

**Curriculum Associates®**



# Keys to Unlocking Success

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**Promising Leadership Practices of Schools That  
Exceeded Expectations during the Pandemic**

Andrea Pope, Ph.D. and Oriana Leach, Ph.D.

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# Introduction

In March 2020, K–12 schools around the United States temporarily closed their doors in an attempt to both circumvent the possible widespread transmission of the novel coronavirus (COVID-19) that sparked a worldwide health crisis (Van Lancker & Parolin, 2020) and abide by mandated shutdowns and stay-at-home orders that governors, legislators, and local leaders enacted across the country. During the early phase of the pandemic, many education leaders and their teaching staff scrambled to identify digital technology solutions and learn how to implement remote learning modalities as an emergency response to keep students learning (Marshall et al., 2020). At home, caregivers were unexpectedly hurled into the role of “teacher” while simultaneously being expected to provide for their families, care for sick family members, and, for many, deal with the added emotional toils of illness, loss, grief, anxiety, economic hardships, and being expected to serve others in high-risk, frontline jobs as essential workers (Brown et al., 2020; Catalyst, 2020; Gonzalez et al., 2020; Office for Civil Rights, 2021; Park et al., 2020; Russell et al., 2020; Tan, 2021).

Although the pandemic and ensuing disruptions to in-person schooling presented unprecedented challenges for everyone, including teachers, students, and their caregivers (Karpman et al., 2020; Kayitsinga, 2021; Marshall et al., 2020; Tan 2021), students from communities of color and communities with socioeconomic disadvantages faced even greater difficulties as they and their families grappled with deeply rooted structural and systemic inequities that were further exacerbated by the pandemic (Chen et al., 2022; Dorn et al., 2020a; Office for Civil Rights, 2021). In the sections that follow, we set the scene for the current study by highlighting some of these difficulties and sharing the emerging research on pandemic-related disparities in student achievement and growth.

## The Disparate Impact of COVID-19 on Access to Resources and Support

Prior to the nationwide shutdown of schools, many students with economic disadvantages relied heavily on schools to help meet both their basic needs (e.g., food, safety, health care) as well as their education-related needs (Building Changes, 2021; Tan, 2021). These students, in particular, benefited from low- or no-cost school services, including access to free or reduced-price meals to support their nutritional health, medical care, physical protection from domestic traumas, in-person counseling and psychological services to address their mental health and psychosocial needs, pediatric therapy (e.g., speech therapy, occupational therapy, physical therapy, etc.), and specially designed education programs (e.g., special education programs for students with disabilities, gifted education programs for academically advanced students, ESL programs for English Learners, etc.) (Maxouris & Yu, 2020; Tan, 2021). When schools closed, many students with economic disadvantages went without these critical services and supports.

Additionally, many students with economic disadvantages were unable to benefit from the same levels of adult supervision and at-home academic assistance as their White, higher-income peers (Auxier & Anderson, 2020). Research shows many students with economic disadvantages reside in households with caretakers who have lower levels of education (Attansio et al., in press; Auxier & Anderson, 2020; Kalil et al., 2020), and many caretakers of Latino students have language barriers (Associated Press, 2010; Doyle, 2020; Sugarman & Lazarín, 2020). Furthermore, whereas many Black and Latino students with economic disadvantages resided in households that had one or both caretakers working outside of the home full time during the pandemic, many of their higher-income, non-minority counterparts had caretakers in white-collar jobs that enabled them to work from home (Auxier & Anderson, 2020).

Finally, several studies examining access to in-person schooling across student demographic groups observed a higher incidence of remote learning in schools with economic disadvantages and schools with predominantly Black and Latino students (Camp & Zamarro, 2021; Goldhaber et al., 2022; Grossman et al., 2021; Oster et al., 2021; Parolin & Lee, 2021). A recent study by Goldhaber and his colleagues (2022), for instance, found that lower-income schools spent approximately 5.5 more weeks providing remote instruction to students during the 2020–2021 school year than their middle- and upper-income counterparts—a difference that was linked to poorer academic achievement outcomes.

## The Disparate Impact of COVID–19 on Student Learning

On average, only 3.7 hours per day was spent on learning by US students in Grades K–12 during spring 2020 compared to an average of 7.5 hours—or nearly double the time spent in spring 2020—prior to school closures (Werner & Woessmann, 2021). Given the significant decrease in the opportunity to learn and master new academic skills, it is not surprising that students were greatly impacted academically by the temporary closures of schools. Emerging literature on the COVID-19 pandemic’s impact on student learning and development suggests that the cognitive development of children across the United States has been seriously impeded (Curriculum Associates, 2021; Dawson, 2021; Dorn et al., 2020a, 2020b, 2021; Engzell et al., 2021; Hamilton & Gross, 2021; Kuhfeld et al., 2020; Kuhfeld & Tarasawa, 2020; Werner & Woessmann, 2021). For example, Curriculum Associates researchers (2021) found that fewer students were ready for grade-level work during the 2020–2021 school year compared to historical averages—particularly in the lower grades. Additionally, drawing on assessment data from Curriculum Associates’ *i-Ready Diagnostic*, Emma Dorn and colleagues (2020a) compared student growth during the 2020–2021 academic year to the three previous school years and found that students in Grades K–5 learned “only 67% of the math and 87% of the reading that grade-level peers would typically have learned,” which they determined to be equivalent to approximately three months of unfinished learning in mathematics and one-and-a-half months of unfinished learning in reading.

Although there is a critical shortage of literature on the impact of the COVID-19 pandemic on the academic achievement outcomes of Black and Latino students

with economic disadvantages, early research suggests the pandemic has had a disproportionate effect on students who have been historically marginalized by their race, ethnicity, and/or socioeconomic status. Studies show these students have fallen even further behind their peers during the pandemic, thus widening existing academic achievement gaps (Curriculum Associates, 2020b; Darling-Aduana et al., 2021; Dorn et al., 2020a; Dorn et al., 2021; Kwakye & Kibort-Crocker, 2021; Lewis & Kuhfeld, 2021). For instance, Karyn Lewis and Megan Kuhfeld (2021) found that, while achievement was lower across the board in fall 2021 as compared to before the pandemic, students with economic disadvantages and students of color (with the exception of Asian American students) showed the largest declines in reading and mathematics, especially in the elementary grades. Using different samples and measures of achievement, Curriculum Associates (2021) found the same: Unfinished learning was greater for students in schools serving a majority of Black and Latino students as compared to schools serving predominantly White students, and students attending schools in lower-income zip codes experienced greater unfinished learning than students attending schools in higher-income zip codes.

Another group that has fared particularly poorly with respect to achievement and growth during the pandemic is students performing below grade level. A study conducted in public school districts in Ohio, for example, found that these students experienced greater declines on their state test scores in spring 2021 than their on-grade level and above-grade level peers (Kogan & Lavertu, 2022). Additionally, Matthew Dawson (2021) found that students who

were the furthest behind before COVID-19 (i.e., students who performed two or more grade levels below their chronological grade on the *i-Ready Diagnostic* for Reading or for Mathematics) saw the biggest decrease in growth during the pandemic when compared to the growth of a pre-COVID-19 cohort of similar students.

## Purpose of Study

In an effort to improve student learning and narrow racial and socioeconomic achievement gaps, researchers across the country have sought to identify and learn from schools that perform better than expected given their demographic and socioeconomic characteristics. These studies, often referred to as Beating the Odds studies (e.g., Partridge & Koon, 2017; Podolsky et al., 2019), employ various methods to identify “positive outliers,” or schools that exceeded expectations for student performance while controlling for important characteristics that are known to directly impact achievement including income, demographic, and school locale characteristics. Including these characteristics in the analysis helps ensure schools are compared to each other on a more level playing field.

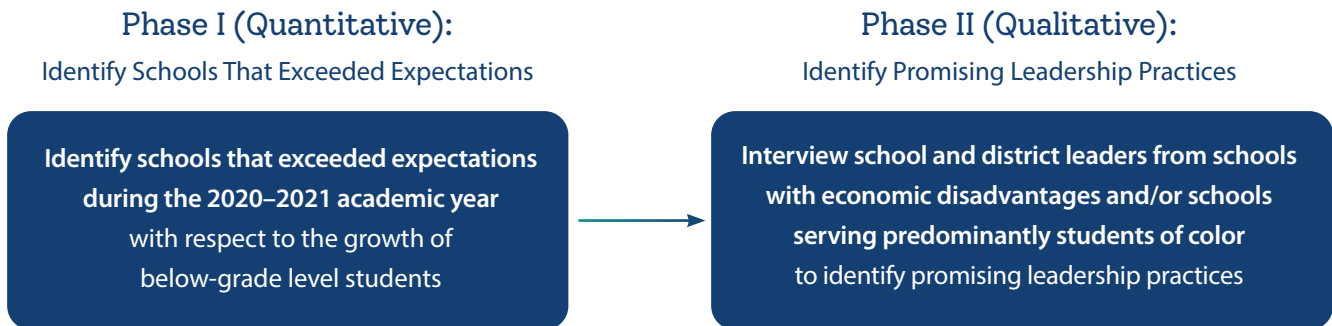
In a similar vein, the purpose of this study was to learn from schools that exceeded expectations during the challenging 2020–2021 academic year. Given the research showing that students with economic disadvantages, Black and Latino students, and students performing below grade level have the most pandemic-related unfinished learning, we: 1) designed our quantitative analyses to identify schools that exceeded expectations with respect to the growth of students who performed below grade level, in particular, and 2) only interviewed district and school leaders from schools with economic disadvantages and/or schools serving predominantly Black and Latino students. In doing so, we were able to identify promising district- and school-level leadership practices for supporting those students who have been the most heavily impacted by the pandemic.

## Methodology

### Overview

This study was conducted in two phases (see Figure 1). In the first phase, we used regression analyses to identify schools that exceeded expectations in mathematics and reading during the 2020–2021 academic year. Once these exemplary schools were identified, a subset was invited to participate in the second phase of the study. In this phase, we interviewed school and district leaders from schools with economic disadvantages and schools serving predominantly students of color to uncover promising leadership practices for supporting students with unfinished learning.

**Figure 1:** Phases of Study



# Phase I: Identify Schools That Exceeded Expectations

## Research Question

The following research question guided the first phase of the study:

- After controlling for relevant school characteristics, which schools performed much better than expected (i.e., “exceeded expectations”) in reading and/or mathematics with respect to the growth of students who started the year Two or More Grade Levels Below on the *i-Ready Diagnostic*?

## Outcome Measure

The *i-Ready Diagnostic* is a computer-adaptive assessment for students in Grades K–12 for Reading and for Mathematics that provides valid and reliable criterion-referenced and normative scores. The Diagnostic is typically administered at three time points during the school year: fall, winter, and spring. In addition to a scale score and a norm-referenced percentile-rank score, the Diagnostic provides five criterion-referenced Grade-Level Placements: Mid or Above Grade Level, Early On Grade Level, One Grade Level Below, Two Grade Levels Below, and Three or More Grade Levels Below. Unlike normative scores, these placement levels describe how a student’s knowledge and skills compare to grade-level expectations.

The outcome measure for this study was median percent Stretch Growth® on the *i-Ready Diagnostic*. This outcome is based on *i-Ready*’s growth targets. Each year, all students receive a Stretch Growth target in *i-Ready*. For students below grade level, this target reflects the amount of growth a student would need to achieve from fall to spring in a given school year to achieve grade-level proficiency in one, two, or more years (assuming the Stretch Growth target was consistently met across years). For each student, we can compare their actual growth from fall to spring to their Stretch Growth target to get the percentage of the Stretch Growth target achieved (i.e., if a student’s Stretch Growth target was 20 points and they grew 15 points, their percentage of Stretch Growth achieved would be 75%). Thus, the outcome for this study (i.e., median percent Stretch Growth) is a school-level variable that reflects the median percentage of Stretch Growth achieved by all students in a school who met the inclusion criteria below.

## Model Specifications and Criteria for Selecting Schools That Exceeded Expectations

For each subject, we used multiple linear regression to regress median percent Stretch Growth (fall to spring) on the following predictor variables: school locale (i.e., city, town, suburban, or rural), school median income, school percentage of White students, proportion of students in each grade level, and the schoolwide average number of days between fall and spring Diagnostics.

$$\text{School Median Percent of Stretch Growth Achieved}_{\text{Spring}} = \beta_0 + \beta_1(\text{Avg Days Btwn Diags}) + \beta_2(\text{Median Income}) + \beta_3(\text{Vector of Dummy – Coded School Locale Vars}) + \beta_4(\text{School Percent White}) + \beta_5(\text{Vector of Vars Representing Proportion of Students per Grade Level})$$

From these models, we calculated the residual for each school, or the difference between each school’s actual median percent of Stretch Growth and the school’s predicted or expected median percent of Stretch Growth based on the model. These residuals are plotted in Figure 2. Schools with residuals greater than zero achieved more growth than expected for students Two or More Grade Levels Below, while schools with residuals less than zero achieved less growth than expected for students Two or More Grade Levels Below. For easier interpretation, we standardized the residuals by dividing each residual by the standard deviation of all the residuals in the model. Any school with a standardized residual of 1.7 or greater in reading or mathematics was considered to have “exceeded expectations” in that subject. This cutoff was selected, after reviewing the distribution of residuals, to produce a large enough list of schools with economic disadvantages<sup>1</sup> and schools serving predominantly students of color to conduct the second phase of the

<sup>1</sup>Schools with economic disadvantages were defined as schools located in zip codes with a median household income of less than \$50,000. Schools serving predominantly students of color refers to schools with less than 50% of White students.

study (after accounting for non-response and attrition). Schools with a standardized residual of 1.7 or above represented 4.2% of schools in reading and 3.6% of schools in mathematics. For these schools that exceeded expectations, students Two or More Grade Levels Below moved at least 25 percentage points closer to their Stretch Growth targets than expected in mathematics (see Figure 2) and at least 27 percentage points closer in reading (see Figure 3). For example, students Two or More Grade Levels Below at Blake Elementary School (which exceeded expectations in reading) were expected to achieve a median growth of 56.0% of their Stretch Growth targets. However, these students actually achieved a median growth of 87.3% of their Stretch Growth targets—a 31.3-percentage point difference.

## Sampling Frame

The sampling frame for this study was defined by the criteria below. These criteria were selected to increase the trustworthiness of the data and facilitate analysis. Schools were only included in the sampling frame if:

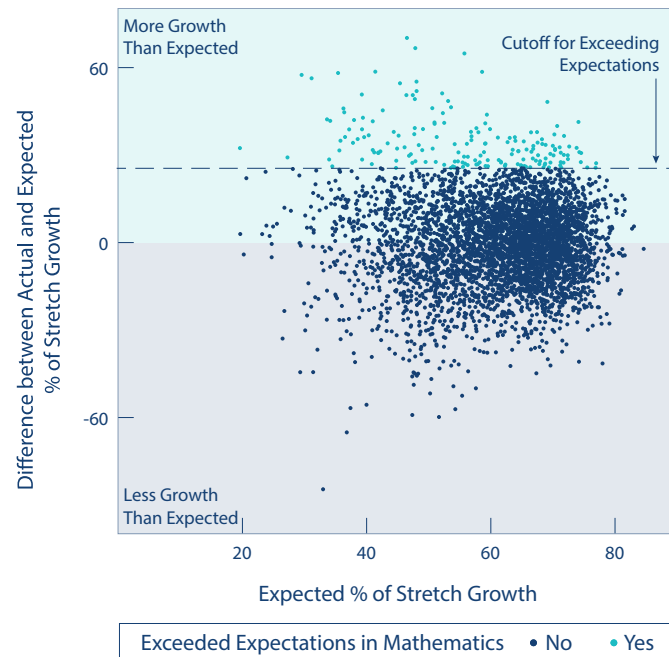
- They had complete data for the school-level covariates in the analysis models
- At least 50% of students tested in school for both the fall and spring Diagnostics during the 2020–2021 academic year
- The school contained at least 30 eligible students (i.e., students who met the criteria below)

Students were included in a school's aggregations if they:

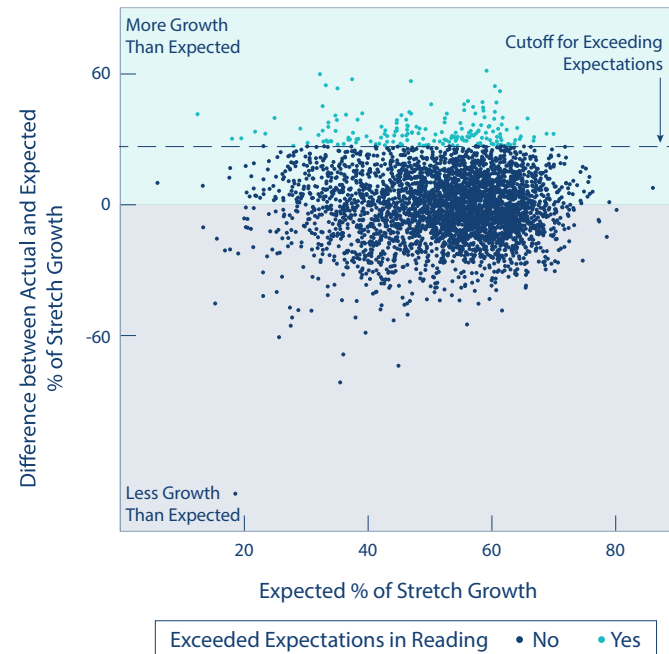
- Were in Grades K–8 (and rostered in the same grade throughout the academic year)
- Received a fall placement of Two or More Grade Levels below their chronological grade
- Had both fall and spring Diagnostic scores for the 2020–2021 academic year
- Reported taking both Diagnostics in school
- Were not flagged as rushing on the fall or spring Diagnostics (i.e., no red Rush flags on either Diagnostic)

Notably, given this study was conducted during the first full school year following the start of the pandemic, many schools allowed students to take the *i-Ready Diagnostic* at home. Since previous Curriculum Associates research has thrown the validity of out-of-school data into question (Curriculum Associates, 2020b), only students who completed the Diagnostic in school (and only schools where at least 50% of students tested in school) were included in this study.

**Figure 2:** How Schools Performed Compared to Expectations in Mathematics (Median % of Stretch Growth)



**Figure 3:** How Schools Performed Compared to Expectations in Reading (Median % of Stretch Growth)





Using these criteria, the final sampling frames for mathematics and reading contained 4,491 schools and 3,754 schools, respectively. Across both subjects, a total of 4,936 schools in 46 states were included in the study. Of these schools, 301 were identified as exceeding expectations. More specifically, 157 schools exceeded expectations in reading and 176 schools exceeded expectations in mathematics (32 schools exceeded expectations in both subjects).

The schools identified as exceeding expectations varied substantially with respect to locale, income, and student demographics (see Table 1). In terms of locale, rural schools were strongly represented, with 39% of the schools that exceeded expectations being classified as “rural.” Suburban schools were the next most prevalent (i.e., 25%), while town and city schools each accounted for less than 20% of the sample. Notably, these percentages do not vary substantially from the composition of the sampling frame.

**Table 1:** Characteristics of Schools That Exceeded Expectations

School Characteristics	Schools That Exceeded Expectations	All Schools in Sampling Frame
<b>Total Number of Schools</b>	301	4,936
<b>Region</b> (% of Schools)		
Midwest	22.9%	22.6%
Northeast	3.7%	9.4%
South	68.1%	56.4%
West	5.3%	11.7%
<b>Locale</b> (% of Schools)		
City	16.9%	17.2%
Rural	38.5%	33.2%
Suburban	24.9%	30.9%
Town	19.6%	18.7%
<b>Median Income</b> (% of Schools)		
Less Than \$50,000	46.5%	44.3%
\$50,000–\$75,000	41.5%	40.7%
More Than \$75,000	12.0%	15.0%
<b>Race/Ethnicity</b>		
Median % Black	6.5%	5.2%
Median % Latino	7.4%	8.5%
Median % Students of Color	28.8%	30.3%
Median % White	71.2%	69.7%
Majority Students of Color (% of Schools)	23.3%	29.2%

The schools we identified as exceeding expectations were also diverse in terms of income and race/ethnicity. Approximately 47% of schools were economically disadvantaged (defined as being located in a zip code with a median household income of less than \$50,000), and 23% of schools served predominantly students of color (i.e., schools where students of color composed more than 50% of the student population).

It should be noted, however, that there was less diversity with respect to region in the sample of schools that exceeded expectations. Schools in the South were overrepresented compared to the sampling frame, while schools in the Northeast and West were underrepresented—although the number of these schools included in the sampling frame to begin with was quite small, likely due to less in-school testing in these areas (a major filtering criterion for the study).



## Identifying Schools to Participate in Phase II

Using the methods described above, 301 schools were identified as exceeding expectations. Of these schools, only schools with economic disadvantages and/or schools serving predominantly students of color were considered for inclusion in Phase II. This resulted in a list of 166 schools. Next, we narrowed this list down to 50 schools intentionally selected for representativeness across region, locale, school type, and size. This list was reviewed by internal stakeholders, and we were approved to contact district and school leaders from 33 of the 50 schools. Given non-response and scheduling conflicts, we ultimately interviewed 31 district and school leaders from 16 schools (see Table 2).

**Table 2:** List of Schools/Leaders Interviewed (Pseudonyms Used)

School/School District	Subject Exceeded Expectations	School Region	School Context/ Description Locale, Region, Student Population, etc.	District Leader(s) Interviewed	School Leader(s) Interviewed
<b>Blake Elementary</b> Blake-Finney-Edward School District	Reading	<b>West</b>	<ul style="list-style-type: none"> <li>Rural</li> <li>Economic disadvantages</li> <li>Grades K–5</li> </ul>	<b>Ava Gross</b> Director of Curriculum	<b>Tamara Douglas</b> Principal
<b>Buena Vista Middle School</b> Kimono School District	Reading and Mathematics	<b>Midwest</b>	<ul style="list-style-type: none"> <li>City</li> <li>Economic disadvantages</li> <li>Grades 6–8</li> </ul>	<b>Dr. Tenille Helman</b> Director of Special Programs and Assessments	<b>Dr. Ashli Landry</b> Principal
<b>Broward Gardens Elementary School</b> Haverty School District	Mathematics	<b>South</b>	<ul style="list-style-type: none"> <li>Town</li> <li>Economic disadvantages</li> <li>Majority students of color</li> <li>Grades K–5</li> </ul>	<b>Joanie Fletcher</b> Data Coach	<b>Amelia Walton</b> Principal
<b>Bay Beach School</b> Bay Beach School District	Reading	<b>Northeast</b>	<ul style="list-style-type: none"> <li>Suburban</li> <li>Majority students of color</li> <li>Grades K–8</li> </ul>	<b>Alicia Zabrowski</b> Director of Curriculum & Instruction  <b>Sari Piper Seales</b> Director of Curriculum & Instruction	
<b>Buxton Avenue Elementary School</b> Clemson School District	Reading	<b>South</b>	<ul style="list-style-type: none"> <li>Town</li> <li>Economic disadvantages</li> <li>Majority students of color</li> <li>Grades K–5</li> </ul>		<b>Dr. Judi Marlon</b> Principal <b>Brittany Bassett</b> Reading Interventionist
<b>Denton Elementary School</b> Kensington School District	Reading	<b>Midwest</b>	<ul style="list-style-type: none"> <li>Suburban</li> <li>Majority students of color</li> <li>Grades K–5</li> </ul>		<b>Blaine Feldman</b> Principal <b>Palema Brooks</b> K–3 Literacy Coach

Table 2, Cont'd.

School/School District	Subject	School Region	School Context/Description	District Leader(s) Interviewed	School Leader(s) Interviewed
<b>Dillon Elementary Magnet School</b> Hillard County Public School District	Mathematics	<b>South</b>	<ul style="list-style-type: none"> <li>City</li> <li>Economic disadvantages</li> <li>Majority students of color</li> <li>Magnet school</li> <li>Grades K–5</li> </ul>		<b>Cyndi Cromwell</b> Principal
<b>Excelsior Elementary School</b> Kensington School District	Reading	<b>Midwest</b>	<ul style="list-style-type: none"> <li>Suburban</li> <li>Majority students of color</li> <li>Grades K–5</li> </ul>		<b>Marcus Beal</b> Principal <b>Dr. Angelica Cole</b> Assistant Principal
<b>Lewiston Middle School</b> Maverick County School District	Mathematics	<b>South</b>	<ul style="list-style-type: none"> <li>Town</li> <li>Economic disadvantages</li> <li>Grades 6–8</li> </ul>		<b>Michael Summers</b> Principal <b>Casey Truman</b> Teacher
<b>Louis Middle School</b> Louis School District	Mathematics	<b>Midwest</b>	<ul style="list-style-type: none"> <li>Town</li> <li>Economic disadvantages</li> <li>Grades 6–8</li> </ul>		<b>Dr. Bobby Spinner</b> Principal <b>Lindsay Whitfield</b> Director of Curriculum <b>Taniya Raynor</b> Grade 6 Math Teacher <b>Lizbeth Wellington</b> Grades 7–8 Math Teacher
<b>Merriweather Elementary School</b> Merriweather School District	Reading	<b>West</b>	<ul style="list-style-type: none"> <li>Rural</li> <li>Economic disadvantages</li> <li>Grades K–5</li> </ul>	<b>Dr. Shelby Abrams</b> Superintendent	<b>Ashlyn Neal</b> Principal
<b>Merriweather Junior-Senior High School</b> Merriweather School District	Reading and Mathematics	<b>West</b>	<ul style="list-style-type: none"> <li>Rural</li> <li>Economic disadvantages</li> <li>Grades 6–12</li> </ul>	<b>Dr. Shelby Abrams</b> Superintendent	<b>Ellis Fremont</b> Principal
<b>North Carlton Elementary School</b> Carlton City School District	Reading and Mathematics	<b>South</b>	<ul style="list-style-type: none"> <li>Suburban</li> <li>Economic disadvantages</li> <li>Grades K–6</li> </ul>	<b>Dr. Julie James</b> Assistant Director of Schools/ Supervisor of School Health <b>Kera Jones</b> Director of Schools <b>Lorelei Coleman</b> Supervisor of Curriculum & Instruction/Federal Programs	<b>Monique Raul</b> Principal

**Table 2, Cont'd.**

School/School District	Subject	School Region	School Context/Description	District Leader(s) Interviewed	School Leader(s) Interviewed
<b>Poston Elementary School</b> Poston Independent School District	Reading	<b>South</b>	<ul style="list-style-type: none"> <li>Town</li> <li>Economic disadvantages</li> <li>Majority students of color</li> <li>Grades K–5</li> </ul>	<b>Dr. Rita Wilson</b> Director of Student Services	<b>Kara Garza</b> Special Education Teacher
<b>Randolph Shires Elementary School</b> Meredith School District	Mathematics	<b>Northeast</b>	<ul style="list-style-type: none"> <li>Suburban</li> <li>Majority students of color</li> <li>Grades 3–5</li> </ul>	<b>Dale Cappola</b> Director of School Leadership	
<b>Trent Hogue Elementary School</b> Meredith School District	Reading	<b>Northeast</b>	<ul style="list-style-type: none"> <li>Suburban</li> <li>Majority students of color</li> <li>Grades K–2</li> </ul>	<b>Dale Cappola</b> Director of School Leadership	

## Phase II: Identify Promising Leadership Practices in Schools That Exceeded Expectations

### Research Questions

The following research questions guided the second phase of the study:

- What strategies, policies, and practices do district and school leaders describe implementing to improve the academic performance of students Two or More Grade Levels Below on the *i-Ready Diagnostic* during the 2020–2021 academic year (specifically students attending schools with economic disadvantages and/or schools serving predominantly students of color)?
- What advice would district and school leaders give to others in similar school contexts who are working to improve the academic performance of learners performing below grade level?

### Data Collection

Interviews were scheduled with district and school leaders jointly (when possible). Each semi-structured interview lasted 60 minutes. Interviewees were asked to identify three key practices or factors they believed contributed to their school's success. Depending on what was shared, the interviewers were prompted to probe for key practices in the following areas: school culture, structures and schedules, student engagement, family engagement, teacher planning and instruction, and professional development and training/support of teachers. Additionally, all interviewees were asked to discuss their practices regarding data use. Finally, interviewees were asked to share advice for schools in similar contexts seeking to support the growth of students performing below grade level. To review the full interview protocol, see Appendix A.

## Data Analysis

All interviews were professionally transcribed by 3Play Media. Once the transcriptions were received, data analysis was conducted in three steps. First, we (i.e., the authors) independently reviewed the transcripts and engaged in a round of open, inductive coding. It should be noted that line-by-line coding was not conducted. Instead, we focused on applying codes to interviewee responses that described strategies, policies, practices, and conditions they believed contributed to their school's success. During this process, we met periodically to discuss our findings. However, two separate lists of preliminary codes were generated. Additionally, we each created a spreadsheet to track the prevalence of the preliminary codes across schools.

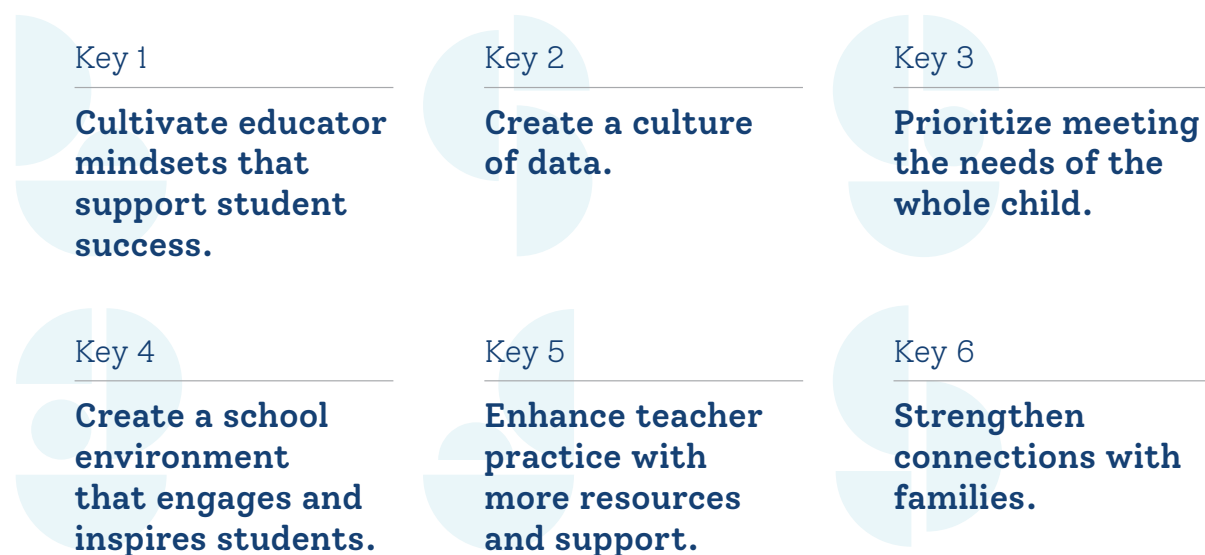
Next, we met to review our preliminary codes and, through extensive discussion and deliberation, consolidated the preliminary codes into a single codebook. From there, we engaged in thematic analysis coding to identify prominent themes and subthemes. It should be noted that the purpose of this study was to identify promising practices of schools that exceeded expectations. We defined "promising practices" as those practices that were either observed across many schools or that stood out as particularly innovative or effective. As such, the prevalence of codes across schools factored heavily into our generation of themes and subthemes, but prevalence was not the only factor considered.

Once the themes were generated, we solicited feedback from internal stakeholders at Curriculum Associates. Additionally, we presented the results to a subset of interview participants to ensure the themes accurately captured the promising practices they shared (i.e., member checking).

## Findings and Discussions

Across schools that exceeded expectations, we identified six major themes or "keys to success" (see Figure 4). Each of these keys reflects a common leadership practice among the district and school leaders we interviewed. The six keys to success are as follows:

**Figure 4:** The Six Keys to Success for Schools That Exceeded Expectations



For each key to success, we have identified two to five specific mindsets and/or practices. These findings are shared in this paper. Please note that pseudonyms are used throughout this paper to protect the identity of interview participants.

# Key 1

## Cultivate Educator Mindsets That Support Student Success

The district and school leaders we interviewed spoke emphatically about the importance of cultivating specific mindsets among educators with respect to how educators view students and how educators perceive their role in supporting student success. More specifically, these leaders sought to create a culture in which educators set high expectations for students, take ownership for student learning, and believe all students can achieve with the appropriate scaffolding and support. These mindsets are described in more detail below.

***Educators believe all students, regardless of background or circumstances, can achieve at high levels.*** District and school leaders across nearly all of the schools we spoke to emphasized the importance of developing a culture in which educators have high expectations for all students—particularly students with substantial unfinished learning or other challenges. As noted by Dr. Angelica Cole, assistant principal at Excelsior Elementary School:

“[W]e will not and have not lowered our expectations for what students are able to do . . . if they’re provided equity and access and opportunity, they too can be successful. So, it’s shifting the mindset and constantly working through that mindset of, it doesn’t matter where they come from. One of the things that I’ve learned starting here was we have students who come from both ends of the spectrum . . . it is quite a range, I would say, from poverty to the higher ends of upper middle class. So not lowering the expectations or counting [marginalized students] out because they may not have access to [the same resources] or parents who are as vocal about advocating for their needs.”

When asked about the tools or strategies used at Excelsior Elementary School to shift teacher mindsets, Cole highlighted the important role of professional development for teachers and school leaders:

“And so we take what we’re learning as a leadership team from the district, and we’re then bringing that in with our staff . . . I would say we unpack deficit thinking as an example—all this learning that helps us to look at our students in a different way to better understand—everyone’s story is a different story. And so, I think all of that is actually helping to play into the empathy and understanding of our staff when working with a vast variety of students who come to them every day.”

Palema Brooks, literacy coach at Denton Elementary School, also spoke of having high expectations for students. One way these high expectations were manifested was through the implementation of pedagogical practices designed to expose below-grade level students to as much on-grade level content as possible. Using a Response to Intervention framework, she encouraged teachers to ask, “How can we scaffold for our students rather than take everything to Tier 2, Tier 3? How can we scaffold within our Tier 1 instruction to help bridge some of those learning gaps?”

Although we’ve highlighted just two examples here, nearly all of the schools we spoke with underscored the importance of believing in students. However, this belief on its own is not enough. The leaders we interviewed emphasized that high expectations for disadvantaged student populations must be coupled with strong support, which requires educators to take ownership of student learning and be prepared to do whatever they can to help students succeed. These mindsets are discussed next.

**Educators believe they are responsible for—and can contribute to—the learning and growth of all students.** District and school leaders emphasized the importance of developing a culture in which teachers take ownership for student learning. Most often, this was discussed within the context of setting expectations for teachers to collect and respond to student data in their classrooms (see Key 2: Create a Culture of Data). However, several leaders expressed the belief that schools are more successful when teachers not only take ownership for learning within their own classrooms but also believe their sphere of influence can and should extend beyond the students they directly teach. Leaders encouraged teachers to shift away from thinking in terms of “my” students or “their” students and to instead view all students in the school (or even district) as “our” students. When asked about the keys to her school’s success, Dr. Ashli Landry, principal at Buena Vista Middle School, talked about this mindset shift:

“I would also say the third [key to our school’s success] would be climate and culture in the building . . . where we used to have a sense of, ‘These are my sixth graders’ and, ‘Oh, I don’t teach all the special ed. kids, so can you take the special ed. kids out of my data?’ we have now become, ‘All of our student data is everybody’s data.’ And it doesn’t matter if that student goes to a gen ed. classroom . . . they may be in one of our special education self-contained classrooms. Our data is everyone’s data. And in years past, I have been asked, ‘Can you disaggregate the data? And show me my data without the special ed. kids?’ or, ‘Can you take out this student, maybe, that has behavior difficulty?’ And I’ve not had that question now in two years . . . it’s a collaborative environment, a collaborative climate and culture that we’ve created.”

Dr. Shelby Abrams, superintendent of Merriweather School District, echoed similar sentiments—but she went one step further by aligning this mindset with formal teacher expectations. In her district, every teacher is held responsible for monitoring and supporting students’ learning and growth in reading and mathematics—even those teachers who teach other subjects or electives. Talking specifically about Merriweather Junior-Senior High School, Abrams shared:

“[W]e took all the students and divided them into groups. So, every teacher is responsible for about 15 to 20 students who are at some point in time in one of their classes. And those are the students whose *i-Ready* results impact that teacher’s evaluation. And so we got some pushback from our science teachers who said, ‘I don’t teach reading.’ ‘I don’t teach math.’ And so we explain to them, ‘It may not be your job in science to specifically teach the skills that *i-Ready* measures. But you can monitor how that student is doing in their *i-Ready Diagnostic*. You can build that relationship with those students. You can help to remind them, “Hey, we start the Diagnostic next week. Are you ready? Remember to get a good night’s sleep. Remember to have some breakfast.” Just developing those relationships that we all know have a huge impact, especially on our secondary students. Knowing that there’s one person who truly cares about what they’re doing. And I’ll never say it’s been an easy sell. But [we’re] getting those content teachers at the secondary level to understand their impact on how our students are performing in other areas than maybe the specific area that they are teaching. And we’ve gone from those teachers who were sitting in an *i-Ready* training saying, ‘Where’s the science? Where’s the history? Why are we doing this?’ to now, they’re asking questions about, ‘OK, tell me again. How do I find that information? Where do I go to find that report?’”

By promoting a sense of shared responsibility for student learning, the leaders we spoke to pushed back on the popular conception of classrooms as islands and the myth of the “solitary instructional superhero” (Hewson, 2015). Instead of focusing on individual teacher efficacy, these leaders sought to increase collective efficacy, or “the perceptions of teachers in a school that the efforts of the faculty *as a whole* [emphasis added] will have a positive effect on students” (Goddard et al., 2000). Although different schools may take different approaches to building collective efficacy, the underlying message remains the same: “. . . a child’s success is the responsibility of more than just a classroom teacher.

It is the responsibility of a team of teachers and other school staff members who both care and who have learned to work together toward a single goal—that child’s success” (Hewson, 2015).

Educators believe in doing whatever they can to support the success of every student. District and school leaders emphasized the importance of having a strong commitment to doing whatever it takes to address students’ academic, behavioral, social, and emotional needs—whether those needs are identified for many students or just one. Ellis Fremont, principal of Merriweather Junior-Senior High School, captured this sentiment well:

“[W]e just don’t give up on kids, and we try to do extra for them. We feel that if it’s good for kids, why aren’t we doing it? Even if that’s one or two kids, whether it’s setting up a special program for them or doing an extra intervention.”

Marcus Beal, principal at Excelsior Elementary School, also spoke about the importance of doing whatever it takes to support student success, no matter what. In fact, he noted that this language (i.e., “no matter what”) was included in Excelsior’s mission statement and had become a mantra for teachers and administrators. When asked what it looks like to live this mantra in his school, Marcus gave the example of how he adjusted the master schedule to better support students with special needs:

“[W]e had some really challenging kids with special needs that we knew that—if we were trying—we couldn’t fit them into the box that we had already set up. So, we dismantled the box and created something that would specifically work for them, which was a major disruption to our school schedule . . .”

At the end of the day, according to many of the leaders we spoke with, it all comes down to love. When educators love their students, they want to do whatever they can to help students reach their potential. And when a culture of high expectations and ample support based on love permeates a school, students thrive. Dr. Julie James,

district leader for Carlton City School District, spoke about the existence of this culture within North Carlton Elementary School. Additionally, she shared how staffing practices are used as critical tools for maintaining it:

“It is honestly an overall culture. And we say ‘a culture of high expectations with an abundance of support.’ And that is kind of what we say at Carlton City schools all over. But the teachers [at North Carlton Elementary] really walk that walk . . . they are defying everything that we know about poverty in that school. Are we perfect? No. But when [students] walk through that door, they know that they are loved. We go over and beyond to take care of their personal needs. But they also know that, by golly, we’re going to hold them accountable. That education is their way out. And we love them enough to make them do it. And it is that balance [of ‘high expectations with an abundance of support’] that [Principal] Monique has ingrained in her staff that every single staff member walks and talks. [I]f they don’t, they don’t stay with us in Carlton City. [W]e have no shame in not inviting you back if you do not fit into our expectations. And we won’t apologize for that, because the best thing that we can do is to put the best teacher in front of our kids. And if they can’t buy into our culture and buy into our expectations and believe that we are a difference maker for kids, then we’ll give them the years of experience. And we’ll send them to some other district to go work somewhere else. And so . . . when you look at [Monique’s] staff, it’s truly—they all believe . . . no matter what, even the lowest of the low as far as whatever the data might show, the student can learn something. And that we’re going to maximize whatever they can learn while they’re here with us.”



It is important to note that this mindset presupposes the previous two mindsets: Teachers must first believe their students can achieve and that they (individually and collectively) can impact student learning to be able to adopt a “whatever-it-takes” approach. As such, district and school leaders should view these mindsets as inextricably linked—a strategy that promotes one without promoting them all is incomplete.

**When educators love their students, they want to do whatever they can to help students reach their potential. And when a culture of high expectations and ample support based on love permeates a school, students thrive.**

## Discussion

In a meta-analysis of more than 30 studies examining teacher expectations by race, researchers concluded that teachers have lower expectations for Black and Latino students than White and Asian students (Tenenbaum & Ruck, 2007). Additionally, researchers have found that teachers tend to have lower expectations and stronger negative perceptions of students with economic disadvantages (Auwarter & Aruguete, 2008). These findings are troubling because research suggests that when teachers hold limiting beliefs about students, these beliefs may translate into behaviors that serve to reproduce or reinforce educational inequalities (Diamond et al., 2004; Ferguson, 2003). Furthermore, these beliefs and

expectations can seep into the culture of a school, thereby spreading to new teachers and impacting teachers’ collective sense of responsibility for student learning (Lee & Loeb, 2000; Diamond et al., 2004). For example, in a longitudinal study of school leadership practices in urban elementary schools, John Diamond, Antonia Randolph, and James Spillane (2004) found that teachers in predominantly Black schools with economic disadvantages tend to “emphasize students’ deficits and have a reduced sense of responsibility for student learning,” whereas in more affluent, predominantly White and Asian schools, “students’ intellectual assets are emphasized and teachers feel more accountable for what students learn.” Given this reality, it makes sense that the leaders we interviewed (all from schools with economic disadvantages and/or schools serving predominantly students of color) focused heavily on creating a schoolwide culture in which teachers set high expectations for students, take collective ownership of student learning, and do whatever they can to support student success.

Although not explicitly mentioned by the leaders we interviewed, we feel it is important to emphasize that teachers must be supported in their efforts to adopt and enact these mindsets—particularly with respect to the third mindset (i.e., doing whatever it takes to support student success). Without adequate administrative support, teachers are likely to experience substantial stress and eventual burnout in their attempts to meet the demands of a high-needs student population. This concern is even more salient in the current educational landscape as pandemic-related challenges have exacerbated the issue of teacher burnout, prompting nearly one in four teachers to strongly consider leaving the profession (Pressley, 2021; Steiner & Woo, 2021), and even impacting student achievement (Madigan & Kim; 2021). Specific practices for supporting teachers are discussed in relation to Key 3 (Prioritize Meeting the Needs of the Whole Child) and Key 5 (Enhance Teacher Practice with More Resources and Support).

# Key 2

## Create a Culture of Data

Since the early 2000s, a greater emphasis has been placed on using student data to inform instructional decision making (Datnow & Hubbard, 2015; Kowalski et al., 2008). District and school leaders collect a variety of student data related to test scores, grades, discipline, attendance, and much more. Nearly all of the district and school leaders we interviewed described using data to some extent, whether it be in the form of classroom observation data that assessed instructional practices and student engagement, teacher evaluation data that were used for state-level accountability purposes, perception data that revealed opinions from students, teachers, and parents, or student data (e.g., demographic data, test scores, grades, graduation and dropout rates, etc.) that provided deeper insight into student growth and achievement outcomes. However, many of the schools that exceeded expectations emphasized using data in an embedded, frequent, and systematic way, with a specific focus on using data on student learning to drive decision making that would shape instructional practices, instructional program adoption, curriculum mapping, and professional development offerings. District and school leaders prioritized cultivating a strong data culture in which both educators and students regularly discussed student data, and educators made timely instructional modifications based on these data. Five key practices related to developing a culture of data are described below.

***District and school leaders established clearly defined norms and expectations regarding the use of data to drive continuous improvement.*** District and school leaders set clear expectations for teachers and support staff to use data as well as incorporated regular routines for monitoring, evaluating, and quickly responding to student data to allow for student success. Many school leaders set expectations for teachers and instructional support staff to engage in the iterative process of collecting, evaluating, and monitoring student data in their classrooms as well as across grade levels. Dr. Judi Marlon, a first-year principal at Buxton Avenue Elementary School, for example, set the expectation at the beginning of the 2020–2021 school year that teachers would bring their data to weekly professional learning community (PLC) meetings and be prepared to discuss their student data. In addition, several district leaders discussed ways in which they set clear expectations and norms around data practices at the district and building levels.

For example, Abrams lived by the mantra: “Things that get monitored get done. Things that get monitored and provided feedback get done well.” She enacted her philosophy about using and responding to data in her role as superintendent by communicating the expectation across schools that teachers not only review student data and discuss it with their colleagues, but they also review and discuss it with their students:

“And so, it’s not just saying, ‘Okay, the expectation is you get 30 minutes of Reading in *i-Ready* a week, and you get 30 minutes of Math in *i-Ready* a week.’ It’s: ‘You get 30 minutes. We look at the data. And then we talk about it. We share that with students. We share that with our colleagues. And we use that to make a difference.’ And I love *i-Ready*. But it may not be the solution for everyone. But whatever you’re using, you have to monitor and use the data to make a difference.”

Landry detailed school-level expectations surrounding data. More specifically, she described the Plan-Do-Study-Act system used to structure PLC meetings:

"I could talk to you for a very long time about what we do in our professional learning communities. We have a whole system, called Plan-Do-Study-Act. It's a cycle that we follow. We set a goal. We plan for our instruction. We do the instruction. We come back, we talk about what worked, what didn't work. We look at the data. We study that data. We talk about instructional practices, and then we act upon that data in interventions and things like that . . . We've used educational data and research studies that are out there: 'What are the best practices for professional learning communities?' And we are following through on those best practices. And it's working. And we're seeing that growth and movement in our students."

In sum, district and school leaders are responsible for not only establishing clear norms and expectations regarding the use of data but also for establishing conditions (e.g., time, support, accessibility) that are conducive to the use of data to inform educators' instructional decisions (Schildkamp & Poortman, 2015). By creating time and space for educators to collaboratively engage in data conversations, providing necessary support for them to become savvier with interpreting and responding to data, and ensuring educators had access to the systems necessary to gather student data, the district and school leaders we spoke with fostered a data climate in schools that led educators to recognize the importance of using data to inform their practice and improve student outcomes.

***School leaders, teachers, and instructional support staff regularly met to discuss student data and to identify ways to respond to the data.*** School leaders integrated ample opportunities for educators across the school to discuss student data and collaboratively identify ways to respond to the data. Additionally, they emphasized the importance of regularly monitoring student progress and being prepared to respond quickly when barriers to student success are identified. Many school leaders established regular PLCs, grade-level meetings, and collaborative team meetings throughout each month so educators (i.e., teachers, specialists, academic coaches, etc.) would have a common meeting time to collaborate with one another and discuss student data.

For example, school leaders at Blake Elementary School met with teachers and instructional coaches every four to six weeks throughout the school year to review student data, monitor growth, and group students based on the interventions they needed. Additionally, teachers were given regular opportunities to engage in vertical alignment with their upper- and lower-grade level counterparts—a key practice for promoting student success, according to Principal Tamara Douglas—and to collaborate with their grade-level peers at other schools across the district.

Similarly, school leaders at Poston Elementary integrated grade-level PLCs three times a month to allow school leaders and classroom teachers to work alongside one another to discuss struggling students and how to implement interventions to assist those learners. Speaking about these PLCs, special education teacher Kara Garza stated:

"We do PLCs by grade level usually three times a month during a conference period, where our administrators will sit down with our classroom teachers. And I jump into whichever one my conference works out with. And we discuss things. Which students are struggling? Why are they struggling? What are they struggling in? What are we doing for intervention? What needs to change? We have those conversations. So that's about three times a month, give or take."

Overall, the school leaders we interviewed prioritized providing common meeting times for educators to discuss student data with grade-level peers, content area peers, specialists, academic coaches, and/or school administrators and brainstorm ways to effectively address learning gaps. At some schools, data meetings, collaborative team time, and data retreats were incorporated into the school calendar on a monthly basis. At other schools, data-informed PLCs and grade-level meetings were held weekly to allow educators more collaboration opportunities and the ability to quickly identify and respond to student needs.

***District and school leaders offered professional development (PD) opportunities on using data effectively.***

District and school leaders recognized the importance of using PD opportunities to support educators with effectively incorporating data into their daily practices so they were equipped to collect data sources and respond to that data quickly. Many district and school leaders were very intentional about planning PD and trainings for teachers on a consistent basis and integrated them into the school year.

For example, by shortening the school week to four days across the school district with Fridays dedicated to teacher collaboration, trainings, and PD opportunities, district leaders in the Merriweather School District were able to allot 20 PD days per year for teachers. Ashlyn Neal, principal at Merriweather Elementary School, explained:

“Those [PD] days that we’ve laid out go back into the data piece too. And that’s where each week, our grade-level teams have at least a 40-minute block together where they get to meet and discuss. And so that’s where they’ll do a lot of that data talk. We also have about two [PD] days a month, on Fridays, where we have the same thing. We have team collaboration where we constantly have our grade-level teams that are looking at that data and changing workshop groups.”

Some school leaders designed ongoing PD and training opportunities and integrated them into the school culture. Principal Monique Raul of North Carlton Elementary School acknowledges that [they] “Carltonize people” at her school through PD and training opportunities around learning how to interpret and use data effectively. Notably, these opportunities are incorporated into the training process for both certified and noncertified instructional staff (e.g., instructional assistants):

“[W]e also have a comprehensive program with coaches and Dr. James [district leader] that kind of helped [teachers] learn to read the data, learn what it means, learn how to respond to it. So that’s just a part of our ongoing PD process. But it’s so ingrained in our culture that it’s not just the certified teachers who analyze data. We have our teaching assistants who are very well versed in analyzing the data. So, while they’re the ones that are doing our RTI interventions and our [state’s] All Corps interventions, they will set up appointments on their own now with Dr. James to look at the results and the data of what their intervention kids are showing. And so that’s been really neat to see how it has just become so deeply embedded in our culture that it’s just not the certified teachers who have learned how to read data, but our teaching assistants very much know how to analyze both [our state] *Ready*® data and *i-Ready* data and our universal screener data.”

Although the specifics of each school’s approach to PD differed, the district and school leaders we interviewed all shared a commitment to increasing teachers’ capacity to collect, analyze, and use student data in their classrooms. Integrating regular PD and trainings on data use allowed educators to engage in curriculum mapping, identify learning standards in which students failed to demonstrate sufficient mastery, and identify goals and instructional grouping for the upcoming school year based on that data.

***District and school leaders relied on data champions to support them in building and sustaining a culture of data use.*** District and school leaders relied on staff who were equipped with the knowledge and skills to support teachers with reviewing and interpreting student data and integrating it into their data practice. In two schools in particular, school leaders discovered that former classroom teachers who had been promoted to instructional support roles as academic coaches were most effective in both articulating how to use student data and supporting teachers with interpreting their data (through a collaborative approach) and regularly integrating it into their instructional practice. Because these former classroom teachers maintained a close relationship with teaching staff over the years, it was easier for them to elicit buy-in from teachers in their schools.

Recently transitioning from his role as assistant principal at another school within the Kensington School District, Blaine Feldman, principal of Denton Elementary, believed that one of the major keys to the success of his school that exceeded expectations in reading was Brooks, the school's new Grades K–3 literacy coach. Speaking about her impact, he asserted:

"I cannot understate—I cannot underline enough the value of having a dynamic academic support coach who is relational and relevant. When you have someone who can walk in and eliminate the defensiveness that often comes from a data discussion, you are halfway down the road because now you have dialogue. Now you have open minds. Now you have things that you might not have seen because you have knowledgeable people at the table who aren't defensive because they trust that what they're walking into is going to be relevant."

At Buxton Avenue Elementary, a school located in a small town in the Southern Atlantic region, Marlon found herself navigating a new terrain as a newly appointed principal whose former roles in school administration were at the secondary school level. Luckily, Brittany Bassett was a stellar teacher who formerly taught Grade 2 at Buxton Avenue Elementary for several years and had just been elevated to the role of reading interventionist in 2020–2021. As such, Bassett came with a wealth of knowledge and experience about curriculum standards, instructional programs, and resources, and using data to inform instructional practices she was ready and willing to share with teachers in an effort to support their practice. Bassett shared how she helped teachers approach using data:

"As far as the data this year, I've tried to be very, very specific with slides. I would make data slides at the beginning of the year. And I felt like I did maybe a little bit more of a thorough job at midyear, going through each of the areas schoolwide, meeting with first grade teachers, showing them what first grade looks like, meeting with second grade teachers, showing them what second grade looks like. And having screenshots of the graphs in each area, and then after talking about, this is where we did better. This is where we had some issues, breaking it down into each of those areas that were assessed and talking about specific activities, lessons, best practices that we could use to improve in those areas."

More generally, many of the district and school leaders we interviewed found success in empowering coaches, interventionists, and other instructional staff to step into leadership roles. These individuals supported school leaders in creating a strong data culture by facilitating PLC meetings and data conversations, organizing school-level trainings on how to use student data more effectively, and supporting educators one on one in collecting, interpreting, and quickly responding to data.

***School leaders and teachers set an expectation for students to engage in regular data conversations and academic goal setting.*** School leaders and teachers encouraged students to assume ownership for their learning and growth by creating opportunities for students to regularly review their data, identify areas of strength/areas for growth, and set challenging, yet attainable goals. School leaders realized that by empowering students to assume ownership for their own learning and growth, students became more motivated and engaged in the learning process and worked hard to meet their academic growth goals. For example, Alicia Zabrowski, curriculum and instruction director for Bay Beach School District, expressed her desire to see every teacher at Bay Beach School create opportunities for students to assess their learning and create their own learning goals:

"[I]t's something that I always like to see, especially if I have a high-achieving teacher who is hitting the mark everywhere else. It's like, so now you want to turn that on to your students. And you want them to say, 'What is my goal? What am I supposed to be doing? Have I achieved it? What do I need to do differently?' And having them really analyze their own learning. So I feel like in regards to any assessment, whether they're taking the *i-Ready* [Diagnostic], or whether they're taking a state assessment, or a thing, or a curriculum-based assessment, is that trying to motivate them to do their best and to really sit down

and say, 'These are your scores. What goals do you think we could have for you the next time we do this? Where do we want to see you?' And then celebrating when they do achieve that too . . . So I feel like motivating the students to take control of their own learning is really important."

According to the literature on motivation, people tend to adopt two types of goal orientations: mastery or performance (Donald, 2012). While the ideal student adopts a mastery orientation in which their focus is on learning and improvement, students who adopt a performance orientation focus on demonstrating competence in relation to others (e.g., wanting to appear smart or avoid looking stupid) (Donald, 2012; Dweck, 1992; Dweck & Legget, 1988). In alignment with evidence-based practices, several of the school leaders we interviewed cultivated mastery-oriented learning environments by involving students in the assessment of their own learning and encouraging them to set short-term, self-referenced goals (Ames, 1992; Epstein, 1988).

## Discussion

Data can be a powerful ally for district and school leaders looking to make well-informed strategic decisions that benefit students (American Association of School Administrators, 2002; Darsow, 2022; UNESCO, 2021). Unfortunately, many districts and schools have suffered from DRIP Syndrome—being Data Rich and Information Poor. District and school leaders who are Data Rich and Information Poor have access to all the data they need to be successful yet are not positioned to make the data useful and accessible. Therefore, the data is no longer meaningful and cannot be used to improve schools (Darsow, 2022). For district and school leaders to use data effectively, they must be able to organize, process, and understand the data (Education Elements, 2021). Moreover, following the COVID-19 pandemic's negative impact on student learning worldwide, it is more important than ever for district and school leaders to prioritize developing a strong data culture in their schools. Creating a strong data culture allows district leaders, school leaders, and their instructional staff to make data-informed decisions that ultimately lead to positive educational outcomes and experiences for students (Education Elements, 2021). The district and school leaders we interviewed created this culture by articulating norms for data use, establishing dedicated times/spaces for educators to engage in data discourse and collaborative intervention planning, providing learning opportunities to build educators' skills with respect to interpreting and using student data, encouraging students to take ownership of their learning, and identifying resources (e.g., data champions, data management tools, assessment programs, etc.) to help sustain the culture.

**"I cannot understate. . . the value of having a dynamic academic support coach who is relational and relevant. When you have someone who can walk in and eliminate the defensiveness that often comes from a data discussion, you are halfway down the road because now you have dialogue."**

—Principal Blaine Feldman



# Key 3

## Prioritize Meeting the Needs of the Whole Child

In an article titled, *A Whole Child Approach to Student Success*, Sean Slade and David Griffith (2013) describe an ongoing paradigm shift in education from a heavy emphasis on academic achievement and accountability via standardized testing (particularly during the No Child Left Behind era) to a more holistic view of education and student success that prioritizes “the whole child.” Within this “whole child” paradigm, schools are tasked with “providing resources, support, and attention to a child’s health (physical, social, emotional, and mental) and safety.” Furthermore, schools are expected to teach to a wider range of competencies, such as the “social skills of empathy, communication, and understanding, team skills of collaboration, leadership, and contribution, and creative skills of problem solving and ideation.”

In alignment with a “whole child” approach to education, the district and school leaders we interviewed took a broad view of student success and their role in supporting it. As noted by Dr. Bobby Spinner, principal at Louis Middle School, “Test scores are important, but there [are] other things to education that are just as important.” More specifically, district and school leaders sought to address the academic, behavioral, social, emotional, and physical needs of students via instructional interventions, changes to structures and schedules, and the provision of staff and resources to support students’ overall health and well-being. These key practices are described in detail below.

***District and school leaders carefully selected new curriculum products and instructional tools to support students’ holistic growth and development.*** School leaders often adopted new curriculum/instructional products to address persistent student needs. Although several academic products were mentioned, many school leaders noted an increased focus on social-emotional learning (SEL) in the 2020–2021 academic year and beyond. In some instances, a full SEL curriculum was adopted. In other cases, smaller SEL interventions were added to the school day. In the case of Blake Elementary, Douglas described how she introduced SEL interventions to her school while the district decided whether to adopt a full SEL curriculum:

“So last year, our building leadership team kind of tackled [SEL] just in our building. We piloted the SAEBRS [Social, Academic, and Emotional Behavior Risk Screener] through [our state] assessment. We did that once last year. But then as a building leadership team, we kind of learned about the emotional standards. And then as a building leader, I modeled SEL lessons in the classrooms. So I went into the classrooms to just model some socioemotional lessons just to try to introduce that into our building. Because I knew that our district was considering getting a curriculum, which we do have. We started this year. And so, I had always done that in my classroom prior to becoming a principal. And so, I went into . . . all of our classrooms and did several social and emotional lessons for teachers just to kind of model that it’s not some big scary thing. It’s really pretty easy to integrate into their classrooms.”

Douglas also discussed her strategies for getting students on board and excited about SEL:

“And then we also did several things buildingwide. Like we did some kindness challenges last year. And it really took hold, where the kids were actually asking to keep doing them. We started—I believe it was in February—kindness month, and the kids liked it so much they wanted to keep doing it. So we actually ended up doing a kindness challenge every month for the rest of the year last year because they liked it so much.”



As mentioned previously, although the examples highlighted here focus on SEL, the curriculum and instruction products mentioned by district and school leaders were as varied as the student needs they sought to address. Even so, two commonalities were observed across interviews: an emphasis on providing educators whatever instructional tools they needed to best support students and an emphasis on selecting products supported by research. Additionally, as an important follow-up step, some school leaders described using student learning data to evaluate the effectiveness of new product offerings. Taken together, these practices were a major contributing factor in the success of a number of the schools we interviewed.

***District and school leaders utilized a multi-tiered system of supports (MTSS) to address the academic, behavioral, social, and emotional needs of all students.*** School leaders emphasized the importance of having a strong system in place to provide targeted support for students in need of support as well as enrichment for students on or above grade level. In particular, school leaders mentioned prioritizing intervention blocks, introducing new academic and SEL curricula/interventions, and relying heavily on *i-Ready* (i.e., *Personalized Instruction* and *Teacher Toolbox*) for differentiated instruction. For example, Dale Cappola, director of school leadership at Meredith School District, completely revamped math blocks across the district to provide students with much needed math intervention time:

“We went from 60 minutes to 90. We completely revamped all aspects of it, where we made sure that we had much more in terms of student discourse. We had rotations. We had small group . . . We had MTSS interventions for math for the first time ever for our in-person and remote learners. So that math block is completely different . . . we’re using a real systematic approach. Anywhere in the district now, [if] you go in [a math classroom during] this part of the block, [students] should be doing this, and this, and this. So I would say that’s a major player in how we’re improving in math.”

For Landry, introducing an intervention system was also key to her school’s success. Within this system, she highlighted *Teacher Toolbox* as a critical resource for equipping teachers to support students performing below grade level:

“[T]his year, we’ve really focused on adding an intervention system to our bevy of systems that we have. And we’re using *Teacher Toolbox* on a regular basis to intervene on a deeper level than what we’ve even been doing in the past. So that’s been another great tool in our kit to use . . . a lot of my staff are secondary licensed teachers. They aren’t elementary licensed. And we had students who needed help with phonics and learning how to read. And so the *Teacher Toolbox* allows my teachers to go and find lessons at whatever grade level a student may be at. And this student needs second grade vocabulary, this student needs phonics. There are ready-made lessons there to go on the *Teacher Toolbox* that can be used.”

As these examples highlight, many of the district and school leaders we interviewed used an MTSS framework to guide their approach to interventions. Within this framework, leaders frequently described structuring their intervention systems around a response-to-intervention (RTI) and/or positive behavior intervention and supports (PBIS) model, both of which involve “targeting specific areas in which students are struggling and applying increasingly intensive research-based interventions” in an academic or behavioral context, respectively (Averill & Rinaldi, 2011). For several of the leaders we interviewed, this was one of the top practices to which they attributed their school’s success.

***District and school leaders strategically designed their master schedules to support meeting students’ needs.*** District and school leaders found creative ways to structure their master schedules to expand instructional time and better utilize resources (e.g., instituting longer math/reading blocks, creating more time for small group instruction, ensuring all instructional support staff are available during intervention blocks). The most notable example of this practice came from Blake Elementary School, where Douglas completely redesigned the master schedule to support student success:

“So when I built this schedule . . . I started with our intervention time blocks. I didn’t start with our specials, I didn’t start with recesses, I started with our intervention blocks and built our schedule around it. Because I knew that that was the most important thing in our schedule—to make sure that those time periods had the most support so that we were able to provide that targeted intervention for our students . . . And I think that has really helped because during our intervention times, we have all of our support people available . . . we’re able to give those kids exactly what they need during that time because we have a lot of people available.”

In the case of Louis Middle School, Curriculum Director Lindsay Whitfield described replacing an exploratory/elective period with a new block dedicated to supporting at-risk students:

“After that first year, we felt like our kids who were struggling, that were our at-risk kids, needed some more individualized, one-on-one attention with their content teachers . . . so that’s when we looked at our schedule at the middle school and decided that we would put in what we call the Bulldog Time, which basically ended up being a new period at the very beginning of the day, where these intervention tier groups—your red and your yellow groups—[meet].”

In addition to these two examples, several other school leaders described making substantial changes to their schedules to better address student needs, including the previously described lengthening of math intervention blocks in Meredith School District. Thus, instead of letting structures and schedules dictate what interventions were possible, the leaders we interviewed designed their master schedules to reflect their educational goals and priorities.

***District leaders and school leaders provided material resources for students and their families.*** Given nearly all of the leaders we interviewed served impoverished communities, they frequently underscored the importance of meeting students’ physiological and school-related needs (e.g., food, clothing, technology, school supplies) before expecting them to perform academically. North Carlton Elementary School in particular went above and beyond to support students’ needs. Speaking to the multitude of ways North Carlton provides for its’ students, James shared:

“[E]ven before the educational piece starts, I think [Principal] Monique and her staff [do] such an amazing job of making sure all the other needs are met first . . . for instance, she had a tennis shoe drive a couple of years ago so the kids could come back to school with a brand-new pair of tennis shoes. Every child had an opportunity to have a brand-new pair of tennis shoes. I mean, how cool is that? And she has a closet full of clothes, all sizes, and hygienic products. If a student needs it, they know where they can go get that. And she sent home backpacks [with] food. There’s just a plethora of—it’s almost a full-service school minus just a few little pieces. But they take care of lots of needs beyond the academic parts.”

Similarly, Beal at Excelsior Elementary School described the various resources his school provided for students and families during the 2020–2021 school year. Furthermore, he discussed the importance of meeting student needs to eliminate justifications or “excuses” for poor student performance:

“I think districtwide we put a huge focus on making sure they have access to everything. I think about the hot spots that went out to all of our families in the district, the Chromebooks™ that went home, the meals that went home. Like, almost everything that we could think of and be able to provide to make sure there were no reasons, no excuses that we could not engage our students virtually—those who still chose to work virtually—and our students who came in.”

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Chromebook™ is a distinct brand feature of Google, LLC.

In sum, although district and school leaders varied in their capacity to support students by providing material resources, they provided what they could—even going door to door in some cases—to ensure students and families had what they needed.

***District and school leaders ensured the right people were in place to support students academically, socially, and emotionally.***

When possible, school leaders hired professional and certified staff (e.g., counselors, psychologists, social workers, clinicians, tutors, and other instructional support staff) to support students. In cases where hiring additional staff was not possible, school leaders used training and strategic scheduling to increase the capacity of available staff to support students. Douglas’s restructuring of Blake Elementary School’s master schedule to provide additional staff for intervention blocks is a prime example.

Additionally, although only recently implemented, Bassett described how Buxton Avenue Elementary is equipping instructional support staff to be able to better support students and teachers:

“I want to say one more thing. Instructional assistants: We have really been, just in the last couple of months, trying to just make sure that they understand the importance—that the teachers understand the importance, the value, that they have. And I know in the last couple of years it’s been hard because they’ve been pulled here and there. They’ve been subbing in classrooms. It’s not been ideal, of course, but we definitely want them to go into a classroom and really be able to work with students, not just for teachers . . . I think they want to learn. They want to help. They want to do these things. But some of them are just a little hesitant. They’re not sure that they know how to do it as well as they feel like the teacher could. So I think maybe giving them a little bit more training. These activities that I printed off [for instructional assistants to use with students] are very scripted. So I’ve tried to make it as easy as possible for them, but I think that working with them a little bit more closely would help.”

These examples reflect a common understanding among the school leaders we interviewed that students perform best when they receive individualized attention and tailored support. Furthermore, in colloquial terms, school leaders subscribed to the belief that it takes a village to educate a student. As noted by Buffum et al. (2009), “No teacher can possibly possess all the knowledge, skills, time, and resources needed to ensure high levels of learning for all his or her students.” As such, school leaders prioritized creating a skilled team of educators and professionals to support student success.

## Discussion

Within this theme are five practices centered around the following goals: building a solid foundation for student learning, ensuring the right people, structures, and systems are in place to support student success, and acquiring the right educational tools to support students’ academic achievement and holistic development. In alignment with Maslow’s Hierarchy of Needs (Maslow, 1948), a whole child approach to education argues that in order to build a solid foundation for student learning, students’ “physiological and psychological needs (safety, belonging, autonomy, and competence)” must be satisfied (ASCD, 2007). As such, the district and school leaders we interviewed prioritized meeting students’ basic needs by providing material resources and professional services (e.g., counselors and social workers). With a solid foundation for learning in place, leaders shifted their focus to ensuring students had the appropriate supports to be successful. In almost every case, this involved creating opportunities for students to receive more targeted instruction. As noted by Buffum et al., (2010), “If we took the research on effective teaching and learning and condensed it into a simple formula for learning, it would look like this: Targeted Instruction + Time = Learning.” Lastly, school leaders adopted new curriculum tools to address a wide variety of student needs. In particular, leaders described adding SEL programs, or programs “that attempt to enhance EI [emotional intelligence] and emotional literacy and/or the development of what are perceived to be fundamental social and emotional skills and competencies” to the curriculum (Hoffman, 2009). Together, these practices enabled district and school leaders to support students’ holistic well-being as well as their academic success.

# Key 4

## Create a School Environment That Engages and Inspires Students

Across schools that exceeded expectations, district and school leaders strove to make their schools inviting and enjoyable. By making learning fun and engaging, offering incentives for academic and nonacademic performance, and showing students they truly care, educators increased student motivation, effort, and learning. These practices are described in more detail below.

***School leaders set an expectation for teachers to cultivate strong relationships with students.*** School leaders noted that when students feel seen and cared for, they are likely to experience greater motivation to learn and are, therefore, more likely to engage in the classroom. Indeed, several school leaders identified strong student–teacher relationships as one of the major keys to their school’s success. For example, Principal Michael Summers of Lewiston Middle School shared:

“[I]t’s easy for teachers to leave this part out because they’re what I would call in the middle of the circle being in the classroom. With me not being in the circle with them, I can see, from an external perspective, it’s the teacher relationship with the kids as well. And it’s the motivation that teacher has and the level of care that teacher has for that student’s learning.”

In addition to articulating the importance of these relationships, school leaders communicated expectations for teachers to cultivate such relationships with students. Spinner explains:

“I’ve always kind of said it to our staff this way: I need you to love the kids every day. There’s only one yeller here, and that’s me. Everybody else, you’re going to love them. Because they’re on the front lines of it all the time. If anybody is going to be upset, send them to me. I’ll be that person. But you need to be the one that they feel comfortable with coming to. And it’s obvious that if kids come to school, they’re going to learn. I mean, that’s just part of it. If they don’t come to school and they don’t want to come to school, then they’re then they’re not going to learn. So what makes a kid want to come to school? Somebody who loves and cares about them. Somebody is invested in them. Somebody that’s going to build a relationship with that kid.”

Furthermore, Spinner made an important connection between building relationships with students and being able to meet student needs. He argued that teachers who have strong relationships with students are better positioned to identify and address barriers to students’ success:

“Also, when they have those kinds of relationships, it’s easy for them to [say]—‘Hey, I don’t think Johnny’s got hot water’ or ‘I don’t think Susie has food’ . . . we’re able to meet those needs of those students as well, when teachers have built those [relationships].”

In conclusion, research suggests the quality of student–teacher relationships can significantly impact student behavior, engagement, and achievement (Decker et al., 2007; Hughes & Kwok, 2007). In alignment with this research, the district and school leaders we interviewed strove to create school climates in which caring, authentic student–teacher relationships were not only encouraged but also expected.

***Teachers and school leaders used incentives to increase student engagement and motivation to achieve academic/nonacademic goals.*** Teachers and school leaders used recognition (e.g., certificates/medals, shout-outs on bulletin boards/school announcements/newsletters), prizes (e.g., gift cards, edible treats), fun activities (e.g., parties, movies), and other incentives to encourage students to give their best effort toward achieving academic and behavioral goals. For example, Bassett described her ample use of incentives to inspire students to read:

“And that was something else that I started doing last year is really trying to give kids incentives to read and meet their goals for that program. And I have started doing little . . . reading celebrations for children who meet their goals. I work with teachers to help them set personalized reading goals for children on various levels based on, of course, their ability. And then if they meet their reading goal at the end of the quarter, they are invited to a fun, themed reading party. I know the first nine weeks we did, like, camping out. We all came to the cafeteria, and we made s’mores, and we watched a fun movie, and danced, and sang. And then we did a [winter theme] for the January party. And we’ve just finished a trip to the movies theme. And we’re fixing to do a luau theme at the end of the year. So that’s one thing that the kids seem really excited about—just reading in general. They are wanting to get those points. They are wanting to read. They are wanting to get to that party. So I will do anything that I can to continue to keep them excited.”

For older students, incentives often looked much different. For example, Abrams shared a common incentive used by her teachers at Merriweather Junior-Senior High School:

“I know that there were junior high teachers who said, ‘Hey, seventh and eighth graders, if you meet your Typical [Growth] or Stretch Growth on the *i-Ready Diagnostic*, you don’t have to take my final.’ And I know . . . that was a huge motivator. To know that if they just slow down a little bit and took the time for that Diagnostic, they may not have to spend that hour and a half, two hours on that final. And so sometimes [it’s] just those simple little things that junior/senior high teachers understand motivates those kids.”

Thus, incentives took various forms across (and within) schools. The major commonality, however, was that incentives were always highly tailored to the students to be something that would truly excite and motivate them.

***School leaders encouraged the use of pedagogical practices designed to increase student engagement in the classroom.***

School leaders encouraged teachers to use a variety of strategies, such as discourse-based learning, game-/competition-based learning, and flipped classrooms to increase student engagement and promote greater learning. For example, Fremont at Merriweather Junior-Senior High School referred to his campus as a “Marzano school,” in which education leader Robert Marzano’s research-based strategies for increasing student engagement and achievement are employed in the classroom. In particular, Fremont described teachers’ ample use of games for review, including the regular use of Gimkit® (a tool that assists teachers in gamifying learning).

In a different vein, Raul talked about how her teachers have begun to incorporate academic conversations into everyday instruction to not only increase student engagement in the classroom but also facilitate student ownership of their own learning:

“Well, really and truly, we’re obviously trying to focus on some student ownership . . . We noticed our teachers would have some of their classes do things like accountable top practices or other academic conversations. And so we just, over the last probably four months, [went] a little bit heavier on, ‘Let’s try [to have] a piece of some sort of academic conversation in each and every part of the effective

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learning portions, the opening, the new learning, the developing, the assessing, the reflecting.' Having students verbalize their thinking. Having them discuss the strategies that they used and discuss what they already know about a particular topic or work together to have an academic discussion and to really teach our students how to discuss things in an academic way so that they can be more collaborative with one another."

While Raul admitted that North Carlton was still new to the practice, she was quite impressed with students in the younger grades who were able to orally reflect on their learning as emergent readers. She shared:

"[I]t was amazing to see our kindergarten and first grade students having these [conversations] . . . 'I know that this word starts with an F. And I hear the "fff" at the beginning of it.' So, they were able to verbalize 'what I see, what I hear, what I already know.'"

Overall, many school leaders encouraged (and sometimes required) teachers to use specific evidence-based pedagogical practices within their classrooms to increase student engagement and achievement.

## Discussion

Disengagement is a major issue in American schools, with research suggesting academic engagement steadily declines as students progress through primary and secondary school (Shernoff, 2013). In fact, by high school, researchers have found that 40%–60% of students are "chronically disengaged" (Klem & Connell, 2004). A 2006 survey of more than 80,000 high school students found that 50% reported being bored every day, 40% felt that the material taught was not relevant to their lives, 45% did not feel connected to their school community, and 22% disagreed or strongly disagreed that there was one adult in school who cared about them (Yazzie-Mintz, 2007). Furthermore, among the 22% of students who reported that they were considering dropping out, the top reasons given were that they either didn't like school (73%), didn't like the teachers (61%), or didn't see the value in the work they were being asked to do (60%). These statistics make it clear: public schools were not designed to promote student engagement and may, in fact, actively promote disengagement. As noted by David J. Shernoff (2013), "public schools in their predominant form did not evolve primarily to support the learning and development of students but rather to manage masses of students and to deliver education as a product, modeled after the hierarchical centralization of industrial bureaucracies."

This state of affairs is particularly troubling given the empirical links between student engagement and academic achievement (Fredricks et al., 2004), as well as the research showing that as school engagement decreases, risk behaviors (e.g., substance abuse, aggression, violence, crime) and psychological challenges (e.g., depression, low self-esteem) increase (Li et al., 2008; Shernoff, 2013). Recognizing the critical importance of student engagement for all of these reasons, the school leaders we interviewed were determined to create school environments that were not only academically rigorous, but intellectually stimulating and, quite simply, fun. Additionally, they prioritized student-teacher relationships with the goal of ensuring every student would feel seen, valued, and supported.



# Key 5

## Enhance Teacher Practice with More Resources and Support

Research suggests the single most important factor to a student's academic success is having an effective teacher (Chetty et al., 2014; Oppen, 2019). Accordingly, district and school leaders promoted teacher effectiveness by equipping educators with targeted PD, instructional resources, ample time to meet and collaborate with fellow educators, and support from instructional coaches—all with the goal of enhancing content knowledge, shifting mindsets, and improving pedagogical practices and classroom management skills. Three distinct practices are described below

***District and school leaders provided resources and opportunities designed to increase content knowledge (i.e., academic and nonacademic), shift mindsets, improve instructional practices, facilitate data interpretation, and/or use instructional resources more effectively.*** District and school leaders provided PD and training opportunities to help prepare teachers to work with diverse students with different needs. District and school leaders recognized the importance of having teachers who were knowledgeable in their content area and pedagogy so they could more effectively support their diverse student populations. In addition, working to shift educators' mindsets assured district and school leaders that educators in their districts were committed to meeting the needs of all learners equitably, despite students' academic challenges or marginalized status. Finally, new instructional products and resources were often adopted by the school districts in an attempt to address the varied and often-changing needs of students, especially during the 2020–2021 school year. Thus, it was imperative that educators be equipped with the knowledge to use these instructional resources effectively.

Kara Garza, special education teacher at Poston Elementary in the rural Southern region, noted that trainings and PD days occur every six weeks on half-days based on popular topics. However, other school leaders created PD and training opportunities based on a specific topic or instructional program that was beneficial for teachers in enhancing teachers' practices, such as becoming more familiar with a districtwide adopted instructional program or shifting educator mindsets. For instance, Neal, principal at Merriweather Elementary School—a school with a four-day school week that heavily relied on *i-Ready* data to drive student achievement—found that teacher trainings on the *i-Ready* program were what her teachers needed most. She stated:

"I think this kind of goes back into [that] we've had a ton of training in the *i-Ready* program. And so sometimes, our teachers were like, 'We already know this program.' But I think it's been super helpful because you always learn something more. You always gather something. And then it reviews back to, 'Well, we should be doing this, but I kind of forgot about this piece too.'"

On the other hand, Cole—inspired by the Kensington School District's recent focus on unpacking equity mindsets and SEL—was compelled to take the lead on offering PD and training to teachers at Excelsior Elementary School. As assistant principal, not only did Cole integrate these training opportunities into staff meetings, but she also encouraged teachers to take what they learned and apply it in their own lives. For example, Cole helped her staff better understand the SEL research so they could teach and model it for their students, but she also encouraged them to use the breathing activities they learned to help them manage their own stress and emotions. In addition, she encouraged her staff to consider how having a fixed mindset may rob marginalized students of access and opportunity. She shared:



“I think if we have to be conscious of making sure that, if they’re provided equity and access and opportunity, they too can be successful. So, it’s shifting the mindset and constantly working through that mindset of, it doesn’t matter where they come from. We really work on some PD with the building around mindset, and just thinking about how that can play on us as adults, and things to be aware of and how to eradicate that.”

Research suggests that PD that is targeted and delivered appropriately can enhance teacher practices that lead to students’ academic success (Garet et al., 2001; McCultchen et al., 2002). In fact, according to research conducted by the US Department of Education’s Institute of Education Sciences, teacher participation in well-designed PD programs can increase student achievement by as much as 21 percentile points (Yoon et al., 2007). District and school leaders were committed to enhancing teachers’ instructional practices to support student learning through the implementation of various professional learning opportunities that centered on topics related to domain-specific academic content, SEL, equity, data-use practices, curriculum and instructional resources, and teacher pedagogy. They eschewed traditional one-size-fits-all approaches in favor of differentiated professional learning opportunities that were guided solely by educators’ demonstrated needs. Moreover, they used these learning opportunities to allow teachers to reflect on their own practices and promote mindset shifts for those teachers who may have revealed blind spots or previously worked from a deficit model (as opposed to an abundance model) as it relates to what students can or cannot do. Providing these professional learning supports was an effective leadership practice that was routinely associated with the success of students in schools that exceeded expectations.

***School leaders recognized the value of academic support coaches and interventionists in supporting teachers in their role.***

School leaders understood the value of having academic support coaches and interventionists who could quickly address the needs of teachers by collaborating and supporting teachers on a more personalized level, offering teachers valuable resources and instructional strategies to use in their classrooms, and helping them effectively use student data to analyze students’ strengths and weaknesses and plan for instruction.

As part of Key 2 (Create a Culture of Data), we provided two examples of exemplary academic coaches/interventionists: Brooks and Bassett. One additional example comes from Dillon Elementary School, where Principal Cyndi Cromwell spoke about the phenomenal math coach to whom she attributed much of her school’s success in math during the 2020–2021 school year:

“I would say two of the biggest levers that really transformed math instruction last year was having a great math coach and then having a structure around planning sessions. And my math coach, she was a first-year math coach, but she was really a fantastic teacher in the classroom from a previous school. And I had gotten a reference for her, like, ‘Listen, I have a math coach that needs to come to you. You will love her.’ And she was just amazing—created buy-in with the teachers, just right there in the mix with them.”

Effective school leaders use data to inform where teachers need additional coaching to help improve their instructional practices and content expertise and, ultimately, increase student learning (Schildkamp et al., 2019). The school leaders we spoke with heavily relied on academic support coaches, interventionists, and other leaders to support teachers in their role. Academic support coaches and interventionists across several of the schools identified to participate in the study were former teachers who once stood in the shoes of the educators they now supported, allowing them to understand and relate to, firsthand, the unique challenges that educators faced. The empathy academic support coaches and interventionists expressed when educators shared their lack of understanding of a topic or frustrations with their work created a haven where vulnerabilities could be revealed. By fostering a trusting environment, academic support coaches and interventionists were able to avoid educator resistance and effectively support educators in becoming better at their craft.

**District and school leaders provided additional support to new and beginning teachers.** District and school leaders understood the importance of providing new and beginning teachers with the support they need to be successful. Many of these leaders adopted strategies to help new and beginning teachers broaden their content knowledge, learn from mentors, and engage with their peers.

For example, Feldman at Denton Elementary prioritized connecting with new teachers prior to the school year to ensure they had the resources they needed to be successful. Cappola, the director of school leadership in the Meredith School District, made sure every new and beginning teacher in the entire school district had their own instructional coach. He shared:

"I assign [instructional coaches] across the district based on grade level . . . And then every new teacher in the city of Meredith had an instructional coach assigned to them. And what I did is I assigned the coaches based on grade level. So that way, if there were nine teachers in Grade 5, when the coach met with them, they can have Google Meets®. And they can meet and speak the same language. If I have a teacher from the first [grade], and second [grade], and third [grade], and fourth [grade], and fifth [grade] with one coach, it's just not going to get the job done. And it really helped. We see a lot of teachers across the district working together now, which is really awesome because before, it was always this school versus this school. Where now, I feel like you got every—nine new teachers at the table with a coach. You're all speaking the same language. This is our curriculum. How do we make life easier on all of us? Let's help each other. Coaches were huge for us."

In an effort to support new and beginning teachers who lacked specific content knowledge, Cromwell created an additional PLC one morning each week that focused specifically on content. During Content PLCs, newer teachers received the content they needed to be more effective in their current grade levels, and school leaders monitored students. She explained:

"We were going through planning sessions, and what we started realizing is that our newer teachers really didn't have the tricks of the trade. They're new, they don't know how the content builds on each other. So I would say November, we added in morning PLCs. So one morning a week, administration would watch the whole grade level out. We'd call it Morning Mile. So, the kids would come out to the track, do laps, we play music, watch the kids, they have breakfast out there. And then when the bell rings, the teachers come out to pick them up. So during that time that they would just be in their classroom welcoming kids, we use that as—we call them Content PLCs. So they would work with the math coach one morning a week just to build strategies and content or look at data—whichever was, like, most current."

New and beginning teachers often enter the classroom requiring support from school leaders (Strong, 2006). They are often overwhelmed and less effective during the first years of their career in the classroom, leading to a high turnover rate among the population and contributing to the critical teacher shortage plaguing America's schools, especially in high-needs schools and positions that are difficult to staff (National Institute for Excellence in Teaching, 2021). Many of

**According to research conducted by the US Department of Education's Institute of Education Sciences, teacher participation in well-designed PD programs can increase student achievement by as much as 21 percentile points.**

the district and school leaders we spoke with focused their efforts on setting these teachers up for optimal success by strategically integrating time for new and beginning teachers to grow their grade-level and content knowledge, work alongside instructional coaches and experienced teacher mentors, and observe highly effective teachers. This strategy helped ensure that all teachers in the school—despite their tenure in the field—were highly effective teachers who were equipped with the right tools to support student learning and increase student achievement.

## Discussion

A wealth of research proves that teachers make a significant difference in student learning outcomes. (Burroughs et al., 2019; Darling-Hammond, 2003; Hattie, 2003; Sanders & Rivers, 1996; Wright et al., 1997). Highly effective teachers have a positive impact on student learning outcomes while ineffective teachers have a negative impact on student learning outcomes (Beins, 2003; Darling-Hammond, 2000; Rice, 2003; Marzano, 2004). As such, teachers must be equipped with subject-matter, curricular, and pedagogical knowledge, as well as the right mindsets to properly address students' needs (Burroughs et al., 2019; Collinson, 1999; Wayne & Youngs, 2003). Through training and the provision of instructional resources and mentorship, district and school leaders can prepare both experienced and novice teachers to implement effective classroom management strategies that keep students engaged in their learning while also providing equitable, high-quality instruction. More specifically, the district and school leaders we spoke with demonstrated intentionality in promoting teachers' content knowledge and enhancing their instructional practices through (a) new learning opportunities that were designed to address specific educator needs, (b) the appointment of academic coaches and other highly effective school leaders who were equipped to provide both group and individualized instructional support to teachers, and (c) regular peer and mentor engagement. Their active involvement in developing their teachers to become more effective in the classroom was a critical contributor to student success.

# Key 6

## Strengthen Connections with Families

Understanding the critical role that family engagement plays in a child's achievement and social-emotional well-being, district and school leaders encouraged educators to build relationships with families by maintaining open communication, providing resources to support student learning at home, and creating opportunities for families to be involved in their child's learning. For district and school leaders alike, building a solid school-to-home connection was imperative, especially during the early months of the COVID-19 pandemic when many students were engaged in some form of remote or hybrid learning at home for a temporary period.

***District and school leaders involved families in their child's learning.*** District and school leaders worked fervently to create a school-to-home connection that offered families the opportunity to become involved in their child's learning both at home and in school. In some schools, district and school leaders encouraged parents to become involved in evening activities at school, such as Math and Literacy Nights, where parents were exposed to some of the curriculum their children were learning. While academic nights were often not as successful among parents as school sports, plays, and other forms of school-based entertainment, district and school leaders remained committed to continuing to identify ways to engage families.

Douglas, who has a passion for reading, implemented reading challenges as a strategy for helping parents become more involved in their child's learning at home. She explained:

"[L]ast year we started reading challenges [in which] students were challenged to read at home, because we all know the power of reading at home and what that can do for reading development . . . And so [students] had reading calendars that I made every month that kids took home, and their challenge was to read at least 15 to 16 nights in a month for 15 to 20 minutes each night. And so, it was a way to get the kids involved and also a way to bridge that gap between school and home so that the parents were also getting involved. Because it could be the parents reading to them, it could be the kids reading on their own, but the parents did have to sign off on their reading logs. So, the parents had to take ownership in it as well."

When schools closed and many caretakers were forced to take on a more supportive role during the day to aid in their child's learning, Amelia Walton, principal of Broward Gardens Elementary, a rural school in the Southeastern region with a high population of Latino students, identified support staff to assist parents when they had trouble with their child's learning devices. She shared:

"I mean, we had parents coming up here left and right. They didn't know how to run a Chromebook or how to get on lessons and help their student. We actually had somebody sitting in the front office. Parents would come sign in, and they would sit down, and we would have someone sitting with them, guiding them through how to work with their students on that Chromebook. So, it was difficult for them, as well, but they made the effort. They came up here and they learned because they were, at that point in time, the teacher."

Because families and educators have a shared responsibility and mutual support of what is best for children, it is important that they work together to create an engaging and supportive learning environment for children both in school and at home (Albright et al., 2011). District and school leaders articulated their desire to bridge the gap between school and home by involving families in students' learning and creating opportunities for families to fully participate in the school community, including attending family nights and school events, volunteering their time to assist with school- and classroom-based activities, and supporting their child's learning by sharing information and activities that can be implemented at home to help increase mastery of skills and improve knowledge of concepts that their child may be struggling with at school. They even developed a plan to provide technical assistance to families who struggled to use the digital learning platforms and other technological resources when attempting to support their child's learning at home during school closures. These strategic efforts often led to a deeper bond between families, educators, and administrators—a bond that has been found to increase academic achievement, reduce disciplinary issues, and improve the school climate (Barnard, 2004; Henderson & Mapp, 2002).

***School leaders expected teachers to build relationships with families by maintaining regular communication.*** School leaders set an expectation for teachers to regularly communicate with families in order to keep them informed and foster mutual trust. Some of the many ways in which teachers maintained regular communication included phone calls to discuss student progress, home visits to deliver instructional packets, greeting parents each day in the carpool line and at the front entrance to the school as they dropped off their children, and sending correspondence and newsletters to parents that contained details about school and classroom events.

At Buxton Avenue Elementary School, school leaders encouraged teachers to make regular phone calls to families once each grading period. Other schools, like Broward Gardens Elementary School, sent out informative newsletters to parents that had important dates, activities, and testing information to help keep families informed of what was happening on a weekly basis. Teachers used ClassDojo® and student planners as a form of communication with parents about their children. Invites to Family Nights, Literacy Nights, and Book Fairs were also effective ways of getting families involved, Walton mentioned.

The Kensington School District in the Midwestern region has seen a recent influx of African and Asian immigrant families, which has significantly increased the number of English Learner (EL) families and students across the district. Hence, district leaders in the Kensington School District and school leaders at Excelsior Elementary School have worked hard to welcome families and foster relationships with their EL population. For example, Beal stated:

"I think that we have great district leadership with our ELs. But internally, we've got a staff that is just incredibly intentional about what we can do—welcoming our ELs isn't enough. We want them to know that they are family. Welcoming, to me, just means it's a guest that's coming in. We're not welcoming guests. We're welcoming new family members. And it's just like that idea I think is just—it's just felt by people . . ."

Building strong relationships between educators and families can help establish a mutual sense of trust and a positive rapport (Jacques & Villegas, 2018). However, according to Karen Mapp and Paul Kuttner (2013), school-home partnerships (also referred to in this paper as school-family partnerships) can only thrive if both families and educators have the collective capacity to engage in a partnership with one another. According to Michelle Albright, Roger Weissberg, and Linda Dusenbury (n.d.), there are three types of activities that lead to successful school-family partnerships: two-way school-home communication, which informs, educates, and empowers families to be actively involved in their child's education, family involvement at home, which supports families with establishing a home

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environment that reinforces and extends learning that takes place at school, and family involvement in school, which encourages families to participate in school- and classroom-based activities and serve as attendees or volunteers at school events or members of school-based committees and leadership teams. School leaders we spoke with set an expectation for all educators at the school to develop bidirectional relationships with families by maintaining open, two-way communication that allowed them to regularly share information about upcoming events, opportunities to be involved, and updates on their child's learning and behavior while also providing a platform for parents and caregivers to connect with educators (e.g., phone, email, student planners, parent-teacher conferences, ClassDojo, etc.).

## Discussion

Districts and schools across the US have started to rapidly shift their attention toward family engagement efforts—a once low-priority recommendation that has been reaffirmed as playing an integral role in education reform (Mapp & Kuttner, 2013). In fact, a 2018 case study by Heather Weiss, Ed.D., M. Elena Lopez, Ph.D., and Margaret Caspe, Ph.D. acknowledges family engagement as “one of the most powerful predictors of children’s development, educational attainment, and success in school and life.” Supporting this claim, a longitudinal study examining performance data of elementary school students with economic disadvantages in Chicago revealed that the integration of sustained family engagement was one of the key indicators of participating schools’ substantial improvement in reading and mathematics achievement (Hayakawa et al., 2013). District and school leaders prioritized forging a strong school-home connection between educators and families through family engagement opportunities, and they embraced a partnership philosophy in which families and educators assume a shared responsibility over student learning. Empowering families to play an active role in their child’s education allowed them to gain confidence in their ability to support their children at home and develop stronger relationships with educators, administrators, and their children.

## Limitations

There are a few limitations worth noting in this study. First, more than half of the students who took the *i-Ready Diagnostic* in the fall of the 2020–2021 academic year and about one-third of the students who took the Diagnostic in the spring of that year tested remotely. As such, these students were not included in the study, which substantially reduced the number of schools that could be analyzed—particularly schools in the West and Northeast.

In alignment with other beating the odds studies, we used regression analyses to predict student growth. We then compared predicted growth (at the school level) to actual growth. However, the cut-off we used to identify schools that exceeded expectations was not based on empirical metrics. Instead, we selected a cut-off that best served our purposes for the second phase of the study. Given the importance of this cut-off for determining which schools exceed expectations, future studies should compare various empirical methods of specifying the cut-off.

A known challenge of beating the odds studies is that different methods of identifying schools can generate drastically different lists of schools that exceed expectations. For example, previous researchers have found that using a prediction approach for identifying schools that exceed expectations (comparing a school's predicted performance to actual performance) versus a comparison approach (comparing a school's performance to other similar schools) produces less than 40% agreement (Abe et al., 2015). Alternative performance measures and/or school characteristics (i.e., predictor variables) can also substantially impact which schools are identified as exceeding expectations. Additionally, there tends to be substantial variability from year to year, with one study finding that fewer than half the schools studied were identified as exceeding expectations more than once over a four-year period (Abe et al., 2015). The possibility of results varying drastically from year to year or due to reasonable changes in model specifications (e.g., using overall Diagnostic score as the outcome instead of median percent Stretch Growth) may call the validity of the results into question—especially if these findings are used to publicly recognize schools/highlight them as exemplars. For future studies, we may consider studying only those schools that exceed expectations multiple years in a row, or schools that are identified as exceeding expectations using more than one method.

Lastly, although we asked district and school leaders to share the practices they believed contributed to their schools exceeding expectations during the 2020–2021 academic year, it is possible that their responses did not capture practices truly responsible for their success. A study that compares the practices of positive outliers (i.e., schools that exceeded expectations) to those of more typical schools or negative outliers (i.e., schools on the other end of the spectrum) could help isolate the practices that are truly distinct for those schools that exceeded expectations.

## Conclusion

Over the past two years, much of the research that has been published on Grades K–12 education has focused on the negative impacts of the pandemic on students' academic achievement. Additionally, many researchers have studied the negative impacts of the pandemic on the students' developmental, mental, and social health (Elmer et al., 2020; Hawes et al., 2021; Hill et al., 2021; Hussong et al., 2021; Leeb et al., 2020; Rogers et al., 2021; Xie et al., 2020; Zhou et al., 2020). These studies have been critically important for understanding where students are—academically, behaviorally, socially, and emotionally—and what challenges they face. However, what many educators are now seeking is hope that things can get better—and guidance on how to navigate this new educational landscape.



Given school leadership is the one of the leading influential factors in student performance (Grissom et al., 2021) and research suggests a strong association between district leadership and student achievement as well (DuFour & Marzano, 2011; Waters & Marzano, 2006), we chose to center this study around the district and school leaders whose schools were identified as exceeding expectations during the pandemic. Through conversations with these leaders, we identified 21 common mindsets and practices grouped into six overarching themes (i.e., keys to success).

By providing examples of schools that have managed to defy the steepest odds, and by sharing the promising leadership practices that helped them do so, we hope to inspire and equip leaders across the country to evaluate their practices and make positive changes.



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# Appendix A: Interview Protocol

## Welcome and Introduction (1–2 min.)

- Introductions
- Brief overview of selection criteria and unfinished learning (i.e., students Two or More Grade Levels Below)
- *i-Ready* reminders (i.e., This is not a focus group on *i-Ready*, and we will not be asking questions specific to *i-Ready*.)
- Recording permissions and NDA/consent reminder

## School Description (1–2 min.)

Can you describe your school context—anything that would help give color to the results of the beating the odds study during the 2020–2021 school year? (PROBE: school building dynamics, student demographics, faculty/staff, geographic location, feeder in-out schools, etc.)

## Beating the Odds Selection (2 min.)

1. [All] Can you share your thoughts about being identified as a beating the odds school? (PROBE: Were you surprised that your school was selected as a beating the odds school during the 2020–2021 school year? Why or why not?)

## Promising Practices (25 min.)

2. [All] What are three key innovative, unique, or particularly effective things you are doing that help support your students' achievements? How long have you been implementing these practices? Were there any practices that were specific to the 2020–2021 school year?

- a. What kinds of things (e.g., practices, strategies, policies, etc.) do you think you and your team did that other schools or districts may not have done that allowed you to support students who were Two or More Grade Levels Below?
- b. What changes did you make, if any—midpandemic or shortly after—that you plan to stick with moving forward?

3. [All] Can you tell me more about: (Identify any buckets below mentioned in three key things highlighted in Q2.)

- a. Building Culture

- i. Data Use (Same as Q4—skip Q4a and Q4b if data is mentioned.)

1. Describe how you use data and how often:

- A. [District leaders] At the district level?

- I. In strategic planning/goal setting?
- II. In PD?
- III. In one-on-one conversations with school leaders?

- B. [School leaders] At the school level?

- I. In the School Improvement Plan (SIP)?
- II. In classrooms?
- III. In PLCs?
- IV. In PD?
- V. In staff meetings?
- VI. In one-on-one conversations with teaching staff?
- VII. Obtaining buy-in on vision
- VIII. Teacher engagement

- b. Structures and schedules
- c. Student engagement
- d. Family engagement
- e. Teacher planning and instruction
  - i. Pacing guides
  - ii. Curriculum materials
  - iii. *i-Ready*
  - iv. Teacher Toolbox
- f. PD and training/support of teachers

### **Data Use** (10 min., unless skipped)

**4. [All] Describe how you use data and how often: (If data was mentioned among three practices, skip this question.)**

- a. [District leaders] At the district level?
  - i. Strategic planning/goal setting?
  - ii. PD?
  - iii. One-on-one conversations with school leaders?
- b. [School leaders] At the school level?
  - i. In the SIP?
  - ii. In classrooms?
  - iii. PLCs?
  - iv. PD and training/support of teachers?
  - v. Staff meetings?
  - vi. One-on-one conversations with teaching staff?

### **District-Level Practices** (10 min.)

**5. [District leaders] What did you do to:**

- a. Hold schools accountable for achieving results among all students? How did that help increase student achievement among all students? Among below-grade level students?
- b. Help school leaders lead their schools? How did that help increase student achievement among all students? Among below-grade level students?

**6. [District leaders—if this question applies] Not all students in your district had the same levels of growth. What do you think you did to support your beating the odds schools? What was your vision for these schools? Your strategic plan for these schools?**

### **Advice** (5 min.)

**7. [All] What advice would you give to other school districts/school administrators in similar contexts who want to help their below-grade level students beat the odds in reading and/or mathematics?**

### **Reflection** (10 min.)

**8. Reflect.**

- a. [School leaders] If you had to do it all over again, what would you have done differently?
- b. [District leaders] If you had to do it all over again, what would you have done differently?

## Curriculum Associates

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Curriculum Associates, the creator of *i-Ready*, has been united around one common purpose: to make classrooms better places for teachers and students. For more than 50 years, we've remained driven by this mission, introducing and then constantly improving innovative and exciting products that give every student the chance to succeed.

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