

Rural Math Collaborative

Operated by the California Collaborative for Educational Excellence, the Learning Acceleration System Grant (LASG) provides funding to build local educational agencies' capacity to accelerate academic progress through evidence-based strategies, with specific goals to increase learning among educators and accelerate learning for students. The Rural Math Collaborative (RMC) is an LASG recipient working to transform math education across rural¹ northern California. Led by Lake and Butte County Offices of Education, RMC partners with 29 county offices² of education to build capacity for evidence-based math instruction and foster positive, asset-based attitudes toward math using professional learning networks, asynchronous modules, coaching, lesson design, lesson study, and targeted interventions.

In year 4 (2024–25) of its grant, RMC:

Supported 27 coaching teams across 13 counties, training 50 instructional coaches who work with mathematics teachers

Expanded the implementation of Do the Math,³ a small-group math intervention program, to 56 teachers in 25 schools across 11 counties—reaching a total of 281 grade 4 students

Supported 27 lesson study⁴ teams, including 16 implementation specialists, 41 facilitators in training, and 67 teachers in school districts across 10 counties

Developed four asynchronous online courses focused on Number Sense with the California Math Project, highlighting concepts aligned to the 2023 Mathematics Framework, which were viewed a cumulative total of 1,175 times

Increasing learning and changing educator practice

Educators are more confident, seeing themselves as classroom leaders as they collaborate and reflect with other educators. In the 2024–25 LASG participant survey,⁵ 84% of RMC participants felt they could lead the implementation of accelerated learning strategies. By sharing their successes, educators promote the adoption of best practices in math instruction and intervention.

“The collaboration among educators and the intentional follow-through and reflection improves instruction, always positively impacting the students. It is the flow of collaboration, analysis, and reflection in RMC that is so beneficial to the coaching and lesson study teams.”

– RMC participant

“What we’re seeing is an increase in teacher efficacy and teacher agency and teachers seeing themselves as leaders. And that leadership piece is just extending across our collaborative—all of them are elevating their own practice and their own confidence and mindset so that they’re not only mathematicians, but also math leaders.”

– RMC staff member

Educators are incorporating asset-based and student-focused practices. 91% of RMC survey respondents said they better understand asset-based approaches.

“When teachers are willing to build students’ learning capacity—when they have that positive mindset that all students are capable of learning—it ultimately does benefit our students.”

– RMC participant

“Students are feeling like their voice is important and that we’re hearing them, we’re listening to them, and we’re trying to take what they’re bringing to us and go further with it, which is different than before.”

– RMC staff member

Coaches and administrators are also seeing positive results from their work with teachers. RMC takes an active approach in designing professional learning that builds capacity of leaders, who then share knowledge with others.

“The biggest impact has been the positive and trusting relationships I’ve formed with the classroom teachers. We work together to identify areas of practice they would like to improve, and we’ve collected data to show that they have improved in an area of their choosing.”

– RMC participant

“[Participating in RMC] has allowed me to keep up to date on most current best practices, so I can support teachers who are participating in the grant.”

– RMC participant

Expanding Lesson Study

RMC highlighted its Lesson Study approach at the April 2025 California Action Network for Mathematics Excellence and Equity (CANMEE) convening, where RMC-trained teams led public math lessons across multiple grade levels.

Teacher success story: Immediate shifts in practice

A teacher quickly adopted new practices after RMC coaching, saying, “I started thinking about my classroom differently immediately, and Monday I started teaching differently.” The teacher said she had “never thought about my instruction this closely”. The coach reflected that this is “a clear example of how learning from the Rural Math Collaborative directly translated into classroom practice.”

Accelerating learning for students

Educators report that students are more engaged in the process of learning, which is translating into academic growth.

“Students are more engaged than ever. Learning is deeper and students understand the math rather than just procedures. Students talk about math with each other.”

– RMC participant

“Students are more actively engaged, enjoy the techniques and lessons we are using, and are scoring better on their standardized tests [MAP].”

– RMC participant

Educators report that students have developed a math mindset and see themselves as mathematicians.

Students recognize their ability to tackle challenges, feel more comfortable seeking support, and connect their learning to real world contexts.

“My students have grown in both mindset and perseverance when tasks are difficult.”

– RMC participant

“Students are engaged in math and are enjoying the time spent collaborating with each other. They’re exploring math, asking questions, and using their mistakes as a learning opportunity.”

– RMC participant

Internal evaluation highlight

Surveys conducted by the RMC evaluation team found that educators perceived positive student impacts from participation. Teachers reported increased achievement on math assessments; facilitators noted increased confidence, cooperation, and critical thinking skills; and coaches observed greater student collaboration, engagement, and understanding.

Highlights from RMC interventions

RMC supports classroom implementation of a math intervention program and provides access to tutoring for students in participating districts.

Growth in math achievement. Students in the Do The Math intervention demonstrated measurable gains in the program’s pre- and post-assessments, according to an analysis conducted by RMC’s evaluation team.⁶

Access to math tutoring. RMC provided over 1,560 students in 10 schools across nine counties with 24/7 access to virtual tutoring through Paper Tutors⁷—an especially valuable resource in rural areas where tutoring is scarce, according to educators.

Student Success Story: More inquiry, more confidence. A Nevada County educator shared that after RMC professional learning, teachers adopted “more conceptual and inquiry-based math instruction,” using strategies from sessions on the CA Math Framework. As a result, students became “more engaged in problem-solving and were more willing to share their thinking in class”, which led to increased confidence and a deeper understanding of math concepts. The educator noted these shifts showed “how participation in RMC didn’t just impact teacher practice—it had a tangible, positive effect on students’ learning experiences.”

Endnotes

¹Rural is defined as a population of 30,000 or fewer.

²This number continues to grow and grew from 20 to 29 in the last year.

³*Do the Math* was developed by Marilyn Burns. Learn more: <https://www.heinemann.com/dothemath/>

⁴Lesson study is a collaborative professional development approach in which educators work together to plan, observe, analyze, and refine their classroom lessons, paying particular attention to focal students to evaluate how their strategies impact diverse student experiences and outcomes. The RMC lesson study model is attributed to the California Action Network for Mathematics Excellence and Equity, a collaboration of the California Mathematics Project. Learn more: <https://cmpso.org/canmee/>

⁵Education Northwest administered the 2024–25 LASG participant survey to 411 RMC participants in March 2025. The response rate was 33%.

⁶Learn more about Do the Math students' growth in math achievement: <https://tinyurl.com/rmcdothemath>

⁷Paper Tutors is a virtual tutoring program aimed at grades 6–8. Learn more: <https://paper.co/>

**Learn more
about RMC**



This case brief was developed by Education Northwest, the external evaluator for the LASG, using data collected through grantee focus groups, an annual survey of LASG participants, and a review of quarterly reports, documents, and participation records kept by the grantees. The Do the Math student score analysis was conducted by the RMC internal evaluation team.