)</td>
<td>35</td>
<td>Whole Group and Small Group instruction can be configured in a daily or weekly schedule; additional district guidance and suggestions will be forthcoming.</td>
</tr>
<tr>
<td>Daily Small Group (SG) ELA (Includes Reading, Writing, Speaking &amp; Listening &amp; Language)</td>
<td>30</td>
<td>Weekly Schedule Example M, W &amp; F (WG = 40 min; SG = 25) T &amp; Th (WG = 20 min; SG + 45 min)</td>
</tr>
</tbody>
</table>

**District 1: 2022-23 Plans for ELA**

The guidance District 1 provided in ELA was substantially revised for the 2022-23 school year. As the district moved back to full in-school instruction, the focus on LAP (learn anywhere plans) was dropped in ELA (although still referenced in math). In the 22-23 school year, the district went back to implementing the full curriculum of Wit & Wisdom.

The time blocks were divided into two models. On Monday, Wednesday, and Friday, 50 minutes was to be given to “Personalized Learning or World Language” – while on Tuesday and Thursday the time was expanded to 55 minutes in each category. A total of 45 minutes per week during the personalized learning time or small group instruction was to be dedicated to the online learning platform.

In addition, the district released new guidance for small group or personalized (digital platform-based) instruction:

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9 In District 1, students in grades 6 through 8 must take a world language course a least once during that grade span. If taught in grade 7, the student must get a minimum of 45 minutes of instruction twice a week (three times a week if it is in 8th grade).
District 1: Early (pre 2022-23) Plans for Math

Below, we recreate the basic logic model for math acceleration. The main difference from ELA is the alignment of tools. In the case of math, the publisher of Eureka (the District’s selected core math curriculum) also provided a diagnostic assessment – Eureka Math Equip – that was explicitly designed to pinpoint the math skills required of upcoming grade-level math units in Eureka. But schools were also accustomed to using i-Ready as a diagnostic tool for identifying students’ math skill levels. Additionally, teachers’ use of both tools was further complicated by recommendations to add other sources of math instruction in small-group instruction.

District 1 also provided alternative schedules laying out recommended time-allotments between whole group (full-class) and small-group instruction. Importantly, in District 1, “small-group instruction” indicates both teaching done by a live teacher to a smaller number of students and also online learning in which students would be in groups but working on different math problems based on their skill level and needs. Here is one of the schedule options the district shared with its schools:
## 5 Days with some Assessments: **Option 2: Daily whole group & small group**

**Ex: Grade 7 - Week 6**

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>(45 mins)</td>
<td>(45 mins)</td>
<td>Assessment Day</td>
<td>(45 mins)</td>
<td>(45 mins)</td>
</tr>
<tr>
<td><strong>Whole Group:</strong> G7M1L13: Angle Sum of a Triangle</td>
<td><strong>Whole Group:</strong> G7M1L13: Angle of a Sum of a Triangle</td>
<td>(Equip, Affirm, i-Ready Diagnostic, MCAP, half-day Wednesday, etc).</td>
<td><strong>Whole Group:</strong> G7M1L14: Multi-Step Ratio Problems</td>
<td><strong>Whole Group:</strong> G7M1L14: Multi-Step Ratio Problems</td>
</tr>
<tr>
<td>Part 1</td>
<td>Part 2</td>
<td>Closing &amp; Exit Ticket</td>
<td>Part 1</td>
<td>Part 2</td>
</tr>
<tr>
<td>● First Teach</td>
<td>● Problem Set 2, 3</td>
<td>● Lesson Summary</td>
<td>● First Teach</td>
<td>● Problem Set 5–7</td>
</tr>
<tr>
<td>● Guided Learning</td>
<td></td>
<td></td>
<td>● Guided learning</td>
<td></td>
</tr>
<tr>
<td>○ Example 1</td>
<td></td>
<td></td>
<td>○ Example 1</td>
<td>○ Example 2</td>
</tr>
<tr>
<td>○ Example 2</td>
<td></td>
<td></td>
<td>○ Example 3</td>
<td>○ Example 4</td>
</tr>
<tr>
<td>● Student Debrief*</td>
<td></td>
<td></td>
<td>● Equip Module 2 Pre-Assessment is scheduled</td>
<td></td>
</tr>
<tr>
<td>○ Discuss the pros and cons, as well as strategies for use of tape diagrams, equations, and proportions. (Connection)</td>
<td></td>
<td></td>
<td>The remaining portion of the day could be dedicated to <strong>Personalized Learning (Digital Platforms) - i-Ready, Imagine Math, or Zearn.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Personalized Learning (Small Groups):</strong></td>
<td><strong>Personalized Learning (Small Groups):</strong></td>
<td><strong>Personalized Learning (Small Groups):</strong></td>
<td><strong>Personalized Learning (Small Groups):</strong></td>
<td></td>
</tr>
<tr>
<td>Could include</td>
<td>Could include</td>
<td>Could include</td>
<td>Could include</td>
<td></td>
</tr>
<tr>
<td>● Student Learning Plans (SLPs)</td>
<td>● Practice exercises/problem sets from lesson 13</td>
<td>● Student Learning Plans (SLPs)</td>
<td>● Student Learning Plans (SLPs)</td>
<td></td>
</tr>
<tr>
<td>● Practice exercises from lesson 13</td>
<td>● Foundational learning based on Equip pre-module diagnostic</td>
<td>● Practice exercises/problem sets from lesson 14</td>
<td>● Practice exercises/problem sets from lesson 14</td>
<td></td>
</tr>
<tr>
<td>● Foundational learning based on Equip pre-module diagnostic</td>
<td>● Students watching Eureka Lesson videos asynchronously</td>
<td>● Foundational learning based on Equip pre-module diagnostic</td>
<td>● Foundational learning based on Equip pre-module diagnostic</td>
<td></td>
</tr>
<tr>
<td>● Students watching Eureka Lesson videos asynchronously</td>
<td>● Practice fluency</td>
<td>● Students watching Eureka Lesson videos asynchronously</td>
<td>● Practice fluency</td>
<td></td>
</tr>
<tr>
<td>● Practice fluency</td>
<td>● Enrichment (Projects, 3-act tasks, etc.,)</td>
<td>● Practice fluency</td>
<td>● Enrichment (Projects, 3-act tasks, etc.,)</td>
<td></td>
</tr>
<tr>
<td>● Enrichment</td>
<td>● IEP Goals</td>
<td>● Enrichment</td>
<td>● IEP Goals</td>
<td></td>
</tr>
<tr>
<td>● IEP Goals</td>
<td>● Re-teach from exit ticket analysis</td>
<td>● Re-teach from exit ticket analysis</td>
<td>● Re-teach from exit ticket analysis</td>
<td></td>
</tr>
<tr>
<td>● Re-teach from exit ticket analysis</td>
<td>● Personalized Learning (IM or i-Ready)</td>
<td>● Personalized Learning (IM or i-Ready)</td>
<td>● Personalized Learning (IM or i-Ready)</td>
<td></td>
</tr>
<tr>
<td>● Personalized Learning (IM or i-Ready)</td>
<td>Zearn</td>
<td>Zearn</td>
<td>Zearn</td>
<td></td>
</tr>
<tr>
<td>Zearn</td>
<td>Zearn</td>
<td>Zearn</td>
<td>Zearn</td>
<td></td>
</tr>
</tbody>
</table>

---

*Personalized Learning (Small Groups):* (30 mins)

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**Assessment Day**

- Equip Module 2 Pre-Assessment is scheduled
- The remaining portion of the day could be dedicated to
- **Personalized Learning (Digital Platforms) - i-Ready, Imagine Math, or Zearn.**

---

**Personalized Learning (Small Groups):**

- The personalized lessons can be created to address current grade-level content OR to remediate prerequisite skills
- Could include:
  - Student Learning Plans (SLPs)
  - Practice exercises/problem sets from lesson 13
  - Foundational learning based on Equip pre-module diagnostic
  - Students watching Eureka Lesson videos asynchronously
  - Practice fluency
  - Enrichment (Projects, 3-act tasks, etc.,)
  - IEP Goals
  - Re-teach from exit ticket analysis
  - Personalized Learning (IM or i-Ready)
  - Zearn

---

**Personalized Learning (Small Groups):**

- Could include:
  - Student Learning Plans (SLPs)
  - Practice exercises/problem sets from lesson 14
  - Foundational learning based on Equip pre-module diagnostic
  - Students watching Eureka Lesson videos asynchronously
  - Practice fluency
  - Enrichment (Projects, 3-act tasks, etc.,)
  - IEP Goals
  - Re-teach from exit ticket analysis
  - Personalized Learning (IM or i-Ready)
  - Zearn
In the table above, “IEP” refers to Individual Education Plan; IM is “Imagine Math,” an online math learning program; Zearn is a second online math program. District 1 also released an Instructional Components Guide:

<table>
<thead>
<tr>
<th>Type of Instruction</th>
<th>Instructional Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Learning (Synchronous)</td>
<td>Eureka math lessons: Review the student outcome to set the purpose</td>
</tr>
<tr>
<td></td>
<td>Direct Instruction (Lesson components depend on the lesson type.)</td>
</tr>
<tr>
<td></td>
<td>• Problem Set: Model math concepts through classwork exercises.</td>
</tr>
<tr>
<td></td>
<td>• Socratic: Facilitate discussions with students that lead to a big idea.</td>
</tr>
<tr>
<td></td>
<td>• Exploratory: Facilitate exploratory challenges with students.</td>
</tr>
<tr>
<td></td>
<td>• Modeling: Facilitate math modelling exercises related to realworld application problems.</td>
</tr>
<tr>
<td>New Learning (Asynchronous)</td>
<td>• Independent practice from new learning (problem set problems/exit ticket)</td>
</tr>
<tr>
<td></td>
<td>• Preview of upcoming new learning or review new learning (Eureka Math in sync video)</td>
</tr>
<tr>
<td></td>
<td>• Assess foundational learning (Equip)</td>
</tr>
<tr>
<td></td>
<td>• Assessment of Learning through topic assessment or middle/end of module assess (Affirm)</td>
</tr>
<tr>
<td>Small Group (Synchronous)</td>
<td>• Just-in-time foundational learning (Eureka Equip tools)</td>
</tr>
<tr>
<td></td>
<td>• Re-engagement (more practice with specified skills based on data)</td>
</tr>
<tr>
<td></td>
<td>• Practice fluency</td>
</tr>
<tr>
<td></td>
<td>• Practice Application</td>
</tr>
<tr>
<td></td>
<td>• Enrichment</td>
</tr>
<tr>
<td>Small Group (Asynchronous)</td>
<td>• iReady My Path Lessons (K-8)</td>
</tr>
<tr>
<td></td>
<td>• Imagine Learning</td>
</tr>
</tbody>
</table>

The new tool mentioned here is “Affirm,” which is Great Minds’ assessment platform including topic quizzes, mid-module assessments, and end-of-module assessments (EOM).

As is evident, this guidance references a large number of different learning platforms and instructional content.

**District 1: 2022-23 Plans for Math**

In the 2022-23 academic year, schools that wanted to continue to use the i-Ready platform as their online learning platform were to opt in and get approval from the school district. The focus for middle grades is squarely on the use of the Eureka Platform and Imagine Math.

The district also provided more guidance to schools in the use of Eureka-embedded assessments:

Affirm End-of-Module (EOM) Assessments will be constructed at the district level to be as balanced and representative of the entire module as possible. These assessments will be pushed out to teachers through Affirm to exist in the assessment library. Teachers will be expected to assign, administer, and close out the assessments within the recommended window.

Equip Pre-Module Assessments are strongly encouraged to adminster to support planning of personalized instruction. ...Equip resources are embedded within the [X] platform and can be utilized at any time. Affirm Topic Assessments and Affirm Mid-Module (MM) Assessments can be administered at teacher discretion.
District 1 provided schools with detailed scope and sequence calendars that specify in detail which curriculum modules and which assessments are to be taught and administered each week. These academic-content calendars also include teaching tips for math teachers.

**District 2: Overall Approach**

As indicated earlier, the core of District 2’s approach to acceleration was to re-work and animate its earlier RTI plans. The goal, as indicated in public documentation, was “to provide support for ALL students who need intervention... with the end goal of reaching grade-level academic standards.” It sought to do this by creating “small-group environments, using research-based supports to reteach and support students in specific skill areas that have surfaced as academic challenges and deficits.”

To support this approach, District 2 created guidance for how schools could track student outcomes:

1. **How to Use Data**
   The district released a list of data sources for school use, including “grades, benchmarks, Universal Screener, [X State Readiness Indicators], an Early Warning system, and teacher anecdotal information.” The district also indicated that “data should not only be used to determine a student’s placement and area of focus in RTI, but also collected throughout the process of progress monitoring to ensure interventions are successful and to help determine the next steps.”

2. **Evaluation Tools**
   The district’s guidance separated the data sources into two categories: Universal Screeners were for measuring absolute performance, while survey-level assessments were to be used to determine the most basic skill area deficit and identify the skill/instructional level a student has mastered.

3. **Progress Monitoring**
   District 2 required its schools to use the data listed above both to assess a student’s absolute academic performance, to quantify a student’s rate of improvement (ROI) or responsiveness to instruction, and to evaluate the effectiveness of the instructional intervention. The district indicated, further, that Tier II students should be monitored every two weeks or after every nine days of support. For Tier III students the equivalent cycles were to be every week and after every four days of support.

4. **Dosage of Interventions**
   The Tier II interventions should add up to “at least 30 minutes a day, 5 days a week.” In the district’s middle schools, these interventions should take the form of small-group instruction with a teacher-to-student ratio of 1:6. For Tier III interventions, districts anticipated the same teacher-to-student ratio but increased the intervention treatment to “45-60 minutes of intensive support daily.”

5. **Instructional Materials**

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10 All of the citations in this guidance section are taken from District 2’s RTI Handbook.
District 1 also laid out the instructional materials that schools were to use in all Tier II and Tier III interventions:

<table>
<thead>
<tr>
<th>RTI – Instructional Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tier II</strong></td>
</tr>
<tr>
<td>K-8 Reading</td>
</tr>
<tr>
<td>K-8 Math</td>
</tr>
<tr>
<td>9-12 Reading</td>
</tr>
<tr>
<td>9-12 Math</td>
</tr>
<tr>
<td>K-8 Reading (Selected Schools)</td>
</tr>
</tbody>
</table>

The Instructional Cycle

As in the case of District 1, District 2 released guidance on how to integrate the teaching of the core curriculum with small-group instruction and what it termed “independent learning.” In the case of ELA, the core curriculum was myPerspectives. Here is a condensed version of the District’s guidance, indicating the five different instructional models it recommended using during a single semester. Schools were told to focus on whole-class learning in the earlier part of the semester, and small-group learning in the latter.

<table>
<thead>
<tr>
<th>ELA Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Week A</strong></td>
</tr>
<tr>
<td>Launching the Unit</td>
</tr>
<tr>
<td>Unit Introductions, Launch Text: “At the Crosswords” [Lesson 1-2]</td>
</tr>
<tr>
<td>A Christmas Carol: Scrooge and Marley, Act 1 [Lesson 3]</td>
</tr>
<tr>
<td><strong>Week B</strong></td>
</tr>
<tr>
<td>Whole Class Learning</td>
</tr>
<tr>
<td>Whole Class Learning: Performance Task – Writing Focus</td>
</tr>
<tr>
<td>Small Group Learning</td>
</tr>
<tr>
<td><strong>Week C</strong></td>
</tr>
<tr>
<td>Small Group Performance Task [Lesson 29]</td>
</tr>
<tr>
<td><strong>Week D</strong></td>
</tr>
<tr>
<td>Benchmark Week</td>
</tr>
<tr>
<td><strong>Week E</strong></td>
</tr>
<tr>
<td>Independent Learning &amp; Culminating Performance Assessment Task</td>
</tr>
<tr>
<td>Independent Learning [Lessons 31-32]</td>
</tr>
</tbody>
</table>
Making it Work

District 2 provided granular guidance to translate assessment data into interventions for both Tier II and Tier III students. The examples below are taken from math instruction and are focused on Tier II. The language reflects the original documentation.

Day One:
1. Pre-assess on grade level standards and include questions that scale back in skill level to pinpoint where each student’s instructional deficits fall.
2. Collect tasks and determine skill deficiency for each student.

Day Two:
1. Teach mini-lesson based on skill/skills needed from pre-assessment
2. Allow students the opportunity to practice independently and show what they know. Formatively assess each skill taught.

Day Three:
1. Revisit skill/skills if needed based on formative assessments.
2. Utilize math or reading activities and games to provide opportunities to use the skill, this allows the teacher to provide corrective feedback when necessary.
3. Formatively assess each revisited skill.

Day Four:
1. Post assessment for set of skills.
2. Provide intervention as needed; Post assess.

Day Five:
1. Provide intervention as needed on the same skill set or move on to the next standard.

Next, the district provided an example drawn from the math curriculum:

Example of Standards Support and Recovery Approach for Tier II:

Step 1: Use benchmarks, i-Ready diagnostic results, and grades to determine struggling standards of focus.

Ex. Math Standard:
- Fluently add and subtract within 1,000,000 using appropriate strategies and algorithms.

Step 2: Using the IFD’s and Unpacking the Standards documents, determine what skills will be needed to be proficient on this standard.

Skills for Level One (prerequisite skills):
- Accurately add within 100 using the standard algorithm
- Accurately subtract within 100 using the standard algorithm
Skills for Level Two (prerequisite skills):

- Accurately add multi-digit whole numbers up to 1,000 when it is not necessary to compose any numbers using the standard algorithm.
- Accurately subtract multi-digit numbers when it is not necessary to decompose any numbers using the standard algorithm.

Skills for Level Three:

- Accurately add multi-digit whole numbers using the standard algorithm
- Accurately subtract multi-digit whole numbers using the standard algorithm

*Level three is the goal for students to be proficient on this grade level standard

**Step 3**: Create a short pre-assessment and post assessment which should include questions at each skill level for the standard to help identify where the student is instructionally and where deficit exists for this standard.

- Utilize i-Ready and/or Mastery Connect Case Item Data bank to develop assessment questions.
- Make sure to use a variety of questions: multiple choice, multiple select, and open response questions.
- When creating the pre-assessment be sure to scale back from the students academic level to their possible instructional level. This will help to identify where exactly students need support.

Example:
For this specific standard:
Level One: adding within 100
Level Two: adding within 1,000
Level Three: adding within 1,000,000

**Step 4**: Development of Focused Lesson

- Develop a lesson around each skill level learning target which was identified through the pretest.
- These should include: mini-lesson with direct instruction, independent work time, small-group practice.
- Include opportunities for students to actively work on problems, while allowing for corrective feedback from teachers.

**Step 5**: Post-Assessment & Reteach

- Post-assessment should be given to determine if students have met the appropriate expectations for the learning target of focus.
- If students are successful, they should be able to move to the next learning target until the student attains proficiency for all learning targets in the standard. Once the student attains proficiency on all skills in the standard they may move out of this group and/or on to the next area of deficit.
If students are not successful, reteach by different method and additional practice should be provided until students are able to show understanding of appropriate skills to show proficiency of the standards.

This process requires 5 days to cover each of the 5 steps, some students may require additional time.

The district provided several further examples of such guidance – both for Tier III students in math and for Tier II and Tier III students in ELA.

Personnel

Finally, the district described the responsibilities of key school personnel in ensuring that the Tier intervention system would operate efficiently. The roles of RTI Facilitator and RTI Coordinator focus on the organization and scheduling of screening assessments and small-group interventions. The “RTI Lead...provides training on implementing the RTI² Framework Provides oversight and support to the schools in RTI² implementation.” The Instructional Coach is responsible for training the teachers on intervention strategies while the “Interventionist” provides “Tier II/III research-based interventions and progress monitoring.”

School Site Findings

District 1: Summary Report (Middle Grades Math and ELA)

Principal Interviews

1. Topics that Impact Acceleration

A: The Core Administrative Team

School principals report considerable variations in the composition of their leadership teams, even between schools of similar size. One principal reported having no assistant principal (AP) and no subject-matter coaches, while another school has an AP, a full-time literacy coach, a full-time and a half-time math coach, and a full-time science coach. In another school, there is an AP and a single literacy coach, plus a parent leader and a family liaison specialist present every day. Principals which had coaches repeatedly noted how vital they were to improving instruction.

B: The Lingering impact of Covid-19

Almost every principal reported that the consequences of the epidemic were lingering far longer than anticipated. While a minority said that students had largely returned to their normal condition, the great majority found students to be “discouraged, distracted, worn out, and/or often not in school.” In addition, most principals, despite making multiple efforts to reach out to parents through various forms of communication and increasing the number of in-school events for parents, reported a range of difficulties in communicating with parents about their children’s academic performance. Principals reported that many parents prefer to focus on behavioral issues, especially the school’s disciplinary
procedures. It is interesting that on parent surveys conducted by the district, parents report high levels of satisfaction in what they are being told about their children’s academic results. There is clearly a difference of perspective here.

C: What Principals Want: More PD (professional learning)
Two themes cropped up in almost every conversation. The first was the amount of PD time devoted to district-led sessions. Principals told us that the district’s PD took up much of the total available PD time, and they questioned the value-add of that district-provided support. Principals would prefer a “trust but verify system” that allowed principals to run the great majority of PD at their own schools.

The second, related, point was that the total time available for PD at the school level wasn’t sufficient. This finding is particularly striking, since according to the same principals, the actual amount of time schools make available for PD varies considerably. One principal reported that he only had “1.5 days at year’s start plus one day in December.” for PD. Another was able to provide “three to three and a half hours of PD a month” for teachers in their first three years in the classroom. A third principal combines collaborative planning and PD into a 70-minute-per-week time block, while another reported: “90 minutes a week for overall planning, with 60 minutes a day by content area.” A fifth principal had been able to provide 60 minutes per week devoted solely to PD – a figure that “will rise to 90 minutes next year.”

D: Online Learning
Not a single principal thought that the time students spent online learning was a strongly positive contribution their learning. One principal called it “babysitting.” He estimated that “at most, it was valuable to “15% of the students.” The same principal said that such on-line programs as [X] were “useless, but we have to spend the money.” Another said that while live small-group instruction was sometimes effective, one “can’t just place a child in front of a computer and expect learning.” Another principal who doubted the value of online learning said that “teachers can use “Go Guardian” to see what the child is doing, but do they?” One principal noted ruefully that “the computer is taking over;” sixth-grade math in that school was being taught almost entirely online. Unfortunately, principals and teachers able even less able to distinguish the impact of different programs, such as comparing purely online asynchronous programs with those such as Cignition https://www.cignition.com that use live tutors as a part of online instruction. We note that there was evidently no available data (at least, none available to us) capable of validating these judgments independently.

E: Readiness to Learn
Multiple principals of K-8 schools lamented that many of their students arrived in kindergarten “already two years behind.” The principals of such schools often wished they had their own Pre-K programs to serve as feeders. All the principals lamented the lack of overall instructional time. Some pointed out that adequately to support learning in math and ELA resulted in students’ losing out on valuable learning time in other subjects, such as the arts. Several principals wanted “longer days and all-year-round” schooling. Multiple principals voiced concern that support for ELLs (English Language Learners) was lacking in several respects. First, a significant amount of materials in use were not yet available in Spanish; one principal remarked that students use Google Translate to help them manage i-Ready math question). Another noted that ELA teachers found that “language acquisition deficiencies are a real problem” in trying to teach the Wit & Wisdom curriculum. This is because only
some Wit & Wisdom units have Spanish “overlays.”” Two principals expressed concern that the intense focus on struggling students meant their gifted and talented students were being shortchanged. One principal hoped one day to offer “honors programs in all subjects, not just math.”

F: School Accountability
A final theme raised by two principals was concern about District 1’s evaluations of schools, which is based on student performance. These principals were very concerned that in the eyes of the district their students were treated identically, no matter if they had been at the school for years or just a month. In other words, District 1’s way of measuring by class/grade doesn’t consider the time-in-school of individual students and schools that take in especially challenged students or a disproportionate number of ELL students inevitably get lower rated. Several principals also voiced frustration with SLO (student learning objectives) which they believed were static and “not living documents,” and that added no value to other available data sets. One principal also complained about the use of the district’s mandated benchmarking assessments for the same reason.

2. ACCELERATION ITSELF

“Students are regrouped every 5-8 weeks in math for differential interventions using data from Imagine math, i-Ready, Affirm [Eureka end-of-module assessments], student workbooks, and exit tickets. In ELA, we have the same regrouping schedule – we use i-Ready, student workbooks, Wit & Wisdom end-of-unit tasks and question sets.” (A District 1 Principal).

There is no doubt that key elements of an acceleration program are in place in District 1. They include:

- The goal of enabling all students to access a strong, grade-level curriculum is the north star of any acceleration model. Based on our classroom observations as well as principals’ judgments, we are confident in asserting that in District 1, the norm is the universal “use” (see below) of the district’s mandated ELA and math curriculum in whole-class instruction. Both curricula are considered (based on EdReports and, in the case of ELA, our Institute’s analysis) to be HQIM (High Quality Instructional Materials).

- Acceleration starts with the use of data to diagnose the current skill set of students to identify gaps in learning that – untreated – would prevent them from successfully accessing the high-quality curricula just referenced. There is no doubt that District 1 schools are employing several tools –predominantly i-Ready, but also Imagine learning that identify such skill sets.

- The second step District 1 takes is to use the results of this data to routinely sort students such that each student and small groups of students receive differentiated instruction. Every principal we talked with assured us that this was taking place in their school, although there was variation in the frequency with which re-grouping took place. Six-week cycles are the most common, but we also heard “three weeks” and “five to eight weeks,” and of “re-sorting on a daily basis.” At the other extreme, one principal said that “for most students, they are re-
grouped just three times during the academic year but monitored every three weeks if they fall into the “red” (most challenged) category.”

- Finally, District 1 provides individualized and small-group instruction, and in some cases tutoring. Principals provided us with a lengthy list of the online programs used in their schools to support individual students, including i-Ready, “U,” “V,” “W,” “X,” “Y,” and “Z.” Several principals suggested that in-person, small-group instruction was happening less frequently than they had hoped. One noted, “The most challenged students get a person three days a week in a one-hour block,” but did not believe this sufficed. Another told us that the initial plan had been to give half an hour of small-group instruction in both math and ELA each day, but that the reality was only a half-hour in one subject weekly. Another said that three tutors pull out students for small-group instruction for “30 minutes 3 times a week.” The provision of live tutoring of very small groups of students appears to be uneven in middle schools in District 1 (principals usually referenced its use in the elementary grade levels) – One school offers after-school tutoring for just 20 students. Another school uses Success for All tutoring, again for a small number of fewer than 40 students.

3. Principals’ Judgments on Acceleration

Principals’ judgements varied on the cumulative impact of these combined approaches, but the reactions were mainly positive. One asked, “Has acceleration made a difference? Yes, planning is different, small-group instruction – on grade level - is now in place. It’s not new, but there is more emphasis on it.” They then averred, “The data says it’s been working.” Another considered acceleration a success, because the school was no longer so exclusively focused on “the bubble kids.” A third told us that acceleration had helped his school see that you “can’t just meet them [the students] where they are.” Generally, the principals referenced an increased use of data and personalized learning, with generally more favorable judgments of the former vs the latter. Several principals pointed to some improvements in academic outcomes but weren’t ready to attribute those improvements to acceleration. No principal argued that, overall, acceleration was a bad idea or had been a failure.

4. Acceleration Challenges

Principals raised several additional issues about acceleration implementation. As referenced above, they all told us that their teachers needed more PD. Some principals referenced specific issues with the math curriculum, i.e., “Eureka is scripted [and thus can] lead to robotic teaching” – an issue we did see in some classroom observations. In ELA, several principals told us that the texts were often very challenging and that students weren’t prepared for the units. (We note that Great Minds – which publishes Wit & Wisdom - is working on Prologues. These are materials that could help address this problem, but they were not yet being used in District 1). Two principals attributed problems to teachers’ beliefs about children’s capacity. For instance, one noted that “the teachers don’t believe their children can manage the curriculum.” Another said, “Our teachers…focus on a summary or focus on a few lines and on vocabulary…. We don’t push hard enough… we bail too soon.” The principal concluded that “The weaker teachers ‘gut the rigor.’”
Several principals voiced concern over a second issue – the handshake between the diagnostic assessments and the district’s mandated curriculum. One said simply, “i-Ready and Eureka don’t speak to each other.” Another said i-Ready “isn’t going to give you in-depth next steps.” Every principal but one indicated that for personalized learning in math, students were using the on-line math materials from i-Ready, which are different from the curriculum materials from Eureka used in the classroom. The district has worked to mitigate these issues with guidance to schools stressing that i-Ready should be used solely as a diagnostic tool, not as a gateway to curriculum materials from Curriculum Associates, the publisher of i-Ready. For middle-grade math, the district has also told schools to pair i-Ready with ImagineMath – a closer fit than the i-Ready-related math curriculum materials.

**District 1 Classroom Observations**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of schools visited</td>
<td>8</td>
</tr>
<tr>
<td>Total number of classrooms visited</td>
<td>29</td>
</tr>
<tr>
<td>Total number of classrooms visited by grade</td>
<td></td>
</tr>
<tr>
<td>6th</td>
<td>8</td>
</tr>
<tr>
<td>7th</td>
<td>12</td>
</tr>
<tr>
<td>8th</td>
<td>9</td>
</tr>
<tr>
<td>Total Whole Class observations</td>
<td>23</td>
</tr>
<tr>
<td>Total Personalized Learning observations</td>
<td>4</td>
</tr>
<tr>
<td>Total Small-Group observations</td>
<td>6</td>
</tr>
</tbody>
</table>

**Goal 1- Are Teachers or Students Doing the Work of the Lesson?**

**Evidence should primarily come from:**

- The teacher provides opportunities for all students to work with the practice grade-level problems and exercises.
- The teacher cultivates reasoning and problem-solving by allowing students to productively struggle.
- The teacher poses questions and problems that prompt students to explain their thinking about the content of the lesson.

**Relatively Positive Findings**

*Students completed most of the work in approximately half of the classes observed.* In these classrooms, teachers provided students with grade-level problems; sufficient time to work on those problems independently or with other students; and provided support to students when necessary.

In specific classrooms, observers noted that:
• Students were very focused and worked on grade-level problems throughout the lesson. Very little off-task behavior was observed.

• The teacher provided students with opportunities to work on problems aligned to grade-level standards. All students completed some work independently, and most students worked through at least a couple of problems. However, the work appeared very challenging for students, and many got stuck on parts of problems, requiring support from peers or the teacher.

• Students were highly engaged. Every student appeared to be working or attempting to solve their math problems. When one student appeared off-task, the teacher sat with him, and the student answered her questions to solve the problem. Students were engaged in both group work and independent work.

Note that even within these classrooms, we did not consistently observe strong instructional practices. For example, we observed teachers strengthening all students’ understanding of the content by strategically sharing students’ representations and/or solution methods in fewer than 20% of classrooms, and teachers posing questions and problems that prompt students to explain their thinking about the content of the lesson in fewer than than 25% of classrooms.

**Challenging Findings:**

*In the other half of the classrooms, students did not do most of the mathematics work during the observations.* Observers noted two common reasons for this: off-task student behavior and/or teachers completing most of the mathematics work. In these classrooms, observers noted the following:

• The teacher’s prompts didn’t allow for students to struggle or attempt to solve problems on their own: “If it’s not addition, then it’s what?” Below is an excerpt from an exchange between the eighth-grade teacher and students:

  T: How do we find the point? Where is the point in the equation?
  T: We look at the equation (teacher points to the equation).
  S: The point is the y-intercept.

This exchange exemplifies how the teacher over-scaffolds (literally pointing to the answer).

**Further examples:**

• The teacher presented grade-level problems to the students (from Eureka). However, he did most of the math himself. In this lesson, none of the students had any workbooks out, nor did they solve any problems independently, nor were they asked to take out workbooks or pencils.

• Students were provided with opportunities to engage with grade-level math during the small-group portion of the lesson, but only a few took the opportunity. Many off-task behaviors got
in the way, including students’ having discussions and using their cell phones. The students working in a small group with the teacher were engaged throughout the observation, but it was unclear if any other students were engaged when the class switched to a personalized learning portion of the lesson.

- There was limited math instruction during the class because students were focused on getting materials, laptops, whiteboards, markers, and calculators. This distracted from the math content of the lesson. Multiple students were 10+ minutes late and walked in and out of class which was already slow to get started. There was a substantial amount of time focused on getting students’ attention (e.g., clap, clap, stomp, raise your hand if you can hear my voice, etc.).

Goal 2- Is The Entire Class Learning or is the Teacher Focused on Just a Few Students?
Evidence should primarily come from:

- The teacher provides opportunities for all students to work with and practice grade-level problems and exercises.
- The teacher poses questions and problems that prompt students to explain their thinking about the content of the lesson.

Mixed Findings
In about half of the classrooms, the instruction was aimed at all students, and most (or all) students were engaged in learning. Within these classes, students were given appropriate math work, time, and support to complete their work.

- Students were asked to represent word problems using algebraic expressions. Many students in the class actively grappled with the problems. However, the teacher responded to some students’ struggles by rescuing them instead of offering effective scaffolding which would have encouraged more productive struggle (e.g., she says "No, it tells you what to put. You can replace the 'A'").

- The problems students were asked to solve as part of their review required them to make many connections to real-world concepts and problems. This required that students engage in productive struggle. In many cases, students persevered with these problems. However, when students got stuck or asked the teacher questions, the teacher responded by either rescuing students by saying things like, "Do this first" or "Not up 1 over 1000 – just 1000." When the teacher was not rescuing, he responded to misunderstandings by posing a series of process-framing questions that did not shift the cognitive effort to students. For example, "What info do you have right here?" "What’s the difference from 400 to 500? and 1 to 2?" "Find the unit rate. Round if it’s a decimal."

- In a third example, the teacher provides students with time to work independently through problems and provides notes/examples within the work packet for students to refer to. She also steps in with support, as students request, but does not tell them the "answer."
Appropriate amount of productive struggle for students, although some students appear to wait for the teacher to review the problems and do not take the opportunities provided.

**Challenging Findings**

*In just under 30% of classrooms, observers noted that while some students showed evidence of learning, most of the students were unengaged, and/or their teacher focused on a subset of their students (e.g., only a few groups or repeatedly calling on the same students). For example:*

- Students were asked to share their thinking and work in groups. Some students took these opportunities to engage in mathematical dialogue while others did not.

- Students did seem to be actively engaged in doing mathematics, but only a limited subset of students in each group were responsible for solving the problems.

*In the remaining classrooms (roughly 20%), observers found little evidence of student learning.* In these classrooms, the teacher completed most of the math work for students, and/or students were provided with very low expectations (e.g., asked to complete only a few simple problems throughout the entire period), and/or most of the class was off task.

- Very little math was done during the lesson. Students were in class for 30 minutes and only did two problems. At least half the class was more than 10 minutes late.

- Students had opportunities to learn math through the worksheet; the problems are Eureka problems and are aligned to grade level. However, the lesson was structured so that they completed one step/part of the work, and then the students waited for the teacher to model the next part of the work. We observed no students working on drawing their lines or finding the solutions without the teacher’s guidance/direction.

- While students were provided with the opportunity to engage with grade-level math during the small-group portion of the lesson, only a few took the opportunity. Many off-task behaviors got in the way, including students having discussions and using their cell phones.

**Goal 3- Differentiation- Was There Evidence of Subgrouping During the Main Learning Block? And What Type of Learning Was It?**

*Evidence should come primarily from:*

- The teacher makes the mathematics of the lesson explicit by using explanations, representations, tasks, and/or examples.

- The teacher creates the conditions for student conversations, where students are encouraged to talk about each other’s thinking.

**Positive Findings**

During the whole-class lessons, we observed strong pre-conditions for differentiated support, including clear learning goals and checks for student understanding. Specifically, math learning goals were clear. In addition, all teachers informally assessed their students’ understanding, and in most
classrooms, these checks were systematic (i.e., with all students) and during multiple parts of the lesson (e.g., direct instruction and student work time).

**Relatively Positive Findings**

In about one-third of the classrooms, teachers modified their instruction in response to student misunderstanding—by providing different examples, more concrete instruction, and in some cases, reconvening the class to address a common misconception. For example, observers noted:

- The teacher used whiteboards and quizzes to assess students understanding. All the students displayed their answers. The teacher also called on a variety of students from across the classroom. For the most part, when many students answered a question incorrectly, the teacher provided a clear explanation of why this answer was incorrect and how students should have arrived at the correct answer.

- The teacher circulated throughout the classroom to check in with students, responding to their misunderstandings. At one point, the teacher made a whole-class adjustment by pulling the class together to explain to students the difference between proportional relationships represented graphically and in table form.

- The teacher often checked for understanding. For example, she visited the different table groups and probed their understanding, she asked for the answer and then asked for a thumbs up/down agreement from all students. The teacher also asked students to support their thinking with evidence from the text - in this case the definitions given for the new vocabulary words. There was also good evidence that, when students did not understand the new words or initial examples, she quickly pivoted and provided new, real-world examples that students did understand, thus adapting the lesson to their understanding.

In addition, in approximately half of the classrooms, students were provided with the opportunity to work in partnerships or groups. Students worked together on their math in about one-third of the classrooms, which could provide another source of differentiated support to students. However, observations provided no evidence that students were strategically grouped to enhance or support their understanding (i.e., the grouping appeared dependent upon seating assignment).

**Challenging Findings**

In the remaining two-thirds of lessons, we saw little evidence that teachers were adapting their lessons based on student understanding or misunderstanding. In these classes, teachers responded to student misunderstanding by either moving on with the lesson or providing a non-differentiated level of support and instruction. For example, observers noted the following:

- The teacher used popsicle sticks to call on students. However, the questions she asked did not truly illuminate students’ misunderstandings and instead focused on rote procedures and steps in a process. Only a single solution pathway was highlighted for each problem. The focus was on answer-getting and procedures.
• The teacher circulates, using data from Edulastic and whiteboards to observe student progress. However, checks give her limited information about student misconceptions and instead focus on answer-getting, e.g., how many students knew that the correct answer was “b,” instead of asking students why others picked incorrect answers.

• The teacher checks for student understanding by asking questions such as, "How many of you got a similar answer?" There were several instances in which very few students raised their hands or responded (e.g., 1-4 students), indicating students needed help. However, the teacher only relied on procedural tips and tricks to support students in writing algebraic expressions for story problems. For example, she said, "Read the story problem and write it as addition or subtraction. Think about the keywords and what operation they tell you that you are doing."

Goal 4- Was Instruction Based on Standards? And Was It the Lowest Possible Interpretation of Those Standards?

Evidence should come primarily from:

• The enacted lesson focuses on the grade-level cluster(s), grade-level content standard(s), or part(s) thereof.
• The teacher deliberately checks for understanding throughout the lesson to surface misconceptions and opportunities for growth and adapts the lesson according to student understanding.
• The teacher provides opportunities for all students to work with and practice grade-level problems and exercises.

Mixed Findings

The targeted math standard of the lesson was clearly identified in almost all classrooms (i.e., all but two). However, in one-third of classrooms, the content of the lesson or classwork did not fully align with the targeted standard. In these classrooms, work appeared more closely aligned to a more simplistic (e.g., earlier grade) version of the standard, or the teachers provided so much scaffolding that students were not able to complete grade-level aligned work.

For example:

• The lesson objective and student workbooks were aligned to the grade level standard. However, the way the lesson was taught took away from the rigor of the lesson. In other words, the teacher “modeled” each step for t students (e.g., “We have two linear equations here. We are going to draw each line. For the first line, I am first going to put this into point-slope form; it starts with y; what do I move first?”).

• The problems that students were asked to solve are more consistent with the 6th (not 7th) grade version of this standard. Students were primarily focused on simplifying simple expressions involving the distributive property and all coefficients were whole numbers as opposed to rational numbers.
• The first 25 minutes of the lesson were spent on "fluency books" the teacher created to review various concepts from earlier grades. The last 15 minutes were spent on the Eureka lesson, but the teacher did not move past the warmup, due to disciplinary issues.

In addition, in *almost half of the observations, there was a misalignment between the aspect of rigor called for in the standard and the aspect of rigor taught*. In all of these lessons, teachers taught the standard as a procedural skill, even though the standard called for conceptual understanding and/or application. Specifically, observers noted only five lessons that emphasized conceptual understanding, even though that was a targeted aspect of rigor in over half the lessons’ standards. Example observer notes include:

• The problems students were asked to solve as part of their module review were solely focused on the procedural elements of standards in this module. They consisted of problems such as "Is y=7+n^2 linear?" "Graph y=3z+1", "solve for x: 7x+49-14x-84 or "change the equation into standard form." Teaching math in this way reduce alignment to the expectations of the standards - many of which are conceptual and/or require the application of math to narratives.

• The standard aligned to this lesson requires students to “use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.” That is, students should *apply* these facts to a problem. However, the teacher provided all of the facts that students should know (e.g., told students to write 180 next to each line, pointed out which angles were complementary, and labeled them), turning the work into a multi-step addition/subtraction problem that students were led through.

• While the types of problems students were asked to solve relate to the types of inequalities students are expected to solve in 7th grade, there was an overemphasis on the procedure of solving inequalities and a missed opportunity to connect to real-life problems.

**Goal 5- Are Teachers Making Reference to Previous Skills or Information that Students are Being Expected to Bring to Their Current Grade-Level Classroom?**

Evidence should primarily come from:

• Explicit references to skills or knowledge that students were previously taught.

**Relatively Positive Findings**

*Teachers appropriately related the content of the observed lesson with previously learned material in approximately two-thirds of the lessons observed.* Within these classrooms, observers noted:

• The teacher explicitly reminded students of their prior knowledge while modeling how to solve a system of two linear equations (e.g., remember that we isolate the variable, remember that if we use inverse operations to...). She also began the lesson with a review of how to use the distributive property, so that students could apply that skill when solving linear equations.
The materials in the lesson explicitly assumed and built on prior knowledge appropriately (e.g., do-now with simplifying expressions; graphing two instead of one-linear equations) to support the new material/object of the day’s lesson (solving the equations).

Given that this was a review lesson, students continuously accessed their prior knowledge about terms, variables, and simplifying expressions that they had acquired throughout the previous lessons.

**Challenging Findings**

In the other one-third of lessons, observers noted missed opportunities for the teacher to successfully build upon students’ prior knowledge. For example:

- In theory, there was an opportunity to relate the new math content to prior knowledge. The teacher did reference anchor charts that detailed the order of operations steps. However, the students did not access the chart and seemed to struggle to make connections to what they had previously learned about exponents and algebraic expressions.

- The teacher attempts to connect prior knowledge of operations with whole numbers as well as patterns in multiplying 10. However, these connections were insufficient, because students struggled to answer questions that required them to draw upon their prior knowledge.

- We did not observe the teacher making connections to prior knowledge or creating the opportunity for students to do so.

- The teacher did most of the heavy cognitive lifting and did not make important connections to the value of pi. Instead, he encouraged students to use the calculator to solve problems (i.e., related to finding the area of shapes using pi).

- We did not see any mention of placing the mathematics of the lessons into a broader context, an explanation of why this is important, or how students might need these skills at some later date (although the rubric does not explicitly ask for this). (This observer also did not observe these kinds of discussions during any of their other classroom observations).

**Goal 6- Were There Any Other Themes of Note?**

Most teachers were using Eureka. However, in many classrooms, our observers found that teachers frequently simplified the Eureka-linked lessons by asking procedural questions or directly providing the discrete steps needed to solve the problem, emphasizing getting to the right answer (as opposed to conceptual understanding). Here are typical quotes about teachers’ questions:
• The teacher poses funneling questions that require students to answer discrete questions about the steps required to add fractions. As a result, there was little opportunity for students to explain their thinking. Example probes include "Can 3 be multiplied to get 4?" "Can 4 be multiplied to get to 3?" "What times 3 gives me 12?" "Do you see how we can't add these?" "Do I have 6 pieces here?"

• The focus of questions was on answer-getting and procedures. "Is 6/5 is negative or positive?", "what's our 'm' and what's our 'b'?", "Is it positive or neg?", "b is your what?"

• The teacher asks very simplistic questions (e.g., “How many boxes are in this picture”). Students were never asked to explain their thinking or even open-ended questions.

• The teacher relied on tips/tricks such as "Be right, go right.' and "I run with my feet on the bottom" to help students remember how to translate slope into a graph. The impact was that explanations focused on answer-getting.

Observers also noted repeatedly that many students were struggling to complete even the modest level of work asked of them. Our collective interpretation is that teachers had lowered their expectations in response to students’ struggles in previous lessons and grades.

Observers make frequent references to classroom management struggles. In some classrooms, observers noted that many students did not participate in the lessons at all. However, it was more common for observers to note a smaller group of students not participating. This might explain why there was such limited group work and discussion in the lessons. It also might explain why students were rarely encouraged to speak beyond answering very simplistic procedural answers. For example, students were only asked to explain or justify their mathematical thinking in four of the total number (23) of lessons observed.

Small-Group Instruction: We observed small-group lessons intended for acceleration in both 6th-, 7th- and 8th- grades. The 6th-grade lesson was on basic fraction equivalence and addition. Some students worked on computers and others in small groups with manipulatives under a teacher’s supervision. In 7th/8th grade students were allowed to pick a computer program to work with. Students were off-task and unfocused during this time. In the eighth-grade example, while most students worked on digital lessons throughout the period, there was an attempt to pull a small group for live instruction, but it was disorganized, and learning appeared to be minimal. In general, there seemed to be a lack of clear delineation between individualized on-line instruction and live small-group instruction.
ELA

District 1

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Goal 1 - Are Teacher or Students Doing the Work of the Lesson?

Evidence should primarily come from:

- Questions and tasks that require students to use evidence from the text to demonstrate understanding and to support their ideas about the text. These ideas are expressed through written and/or oral responses.
- Questions and tasks attend to the words (academic vocabulary), phrases, and sentences within the text.
- The teacher poses questions and tasks for students to do the majority of the work: speaking/listening, reading, and/or writing. Students do the majority of the work of the lesson. Observers saw frequent evidence of these practices.
- The teacher cultivates reasoning and meaning making by allowing students to productively struggle. Students persevere through difficulty. Observers saw the least evidence of this practice compared with evidence of the other four practices listed under Goal 1.
- The teacher expects evidence and precision from students and probes students’ answers accordingly. Students provide text evidence to support their ideas and display precision in their oral and/or written responses. Observers saw only rare instances of this practice.

Relatively Positive Findings

In the strongest classes we saw (one-third of those we observed), the students were doing the work of the lesson, often working on a curriculum-designed activity. For example, we saw them writing an informative essay on how *All Quiet on the Western Front* explores the psychological effects of war or how the war influenced a character. We also saw students completing a handout to highlight incidents or experiences of a character in war or doing the same on the elements of a monomyth in *The Odyssey*. 
In all these examples, the task required textual references. Many had directives like, “[identify] specific lines of dialogue that involve your character and write them in the chart below” or “explain a central theme using text evidence.” There were some activities that did not require textual evidence e.g., students writing their own monomyth. These creative-type activities naturally would not blend to using textual evidence, but the application of knowledge (knowing the elements of a monomyth to apply them to their own creation) did demonstrate a strong knowledge build.

In all the activities, the students were completing the writing or handout while the teacher monitored their progress by moving around the room. Sometimes, with more handouts, the students could complete the work in groups, but most of the activities, especially the writing assignments, were completed individually.

**Challenging Findings**

*In roughly two-thirds of the classes observed, students were not doing the bulk of the work of the lesson.* For example, one teacher provided students with the option to write their own story on their chosen Black history figure, a time they learned an important lesson by making a mistake, or a storyline of their choice. The only other directive was to, “include dialogue and description.” The students were not engaged with the activity, and the teacher spent most of the class refocusing students on the assignment. In another example, the teacher focused on one aspect of a lesson in *Wit & Wisdom* for 45 minutes and selected one of the least cognitively demanding aspects of the unit. The objective was to “analyze elements of digital platforms to prepare for the upcoming EOM (end of module) task.” (The curriculum has a 10 – 12-minute focus on “discussing how technology supports the presentation of ideas.”) The task ended up with no student-to-student or student-to-teacher discussions, and the teacher did most of the work.

Another example was a teacher who was trying to play catch-up in the curriculum. The curriculum had students read three chapters in *Code Talkers* for homework. The teacher told us students would not complete this at home (this was something noted often by teachers), so she needed to get these chapters read during class time. She read one chapter, and the students did a popcorn reading of the other chapters. She told us that the students to take notes for each chapter on the “who, what, when, and where.” However, she ended up completing this task for the students, and the students wrote what she said in their notebooks. This might have been done to save time and guarantee they finished the three chapters, but the result was that the teacher did all the work.

**Goal 2- Is The Entire Class Learning or Is the Teacher Focused On Only A Few Students?**

Evidence should primarily come from:

- The teacher poses questions and tasks for students to do the majority of the work: speaking/listening, reading, and/or writing. Students do the majority of the work of the lesson. (*Overall, we saw quite strong evidence of these practices.*)
- The teacher expects evidence and precision from students and probes students’ answers accordingly. Students provide textual evidence to support their ideas and display precision in their oral and/or written responses. (*Overall, we saw very weak evidence of these practices in most classrooms.*)
**Relatively Positive Findings**

Most of the classes we observed were relatively small – 20 or so on average, with some very small indeed (with 8-9 students present), and teachers were able to get most students to participate in at least some of the classroom learning activities. In addition, teachers used methods (like equity sticks) to ensure all students were being called on. We observed only two teachers who called solely on their strongest students. One teacher who did this explained that she has students at 2nd- and 3rd-grade reading levels in her middle-school class, so they struggle to follow the curriculum.

**Mixed Findings**

In terms of evidence of effective learning for most students, it is next to impossible to generalize across District 1’s middle schools based on the classrooms we observed. Certain schools had successfully instilled a culture of learning, and other schools had not. Schools with weaker learning environments had students who simply refused to answer teachers’ questions, do the requested activity, discuss or share their thinking about a topic, or work with a partner. There was not a clear “X factor” to determine schools with stronger learning culture. Uniforms, opening time, and class length did not directly correlate with the learning culture.

Two factors did stand out in schools with a weaker school culture: chaotic behavior in the hallways and negative interactions between students. Schools with chaotic transitions from classes and/or negative interactions between students tended to be the schools with a weaker learning environment. One other observation was that the school where the least learning took place had the highest-class sizes (34 students in one class, 30 in another).

As a vast literature on education policy would strongly confirm, it mattered who was standing in the front of the class. Through informal interviews with the teachers, we were able to glean information on years of experience. Overall, we can say that the more experienced teachers were more likely to achieve higher levels of student engagement and a more productive learning environment. We found that teachers with fewer years of experience were more likely to be found in schools with weaker learning environments. There were, of course, exceptions: there were new teachers placed in schools with stronger learning environments who were having better success with student engagement, and there were experienced teachers placed in schools with weaker learning environments who struggled with student engagement. What we found, therefore, was an independent impact of overall school culture on the likelihood of effective instruction.

Generally, the teachers with more experience had their students working. At one school, the students worked diligently and quietly on a writing assignment (explaining how The Odyssey is an exemplar of the monomyth) throughout a 1.5-hour time block. At another school, the teacher had the students create their own graphic organizer for a lesson based on the writing prompt. Every student but one attempted this challenging task. The teacher told this one student she would not give out her graphic organizer without the student attempting to create her own. Then, the teacher broke down the prompt again for the student, and the student got to work. Another teacher had the students notice/wonder about a painting. She provided them with strong guidelines, “Please don’t tell me you noticed they are wearing green.” She explains they need to go beyond that, thinking and observing beyond what was obvious. When it became time to share, students called on each other for responses.
Goal 3- Differentiation- Was There Evidence of Subgrouping During the Main Learning Block? And What Type of Learning Was It?

Evidence should primarily come from:

- The teacher creates the conditions for student conversations where students are encouraged to talk about each other’s thinking. Students talk and ask questions about each other’s thinking, to clarify or improve their understanding.

Challenging Findings

Unlike in math classrooms, there was no evidence of subgrouping during the main learning blocks that we observed. However, from conversations with the teachers, it became clear that there were major differences in students’ reading abilities in the same class. One teacher mentioned that she had students ranging from Grades K to 10 in reading ability. While this is extreme, many had students four to five years below grade level. Also, all the teachers expressed how difficult it was to differentiate the Wit & Wisdom curriculum. They told us they were constantly playing catch-up, because the curriculum has homework the students simply will not do, and the curriculum allocates 10 – 12 minutes for something that takes their students 30 – 40 minutes to complete. It was striking that every single teacher mentioned the same difficulty.

Teachers try to adapt the curriculum to meet their student’s needs by providing more time for activities and stopping to review the text or instructions. For example, during one class that was reading a chapter from their novel, before reading, the teacher reviewed the plot with the students.

T: Where are they?
S: Island of Guam.
T: What happened to Charlie?
S: He is not dead.

Then, before she reads Chapter 22, she discusses the title, “Fatigue.”

T: What does fatigue mean?
S: I remember when soldiers didn't eat, they would suffer from fatigue.
T: Good. So, how would you feel if you hadn't eaten for a while?
Class makes some guesses, and one student says “tired.:

During the reading of Chapter 22, she stops and asks, "What happens to Ned?"

S: He is shot.

Other times, the teacher broke down the task to make sure students understood how to complete it. In one class, students read a sample model answer to the EOM (end-of-module) task. During the reading, the teacher stops after each paragraph. She asks the students to find the components of the EOM task in the preceding section:
T: What is the psychological effect identified in this first paragraph?
S: Loss of innocence.
T: Ok, let's underline that in the essay.
T: What are the two examples of this psychological effect that will be addressed in the body paragraphs?
S: Death of Kimmerich.
T: And...
S2: Paul & French soldier confrontation.
T: Let's underline those.
This continues for multiple paragraphs.
T: What evidence is used here?
(Students identify and underline)

Other times, the teacher monitored the students as they worked on a task. As students were completing a graphic organizer for an EOM task, the teacher would provide such feedback to the students as:

T: Where do you answer this? (Pointing to a particular element of the question)
T: What are you trying to say here?

The teacher then asks the students go back and make the proper adjustments.

We did observe a positive aspect of the W&W curriculum: the foundational build-up of each task. By the time a student needs to complete a task and “show what they know,” they have been provided with so many tools, they are ready to give it a try. And, in the schools, that was what was observed. Students were giving it a go.

Goal 4- Was Instruction Based on Standards? And Was It the Lowest Possible Interpretation of Those Standards?
Evidence should primarily come from:

- A majority of the lesson is spent reading, writing, or speaking about text(s). Observers found this to be the norm.
- The teacher poses questions and tasks for students to do the majority of the work: speaking/listening, reading, and/or writing. Students do the majority of the work of the lesson. Observers found this to be the norm.
- Teachers should press students to enlarge and deepen their responses to the text. This was more rarely found.

Largely Positive Findings
In every class observed, the teachers were implementing the Wit & Wisdom curriculum “with fidelity.” The only exception we saw occurred when students were completing a Black history project outside of a Wit & Wisdom unit, but there was evidence from the anchor charts all around the room that the teacher was regularly teaching the regular curriculum and the ELA standards.
Wit & Wisdom’s curricular design is sequential; every lesson is designed to support the student’s completion of the EOM task. It is a constant build-up of knowledge and skills. For example, the goal might be to write an objective summary of informational text. The curriculum breaks this down into bite-sized chunks, starting with having the students read a chapter of an informational text and then practice stating the main idea. Then, in the next chapter, they are given the main idea and need to find key details to support that. Then, in the next chapter, students learn to combine the main ideas and supporting details to make a summary. This builds a core knowledge of the text but doesn’t necessarily support efforts to uncover different meanings or interpretations.

**Challenging Findings**

In two observed classrooms, while the W&W teacher script was being closely followed, at no point did the teacher probe students for further understanding or discussion of the scripted question. Once the basic question had been answered, sometimes by the teacher, the class moved on. At the same time, the accepted student answers were only at a superficial level. Once again, this is partly a function of the curriculum, which presents high-quality challenging texts but doesn’t always provide prompting for deep reflection on their content.

A second challenge came from the distance between the curricular content and students' basic knowledge, which required meaningful context by the teacher. In these observations, teachers seldom provided this. So, for example, it was clear that World War I meant almost nothing to the students, such as its causes, the cost in human lives, etc. No contextual information was provided, so there was little build-up of background knowledge – a clear key to stronger reading outcomes. When students asked for clarification about aspects of a film based on their text, the teacher was unable to answer or answered incorrectly.

**Goal 5- Are Teachers Referring to Previous Skills or Information That Students Are Being Expected to Bring to Their Current Grade-Level Classroom?**

**Evidence should primarily come from:**

- Explicit verbal references to previous lessons.
- Any reference to future learning expectations

**Relatively Positive Findings**

*We found evidence of such references in about two-thirds of the observed classes.*

Overall, if teachers did not reference previous lessons, then they mentioned forthcoming lessons. Many times, the discussion of the previous lessons was a review of previously studied material. In one typical instance, a teacher gave the students eight minutes to “re-read Chapter 5, looking for evidence to explain the success and failure of foreign and domestic policy and the impact in the US.” Other times it was to review the focus of the prior lesson. For example:
Before students wrote their thesis statement and introduction, the teacher reminded the class what they did yesterday.

T: What did we do yesterday?
S: Broke down the writing prompt.
T: What is the writing about?
S: How the war influenced Ned’s identity.

Note once again the “staccato” nature of the exchange—short question, and a surface-level response from a single student.

Anytime a forthcoming lesson was mentioned, it was usually about the EOM task. As referenced earlier, these tasks are the culmination of learning and address the essential question.

**Goal 6- Were There Any Other Themes of Note?**

- Teachers reported that Wit & Wisdom provides them with the rigor and skills they need, but it does not adjust for the significant differences in students’ real-world grade levels. In any given class, from a quarter to a third of the students may be four to five grades below grade level. In addition, Wit & Wisdom does not account for high ESOL (English Speakers of Other Languages) populations, with the result that curriculum-related activities take ELL students two to three times as long as recommended in the lesson plans. Moreover, Wit & Wisdom requires homework, and all teachers reported that not enough students will complete the homework. The consequence is that they can’t move forward. For all these reasons, teachers emphasized how difficult it was to differentiate this curriculum. Over and over, they stated that they were “constantly playing catch up.”
- There were differing answers when we posed informal questions about the texts. Some teachers enjoyed the text sets; some said they didn’t resonate with the students. Most of the students, when asked, reported they liked the stories— in our judgment, a higher percentage than did the teachers.
- Throughout the observations, we saw many missed opportunities to connect the texts to universal human themes. The cause may be time pressure or teachers’ lack of comfort with this level of connecting. Either way, based on IEP’s observations across classrooms over eight years, this lack of depth reduces student engagement.
- Although we know from our Institute’s analysis and from the EdReports curriculum review that Wit & Wisdom includes roughly equal portions of fiction and non-fiction, teachers report finding it fiction-heavy. We are not sure why this is the case. We know that District 1 teaches a reduced number of curriculum units, so those taught may simply be more literature-heavy. Or, perhaps the teachers don’t have the bandwidth to include the non-fiction pieces because they can more easily be cut out to help keep on top of the lessons.
- The teachers thought the rigor of the writing was a strong point of the W&W curriculum, but they felt i-Ready did not work in tandem to help with writing - which is a skill gap for many of the students. They did wish there was more support for writing/grammar.
- Absences: Teachers repeatedly told us they struggle with absences. Trying to summarize the informal reporting we heard, our rough estimate was that on average, approximately 20-30% of students were missing on a daily basis. One class we observed began with only four
students at 9 a.m., and then five students arrived between 9:05 am and 9:30 am. The teacher told us that the class has 13 students, but having only nine show up is typical. Of the nine students who were there, more than half missed substantial minutes of instruction. The schools with high ELL populations stated some of their students visit family outside of the district for months at a time.

- Overall, the most substantial challenges had to do with student behavior (both in terms of absences and lack of focus for those in class), and students’ being years behind grade-level readiness to learn.
- In several lessons we saw a repeat of behavior in many of the math classrooms: teachers would “ask and answer” the questions in the curriculum, rather than waiting for the students to answer. In multiple classrooms, only a small number of students were engaged in responding to the questions.
- Small-Group Instruction. We saw just two examples of small-group instruction. In one instance, students were getting basic vocabulary practice that was disconnected from the texts they were reading. In the second case, the instructor had pulled a list of more difficult words from the Wit & Wisdom text and was working with students to ensure they understood the relevant meanings.

**District 2: Summary Report (Middle Grades Math and ELA).**

**Principal Interviews**

1. **Topics that Impact Acceleration**

**A: The Core Administrative Team**

In addition to the principal, the most typical arrangement is a vice-principal, and an instructional or academic coach (sometimes two). Several schools also have a dean of students. In one school, the coaches are themselves supported by two dedicated staff members. Whether or not the school has two coaches and/or a dean of students appeared to be unrelated to the size of the school.

**B: The Lingering Impact of COVID-19**

There was widespread agreement that both students and teachers remained negatively impacted by the experience of the epidemic. One principal noted that the school was registering “the greatest number of F grades it has ever recorded.” Another principal said the students were “fragile and highly emotional.” One principal remarked that his teachers were “apathetic and tired.” Every principal spoke of the long-term impact of COVID-19 as challenging the learning environments of their schools.

**C: The Curriculum and Teacher Readiness**

Although principals generally regarded the curricula their schools were using as strong, several mentioned the discontinuity in ELA between the materials used in elementary schools and middle schools (EL to **My Perspectives**), and more generally hoped to “stop the frequent switching of curricula.” Several mentioned that the pacing requirements are onerous, and in many cases force teachers to go too quickly through the material. In the more academically challenged schools, principals report that middle school teachers are being faced with students who still have basic
challenges in reading. The principals stressed the point that their ELA teachers in the middle school grades aren’t professionally prepared to handle this degree of learning gap. These principals wanted specialized support for these older students.

D: Student Behavior
Principals shared concerns about student behavior, especially in schools with higher percentages of economically challenged students. Student apathy, too, is a deep problem; one principal has developed an “Incentive Store,” complete with air pods, bikes, and a gaming center, in an attempt to connect positive student behavior to concrete rewards. Social media is another problem that cropped up in many of the interviews. While principals varied in their regulation of cell phones (some ban them altogether, and others devolve the decisions to the classroom level), everyone described them as a challenge. (More recently, the district has created a consistent policy across their schools – no use of phones during classes).

E: Parental Involvement and Communication
As in District 1, several principals noted how difficult it was to recruit parents into the academic education of their children. Parents tend to focus on their children’s behavior (involving matters of dress code, acting out in class, and suspensions) and the school’s rules around such matters, rather than on academic performance and how to enhance it. Parents were described several times as typically “apathetic” when it comes to their children undertaking any homework. Several principals noted that parents try hard to deny nothing to their children, and then can’t understand why they “act out.” Some principals appear more proactive in terms of making persistent callbacks to parents on both behavioral and academic issues. One principal reported that the most effective communications take place in structured parent-student meetings with a teacher present; groups of four students are talking with parents with their work in front (on Chrome Books). The aim is to do this once a quarter next year. In another school, parents are invited to quarterly events and monthly coffee houses, which typically attract 7-15 parents in person and 30-50 on Zoom.

F: Testing Time
Almost all the principals flagged as a concern the number of days lost to testing. One even estimated it at 22 days. Principals pointed out that students had no incentive to do well on the tests, and the loss of instructional time was a serious drain on learning time. One principal summed up the testing problem this way: “Tests stop learning momentum. It’s test, review, restart, stop, review, test.” He added that this cycle left next to no time for learning labs. Principals pointed out that their schools had to test in i-Ready, Benchmarks, and [the state-mandated] tests.

G: Teacher Retention
Teacher retention varied greatly and did not closely track the schools’ demographics. In one school, teacher year-on-year retention was steadily rising (now over 90%); in another it was “a major problem.”

1. Acceleration Itself
The interviews invited principals to comment on the use of data, RTI/differentiated instruction, and lessons learned from current experiences.
• Data: The typical school used i-Ready data, the district benchmarks, and teacher progress reports and observations. For ELL students, the schools use WIDA assessments. There were a variety of views about the Benchmarks; principals were generally more negative about the ELA benchmarks because they tested “all 32 standards every 9 weeks,” whereas the math benchmarks were geared to what the students were studying at the time of the assessment and were thus more pedagogically integrated.

• There was widespread criticism of the usefulness of the data that i-Ready generates. One principal said simply, “We don’t use it – we just use the benchmarks.” One school uses and prefers “MasteryConnect,” because it identifies specific, standards-based skills and a related bank of questions that students need to work on. Multiple principals complained that i-Ready provides only an overall read-out of where students are versus their grade level, and that the resulting “My Path” online materials focus on brute memorization and not understanding.

• Principals also voiced criticism of the pacing guides, which press teachers to move on even as they know that their students haven’t mastered key skills. In the view of one principal, the whole learning experience would be improved if “teachers could set specific learning goals with each child, focusing on one standard at a time.”

2. RTI/Differentiated Instruction

As discussed above, at the heart of District 2’s acceleration model is the use of RTI. Every principal told us that their school is actively and continually using the basic RTI structure (namely dividing students into three Tiers of performance and designing specific interventions for each Tier). One principal remarked that this is the first year that both the district and the school had “a real plan.”

However, while all school principals reported dividing students into the three Tiers of RTI (in one school “every student is in Tier II”), the number of times students are re-sorted into Tiers, and how students are treated in terms of the resulting differentiation varied considerably across schools. In one school, the principal reported that Tier III was only used in ELA and not math due to an “urgent situation in ELA.” A few further examples of variation: one school uses daily “exit tickets” to try to ensure that students are regrouped for instructional purposes; another re-sorts at the end of each week in some grades and once every two weeks in other grades; a third school reassess and re-sorts students every nine weeks. Other schools use i-Ready at the start of the academic semester and only re-group after the next assessment months later, or just once in the second semester. Some principals report very little shifting of students out of Tier III (“most of the Tier III students are stuck there all year”).

Moreover, the instructional support for the different groups of Tiers II and III students varies too, most strikingly in the use of tutoring. In some schools the percentage of students tutored is extremely small (3% was one estimate), while in other schools 70 students might receive tutoring in a given week, using both time before and after the regular school day. The nomenclature applied to “tutoring” varies too; some principals reported the use of “ATLAS tutoring” in which the students in large groups using computer access to a live tutor. IEP would characterize that as “personalized learning” rather than tutoring.

Principals reported a wide variation in the pull-out instruction offered to Tiers II and III students. Many schools provide Tier II students with daily differentiated instruction. labeled with various
names. One school provides “academic lab” time 30 minutes each day several times a week, depending on grade level, while others provide 45 minutes each day in either math or ELA. For Tier III students, some schools pull them out of extra class periods, usually in the arts or physical education, an extra two to three times per week, although in some schools Tier III students have higher instructional “dosages” – up to one hour every day – in math and ELA.

Interestingly, no principal mentioned the use of differentiation during the regular Tier I, whole-class instruction.

### 3. Overall Judgments

Principals had mixed views of how the entire system was working. A very small number reported success at moving a small number of students out of Tier III, and few referenced progress among Tier II math students. The biggest concern was in reading, where some reported that they were having to teach Tier III students’ phonics in sixth grade using [X] – a reading program designed for grades K-2 students. Overall, we did not hear that the push for a more robust implementation of RTI had been transformative.

#### DISTRICT 2: CLASSROOM OBSERVATIONS

**MATH**

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**Goal 1- Are the teachers or students doing the work of the lesson?**

**Evidence should primarily come from:**

- The teacher provides opportunities for all students to work with the practice grade-level problems and exercises.
- The teacher cultivates reasoning and problem-solving by allowing students to productively struggle.
- The teacher poses questions and problems that prompt students to explain their thinking about the content of the lesson.
## Largely Positive Findings

*Students completed the math work in roughly two-thirds of the whole-group lessons observed.* In these classrooms, students were given work aligned to grade-level standards; sufficient explanation/tools to work on the problems; and time to solve the problems independently or with peers. Within these classrooms, observers noted the following:

- Students worked on grade-level questions. The teacher also reviewed questions from last year’s benchmark, to prepare students for the upcoming benchmark assessment. In addition, the teacher allowed students to work independently and then share with a classmate.
- Students first worked on warm-up problems. Next, students worked on translating a word problem into a table and then an equation. Almost all (23/25) students were actively working on the problem.
- The teacher provides opportunities throughout the lesson for students to practice grade-level work. For example, she introduced a problem, and then the whole class discussed the problem before students had 10 minutes to work independently. Student solutions were then shared with the entire class. Next, students were provided with time to work on a “reflection problem” before the teacher invited students to share their answers (and the teacher wrote student answers on the board). At the end of the observation, students worked on problems independently.

## Challenging Findings

*The remaining one-third of classrooms were generally characterized by teachers presenting standards-aligned problems to students, but insufficient time or support for students to complete the problems.* Within these classrooms, teachers often provided very little time for students to work on the problems *without* support, or they gave students answers to problems (i.e., “modeled” how to solve an entire problem or sets of problems, allowing students to copy these solutions).

- The problems were aligned to grade-level standards, but the teacher provided so much support (and not time to tackle the problems independently), that students had limited opportunities to practice the grade-level work.
- The purpose of the lesson was to write a “cheat sheet” as a reference for a chapter test the following day. Even though all the content was reviewed, the teacher provided examples of most of the concepts; stated most mathematical rules himself; and “modeled” solving most of his examples with little student input.
- The teacher provided a small amount of time for students to start a problem independently (and with a partner) but did not allow sufficient time for students to work through problems.

## Goal 2- Is the entire class learning or is the teacher focused on just a few students?

*Evidence should primarily come from:*

- The teacher provides opportunities for all students to work with and practice grade-level problems and exercises.
- The teacher poses questions and problems that prompt students to explain their thinking about the content of the lesson.
Largely Positive Findings

In about half of the classrooms that we observed, the great majority of students appeared to be learning. In these classrooms, not only did teachers provide an environment that supported learning (e.g., through appropriate tasks and instruction), but they also asked probing questions that supported all students’ learning, provided support to students, and/or allowed students to help each other learn.

- The teacher reviewed the most challenging problems from an earlier homework assignment. For each problem, one student wrote an equation based on the homework’s word problem and another student solved the problem and explained their logic. The rest of the class then asked the two students questions about their work. Students demonstrated that they were comfortable voicing their confusion, as well as explaining and justifying their mathematical thinking.
- The teacher provided multiple ways for students to practice and solve grade-level problems. She modeled multiple solution strategies and then worked through several examples with student input, all before students worked at their desks. Most students completed their work independently, although several students checked their answers with peers in their groups. When one student finished very quickly, the teacher paired that student with a struggling peer.

Challenging Findings

In the remaining half of classrooms, observers noted inconsistent or little learning taking place. These classrooms were characterized by lessons that appeared to be inaccessible to many students, supported only the strongest students, or the reverse: low expectations for students’ learning (e.g., teachers asked only the simplest questions, and/or accepted vague or incomplete answers), and/or we saw low (or inconsistent) student engagement. For example, observers noted the following:

- The teacher provided many opportunities to work with and practice grade-level problems, and many students attempted grade-level work. However, the teacher mostly interacted with students who already understood the concepts. When students struggled, she addressed her answers to the whole class instead of directly to the struggling student.
- The teacher taught a lesson aligned to grade-level standards. However, the teacher solved the problems with almost no student input (e.g., he wrote each problem out; explained and “modeled” how to solve each problem; and then solved all but a few [easy] computational parts of the problem). The level of support coupled with almost no time for students to work through problems independently resulted in most students copying all their teacher’s work. Students did not appear to even attempt to independently solve any problems.

Goal 3- Differentiation- Was There Evidence of Subgrouping During the Main Learning Block? And What Type of Learning Was It?

Evidence should come primarily from:
• The teacher makes the mathematics of the lesson explicit using explanations, representations, tasks, and/or examples.
• The teacher creates the conditions for student conversations where students are encouraged to talk about each other’s thinking.

**Mixed Findings**
In only two observed classrooms did teachers attempt to provide extra support to a small group of students. In both classes, the teachers taught the lesson to the entire class and invited students to gather in small groups if they needed additional support during work time (i.e., the teachers did not appear to pre-determine which students would need additional support). We noted, however, that in both classes, whole-group instruction took up most of the math period, so the independent work time and small-group support lasted for less than five minutes.

*More frequently (i.e., in roughly half of the classrooms observed)*, teachers provided scaffolded support to all the students through their instructional choices. For example, by reviewing concepts at the beginning of a lesson; providing increasingly more challenging problems; explicitly asking students with different answers/solution methods to share (or by modeling multiple solution methods); and/or providing students with opportunities to work in partnerships or groups.

**Challenging Findings**
*However, in the other half of the classrooms, we observed neither explicit differentiated nor scaffolded support.* These classrooms tended to be heavily dominated by the teacher. That is, the teacher teaches a lesson for most (or all) of the period, often with little input from students (as described above). In addition, the teacher demonstrated through their actions and words that they were primarily concerned with moving on, preparing for the test, and getting to the correct answer.

**Goal 4- Was Instruction Based on Standards? And Was It the Lowest Possible Interpretation of Those Standards?**
*Evidence should come primarily from:*

• The enacted lesson focuses on the grade-level cluster(s), grade-level content standard(s), or part(s) thereof.
• The teacher deliberately checks for understanding throughout the lesson to surface misconceptions and opportunities for growth and adapts the lesson according to student understanding.
• The teacher provides opportunities for all students to work with and practice grade-level problems and exercises.

**Largely Positive Findings**
*All lessons observed were aligned to grade-level standards.* However, only two-thirds of the lessons aligned with the rigor called for by the standard. Amongst these lessons, approximately half of the lessons were aligned to a procedural standard and the other half were aligned to standards that required conceptual understanding or an application.
In these two-thirds of the lessons, observers noted:

- The standard focuses on procedural work (i.e., reason about and solve one-variable equations), and the teacher matched the standard by concentrating on the step-by-step procedure for solving equations.
- The standard addressed conceptual understanding, and most of the lesson focused on the same: helping students correctly label the negative portion of their number line, discussing incorrect examples to illuminate the correct setup, and all within the context of playing a game (which supported the concept of opposite numbers).
- The lesson and work focused on conceptual understanding through real-world examples for the students (e.g., planning a dance) and used that to develop an understanding of representation.

Challenging Findings

In the remaining one-third of the lessons, we found a misalignment between the rigor in the standard and the enacted lesson. In almost all cases of misalignment, the standard requires either conceptual understanding or application of the mathematical content, but the teacher taught the standard as a procedural skill. For example:

- In several observed lessons that address standard “X” (use random sampling to draw inferences about the population), the sampling scenarios were presented without context or purpose and included no discussion of why students might want to use statistics to gain information about a population. For example, in one class students created scenarios when a sample would be biased (e.g., you only pick carrots in the garden, you ask only 7th graders about something), without any discussion of the population of interest or what information the students might want to learn from that population.
- Two other lessons addressed standard “Y,” which indicates that students should “know that numbers that are not rational are called irrational; understand informally that every number has a decimal expansion; rational numbers show that the decimal expansion repeats eventually or terminates and convert a decimal expansion which repeats eventually or terminates into a rational number.” Both lessons, however, focused solely on the procedural aspect of converting decimals into fractions and involved no mention or connection of this work to rational numbers.

Goal 5- Are Teachers Making Reference to Previous Skills or Information that Students are being expected to bring to Their Current Grade-Level Classroom?

Evidence should primarily come from:

- Explicit references to skills or knowledge that students were previously taught.

Largely Positive Findings

Teachers referenced prior lessons or students expected prior knowledge in two-thirds of classrooms. These references were often used as a quick review at the beginning of the lesson. For example, one teacher said, “Last week, we learned about one variable equation, and this week we are learning...
about two variables equations.” In another classroom, the lesson started with a review of the last lesson’s terms.

Such references also often arose naturally during the lesson, or as a brief reminder when students needed to apply a previously learned skill when solving a problem. For example, one teacher reminded students about greatest common factors; another teacher reminded students that they learned how to divide fractions in elementary school; and another teacher reminded students that they worked with exponents when they learned about scientific notation.

**Challenging Findings**

In the remaining one-third of classrooms, the content either appeared to be new (i.e., the lesson was at the very beginning of a unit) or there were no explicit connections made to prior content observed.

**Goal 6 – Were There Any Other Themes of Note?**

**Tutoring**

- We observed a small number of tutoring sessions in District 2; tutoring was only offered on certain days at some schools and had not started at others. In both schools where we did observe tutoring, several students worked with one teacher.
- In one of these schools, two students worked on IXL (a computer program), reviewing math problems that they had already worked on earlier in the day during IEP’s observation (i.e., they were not catching up on missed content for upcoming lessons), and another student retook a test, at the request of her regular math teacher. The teacher occasionally circulated to help the two students working on IXL but did not appear to have any specific plan or focus for the session.
- In the other school, the teacher did not appear to know who was going to show up to her tutoring session that day, nor what the students should work on (i.e., she asked students what they wanted to work on). One student got out her homework assignment, another started working on the computer, and two other students pulled out classwork they were behind on. The teacher worked with the two students who were catching up on their classwork but became very frustrated when one of the students was unable to solve a problem with one variable. She did not know how to help the student and essentially ended up yelling at him that she did not know what else to do. Thus, it did not appear that tutoring was a productive use of anyone’s time in either of these schools.

**RTI Small-Group Instruction**

We observed RTI small-group instruction in three of the schools we visited. Each school used its RTI time/resources differently.

**Mixed Findings (school one)**

The first school divided RTI support into three levels of support. The Tier I support appeared to be a study hall period. A large group of students watched two videos to review previously learned concepts (how to square a number and how to take the square root of a number) and then worked on their homework. In the Tier II group, four students worked with their teacher to review the concepts they had learned in math class that day (e.g., how to add and subtract negative numbers).
using a math game. In the Tier III group, five students worked on Zearn individually, while the support teacher occasionally asked them how they were doing and sometimes offered help. The teacher worked with all Tier III students, but her teaching background was unclear; she struggled with some of the math concepts students needed help with. Three of the students appeared to be working on some math (e.g., their work was inconsistent—they sometimes tried to work through the examples and problems, but at other times appeared to be guessing and checking). The fourth student became upset until the counselor came to get her, and the fifth was picked up early from school (shortly after the period began).

Positive Findings (Second and Third School)
In the second school, a former elementary math teacher provided RTI support to Tier III students. She told us that she had this role for several years and worked with some of the same students year-after-year. During this RTI session, two students were working on Zearn independently. When they came to a problem that challenged them, they asked the teacher for help. The teacher gave students manipulatives and additional examples to support students’ learning. It was clear that students were receiving extra math support from someone who could meet the students’ learning challenges, and that the content of the support was driven by Zearn.

In the third school, we observed four elementary-aged students working with the RTI specialist. Students completed warm-up problems that reviewed long-division and place value, and then the teacher modeled how to solve the problems that students struggled with (e.g., she skipped any problems that all students answered correctly). She then had students practice reading an analog clock to the hour, half-hour, and quarter-hour, depending on each student’s understanding. Students’ understanding varied, even among the four students; while some problems seemed easy for some students, all students appeared to need extra support reading the clock. The teacher had the warm-up problems and worksheets ready for the students, but it was unclear how she selected the content for each session. She told us that she used data from i-Ready, but then adds additional skills as needed (e.g., reading an analog clock).

Other Themes of Note
- Teachers across most schools were teaching similar lessons, leading us to believe that teachers followed the district pacing calendar closely. Many teachers throughout their lessons referenced the test and the importance of the test when explaining expectations for students. For example, teachers allowed students to (or not) to use calculators depending on if the test would allow students to use calculators for that type of problem. Teachers would often state that students needed to remember a specific skill because they would be tested on it. This narrative was often coupled with a clear focus on getting to the answer; problems were solved to get an answer, and rarely was the process or logic of the solution discussed.
- This emphasis on the test struck observers as reductive. No other reason was given in any classroom for why students were learning that lesson, or why this content would be important or valuable in their lives (beyond the test).
- The teachers we observed varied more across, rather than within schools, as research indicates is usually the case. We did see one strong first-year teacher in the most challenged school, one weaker (i.e., burnt-out) teacher in one of the stronger schools. However, aside from those two examples, we consistently observed very strong teaching at the strongest
schools, average teaching at the mid-level schools, and inexperienced and less effective teaching at the struggling schools.

### ELA

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### Goal 1- Are Teacher or Students Doing the Work of The Lesson?

**Evidence should primarily come from:**

- Questions and tasks require students to use evidence from the text to demonstrate understanding and to support their ideas about the text. We found strong evidence of this practice in just over half the classrooms.
- Questions and tasks are sequenced to build knowledge by guiding students to delve deeper into the text. We found strong evidence of this in about half the classrooms.
- The teacher poses questions and tasks for students to do most of the work: speaking/listening, reading, and/or writing. We found strong evidence of these practices in about half of the classrooms.
- The teacher cultivates reasoning and problem-solving by allowing students to productively struggle. We found the least evidence of these practices – finding them in only a small number of classrooms.
- The teacher creates the conditions for student conversations where students are encouraged to talk about each other’s thinking. We found evidence of this practice in relatively few classrooms.

### Mixed Findings

*Overall, we saw students doing most of the work of the lesson about half the time.* While we observed lessons that required students to engage with the work of the lesson, we rarely saw students allowed to productively struggle or to talk about each other’s thinking. The lessons were either not difficult enough to demand struggle because the expectations were low and answers easy, or teachers aborted students’ ability to productively struggle by answering their own questions and thus doing the work of the lesson.
Typical of such classes, we recorded the following observation: “The teacher was teaching from a near scripted lesson, but the delivery did not elicit active student engagement or evidence of any learning. The teacher’s action was rote, checking off a list. It was clear that some of the vocabulary the teacher used was unclear or unknown to the students, but the teacher didn’t explain and simply moved forward down the list.”

**Evidence of effective strategies**

In one class, we saw the teacher repeatedly asking for specific evidence and refusing to accept any partial or wrong answers. He asked questions about nearly every student's response, trying to get them to connect and go deeper.

**Examples of less effective teaching:**

The teacher talked about needing evidence to support a claim, but then she provided it. She did the bulk of the work of the lesson and set students up from the beginning for very low expectations.

The teacher stated her opinion/answer to her own question and then asked if the class agreed (“yes” or “no” only). We saw little to no knowledge-building.

Evidence of mixed-results teaching (these were the most often observed types of teacher-student interaction):

- The task involved students working to create a piece of short narrative writing, and the students were struggling. The teachers walked around the room and actively helped to support the students’ thinking. But it was clear that in the end, the teacher was providing most of the work. One conversation went:

  T: Where do you want to start?
  S: I don’t know.
  T: What is an important event?
  S: I don’t know.
  T: What about the train station? Is that an important event?
  S: Yes.

- There was a non-verbal autistic student in the class. The teacher tried to engage with the student, but the SPED teacher, also in the class, failed to support the content teacher. The result was that the teacher asked the following questions and the student – understandably - did not respond to any.

  T: What are you reading?
  T: What was the story about?
  T: Can you tell me one thing you remember?

  Eventually, another student starts asking questions and she is pulled away.”
Goal 2- Is The Entire Class Learning or is the Teacher Focused on Just A Few Students?
Evidence should primarily come from:

- The teacher poses questions and tasks for students to do most of the work: speaking/listening, reading, and/or writing.
- The teacher creates the conditions for student conversations where students are encouraged to talk about each other’s thinking.

Mixed Findings
In more than three-quarters of the classrooms, the students were doing much of the work. However, when students were unable to complete the work in the first instance, the teacher intervened quickly to supply many of the answers, with the result that the students avoided doing the more rigorous elements of the lesson.

The key here is the proportion of students who – based on our observations – were likely to be learning during the lesson. While some students undoubtedly learned without showing evidence of doing so (namely they didn’t answer teacher questions and didn’t appear to engage in active work because of teacher prompts), most presumably did not. Our main finding is that while teachers prompted students to do the work, the teachers readily tolerated a situation in which many students simply did not do it themselves.

Challenging Findings
In terms of students talking to each other and engaging with one another’s thinking, we saw no evidence of this at all in one-third of the classrooms. But in the remaining two-thirds, we saw only fragmentary examples of these kinds of interactions.

Part of the challenge was in the curriculum used. We took the opportunity to look up some of the lessons and noted that they do not scaffold teacher-to-student or student-to-student discussions.

The most negative finding across our observations was that teachers were moving through a checklist of points in their curriculum, but not actively working to ensure that the majority of their students showed evidence of learning the substance. In short, the goal seemed to be curriculum coverage at the expense of learning.

Goal 3- Differentiation- Was There Evidence of Subgrouping During the Main Learning Block? And What Type of Learning Was It?
Evidence should primarily come from:

- The teacher deliberately checks for understanding throughout the lesson and adapts the lesson according to student understanding.
Largely Challenging Findings
Overall, we saw very little differentiation present during whole-class instruction.

While we did see teachers checking for understanding quite frequently, there was little or no evidence that they then adapted the lesson in real time to meet the resulting evidence of clear students’ learning needs. To be sure, in some small-group instruction, we did see teachers providing students with information that they would need for upcoming lessons, but we rarely saw this occur in whole-group instruction.

In one extreme example, the teacher told us that the variation in proficiency in the class was so broad (for instance, one student couldn’t decode the word “boy” in 7th grade) that it was very difficult for her to meet their needs inside the curriculum she was required to teach.

Since we were able to observe small-group instruction, we add here what observers agreed was a relatively typical example:

- Ms. X worked with students on reading a short passage and answering questions and asked them what was coming up in ELA. The students revealed there was a test on Anne Frank. She quickly found an online study guide and quizzed them. She made it into a game – which engaged the students. The quiz question covered a lot of events in the book, but it did not dive deeply into the text. There were no questions about the central ideas nor indications of textual examples to respond to any such questions. There was no content related to what the students had actually worked on in the ELA class (which we had observed earlier that day). The teacher explained to our observer that she often had to think on her feet and try to adapt the best she could. She admitted she does not know what was happening in the ELA classes; she relied on students to tell her. She also explained that a lot of the focus is on making sure the students complete the work. Many are falling behind because they simply haven’t done what was asked for during their regular class time.

Goal 4- Was Instruction Based on Standards? And Was It the Lowest Possible Interpretation of Those Standards?
Evidence should primarily come from:

- Much of the lesson is spent listening to, reading, writing, or speaking about text(s).
- The teacher poses questions and tasks for students to do most of the work: speaking/listening, reading, and/or writing.

Relatively Positive Findings
First, we did see most of the ELA teaching based on most of the lessons observed in District 2 were from the My Perspectives curriculum, which is fully standards-aligned. In about half the classes, we saw evidence of active student engagement with these standards-based materials.

- For example, one observation found that students were working on Google slides. On one slide, the students read a quotation from the Diary of Anne Frank. Students were then asked
to identify the tone as friendly/ intimate/ conversational. Then, they were given an assigned tone and had to rewrite the lesson with the assigned tone. Finally, they were asked to prepare for a discussion of the assignment. In another case, students analyzed how particular lines and stanzas fit into the structure of the poem *Predator* and contribute to its theme. The main activity of the day’s lesson was to paraphrase lines in the poem *Predator*. This was done to help draw understanding and therefore meaning from the poem.

**Largely Challenging Findings**

*In about half the classrooms, we found the same lessons taught in a very different way – namely teachers were doing almost all the work for the students.*

- An extreme example of this was one class we observed where the teacher asked and answered her own questions while the aide wrote down the Q&A on the board. Students were told to copy what was on the board without any understanding as to why. All questions were “yes” or “no;” or the teacher stated her answer and asked by a show of hands who agreed with her. This lesson was from the curriculum, aligned to standards, and presented with fidelity. But the learning, based on Charles Dickens’ *A Christmas Carol*, was thus minimal at best. While this was not typical, we did observe multiple lessons characterized by the teacher asking yes/no questions, filling in missing information from student answers instead of probing them further, and simply telling students the answers.

**Goal 5- Are Teachers Referring to Previous Skills or Information That Students Are Being Expected To Bring To Their Current Grade-Level Classroom?**

Evidence should primarily come from:

- Explicit discussion by a teacher of previous lesson content.
- Any reference to future learning expectations.

**Largely Challenging Findings**

*We observed this activity in just over a quarter of the classes we observed – with almost no examples of future-oriented references to learning. In the cases we did observe, teachers used a quick warm-up question that depended on recall of previous lesson content or gave a test that was based on standards covered in previous lessons. In a couple of instances, teachers made explicit references to a concrete skill or a piece of learned vocabulary from a previous lesson.*

**Goal 6- Were There Any Other Themes of Note?**

In District 2, we found essentially universal teaching of the standards-based curriculum. The largest differentiator of student learning was teacher behavior. Some teachers were doing a great job of encouraging deep learning, while others seemed to be completing a checklist. Some let the students do the bulk of the cognitive work of the lessons while many others overtaught, answered their own questions, or generally undermined the learning of the lesson with what appeared to be very low expectations of what their students could manage.
Whole Lesson Differentiation
If we define RTI (District 2’s interpretation of acceleration) as requiring some differentiation of students into groups as part of whole-class instruction, we found a wide range of practices and effectiveness. In one class, the teacher pulled a group of students for intensive reading work while the rest of the class worked on computers. Then she switched after 20 minutes and assembled another group for a different intervention. But seeing effective differentiation of this kind was rare. In a more typical class, all the students were on computers the entire time, and we saw strong evidence of boredom and disengagement in students’ affect. In most cases, there was no effort to group students for differential instruction.

Tutoring
We observed two small groups of two to three students, both at the end of the day. The tutoring dosage appeared to meet research guidelines for effective tutoring: students met for at least two days a week for one- to two-hour sessions. We later found out that this kind of dosage was atypical for District 2, with most students getting much lower hours. Both examples we saw were supervised by an ELA teacher. In informal conversations with the teachers, it was clear that no formal training had been given on tutoring, and no professional support was currently provided. However, this didn’t mean the tutoring was completely ineffective. In one case, students worked on a lesson connected to that day’s learning. In the other, they worked on i-Ready, but the teacher asked if there was anything else they needed support with. However, there was no clear measure of progress or assessment in either group.

STUDENT LEARNING OUTCOMES

District 1

We are not reporting the results in ELA Proficiency percentages for District 1 on the state tests since that would identify the district. We can report that in the middle school grades, state assessment results show that District one has more than made up for COVID-19 learning losses in ELA, matching or overtaking overall state-level performance gains. This is not the case for math where learning levels have yet to reach pre-COVID-19 performance levels.

Results for District 1, i-Ready Growth Rates in Math and ELA. For a dynamic display, see here. While math proficiency rates on end-of-year state assessments appeared relatively flat post-pandemic, within-year i-Ready growth rates in math generally increased between 2021 and 2023 and currently sit above where they were pre-pandemic. i-Ready Growth is calculated as Spring scale score minus Fall scale score.
District 2

Here are the results in ELA Proficiency percentages for District 2 and its state. In the last two test iterations, the 6th-grade state ELA data is identical to 7th-grade data (36% proficient in 2022 and the same in 2023). This is why there appear to be only two grade lines. For a dynamic display, see here (use the tabs to generate the math results below). District 2’s 8th-grade results now outperform state averages but have not yet matched pre-COVID-19 results. In 7th- and 8th-grades, District 2 now outperforms its pre-COVID-19 results, and largely matches those of the state.
Here are the results in Math Proficiency percentages for both District 2 and the state in which it is located. 6th- and 8th grade results have yet to recover to their pre-COVID-19 levels.
Here are the District 2 (Grades 6 through 8) proficiency rates (where available) in ELA and math on state and i-Ready assessment, disaggregated in each instance by levels of RTI that students received. For a dynamic display, see here. Click on the right-hand squares on the dynamic display to select different grade levels and RTI levels. What is shown below is the aggregate data for grades 6-8. Of
particular note is the generally upward trend for Tier II (here indicated as RTI 2) students.

These are District 2 results (Grades 6 through 8) on i-Ready assessments disaggregated by tutored and non-tutored students. For a dynamic display that includes the state test results, see here. What is interesting here is that the growth results for tutored students in ELA on i-Ready now match that of untutored students, and the growth rates in math are closer between the two student groups than they were three years ago. As the dynamic display shows, this is not yet the case for performance on the state assessment: there is a modest positive trend for tutored students but their results are still well below untutored students.
Conclusions

Based on our on-site research in both districts we can share some very preliminary responses to the research questions we sought to answer.
District and School-level planning and Implementation

1. The leadership in both Districts 1 and 2 offered granular documentation to support its acceleration strategies, including recommendations for time allocations for small-group, differentiated instruction, the identification of diagnostic assessment instruments, and to a varying degree the frequency with which those instruments should be used (with more definitive guidance in district 1). We saw little evidence in either district of a focus on the “fit” between those instruments (especially i-Ready) and the districts’ chosen core curriculum in ELA and math. District 2 also offered general guidance on the percentage of students to be placed in Tier II and Tier III groupings; District 1 appeared to leave that determination for the schools. However, in District 2 we found that in practice, the percentage of Tier II students was much higher than the district’s written guidance had anticipated.

2. As noted above, except in the case of the core curriculum, it was unclear to us what, if any, aspects of acceleration were mandated by either district. For example, there seemed to be a lack of clarity in District 1 as to how schools were supposed to use i-Ready’s diagnostic and/or the curriculum materials that i-Ready prompted teachers to use.

3. In both districts, it was clear that diagnostic assessments were being used to sort students into different groupings for differentiated instruction, but how often this was done varied considerably by school. In a few schools, the timing of re-grouping was not standardized.

4. While principals in District 1 emphasized the need for more PD time, we couldn’t observe PD sessions in either district so cannot judge the degree to which teachers were prepared effectively for acceleration strategies. We note that District 11 does offer optional PD in “Differential Instruction” but again, it wasn’t clear to us how many teachers were availing themselves of the training.

5. In our observations, small-group instruction taught by a live teacher was – taken as a whole – a value add. The dosage of that instructional modality varied considerably across schools in both districts.

Classroom Activity

1. As referenced in detail in the report above, we found a great deal of variation in the degree to which teachers rather than students were doing the work of the lesson; in the degree to which most or all students were learning, in the rigor of lessons; in the extent of teachers’ references to earlier learning; and the use of differentiation during whole class instruction – although this last activity was rarely observed in classrooms either district. When we observed students engaged in online learning, the level of attention varied, and as reported above, the judgment of school leadership on the value of such learning experiences was decidedly negative. Finally, when teachers led small-group activities and/or in tutoring situations, we found that most instructors were directly linking their teaching to upcoming grade-level content, but without deep knowledge of what students would be trying to learn about it.

Unanticipated Findings

1. Wrongly, we expected to find a great deal of variation in the degree to which teachers were teaching the districts’ mandated core curriculum. This expectation was based on national findings that teachers rarely teach HQIM materials for the majority of purposes for which they
are designed. On the contrary, we found in both districts that teachers were closely following the prescribed curriculum, even though there were times when they had to rush through certain content to stay on pace with the intended scope and sequence. It may be that the high level of HQIM implementation is due in part to the fact that both districts are part of the Chiefs for Change network – for some years, that organization has been emphasizing the importance of fidelity of curriculum use.

2. What we did find was great variation in the rigor with which teachers taught the core curriculum. As reported above, in many instances, teachers were asking and answering math problems, or so over-scaffolding the problem that the answers became obvious to the students. Focusing on the most basic questions was also a feature of many observed ELA lessons.

3. We are not able to offer a definitive view as to why teachers who simplify the cognitive demands embedded in their HQIM curriculum are choosing to do so. In several cases, teachers told us that they had students in their class who were multiple years behind in their learning. Teachers also remarked on the sheer range of readiness to learn among their students, from those who were four or more grade levels behind to those who were ready for more advanced work than the curriculum provided (several principals indicated a worry about the lack of attention to the latter group). What was surprising, however, was that we saw widely different behavior from different teachers in the same school. In other words, teachers were teaching the same students – or at least students who were one grade level apart – with very different expectations of what those students could manage.

4. In District 1, our exposure to small-group instruction was somewhat limited, and we are hesitant to draw strong conclusions. However, it seemed apparent that in math, students were placed in online learning experiences (this would mirror their individualized instructional time) and also received some live teaching. We did see one example – in ELA – of curriculum-relevant, teacher-led instruction. In our judgment, this should be the norm – as it was in District 2, where the small-group (RTI) instruction was amongst the strongest support we saw for accelerated learning.

5. As indicated above, we are not placing great weight on the assessment findings of students’ academic outcomes. In addition to the many factors beyond acceleration that we knew could impact these outcomes, a surge in chronic absenteeism was something we had not anticipated. Such absenteeism will have a major impact on student learning. However, as we look at the data, a couple of outcomes are worth noting.

- First, in District 1, state test results show that in ELA, the district’s students have surpassed pre-COVID-19 results. Not so in math, which remains largely stagnant at very low levels of proficiency. In terms of growth rates in learning, District 1 recorded strong post-COVID-19 results in both subjects, with growth rates above pre-COVID-19 levels in all middle school grades, although these growth rates are less pronounced in the most recent academic year.
• In District 2, results in both ELA and math largely mirror state-wide trends, although the district’s grade 8 math results underperformed the state’s results in the most recent academic year. When we look at students who received RTI, one stand-out finding is that overall, students assigned to Tier II did better than those in Tier III in terms of demonstrating stronger outcomes in recent years.

• In District 2, tutoring has positively impacted learning growth, but not state assessment results. On analyzing the dosage, we found that the great majority of students who had received any tutoring had been tutored in far fewer sessions than recommended by research (see above), almost always receiving 12 or fewer sessions per school year. We can speculate that increasing the dosage would positively impact student outcomes.

Recommendations for Further Research

1. Based on these results, there is a testable hypothesis that we suggest merits further research. Is it possible that students who are only (roughly) up to one year behind - and thus are most likely to be in Tier II in District 2 – are more likely to benefit from just-in-time instruction, than are those still further behind? This would also hold for math results in District 1: While the District has achieved growth in math results, the overall level of learning is so low that the growth hasn’t (yet) registered on state results. It was clear from our classroom observations in both schools that there were many instances in which students were struggling to understand the most basic level of instruction, a fact that may contribute to some teachers choosing to simplify the material for all students in their classes. Could it be that students who are, say, two or more grade levels behind, especially in math where skills are often sequential and thus dependent on prior learning, cannot accelerate successfully absent much more drastic action, such as high dosage tutoring or academically focused year-round learning?

2. Both districts took a multi-pronged approach to instruction outside of whole-class settings. They used online learning platforms geared to students’ learning levels (with or without a live teacher supporting the platform), small-group instruction provided by a live teacher, and tutoring. Anecdotal evidence from our interviews and our modest level of accessibility to these learning modalities wasn’t sufficient to support the hypothesis – offered by many school principals - that online learning has very modest benefits compared with either live small-group instruction or high-dosage tutoring. But given the investment in time and dollars in online learning, rigorous new research on this question is urgent.

3. As described above, it is evident that most diagnostic assessments fail to adequately integrate with the curriculum being used in schools. Would the development of diagnostics that are explicitly engineered to pinpoint the skills and knowledge students will need in the next unit(s) of their math and ELA curriculum create stronger learning outcomes in acceleration models?
## Classroom Observation Information

<table>
<thead>
<tr>
<th>Observer Team (Per School)</th>
<th>2 JHU observers (previously normed on the observational rubric) in each school (one specializing in ELA and the other in math)</th>
</tr>
</thead>
</table>
| Number of Classroom Observations (Per School and subject) | Target for each school and observer/subject:  
  - Approximately 2-3 whole-class lessons  
  - Approximately 2-3 small-group lessons  
  - Approximately 2-3 personalized learning sessions |
| Length of Observation         | Approximately 30 minutes, per classroom/instructional mode  
  Ideally, 30 minutes after the observation will be scheduled to reflect on the observation and complete the observation rubric. |

## Interview Information

<table>
<thead>
<tr>
<th>Interviewer</th>
<th>Dr. David Steiner (PI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewee</td>
<td>Principals</td>
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<tr>
<td>Length of Interviews</td>
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