

GROWING STUDENT PERFORMANCE:

**STORIES FROM FIVE DISTRICTS WITH DEMONSTRATED
IMPROVEMENT IN MATHEMATICS – CALIFORNIA
ASSESSMENT OF STUDENT PERFORMANCE AND
PROGRESS (CAASPP) 2017**

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This project is a collaboration of the California Department of Education, Smarter Balanced, and WestEd.

INTRODUCTION

The California Department of Education (CDE), partnered with Smarter Balanced and WestEd to gain insights into possible contributing factors to the observed improvement in local district gains on the CAASPP mathematics assessment. WestEd interviewed five districts where the percentage of students who met or exceeded state performance standards on the 2017 mathematics assessment increased in at least three grades and by at least 6 percentage points in grade 5. The interview focused on improvement efforts the district believed had the greatest impact in contributing to the increases in scores. The districts below contributed to these success stories:

Highlighted Districts:

Carlsbad Unified School District (K–12; Enrollment 11,000+) More than 70% of students in mathematics, grades 3-5, met or exceeded state standards. Closing the achievement gap for English Language Learners (ELL) and Special Education students raised this percentage.

Fallbrook Union Elementary School District (K-8; Enrollment 5000+) A six-year focus on equity and coaching teachers for improved student learning. The UC Irvine Math Project helped educators develop a new online math curriculum system.

Galt Joint Union Elementary School District (K–8; Enrollment 3600+) Since winning the Race to the Top Grant in 2012, they've implemented changes in policy, practice, and infrastructure to pivot from traditional schooling to personalized learning. Currently, 35-50% of students meet and exceed standards in ELA and Math.

Ontario-Montclair School District (K–8; Enrollment 21,800+) Curriculum implementation systems and data analysis measure the “Distance to Met” at the district, school, grade, class, and student level and target students who are the “Farthest from Met.” New data from assessments, given every six weeks, on the implementation of curriculum help staff identify learning strengths and gaps.

Whittier City Schools (K–8; Enrollment 6000+) In 2015–16, a focus on meeting and exceeding ELA standards led to a rise of 12 percentage points district-wide. In 2016–17, a focus in math curriculum implementation gave an increase of 5–9 percentage points in every grade while maintaining a 0–5 percentage-point gains in ELA.

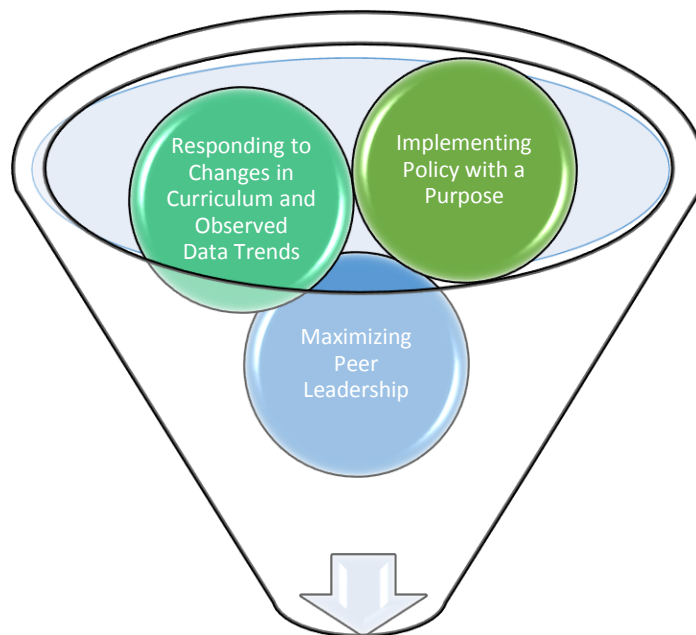
ALL STUDENTS LEARN MATHEMATICS

Each of these districts took on the challenges regarding the implementation of the rigorous mathematic college- and career-ready standards:

- Learning the mathematical instructional shifts,
- Helping staff fill in gaps in math content knowledge, and
- Transforming classroom learning of mathematics.

Common themes emerged from these conversations:

Implementing Policy with a Purpose, Responding to Changes in Curriculum and Observed Data Trends, and Maximizing Peer Leadership.



Growing Student Performance

IMPLEMENTING POLICY WITH A PURPOSE

Districts adopt policies to define the district curriculum, monitor the success of learning, and ensure that students are prepared for the future. These policies and accompanying administrative regulations implement state and federal laws by giving clear direction to the Superintendent and staff, but they also communicate to the community the purpose and intended impact of the implementation of these laws. Without district-adopted policy, the effort for district-wide implementation often falls short with a lack of district and school staff resources or support. These districts recognized the need to ensure that *all* students had the benefit and impact of more rigorous learning. To that end, they implemented a comprehensive set of strategies that include policies in graduation requirements, assessment, grading, and teacher evaluation that changed fundamental services for students.

Ontario-Montclair:

Enacted policies focused on improving curriculum implementation.

- Adopted new ELA and math instructional materials with systems to monitor the degree to which the adopted curriculum is implemented with fidelity including supplemental materials, lesson plans, and instruction.
- District staff, administrators, coaches, and teachers regularly participated in Instructional Rounds, where teams observed classroom learning and provided feedback to school staff and reflected on adjustments that could be made to improve curriculum implementation to improve student performance.
- District and site data meetings to monitor implementation of the adopted programs.

Carlsbad Unified:

Enacted policies focused on the implementation of high quality curriculum and instructional practices.

- Increased graduation requirements for the Class of 2017 to meet or exceed eligibility to enroll in UC/CSU. All students had to pass Algebra II with a grade of C or better.
- The graduation policy ensured that all students are on a pathway to Algebra II and have district-supported early intervention if they fall behind in Algebra I.
- Revised the English Learner (EL) re-designation criteria to include authentic reading and writing tasks aligned to standards assessed on the California English Language Development Test (CELDT).
- Principals met with each English learner student to explain the purposes of the state assessments and why they are important.

Galt Joint Union Elementary:

Enacted policies to change teaching and learning from traditional groups to personalized instruction.

- Focused on creating opportunities for teachers, students, and their families to engage in the learning process as described in *California Standards of the Teaching Profession*¹ and the *Educator Competencies for Personalized Learner-Centered Teaching*.²
- Changed their grading policy from using traditional report cards to personalized online learning plans reflecting a district shift from a student-centered proficiency focus to a learner-centered growth and achievement model.
- District staff, principals, and teachers began meeting with students and parents to collaborate on goal setting, setting growth targets and adding or adjusting information within the student's profile.

¹ Commission on Teacher Credentialing. 2009. *California Standards for the Teaching Profession (CSTP)*. Sacramento, CA: Commission on Teacher Credentialing.

² Jobs for the Future & the Council of Chief State School Officers. 2015. *Educator Competencies for Personalized, Learner-Centered Teaching*. Boston, MA: Jobs for the Future.

RESPONDING TO CHANGES IN CURRICULUM AND OBSERVED DATA TRENDS

In preparation to teach the new California mathematics academic standards, these districts spent 2–3 years helping teachers address needs in content knowledge. In 2014-15, the Smarter Balanced Assessment System gave teachers their first look at the types of items that assess student learning in ways that met the intent and rigor of the state standards. Teachers attended training for scoring and other professional learning opportunities allowing them to unpack what they had learned about assessments. Districts developed or offered professional development about constructed response items and used model responses to demonstrate to teachers the depth of understanding expected for students to meet and exceed the standards.

Fallbrook Union Elementary District:

Deliberatively used statewide content supports and assessment data to support changes in policies and practices related to instruction.

- Worked with the Math Project at UC Irvine to develop Units of Study to organize the mathematics curriculum based on the CA Mathematics Framework.
- Focused on identifying and addressing teacher needs in content knowledge to improve the implementation of the curriculum and use of assessment data. Coaches at every school spent the first trimester developing and sharing model lessons to demonstrate how to deepen understanding of math concepts and practices.
- District staff set performance expectations for staff and students to improve student math outcomes while supporting teachers by aligning district resources, materials, and trainings to focus on implementation of mathematics concepts.
- The coaches and teachers also unpacked the Smarter Balanced Interim Assessment Blocks (IABs) to align the implementation of the IABs with the sequence of content described in the District's curriculum.
- District teams developed two benchmark assessments using the Smarter Balanced resources to create more coherence between district benchmarks and the curriculum and the assessments that support the benchmarks.
- Enacted systematic monitoring and evaluation of progress through School-based Professional Learning Communities (PLC) who collaborated to study the data from IABs and district benchmarks and adjust curriculum implementation.

Whittier City Schools:

Used targeted professional learning to improve instructional practice and incorporated assessment data to evaluate progress.

- Increased capacity of K-2 teachers to improve students' mathematic fluency earlier through the implementation of lesson study in mathematics concepts and practices.

- Teachers in grades 3–8 were released 2 days to study the curriculum alignment of their new grade-level math program materials, the mathematics content and practice standards, and the IABs.
- Teachers identified the standards assessed in each IAB and the sufficiency or gaps in lessons in the math program. They built lessons that fully addressed the standards.
- In bi-monthly meetings, math coaches and principals discussed the implementation of the math curriculum, the IAB performance data, student needs based on the IAB data, and how to adjust pacing in the classrooms to emphasize concept development and focus.
- Paying attention to their data, a concern about slow increases in performance on IABs caused teams to re-focus on teacher coaching needs and effective implementation of the complete math curriculum. Student performance improved on IABs in the second half of the year.
- Moving forward, district staff will help principals and coaches retrieve the IAB data and plan conversations in data reflection meetings. In addition, all teachers in grades 3–8 will participate in two half-days of lesson study to deepen their knowledge.

MAXIMIZING PEER LEADERSHIP

Due to the potential impact that peer leadership can bring to changes in teaching and learning, each district dedicated staff (e.g., teacher leaders, coaches, special assignments) and resources to optimize the impact of math curriculum implementation.

Carlsbad Unified:

Selected teacher leaders in grades 4-5 to lead school-based professional learning.

- Routinely sent selected teacher leaders in grades 4-5 to meet with the Teacher on Special Assignment (TOSA) to help them understand math practice standards and key math strategies.
- The teachers then led professional learning sessions to help all 4th and 5th grade-level teachers implement the new curriculum and curriculum-embedded assessments.

Fallbrook Union Elementary:

Focused on-site coaching on mathematics content knowledge and building deep understanding in staff and students.

- On-site full-time coaches provided job-embedded coaching, co-teaching, time for teachers to observe other teachers and classrooms, and helped teachers plan lessons.
- Principals and coaches talked frequently about what content knowledge teachers needed to be able to help students learn deeper conceptual understandings and make complex applications and facilitated professional learning for teachers.
- Administrators and coaches witnessed a change in teacher practice once students were regularly engaging in deeper conceptual understanding.

Galt Joint Union Elementary:

Success with teacher leadership and Professional Learning Community (PLC) efforts have led to a peer coach for school administrators to build their data fluency and ability to use multiple data sources through coherent leadership practices.

- The Principal on Special Assignment provides coaching to other principals on how to build and apply the student profile for the personalized learning plan and to use data from multiple sources, including social emotional measures, to make flexible groupings for students.
- Over 30 teachers participated in Massive Open Online Courses (MOOC) from Stanford University where they engaged in a process of analyzing student language through formative assessment. This involved understanding 1) how content knowledge and language use are refined during collaborative conversations, and 2) the role of argument as a high leverage practice across disciplines.

Ontario-Montclair School District:

Recognized exemplary teaching and learning in Spotlight Classrooms and supported visits from teacher-coach teams to observe best practices.

- Designated 18 Spotlight Classrooms for teachers to visit with a coach and observe an instructional practice in a learning environment where student performance is 18–20 percentage points higher than the CAASPP district average.
- Since 100% of teachers polled believed that the Spotlight visit was valuable to their practice, the district goal for this year is to increase the number of teacher-coach teams visiting Spotlight classrooms from 200 to over 300 visits.

Additionally:

- Hired two teachers on assignment (TOA) at middle school to develop criteria for addressing language needs of Long-Term English Learners.
- English learner students in grades 6-8 participated in individual conferences and learned about their own performance data to motivate them to work toward English learner re-designation.
- Last year, the number of Long-Term English Learners dropped by 200 students.

Whittier City Schools:

Coaches supported teacher transition to a complex middle school mathematics program.

- Placed math coaches in middle schools to help teachers navigate the new math program.
- Coaches built peer relationships and encouraged teachers to be open about their own challenges in helping students meet math expectations.
- Provided backward planning support aligned to IAB assessments and benchmark assessments

SUMMARY

All the districts responded, from a district-wide perspective, to the urgent need to help students learn mathematics in a new way in response to implementation of rigorous college- and career-ready mathematics standards. With updated policies, responsive curriculum, and aligned assessments providing evidence of what needed to change, these districts built a sturdy foundation for program implementation with aligned support for educators. Each element is necessary, but by itself, not sufficient, to accomplish these positive results. All elements work together to bring meaningful and sustainable improvement in student learning and achievement.

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- Joe Kniseley, Principal
- Angie Taylor, Teacher on Special Assignment

Galt Joint Union Elementary District

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- Claudia Del Toro-Anguiano, Curriculum Director
- Donna Mayo-Whitlock, Educational Services Director
- Lois Yount, Principal Coach

Ontario-Montclair School District

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Whittier City School District

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