ELEVATE IN ACTION CASE STUDY SERIES

How the Bank Street Education Center and Yonkers Public Schools Used Elevate to Support Deep Learning in Middle School Mathematics



PERTS

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INTRODUCTION

The **Elevate in Action Case Study Series** documents insights from schools that use Elevate to systematically create **classroom conditions** that increase student engagement and lead to strong academic outcomes. The case studies draw from interviews with teachers and staff, as well as quantitative, longitudinal student experience data collected from students using measures that have been **validated** as early indicators of academic engagement, excellence, and equity.

ABOUT ELEVATE

Elevate is a continuous improvement platform that enables educators to use high-quality measures and analytics to regularly assess, disaggregate, and track classroom conditions over time, as they partner with their students to create a more engaging and equitable learning environment. Educators use Elevate surveys over multiple cycles of inquiry and action to test the impact of new practices. For example, an educator can use Elevate's **meaningful work** measure to learn that only 40% of their students find assignments to be meaningful and then reassess meaningful work to test the impact of a new practice that was intended to make work more meaningful. Elevate is designed to help educators and their learning partners make data-driven decisions about what practices to adopt, adapt, or abandon — and to identify "bright spots" where exceptionally positive learning conditions portend high-impact practices that deserve more detailed study and replication.

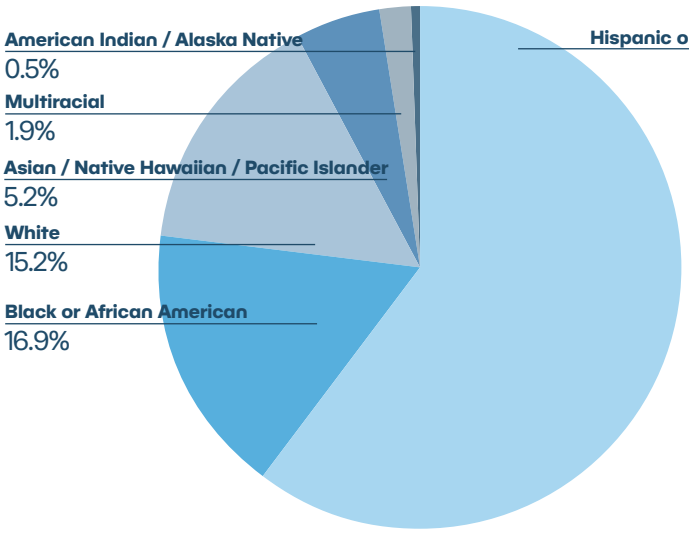
THE BANK STREET EDUCATION CENTER NEEDED TO LOOK **BEYOND TRADITIONAL MEASURES OF MATH ACHIEVEMENT** TO ADDRESS DISPARITIES.

As part of a five-year partnership between Yonkers Public Schools and the Bill & Melinda Gates Foundation, the Yonkers Public Schools Network for School Improvement (YPS NSI) has been working to close opportunity gaps and improve outcomes for a specific focus population: Students who are experiencing poverty and/or students who identify as Black or Latinx. And as a district serving a diverse student population with the mission of challenging every young person to achieve their highest potential, Yonkers Public Schools (YPS) was committed to this goal as well.

Beginning in 2020, the Bank Street Education Center (the Ed Center) partnered with YPS to study and improve mathematics education for middle-school students. In their initial research, the Ed Center team found that Black and Latinx students and/or students of all races who experience poverty faced inequitable outcomes in math learning. Since then, the Ed Center and YPS have worked together at all layers of the school system, deeply engaging with everyone from front-line middle school math teachers and students to school and district administrators, to define what supports all middle-school students need in order to be on-track for success in high school by the end of eighth grade.

As YPS and the Ed Center embarked together on this work, they employed a strengths-based, learner-centered approach. This approach, coupled with the YPS district's study of the book *Street Data,*[1] led them to seek out alternate ways to quantitatively measure learning and progress for the focus population (students who identify as Black or Latinx and/or students who are experiencing poverty). The YPS NSI acknowledged that in order to pursue deep learning of mathematics, they needed to complement traditional metrics —

ABOUT YONKERS PUBLIC SCHOOLS



40
public schools serve >23,000 students in Yonkers, a mid-sized city north of New York City

Racially/ethnically diverse
student population

79%
of students are economically disadvantaged

like test scores, attendance, and suspension rates — with measures of students' learning experiences. YPS teachers and staff felt that grades and assessments alone did not capture all the key elements of what was important in their students' learning and wanted a way to measure the *quality of the learning experiences* that students have in their math classes. Elevate allowed them to examine students' learning experiences systematically across the district, from students' own perspectives.

SUPPORTING DEEP LEARNING IN MATHEMATICS CALLED FOR A FOCUS ON FEEDBACK FOR GROWTH.

In Fall 2021, the Ed Center and YPS district and school leaders met to conduct a root-cause analysis in order to collectively name the key factors affecting the district's disparities in math outcomes. Their root-cause analysis examined multiple data sources, including Elevate survey data, empathy interviews, state test scores, attendance, and disciplinary records. Initially, due to the context of the pandemic and the intense pressure it placed on teachers and students, the network focused on incorporating principles from social-emotional learning in math classes. While these efforts built stronger relationships between teachers and students, teachers soon realized that they needed a different approach in order to focus on the academic growth the network was aiming for.

> And so [our conversations] really pushed them to say, 'Well...what is the intersection of SEL and math?' Because they [students] should feel cared for and also feel suppported academically.
>
> **Staff Member,** Bank Street Education Center

Accordingly, the next year, teachers and school leaders in the network engaged in a *data walk* — an activity in which community members walk through stations set up to display written and visual summaries of data, and reflect on the data in small groups.[2] Based on these reflections, teachers and school leaders voted to focus their efforts on **feedback for growth**. They believed that students would learn more and show stronger academic growth if teachers regularly provided them with high-quality feedback — feedback that is timely, specific, strengths-based, personalized, and actionable. This hypothesis is aligned with research showing that students learn more effectively when their teachers set high expectations, recognize progress, and offer respectful, critical feedback to help students improve (see **perts.net/elevate/feedback-for-growth**).

One Ed Center staff member describes network members asking, "What does good feedback really mean in math classes? Are we giving students feedback? What does that feedback look like? Is it sufficient? Does it feel good?" Focusing on feedback for growth in this way pushed the group to consider how they were leveraging their already-powerful social and emotional learning (SEL) practices to support student learning.

Based on this insight, the network committed to collecting two waves of Elevate data in January 2022 and May 2022 to track their progress towards ensuring that the focus population received rich feedback to support their understanding of mathematics. The January 2022 survey provided a baseline,[3] and the May 2022 survey allowed them to assess progress during winter and spring.

TEACHERS TESTED AND ADAPTED STRATEGIES FOR IMPROVING THE QUALITY OF FEEDBACK TO STUDENTS.

As part of their commitment to improve feedback for growth, nearly 100 math teachers across all 23 middle schools in the Yonkers public school system completed Plan, Do, Study, Act (PDSA) cycles around feedback for growth between January and May 2022.

> I found that a lot of the times the feedback that we gave was on what they got incorrect. So I started giving feedback on correct questions as well... 'I noticed that you identified the length, I noticed that you identified the width, we were just talking about area not too long ago. And you implemented and you used the correct formula to find area.' That's how my feedback is now.
>
> **7th and 8th grade math teacher**, YPS



The Ed Center provided protocols and coaching for teachers on how to effectively provide rich feedback for growth, using the Elevate **Feedback for Growth Guide** as a basis. Teachers implemented these changes while collecting and reviewing data related to the implementation of specific change ideas. They also developed systems for tracking how often teachers implemented the feedback for growth protocols, both in general and with students in their focus population (students who identify as Black or Latinx and/or students who are experiencing poverty). These biweekly data review sessions informed tweaks to the protocols. For example, reviewing student work artifacts indicated to one teacher that the protocol's prompt "I used to think … now I think" was too complex of a question, and students were not providing rich answers. The teacher then changed the feedback protocol to one in which the teacher shares their "favorite rough draft," which elicited deeper self-reflection from students.

> "[One child was saying], 'I'm not going to even try.'… but we had made such leaps and bounds on the lesson itself that I wanted to revisit that same problem right then and there… He raised his hand, he was actually participating and everything, and I said, alright, so you know, here's that problem again… and he's like, 'I can't do it.' I said, 'Please, just try it. [In the morning] you gave lots of good answers.' He goes, 'Fine, fine, fine.' … 'I don't know, is this it?" And I was like, 'Yes.' … And he was like, 'Pshh, that was easy. Why didn't you tell me this was so easy?'
>
> **7th and 8th grade special ed teacher**, YPS

Many teachers used feedback to encourage students to engage in self-reflection. Not only did this help students figure out what concepts they did and did not yet understand, but in many cases, it also helped students become more deeply aware of their own thinking. Together, these strategies transformed how teachers related to students' work, and supported students in relating to their own learning in more supportive ways.



HOW DID YPS MIDDLE SCHOOL TEACHERS SUCCESSFULLY COLLECT TWO ROUNDS OF FORMATIVE FEEDBACK FROM STUDENTS IN OVER 200 CLASSES?

In Winter-Spring 2022, over 100 YPS math teachers at 23 middle schools collected two rounds of formative feedback about their teaching practice from 3,458 students. Participation rates showed no drop-off from January to May — in fact, the May survey had slightly more students respond compared with January. Such thorough and consistent data collection across 23 public schools is no small feat. How did the Ed Center/YPS network achieve this?

STRONG BUY-IN FOR A CO-CREATED NETWORK AIM.

Over multiple convenings and network cohort meetings, teachers and school leaders were invited to review data, engage in meaning-making, and commit to a collective aim together. This process was not rushed; it unfolded over several months between August and December 2021. The result was strong, authentic buy-in for tracking the network's progress towards the aim. In fact, even with mixed results at the end of May 2022, the network remained committed to working towards stronger feedback for growth in mathematics education in 2022-23.

CLEAR NORMS AROUND USING DATA FOR IMPROVEMENT, RATHER THAN EVALUATION.

"We're out of this phase of fear of the survey. The first phase was fear of summative evaluation...I think that teachers are feeling more comfortable with it," which makes kids more comfortable with it," says the lead coach for the network.

WORKING AT ALL LAYERS OF THE SYSTEM.

Finally, the Ed Center's core model has been designed from its inception to work from a place of alignment with all layers of the education system, including district leaders, school leaders, and teachers. This alignment made the priority and rationale for collecting Elevate data clear to everyone and made it easier for school leaders to hold staff accountable for collecting the data.

SEVERAL SCHOOLS MADE SIGNIFICANT PROGRESS TOWARDS AN AMBITIOUS AIM.

In January 2022, the Ed Center/YPS network set a goal: Their aim was to increase the number of the focus population who reported receiving strong feedback for growth from 77% (observed in January) to 87% by May 2022. To measure their progress towards this aim, YPS surveyed 3,458 middle school students, or over 60% of all middle school students in the district, in January and May 2022. This systematic approach to data collection and strong survey response rate gave them a robust understanding of each school's progress towards their aim. (See the **Call-out Box** above for details on how they achieved these response rates.)

In May 2022, the second wave of survey results showed that two schools achieved the aim, with 89-90% of students in the focus population group experiencing strong feedback for growth. Four additional schools made significant progress towards this aim by increasing the number of students in the focus population who experience strong feedback for growth by 6-7 percentage points (ppts) (See Table 1 below).

School	Number and percent of students surveyed		Percent of focus population experiencing feedback for growth		
	Overall	Focus Population	January 2022	May 2022	Change
School 1	169 (91%)	118	72%	79%	+7 ppts
School 2	108 (87%)	32	63%	70%	+7 ppts
School 3	240 (98%)	118	76%	83%	+6 ppts
School 4	116 (43%)	35	79%	84%	+5 ppts
School 5	105 (48%)	27	85%	89%*	+4 ppts
School 6	46 (21%)	20	n/a	90%*	n/a

Table 1. Percent of Black and Latinx students and/or students experiencing poverty who reported strong feedback for growth in January 2022 and May 2022 at three middle schools in the Ed Center/YPS network. * Indicates that the network aim was reached. School 6 did not measure learning conditions in January, and its improvement therefore cannot be calculated.

Interestingly, these schools also saw substantial improvement in other learning conditions for their focus population. Some of the improvements to other learning conditions equaled or even exceeded the improvements observed in Feedback for Growth (see Table 2 below). Though not depicted here, Schools 1-4 also saw comparable gains for *all* their students, not only students in their focus population.

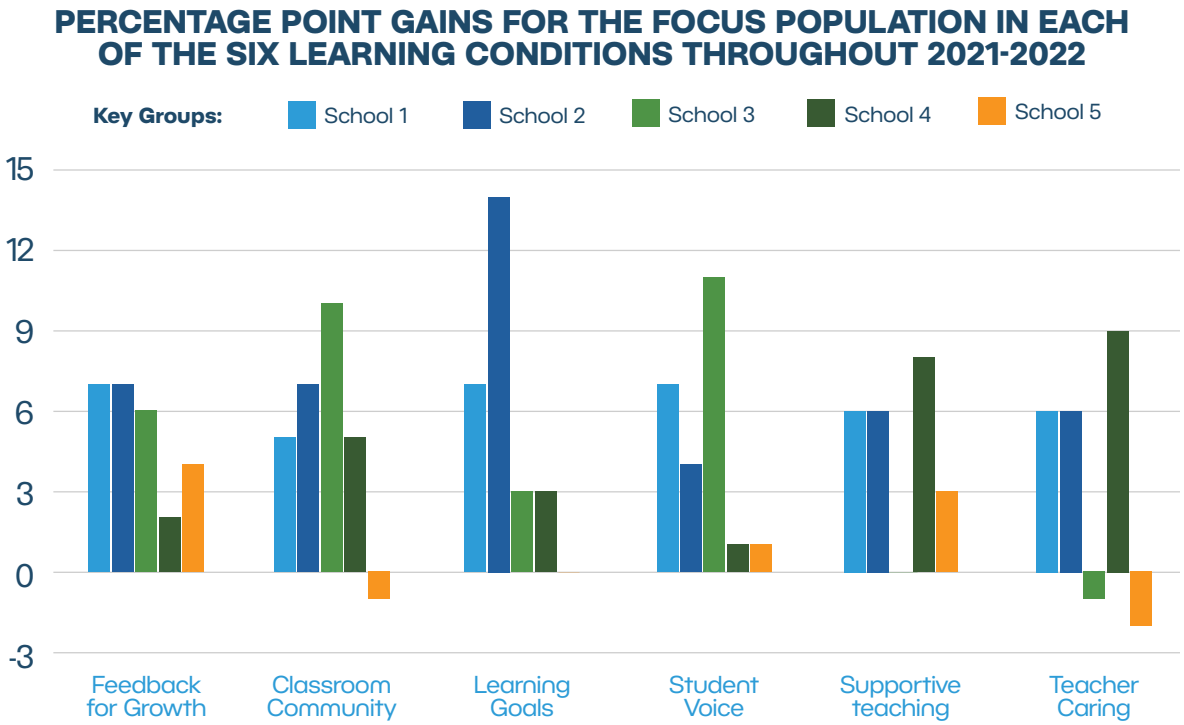


Table 2. Percentage point gains for the focus population (students who identify as Black or Latinx and/or students who are experiencing poverty) in each of the six learning conditions measured by the Ed Center. School 6 is not shown because they only surveyed once.

Why did these other learning conditions also improve? One possibility is that the specific strategies used to support feedback for growth at these three schools may have also created positive experiences in other areas. For example, a teacher in School 3 described activities in which she supported students in providing peer-to-peer feedback, which may have heightened the sense of **classroom community** and made students feel like they had more of a voice in their learning. Protocols for providing conceptually rich feedback used by all teachers would have emphasized **learning goals** by giving students a clear understanding of what they are learning and why. In general, this result illustrates the interconnectedness of positive learning experiences — it is almost impossible to successfully improve one without touching on others as well.

> This idea that feedback for growth is powerful, in particular. Not just for good feelings within a classroom, but that those good feelings within the classroom for students have actual academic outcome changes for them and can promote that. You know, all of that is really worth talking about.
>
> **Staff Member**, Bank Street Education Center

THE NETWORK IS BUILT ON THESE BRIGHT SPOTS GOING INTO THE NEXT SCHOOL YEAR.

Together, the Ed Center and Yonkers Public Schools made significant strides towards ensuring that all students — especially those in its focus population — received supportive feedback to enrich their learning in math. Six YPS middle schools achieved or made significant progress towards the ambitious aim they set in January 2022. What can be learned from their success, so that it can be replicated and built upon across YPS? Though the network is still in the process of answering that question, a couple of ideas have already emerged:

STRONG SCHOOL-LEVEL LEADERSHIP.

All schools showing improvement had "big-time school leader cheerleaders" who "really believe in the work, believe in our partnership, and were really committed and determined to correct inequities," says one Ed Center staff member.

CAPACITY-BUILDING FOR CONTINUOUS IMPROVEMENT.

The schools with the largest improvements all had at least a year of prior continuous improvement experience. Teachers and leaders at these schools thus entered the 2021-22 academic year with some know-how already in place for conducting PDSA cycles, looking at data, and revising their instructional practices. This capacity building paid off with exceptionally strong improvements, as shown in their Elevate results.

CONCLUSIONS

By working together at all layers of the school system towards an ambitious aim, five schools in the YPS district were able to move the needle towards richer, more supportive feedback to help students grow as math learners. This progress supported the network in moving towards a unified understanding of deep learning in mathematics as well as what students need from teachers in order to learn deeply. The Ed Center hub team is working to capture and spread school-level learnings across the network as a whole. In the coming year, YPS and Bank Street will deepen these gains so that more students receive the kind of feedback that helps them learn mathematics on a deep level.

REFERENCES AND ENDNOTES

1. Safir, S., & Dugan, J. (2021). *Street data: A next-generation model for equity, pedagogy, and school transformation*. Corwin.

2. Murray, B., Falkenburger, E., & Saxena, P. (2015). *Data walks: An innovative way to share data with communities.* Urban Institute. **https://www.urban.org/research/publication/data-walks-innovative-way-share-data-communities**

3. In general, PERTS recommends completing at least 3-4 survey cycles with Elevate.