

Educators Collaborating to Improve Mathematics: Three Structures That Mattered in Math in Common Districts

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This report is part of a series summarizing learnings from the five-year Math in Common (MiC) initiative. During MiC, teams from 10 diverse California school districts engaged in learning about and sharing best practices for implementing the Common Core State Standards for Mathematics (CCSS-M) in grades K–8.

Findings on District Collaborative Structures

The CCSS-M are dramatically different from prior standards. Making the shift to the new standards more difficult, traditional improvement levers such as instructional materials and summative student assessments were not available to help guide districts' implementation of the new standards at the time they were introduced.

In this uncertain implementation environment, MiC districts grounded their work in what we refer to as the *dynamics of classroom instruction*, meaning all of the interlocking elements of what happens in classrooms among teacher, students, content, materials, and pedagogy. Understanding and shifting these dynamics required deep collaboration across the districts' systems, drawing on the diverse expertise of educators within, across, and outside the districts. Through these collaborations, districts could nurture specific and concrete visions for successful implementation and share those visions across their district systems, helping to keep all educators and administrators working toward the same goal, regardless of their role.

We observed three particularly important collaborative structures that MiC districts employed to shift the dynamics of classroom instruction to align with the CCSS-M:

STRUCTURE #1: ROLE-DIVERSE SENSE-MAKING TEAMS COMPOSED OF AN ARRAY OF STAFF, FROM CLASSROOM-LEVEL TEACHERS TO DISTRICT-LEVEL LEADERS

To understand and interpret the CCSS-M and drive implementation actions, district staff from many different district departments came together to work and learn together. These staff members developed common understandings and messaging about what the new standards should look like in classrooms, enabling many different stakeholders to promote a consistent message in their communications with others across the district.

STRUCTURE #2: STRATEGIC PARTNERSHIPS WITH TECHNICAL ASSISTANCE PROVIDERS

MiC districts worked with a range of technical assistance providers to support the specific needs of each district's standards implementation efforts. They had the most success using these external sources of expertise and assistance when all parties adopted an approach of collaborative inquiry, learning together about how to shift and strengthen the dynamics of classroom instruction.

STRUCTURE #3: EMPOWERED SITE-BASED LEADERSHIP

To convey their mathematics visions to the teachers who were responsible for implementing the standards in their classrooms, districts needed messengers, interpreters, and instructional leaders. Most frequently, coaches and principals played these roles and were connectors, bridging the divide between the district office and school sites, and synthesizing and communicating the experiences and learnings of staff at both levels.

Recommendations for the Field

We offer recommendations for other districts considering how to build coherence and collaboration across their own systems for implementing new standards — in math, science, or other content areas.

- **Since complex new standards don't come with a roadmap, provide educators and administrators across a district system with opportunities to meet, study, interpret, plan, and take ownership for implementation together.** Such collaborative structures, as observed in MiC districts, will need to be maintained and nurtured to vigorously support CCSS-M implementation as other standards are also rolled out.
- **Ground teams' work in a common facet of implementation.** MiC districts chose to focus most role-diverse teams' work on either shifting or measuring shifts in an element of the dynamics of classroom instruction. (Often, the element of focus was student discourse.) This focus kept the realities of teaching and learning at the center of the work, and offered rich learning opportunities to staff.
- **To make the most of the investment in outside expertise, districts and technical assistance providers should enter into partnerships in a spirit of collaboration.** The most successful of these partnerships in MiC districts were those in which there was significant give and take, with technical assistance providers offering services that were responsive to districts' specific visions and goals for mathematics.
- **Technical assistance providers should plan to "work themselves out of a job," by building districts' internal capacity to continue the work beyond their contract together.** MiC districts' partnerships with outside experts were most successful when one explicit goal of the work was building districts' internal capacity to implement the standards.
- **Clearly define the role of the coach.** In order to help coaches do effective work in service of implementing the CCSS-M, district staff should communicate, across the district system, a clear message about the roles that coaches are expected to play, and offer principals support in working with and learning from math coaches at their sites.

WestEd's formative evaluation over the five-year initiative period draws on an array of data sources, including annual surveys of teachers and administrators, focus groups on topics of interest, classroom observations, district grant reports, and observations of learning events held across the five years. This report draws primarily on grant reports, focus groups, and observations.

WHAT IS MATH IN COMMON?

The Math in Common initiative provided funding to 10 school districts to support their efforts to implement the CCSS-M. With support from California Education Partners and WestEd, the 10 districts were organized into a community of practice, to accelerate their learning about standards implementation. The best practices identified by the community of practice are intended to be shared broadly to support standards implementation and math improvement in all California districts. For more information about the Math in Common evaluation, see <https://www.wested.org/project/math-in-common-evaluation/>.

