# Beating the Odds: Schools with Math Gains

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## Key Theme 1: 88% of principals said that data analysis/monitoring was absolutely central to their math success.

- Principals created a culture where administrators, students, and teachers "took ownership of the data."
- "Being consistent, intentional, deliberate, reflective, and keeping the data in the forefront improves student achievement."
- "Strong Math Team and Math Culture - Our School IF and the Math team created a DDI Culture that improved teaching and learning."
- "The way teachers look at data changed. Past- only looked at major assessment data. But now we look at it at each assessment (exit ticket, unit test, formative assessment) and this allows us to close gaps sooner."
- "We had to teach them how to read the data. PLC coach and principal trained the teachers. We had to remove the stigma of letting someone else see their data. Now we are open, because this is OUR data. How do we build on it?"

## Key Theme 2: Principals promoted a growth mindset for teachers and students by shifting the focus from meeting school target goals to growing everyone every day.

- "The principals' job is to grow the teachers.... My mindset is to grow the staff; it trickles down to teachers needing to grow the students."
- "If I am not growing teachers, I am doing something wrong. More than 'did I hit the goal?' it is, 'Is everyone in the school growing.'"
- All principals expected students to grow, but elementary principals focused more on exceeding proficiency goals and secondary principals focused primarily on growth.
- "Try to take the stigma off testing from teachers to get X amount [of students] to proficient/mastery; instead we want to see growth.... I had to change the mindset of the teachers to grow the students and focus on that. It takes the pressure off the teachers. Everyone is on the bubble, so we need to focus on all by focusing on growth."

## Key Theme 3: Principals explained that their focus was on students mastering standards through everyday practice versus only mastering curriculum and assessments.

- 63% of principals cited teachers supplementing the curriculum based on student needs as a key success strategy. They explained that curricula do not always cover all the standards.
- Elementary schools "customized [Eureka] while maintaining fidelity," by supplementing with i-Ready tools and trusting Level 4 and 5 teachers to integrate other instructional resources.
- Secondary teachers also had to focus on "fluency skills in math, based on the standards." They "break it down to the bare bones...basic skills (fractions into decimals), computational skills, previous grade level skills."
- "Focus on mastery of standards vs. mastery of assessment," for example, by having weekly assessments that cover the standards

## Key Theme 4: Principals worked to create a learning environment that engaged and motivated students.

- "Making sure [students] have a TNReady look during their classes each week" (e.g., bell work, exit ticket).
- "Every [student] needs to know their data as well," by using visuals like simple bar graphs or data walls that track where students are on various standards over testing cycles.
- "The math teachers know how to ask their students questions regardless of if it is a right or wrong answer. It allows them to facilitate peer to peer learning, conversations, and asking questions…. They have created a safe-space for their students so they are not worried about being right or wrong, but instead focusing on learning and knowing that struggling is ok."
- "Creating a testing culture that merges assessments with class instruction to minimize test anxiety."
- "Incentivize students… If you want something, you need to get students motivated to do it." Examples include t-shirts, lanyards, out of dress code passes, and parties.

## Key Theme 5: Principals attributed their success in math to district and instructional resources.

- Principals identified the following District resources as absolutely central to math success:
  - Instructional Facilitator support- 88%
  - PLC Coach – 75%
- They also noted that key support staff, including Instructional Support Advisors/District Coaches and Math Content Leads, were most effective when they provided "strong and consistent teacher coaching" and "modeling instruction" versus only side-by-side planning.
- "The district assessments were essential in providing us with data to improve our instructional practices. Professional development sessions at the TLA gave my teachers additional support needed to provide scaffolds to the district curriculum."
- "The balance of instructional resources used in the classroom help fostered student achievement." These supplemental resources included i-Ready, i-Ready text books, ABC books, and Measure-Up.
- Elementary/middle schools created school-wide RTI2 blocks first period. High schools created tutoring blocks during and after school for reteaching and practice.

## Key Theme 6: Principals must be intentional and deliberate in their everyday practices.

- Principals highlighted the importance of purposefully hiring, placing, and supporting strong math teachers and building successful math teams.
- They made sure to listen to these teachers and provide resources above and beyond what they requested.
- Principals modified teacher schedules to facilitate grade-level and vertical planning, as 88% of principals identified teacher collaboration on instruction as absolutely central for success.
- "As building leaders, it is paramount that we live inside the classrooms to aide and support teachers."
- Principals made sure they knew math content and could model data-driven instruction. "You gotta be in the work. Show [teachers] you are in the work."

# Beating the Odds: Schools with Math Gains

## Comparison of key factors for ELA and Math Principals.

- Commonalities for success:
  - Implementing a data-centered school culture
  - Creating a learning environment with high expectations along with a supportive culture
  - Knowing subject content, being able to use data to inform instruction, and modeling instruction
  - Supplementing the curriculum to build up foundational and fluency skills and to cover standards
  - Using RTI2 small group and computer work, particularly i-Ready
  - Fostering opportunities for teacher collaboration and coaching
  - Having an increased sense of urgency around the work and about maintaining successes
- Different factors for success:
  - BTO Math Principals relied more on district and school support staff
  - BTO ELA Principals attributed success more to reallocation of funds for hiring staff
  - Both focused on proficiency but BTO Math Principals emphasized growth