Solution Tree's Mathematics at Work builds better mathematics teaching teams for school districts

Mathematics at Work pushes California district's teachers to work better together for students and themselves

S tacey McNinch-Curschman, the secondary curriculum director for Visalia USD in California, knew that as her district was ramping up its training efforts around Common Core standards for mathematics in 2013, as well as its own district-level curriculum changes, both administrators and teachers would need to be continually learning and improving themselves.

"If we work effectively as adults and we're continually learning and continually improving, that's going to net better results for kids," says McNinch-Curschman, whose district has more than 27,000 students.

That led McNinch-Curschman, through a connection with a textbook publisher, to Dr. Timothy D. Kanold, who developed Mathematics at Work for Solution Tree.

Mathematics at Work provides and models tools, content, instruction and assessment strategies that support schools or districts through individual teachers and teaching teams. For McNinch-Curschman, a proponent of Solution Tree's Professional Learning Community at Work, it was an easy decision to invite Kanold to visit the district and discuss Mathematics at Work.

"That was a natural step for us," says McNinch-Curschman. "We had already started on the journey of becoming a professional learning community and we were working with Solution Tree in a variety of other contexts."

The on-site, collaborative team coaching concept that underlies Mathematics at Work also appealed to McNinch-Curschman and others in the district.

"We had already bought into the idea that the best way to improve adult learning, and to impact students, is the team approach," says McNinch-Curschman.

After several more visits to the district by Kanold, including a full day of professional development around Mathematics at Work, Visalia USD entered a three-year contract at the start of the 2014-15 school year to have the program's consultants work with middle and high school teachers.

Coaching consistency

McNinch-Curschman says that Mathematics at Work has been sending the same eight consultants to the same

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schools in Visalia USD since the start of the contract. That consistency has been one of the keys to building trust between the consultants and educators.

"That's been a huge advantage that Mathematics at Work has guaranteed to us," says McNinch-Curschman of the consultants' continuity with schools. "The training support Mathematics at Work provides is a combination of classroom coaching, observation feedback and targeted professional development.

While the Mathematics at Work consultants all have the same coaching outcomes and goals, they have been able to tackle specific needs of the individual schools they work with on their visits.

"What this has allowed us to do is to customize to the needs of the school site," says McNinch-Curschman. "Through the observation feedback process, through work with the site administration and teacher leadership, consultants are able to say 'Oh, at this school we really need to work on classroom talk and discourse.""

That kind of straight-talk feedback has been embraced by administrators. McNinch-Curschman adds that teachers, especially at the district's high schools, are still adjusting to it.

"When you're bringing your best effort but your best effort isn't naturally getting the results that we're aiming for, there's that moment of reflection," says McNinch-Curschman. "I think most of our teams kind of crossed over that in terms of building their understanding and working with their coaches. They do push past it."

McNinch-Curschman says teaching teams are pushing the district in the "right direction" and that will help achieve



the results they're looking to net. Teachers are identifying measures of success to work on throughout each school year. Collaborative teams create SMART goals at the beginning of the school year with their Mathematics at Work coaches. Those goals are monitored by teachers and coaches alike; there are celebrations when goals are met and revisions are made, as needed, to meet the goals next time.

More time on Mondays

Visalia USD adopted a bell schedule to allow collaborative teams to meet during the school day each week. The students have a late-start day on Mondays, with school starting one hour later than normal. This schedule began prior to the Mathematics at Work contract and provided mathematics collaborative teams time to learn to work effectively as a team, and to focus on student learning and results between the consultant visits.

McNinch-Curschman says that the district understands that when asking teachers to undertake shifts in how they are teaching mathematics, they need more time to meet and collaborate. The additional meeting time allows teachers to have better collaborative conversations concerning student engagement and support.

"The best way to encourage student learning is collaborative work by teachers in the field," says McNinch-Curschman.

VISALIA USD SNAPSHOT

Location: Visalia, California

Student population: 27,056 in K12 (as of 2015-16 school year)

Student demographics: 67% Hispanic or Latino, 23% White, 5% Asian, 5% Other

Socioeconomic data: 66% of students receive free or reduced-price lunch





Mathematics at Work provides and models tools, mathematics content, instruction and assessment strategies that support individual teachers and teacher teams.

1. Insight into the essential mathematics team agreements as part of the Professional Learning Community at Work process.

2. Models, tools, protocols for team discussion, and activities that help meet or exceed the mathematics teaching and assessment expectations of schools or districts.

3. Understanding of the mathematics content standards and research-affirmed formative assessment processes necessary to support and provide a sustainable, cyclical focused work effort for teachers and teacher teams throughout the year.

4. Insight into the requisite and sustained-student support necessary to far exceed current mathematics performance results in school or districts.

Mathematics at Work promotes highly effective, research-affirmed instructional practices and actions that enhance daily student learning. It teaches educators how to use high-cognitive demand tasks in class, how to provide an appropriate balance of direct instruction with student-engaged learning each day, and how to participate in an effective-lesson study process.