Colorado spotlight schools:
High-poverty schools that are raising the bar

Rianna Saslow, Charles Barone, Mackenzie Taylor
*With special acknowledgement to the
DFER Colorado team*

I. INTRODUCTION

The relationship between poverty and academic achievement is undeniable. It is a prevailing truth that low-income students continue to receive subpar access to educational opportunities, and these inequities have only expanded since the onset of the pandemic – directly impacting student outcomes. **Demography does not, however, always have to equal destiny.**
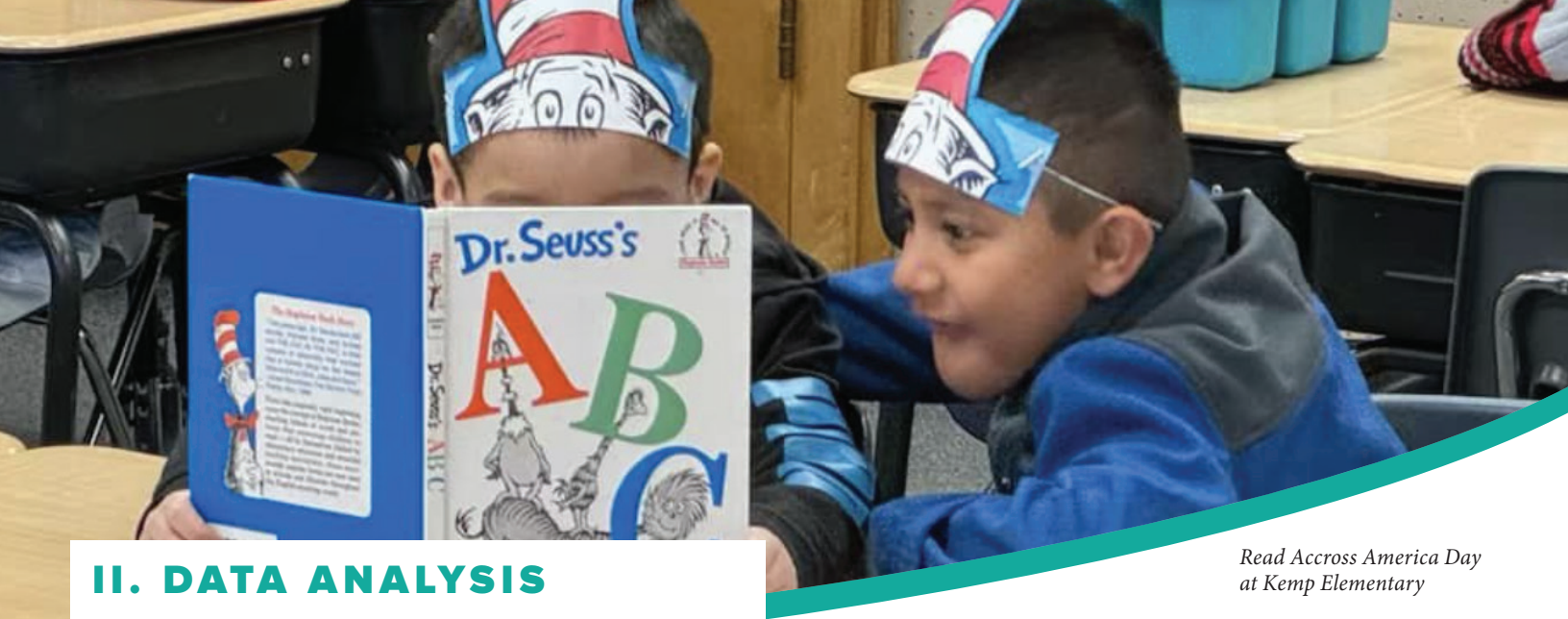
Some high-poverty schools are making significant achievements in either student proficiency, student growth, or both. This report looks at schools across the state of Colorado to identify high-poverty schools that are performing significantly better than their peers.

This report seeks to prove that above-average achievement is possible even in our highest poverty schools. We examine how these "spotlight" schools have cultivated policies and programs to yield positive academic outcomes. Of the 300 Colorado elementary and middle schools in the highest poverty quartile, we highlight the 39 schools that have either achieved above-average proficiency rates or demonstrated growth by at least 10 points on the CMAS assessment in either math or ELA.

While there is no single answer to fostering academic excellence, the leaders of the schools we surveyed and interviewed were united under the following core principles eloquently summarized by Assistant Principal Handy of Smith Elementary:
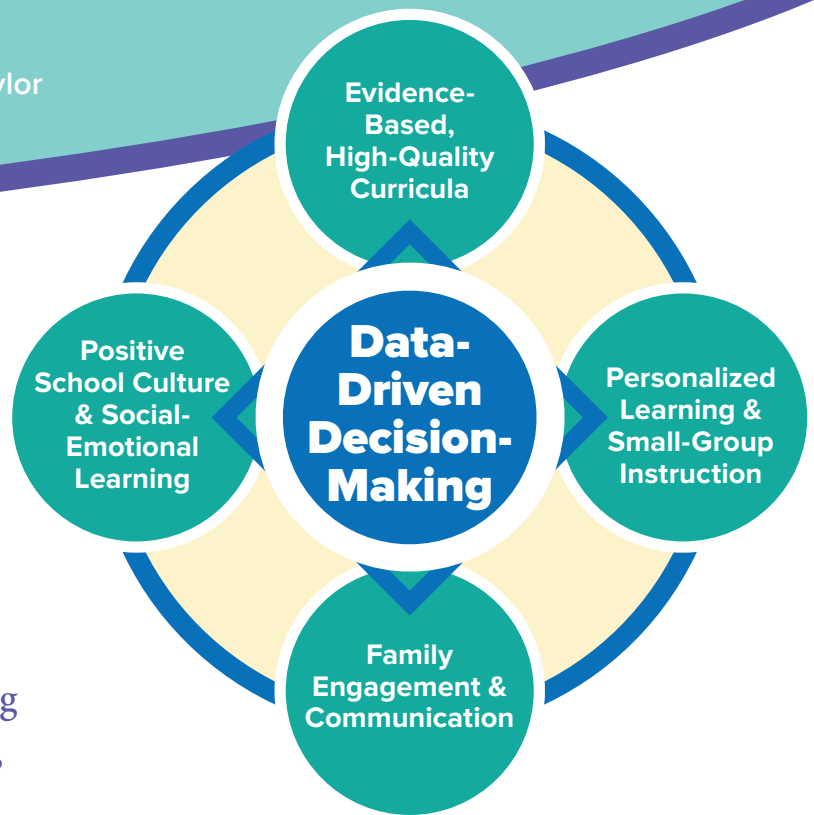
- **"Data-driven decision-making** empowers educators to make informed choices that enhance student outcomes and drive continuous improvement;

- **"Personalized learning,** tailored to each child's pace and learning style, fosters engagement and growth;

- "Nurturing a **positive and inclusive school culture** that emphasizes respect, kindness, and collaboration helps create a safe and supportive environment for young learners;

- Regular **communication with parents** and guardians ensures a strong partnership between the school and home."

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II. DATA ANALYSIS

Proficiency Rates

The connection between school poverty and academic proficiency is significant as evidenced by the fairly high correlations in both math ($r = -0.78$) and ELA ($r = -0.83$). Put simply, this means that 60-69% of the variance in student achievement can be accounted for by school poverty and, conversely, that 31-40% cannot be accounted for. This still leaves room for a lot of variation in student achievement across all levels of school poverty – meaning that **while poverty is associated with achievement, it's not dispositive**.

For example, for the quartile of schools with the lowest poverty rates, proficiency rates range from 16% to 88% in math and from 32% to 91% in ELA. Meanwhile, for the quartile of schools with the highest poverty rates, proficiency rates range from 1% to 49% in math and from 6% to 53% in ELA.

Comparing Math Proficiency Rates in Low and High Poverty Schools

ELA Proficiency Rate:
- 0 - 25%
- 25 - 50%
- 50 - 75%
- 75 - 100%
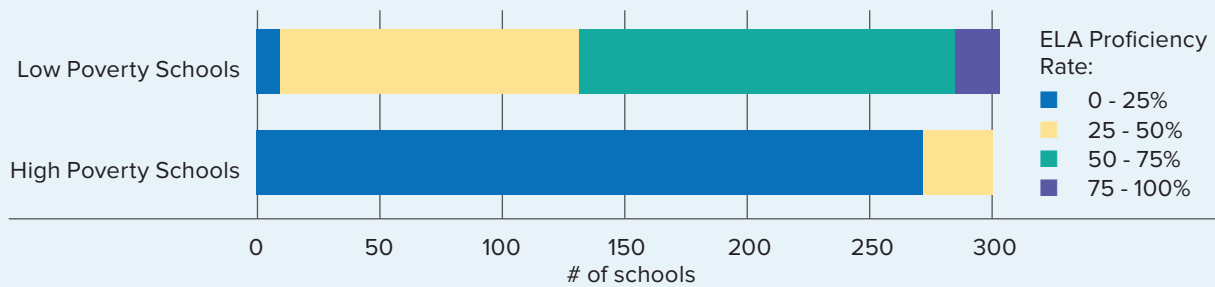
# of schools

Comparing ELA Proficiency Rates in Low and High Poverty Schools

ELA Proficiency Rate:
- 0 - 25%
- 25 - 50%
- 50 - 75%
- 75 - 100%

# of schools
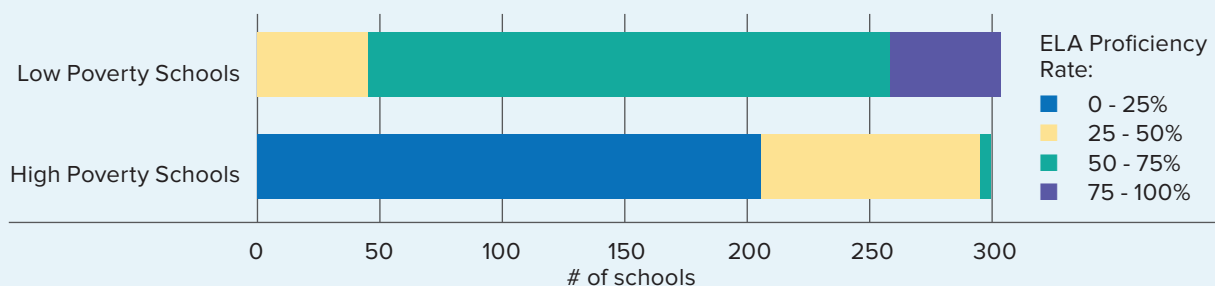
Read Accross America Day at Kemp Elementary

Academic Growth

The connection between school poverty and growth is significantly smaller than that for proficiency. We calculated growth on the CMAS mean scale scores from 2019-2023 as well as 2022-2023. We found a moderate correlation between school poverty and academic growth from 2019-2023. However, there is almost no correlation between school poverty and academic growth from 2022-2023. This indicates that high-poverty schools in Colorado faced moderately greater losses than lower poverty schools over the course of the pandemic, but recovery during the 2022-23 school year did not correlate at all with poverty levels.

These findings align with a national analysis from the New York Times, which found that during the pandemic, "test scores fell most in poor districts...but once schools reopened, the pace of recovery was similar across districts."

III. IDENTIFYING & ASSESSING SPOTLIGHT SCHOOLS

In sum, we identified a list of 39 high- poverty elementary and middle schools that demonstrated high academic proficiency or significant academic growth according to the 2023 CMAS assessment. We define high-poverty schools as those where the number of students receiving free or reduced price lunch is in the fourth quartile (>68%) for the state of Colorado.

These 39 schools represent a diverse variety of school models, demographics, size, and geography. We identified 7 public charter schools, 4 innovation schools, 2 magnet schools, and 26 traditional public schools across 17 districts (See Appendix B).

Fourteen schools were identified for their high proficiency rates. Of these, ten schools had above-average math proficiency rates (>31.9%), and 6 schools had above-average ELA proficiency rates (>41.8%). Two schools (Haaff Elementary School and Rocky Mountain Prep - Creekside) had above-average proficiency rates in both subjects.

We identified 27 schools as high-growth schools — meaning they demonstrated growth of at least 10 mean scale points in math and/or ELA since 2019. The CMAS assessment has a 200-point scale, so a 10-point increase represents 5 percentage-points of growth.

Recognizing the academic accomplishments of these 39 identified schools is important, especially given the challenges and record learning loss caused by the pandemic. However, it's essential to acknowledge the substantial room for improvement that these benchmarks reveal. While each of the identified schools excelled in at least one subject in terms of growth or proficiency, many struggled in the areas for which they weren't identified. A school where less than half of students are able to read and do math on grade level still has much room for improvement. Further, despite the rarity of 5-percentage-point growth over four years in Colorado, schools must aim for more rapid growth in the coming years to ensure the overall progress and success of their students.

IV. UNDERSTANDING STRATEGIES FOR SUCCESS

Centralizing data in all decision-making

When we surveyed 13 spotlight schools, the word "data" was mentioned by respondents a resounding 26 times throughout their survey responses – more than any other key word besides "student" and "teacher." But "data" was not presented as an abstract concept, and it was not limited to assessment results. Instead, data is integral to key strategies around personalizing learning, guiding small group instruction and tutoring programs, tracking student progress, driving curriculum decisions, engaging families, and informing social-emotional learning. In short, **data is used as a "guiding light" to inform decision making across every key aspect of school policy and practice**.

Math instruction at Kemp Elementary

CORE PRINCIPLE	ROLE OF DATA
Provide **personalized learning and small-group instruction,** especially for students who are falling behind.	Utilize both daily/weekly data and in-depth evaluations to identify students for intervention, inform grouping decisions, and determine instructional priorities for each session.
Unify teachers with **evidence-based high-quality instructional materials –** including science of reading and science of math curricula; provide professional development on content and instructional strategies to ensure that all students have access to quality instruction.	Align high-quality curricula with high-quality assessments to accurately track academic achievement and growth; Leverage both daily exit tickets and comprehensive diagnostic assessments to set individualized goals, monitor progress, and determine interventions.
Build relationships and direct communication lines among families in order to get students through the doors and reduce chronic absenteeism.	Collect and mobilize daily attendance data to drive both immediate family contact as well as long-term attendance goals, rewards, and interventions.
Leverage **social-emotional learning** to cultivate a positive school culture where students feel ready to learn.	Administer screeners, such as BESS, to understand the social-emotional needs of students and make data-driven decisions on appropriate SEL lessons, interventions, and student supports.

> Assistant Principal Handy of Smith Elementary emphasized the importance of data:
>
> Using data to monitor and improve student outcomes is a vital practice in education. Regularly tracking student progress allows for timely intervention when students are falling behind, providing additional support and resources where necessary. Data can also inform curriculum adjustments, helping educators refine their teaching methods to better align with student strengths and weaknesses. Overall, **data-driven decision-making empowers educators to make informed choices that enhance student outcomes and foster a culture of continuous improvement**.

Director Gaudiani shared that DSST Green Valley Ranch Middle School administers diagnostic assessments and designates students within five performance bands, which "give teachers a way to plan in batches and groups." By creating multiple bands for students who are struggling, teachers are able to provide targeted and differentiated instruction — as students who are several years behind and those who are merely struggling with a few lessons require different sets of interventions.

> Assistant Principal King shared how this data is continually tracked and mobilized at Vanguard Classical School:
>
> [The] principal holds bi-weekly data meetings with every grade level, and the teachers come with student work samples and i-Ready scores and progress monitoring scores. Students who are not on grade level are identified and re-identified. Sort of like an MTSS [multi-tiered system of supports] process, they pick new goals for those students to work towards for the next two weeks, and then they come back with results and next steps.

To complement the long-term goals and interventions informed by comprehensive assessments, many survey respondents reported that exit tickets serve an essential role in providing additional data to monitor progress and shape decision making. Principal McKee uses exit tickets at Rocky Mountain Prep - Ruby Hill to assess daily objectives in nearly every content area, sharing that "because it has become so embedded in our system... teachers just more naturally and organically are paying attention to the data on a day-to-day basis." At Ashley Elementary, math teachers are also expected to track and analyze daily exit tickets and fluency progress, contributing to math gains of 14 scale points since 2019.

Providing small-group instruction

Most survey respondents reported that small group instruction and response-to-intervention (RTI) were very or extremely important to improving academic achievement. At Vanguard Classical School, there is a protected enrichment block where students participate in "targeted math or reading intervention or acceleration," and English Learners participate in English language development. During this time, "most teachers are executing small groups" with the support of a literacy director. Vanguard Classical School has also introduced a literacy lab where small groups of students can receive targeted interventions based on their classwork and iReady progress monitoring.

Principal Garcia-Vicente of Rocky Mountain Prep — Fletcher explained that data is central in guiding small group instruction at Rocky Mountain Prep — Fletcher:

We consistently look at data to see where students are and to figure out what they didn't get. From there, students are grouped based on gaps for small group teaching/tutoring and teachers plan what they need to reteach. We're trying to really stress that teachers shouldn't move on in a lesson without 75%-80% mastery.

Summer Planning at Rocky Mountain Prep

Similarly, Senior Math Team Lead Dawn Chung of Ashley Elementary shared that:

Last year we focused on data collection to drive small group instruction and expected that teachers would instruct small groups each day. We also implemented intervention at the top to ensure that the kids who already understood the new content were challenged.
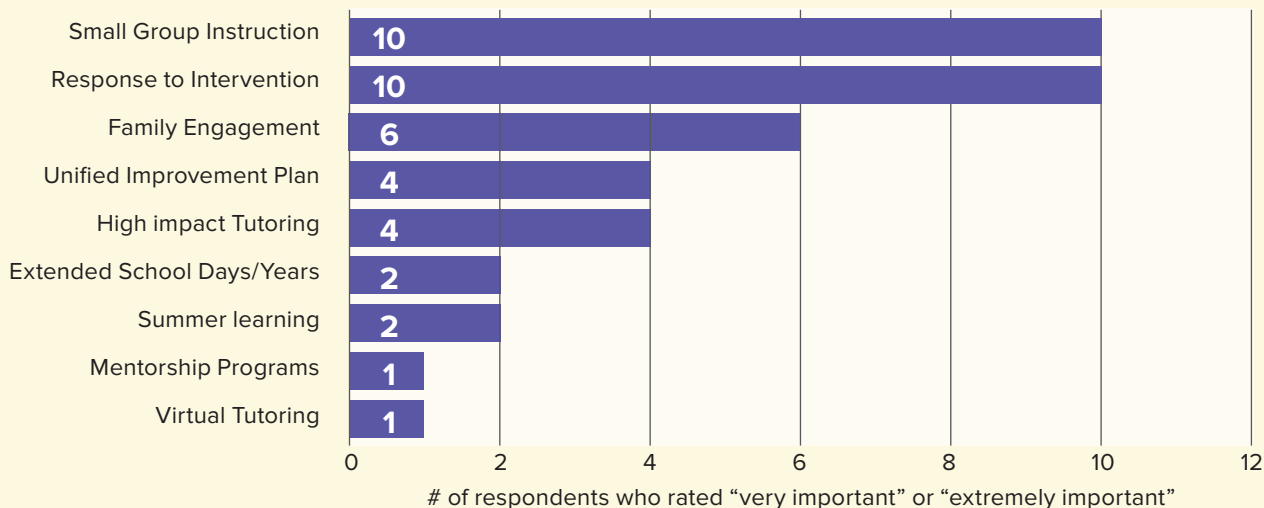
Despite overwhelming support and evidence of its effectiveness, High Impact Tutoring (HIT) was only ranked by four respondents as being very or extremely important. While HIT is distinguished by a set of evidence-based guardrails defining the group size, frequency, and consistency of the sessions, it's likely that schools are implementing similar programs under a different name. This could represent a pervasive language barrier, whereby policymakers and advocates are pushing the importance of HIT while practitioners are implementing similar programs under the label of literacy labs, enrichment blocks, or small group interventions.

How important were each of the following interventions in helping your school generate impressive growth and/or proficiency rates on the CMAS assessment?

Intervention	# of respondents
Small Group Instruction	10
Response to Intervention	10
Family Engagement	6
Unified Improvement Plan	4
High impact Tutoring	4
Extended School Days/Years	2
Summer learning	2
Mentorship Programs	1
Virtual Tutoring	1

# of respondents who rated "very important" or "extremely important"

Reading Celebration at Kemp Elementary

Implementing Evidence-Based Curricula

The majority of survey respondents noted that evidence-based and data-driven curriculums were essential to their success. Dawn Chung, Senior Math Team Lead at Ashley Elementary, worked closely with her principal to align all math teachers under a single curriculum and clear instructional expectations. Principal Rawson of Goldrick Elementary reported that her school's shift from inquiry-based instruction to science of math curricula has contributed to math gains of 11 scale points in the past year alone, nearly tripling their math proficiency rates:

> We adopted a new math curriculum that was much more explicit than our previous curriculum. We abandoned constructivist, inquiry-based strategies for evidence-aligned strategies of explicit instruction, math fluency, and retrieval practice.

In other words, rather than grappling with problems they don't yet know how to solve, students should be introduced to new concepts incrementally with clear explanations and procedures and then proceed to practice them. This aligns with research conducted by the Institute for Education Sciences, which found strong evidence that Science of Math principles effectively improve outcomes for diverse student populations.

Similar comments were made around reading instruction. Caroline Gaudiani, School Director of DSST Green Valley Ranch Middle School, reported that:

> We committed to Reading Reconsidered as a standards-based curriculum to ensure rigorous material are in front of students. Complementing that with trainings like Constructing Meaning have led to strong planning for our students…We worked to make social studies a partner in literacy - particularly in the writing space. That has allowed for our humanities teams at each grade level to work together (ELA and Social Studies).

Principal McKee of Rocky Mountain Prep - Ruby Hill shared how high-quality curricula and high-quality assessments go hand-in hand:

> Because we really focused on adopting high-quality instructional materials, I feel comfortable using their assessments as a result. I don't think we could have said that in previous years because of the curriculum that we were using or just creating. Many kids were acing it, but it was crappy stuff, so it didn't matter.

Supporting Teachers with Professional Development

Importantly, a shift in curriculum must be accompanied by the professional development necessary for teachers to be able to effectively deliver the content. At Rocky Mountain Prep - Ruby Hill, Principal McKee shared that they "do a lot of internalization work with coaches at the beginning of the school year to make sure that teachers know their grade-level content as well as they can in a couple of weeks of summer training." From there, coaches conduct "tight loop coaching" at the beginning of the year, "where they're in the classrooms repeatedly providing quick, small feedback to improve a teacher's practice."
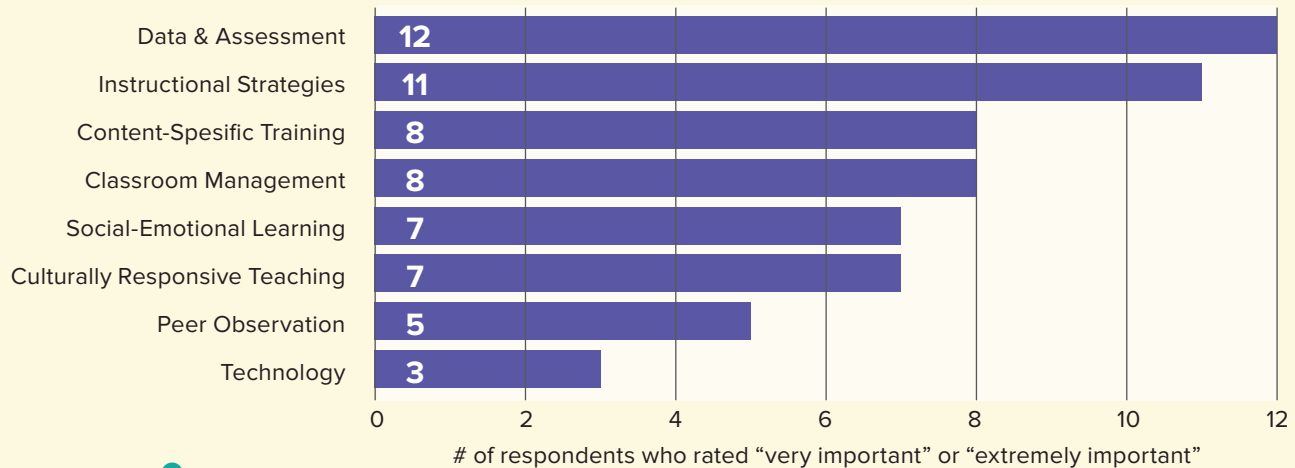

Teacher Training at Rocky Mountain Prep

According to to the Learning Policy Institute, this sort of content-focused professional development, coupled with coaching and modeling of instructional strategies, is precisely what schools should be doing to drive improvement.

Consistent with above, the need for aligned professional development was widely echoed across survey participants; 11 of the 13 respondents claimed that instructional strategies were very or extremely important, and 8 respondents ranked content-specific training as of similar importance.

How important were each of the following profesional development/approaches in boosting educator effectiveness?

Category	#
Data & Assessment	12
Instructional Strategies	11
Content-Spesific Training	8
Classroom Management	8
Social-Emotional Learning	7
Culturally Responsive Teaching	7
Peer Observation	5
Technology	3

# of respondents who rated "very important" or "extremely important"

> Several school leaders also mentioned the importance of retaining teachers and reducing turnover. For example, School Director Gaudiani of DSST Green Valley Ranch Middle School stated:
>
> One of the most critical components of success for student growth has been teacher retention and strong staff culture so that teachers can apply learnings over time and get better for kids each year. Our 6th and 7th grade ELA teams (4 people) have all been here over 7 years.

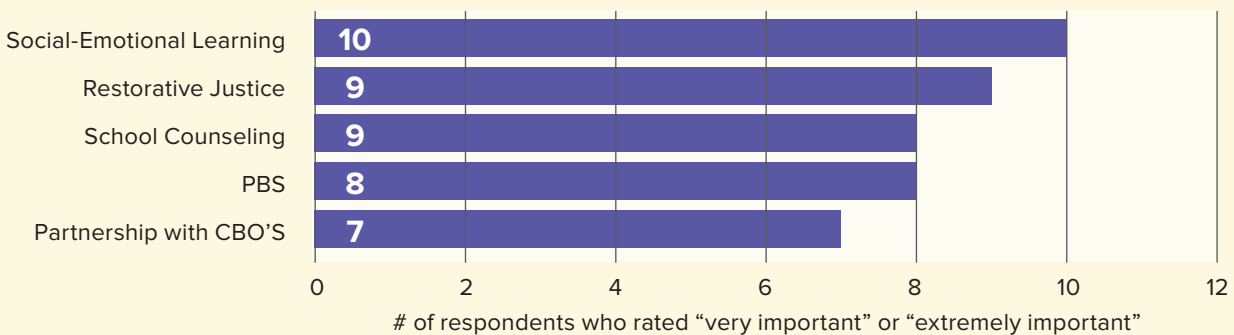## Supporting whole-child development with Social-Emotional Learning

To complement data-driven, evidence-based instruction, schools must also ensure that students have the social-emotional support they need to feel ready to learn. This challenge has become particularly prominent in the wake of the pandemic. In 2022, over 80% of schools reported that the pandemic negatively impacted students' socio-emotional and behavioral development. As a result, schools have seen increases in classroom disruptions, student misconduct, and acts of disrespect towards educators.

According to our survey, the most popular approach for supporting whole-child development is Social-Emotional Learning (SEL), which helps students cultivate the following core competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. Meta-analyses consistently demonstrate the positive effects of SEL, showcasing medium to large effect sizes on "reducing disruptive behavior problems and emotional distress" as well as "improving students' cognitive and academic performance." When coupled with school counseling and restorative justices practices, SEL can serve as a vital tier-one intervention to prepare students for both personal and academic success.

To what extent did you implement the following programs and policies to support whole-child development and well-being?

Program	# of respondents
Social-Emotional Learning	10
Restorative Justice	9
School Counseling	9
PBS	8
Partnership with CBO'S	7

# of respondents who rated "very important" or "extremely important"

When Principal Savage first began his leadership at Kemp Elementary in 2016, "the biggest focus [they] had was student culture, positive behavior supports, and a system to include SEL in the classroom." They also implemented "pride traits," which rewarded students who demonstrated growth and excellence in monthly priority traits. The school prioritizes setting both academic and SEL goals, and they're committed to recognizing and celebrating both. Since beginning these efforts. Principal Savage has seen a 90% reduction in suspension rates as well as 80% reduction in staff turnover.

Similarly, Goldrick Elementary holds weekly community meetings where they celebrate "leaders of the week" who demonstrate core social-emotional competencies. Principal Savage warned that commitment to SEL must remain high even after seeing improvements: "I think that's one of those things where if you're not working to improve, you're probably gonna go backwards."

Importantly, SEL should not be implemented in isolation but should instead be viewed and treated as complementary to academic excellence. Principal McKee shared that at Rocky Mountain Prep - Ruby Hill, "a lot of the things that we said were important to us in terms of social-emotional learning... were actually very much embedded in kids being successful academically in school." With that in mind, in addition to their dedicated SEL lessons, Principal McKee encourages teachers to tie SEL to lessons in core subjects. The reality is that teachers typically aren't coached, evaluated, or compensated based on SEL, so embedding it in classroom instruction tends to be most effective.

Community Day at Kemp Elementary

Furthermore, just as academic instruction is rooted in data, social-emotional learning should also be systematized and elevated through data. DSST Green Valley Ranch and Goldrick Elementary both administer a universal social-emotional screener called BESS (Behavioral and Emotional Screening System) – which indicates whether students are in the normal, elevated, or extremely elevated range of different emotional risks, such as students struggling with social skills or those with anxiety.
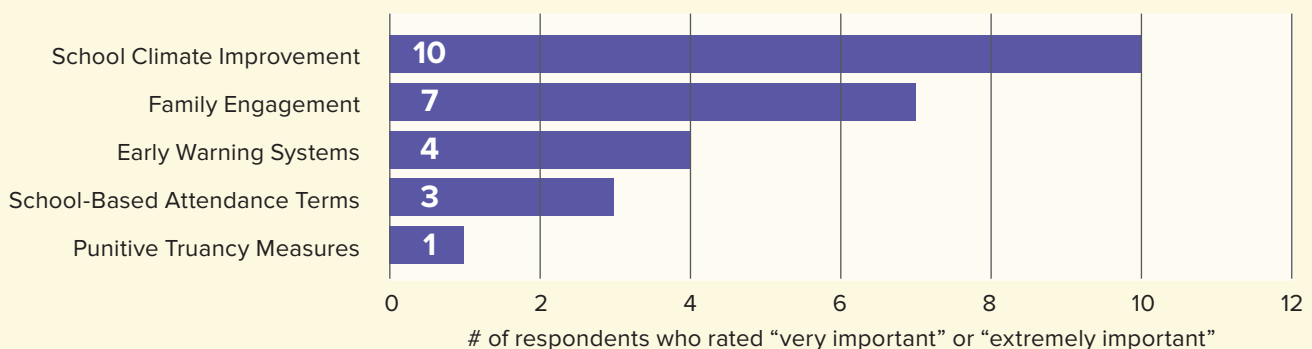
This data helps inform teachers on individual students as well as whole-class patterns. For example, at DSST Green Valley Ranch, the sixth grade class had a large group of students with extremely elevated risk on the Internalizing Risk Index, which represents sadness and anxiety. Teachers were able to leverage that data to select targeted SEL lessons, adjust their instructional and relational approaches, and broadly foster healthier and more informed relationships with their students. Additionally, Goldrick Elementary uses the data to place students into specific Tier 2 SEL groups if they need additional support.

Engaging Families to Improve Attendance

Although schools have re-opened their doors to in-person learning, attendance has never recovered from the pandemic, and many families now view school as optional. In 2022, two of every three students nationwide attended schools with high rates of chronic absenteeism – more than double the pre-pandemic rate.

To address this issue, 10 survey respondents cited school climate improvement as very important for reducing chronic absenteeism, and 7 respondents ranked family engagement as having similar importance.

To what extent did you implement the following programs and policies to reduce chronic absenteeism?

Program/Policy	# of respondents
School Climate Improvement	10
Family Engagement	7
Early Warning Systems	4
School-Based Attendance Terms	3
Punitive Truancy Measures	1

# of respondents who rated "very important" or "extremely important"

10

> Our families have lots of different barriers to being able to get their students to school everyday and on time. Since we are an elementary school, it's really about figuring out how to work with the family, not just the student, to make attendance successful.
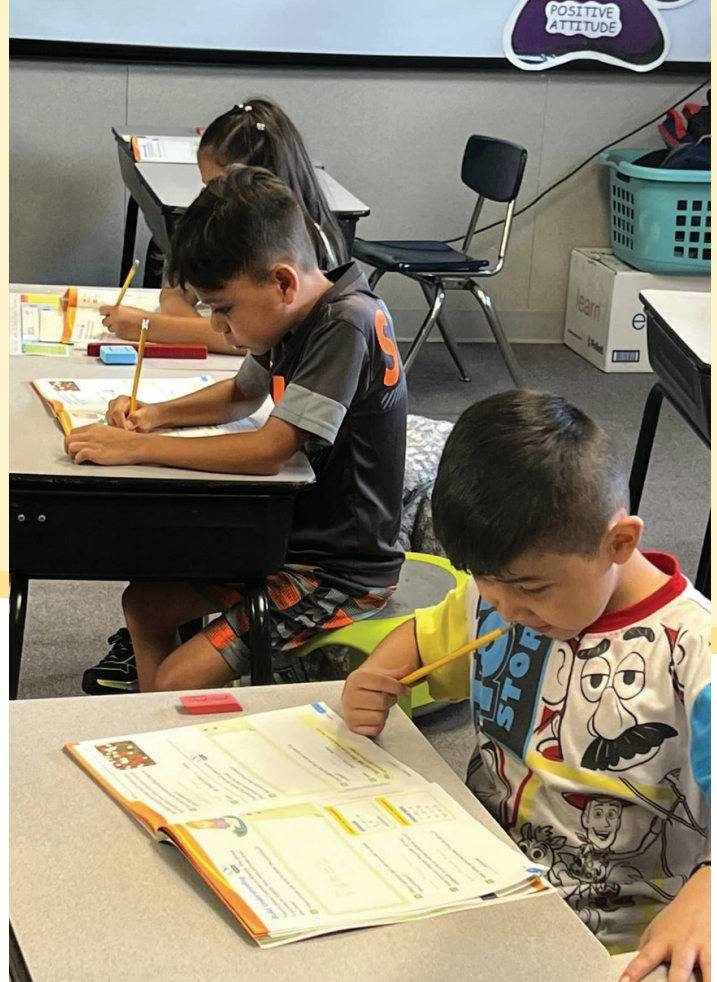
With this in mind, establishing strong relationships and direct communication lines with families is a key driver of attendance, and many schools do so through community events. At Kemp Elementary, Principal Savage has made it a priority to connect with families, because according to him, "If the parents believe in the school, they're gonna support the school."

Math instruction at Kemp Elementary

They begin the year by hosting family events with the main goal of high attendance, using food or raffles as incentives to get families in the door. After establishing these relationships, they host "community days," where parents are invited to participate in class:

> We have them do an art project with their student that's based on an SEL theme. So it's fun and it has a lesson to it, but it also gives the teacher a chance" to tell parents about upcoming academic lessons and how they can practice with their children at home.

Similarly, at Vanguard Classical School, "teachers invite families into the classroom to help with reading groups and small group work" – helping to facilitate small-group learning, build teacher-parent relationships, and actively engage families in their children's learning.

Some schools host community events not only as an initial touchpoint but also as an incentive for consistent school attendance. At Rocky Mountain Prep - Fletcher, families are invited to monthly attendance and reading parties, where children with few absences and children who meet certain reading goals are invited with their families to participate in fun activities like cookie decorating or pumpkin painting.

While these events may help to build community engagement, they should be supplemented by evidence-based strategies, including: calling families when their children are absent, conducting home visits when necessary, and providing families with resources to address the root causes of absenteeism.

While only three schools ranked them as very important, Rocky Mountain Prep charter schools have found great success with attendance teams that run "attendance hotlines." In the first hour of each morning, their teams conduct a "power hour," calling every single family that is absent. From there, teachers are notified of the total absences for the day, how many students came to school after their parents were called, and who teachers should follow up with. Social workers also conduct daily home visits. Over the past year, Rocky Mountain Prep Fletcher has cut their chronic absenteeism rates in half and now has one of the highest attendance rates in the district.

Community Day at Kemp Elementary

V. CONCLUSION

Although the ties between school poverty and academic performance are strong, they are by no means unbreakable. The 39 spotlight schools highlighted in this report build hope and shed light on the policies and programs that can foster academic excellence in Colorado's highest poverty schools. While there is clearly no silver bullet, the school leaders we consulted were largely aligned on the following core principles:

- Data should be used as a "guiding light" to drive all decision-making, including but not limited to: guiding small group instruction and tutoring programs, tracking student progress, driving curriculum decisions, engaging families, and informing social-emotional learning;

- Small-group instruction and tutoring programs should be used to provide targeted and personalized instruction, especially to students who are falling behind;

- Evidence-based, high-quality curricula are essential, as is professional development to guide teachers on how to translate the content into effective instruction;

- Cultivating a positive and inclusive school climate through social-emotional learning and whole-child development is a key prerequisite to academic excellence; and

- Engaging families through community-building events, class participation, and organized attendance teams is essential to cultivating partnerships and reducing chronic absenteeism.

Kindness Friday at Kemp Elementary

APPENDIX A: COLORADO PERFORMANCE AWARDS

Each year, Governor Polis recognizes high-achieving schools in the state of Colorado. The Colorado Centers of Excellence Award and the Bright Spots Award similarly celebrate high-risk, high-growth schools. Award winners differ from our list of spotlight schools for the following reasons:

- The Bright Spots Award recognizes schools based on 2022 data, whereas our calculations are based on the most recent year of data.

- Colorado awards are based on the population of students that are "at-risk," whereas our poverty metric is the percent of students receiving free or reduced-price lunch. We also have different cutoffs for the percent of at-risk/FRPL students.

- These two Colorado awards are based on longitudinal growth and school performance bands, whereas our school list is determined by mean scale score growth and academic proficiency.

- Our analysis is exclusively based on CMAS assessment scores and consequently only includes elementary and middle schools, whereas the Colorado awards include high schools as well.

- We include all public schools – including traditional public schools, innovation schools, and public charter schools – in our analysis.

APPENDIX B: FULL TABLE OF SPOTLIGHT SCHOOLS

Summer Planning at Rocky Mountain Prep

APPENDIX C:
SURVEY QUESTIONS

Likert-Scale Questions

Questions asked respondents to rank choices on a 5-point scale from "not at all important" to "very important"

1. Despite facing the unique challenges of a high-poverty school navigating pandemic-era learning, your school was able to generate impressive growth and/or proficiency rates on the annual summative assessment. How important were each of the following interventions in helping your school generate such remarkable outcomes?

   a. Summer learning programs
   b. High impact tutoring
   c. Virtual tutoring/homework help
   d. Response to intervention (RTI)
   e. Mentorship programs
   f. Family engagement
   g. Extended school days/years
   h. Interventionists/Small-group instruction specialists
   i. Unified improvement plan

2. How important were each of the following in your efforts to attract, retain, and support high-quality educators?

   a. Competitive salaries
   b. Grow-your-own programs
   c. Professional development
   d. Mentorship programs
   e. Performance-based awards and bonuses
   f. Professional learning communities (PLCs)/Affinity groups

3. How important were each of the following professional development topics or approaches in boosting educator effectiveness?

   a. Classroom management techniques
   b. Instructional strategies
   c. Data & assessment practices
   d. Content-specific training (e.g. science of reading)
   e. Technology
   f. Culturally responsive teaching
   g. Social-emotional learning
   h. Peer observation

Pizza celebration for students demonstrating pride traits at Kemp Elementary

4. To what extent did you implement the following programs and policies to reduce chronic absenteeism?

   a. Early warning systems
   b. School-based attendance teams
   c. Family engagement
   d. School climate improvement
   e. Punitive truancy measures

5. To what extent did you implement the following programs and policies to support whole-child development and well-being?

   a. Social-emotional learning (SEL)
   b. School counseling and mental health services
   c. Partnerships with community-based organizations to provide services such as healthcare, counseling, housing, or financial assistance
   d. Restorative justice or conflict resolution
   e. Positive behavior interventions and supports (PBIS)

Short Answer Questions

1. What strategies or initiatives have you implemented that have driven positive student outcomes?
2. How do you use data to monitor and improve student outcomes?
3. How do you foster a positive and inclusive school culture that supports the academic and social-emotional development of students from low income backgrounds?
4. Is there anything else you'd like to share with us?