Rural Math Collaborative



The Learning Acceleration System Grant (LASG) aims to help California students and educators recover from lost instruction and diminished academic outcomes that resulted from the COVID-19 pandemic. Operated by the California Collaborative for Educational Excellence, the 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 a LASG recipient working to transform math education across rural northern California. Led by Butte and Lake County Offices of Education, RMC partners with over 20 county offices of education to build capacity for evidence-based math instruction and foster positive, asset-based attitudes toward math using professional learning networks, coaching, lesson design and Lesson Study, and targeted interventions.

In year 3 (2023-2024) of the LASG, RMC:

Built teams across 15 counties to support 53 instructional coaches who coached over 100 teachers Piloted Do the Math,¹ a small-group math intervention program, with 21 second grade teachers across seven counties

Supported 23 Lesson Study² facilitator teams in 25 school districts and four charter schools across 14 counties

Increasing learning among educators

RMC is building a collaborative environment and system of support for educators in rural districts. 95% of RMC participants who took the 2023–24 LASG participant survey agreed that RMC facilitated opportunities to collaborate with other educators.

"We're really building a community and a network of learners and educators. They're from rural, remote areas, and often the only person that teaches math or their grade level or grade span, and that can feel very isolating ... Now they have people to learn with, to talk with, to celebrate with, and to share best practices with."

- RMC staff member

RMC is shifting educator mindsets to believe that all students are capable of high-level, meaning-oriented performance in math. About 86% of RMC participants better understand the definition and application of asset-based approaches.

"When I focus on what positive things my students bring to the classroom, it focuses me on how to build my lesson from their strengths."

- RMC participant

RMC is building capacity to implement evidence-based learning acceleration strategies, and it is changing teachers' practices. RMC takes a train-the-trainer approach to professional development. 71% of participants across a variety of roles agreed that they could lead the implementation of accelerated learning strategies with other educators.

"The tools and skills that I learned during this collaboration were able to be implemented in my diverse learning classroom as I learned them."

- RMC participant

"I have felt empowered to deliver a level of math that I did not realize that I was capable of. I am able to engage my students in authentic thinking. Seeing my students' love of math increase as they learn that they are capable math thinkers has been extremely rewarding."

- RMC participant

Accelerating learning for students

Educators report that students are more engaged, more collaborative, and more confident in their math skills.

"There's more real interaction in groups and partners; it's not surface level; they're really working together."

RMC participant

"I see better engagement, more learning conversations and enthusiasm among my students."

- RMC participant

RMC reached 1,450 students through Lesson Study in the 2023–24 school year and an additional 2.810 students in 2024–25.

Highlights from RMC interventions. In addition to supporting teachers with implementation of a math intervention program in their classroom, RMC supports access to tutoring for students in participating LEAs.

Growth in math achievement

Students participating in the *Do The Math* program showed statistically significant improvement across various measures of math performance.

Access to math tutoring

The Air Tutors³ pilot engaged over 400 students across five counties. The Paper Tutors⁴ pilot reached over 2,800 additional students in 26 schools across 11 counties.

Student Success Story: Building confidence and collaboration through the Lesson Study cycle. Through the Lesson Study cycle, students who were once hesitant to participate have become eager contributors in the classroom. "In public lessons, the focal students were chosen because they were reserved and didn't talk up in class," explained a staff member. "Now, they are some of the first to raise their hands, almost jumping out of their seats, with big smiles on their faces." One student, initially known for talking about topics unrelated to math, discovered "incredible patterns" during a lesson. With encouragement from the teacher and peers, he rehearsed sharing his insights with the group. Though he was nervous, his teammates reassured him: "Don't worry. We've got your back if you can't remember the rest of it. We'll step in and help you." Moments like this highlight the collaborative spirit and confidence fostered through RMC's efforts.

Endnotes

- ¹Do the Math was developed by Marilyn Burns. Learn more: https://www.heinemann.com/dothemath/
- ²Lesson Study is a collaborative professional development approach where 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 (CANMEE), a collaboration of the California Mathematics Project. Learn more: https://cmpso.org/canmee/
- ³ Air Tutors is a virtual tutoring program aimed at grades 6–8. Learn more: https://airtutors.org/
- ⁴Paper 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 California Collaborative for Educational Excellence staff members.