

Strategies That Work

Advancing Literacy and Math Achievement

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Principal is Key for Math Teachers Effective Professional Development



The role of the administrator — attending professional development sessions with teachers and principals and participating in classroom observations and coaching visits — is critical to the successful implementation of the Mathematics Design Collaborative (MDC). To support teachers, leadership must understand math achievement gaps in students and the classroom process that teachers are taught to address the gaps.

Stacey Irvin, an assistant principal and eighth-grade administrator at Newburg Middle School (NMS) in Louisville, Kentucky, bought into the important role principals play in effective professional development for math teachers. When her teachers took part in MDC training, she was right there with them at every training session. “My teachers needed to see this was not something I was mandating them to do. I was asking them to work harder. We are in this together,” said Irvin.

MDC training began at NMS in the 2014-15 school year with four teachers: one math teacher each from grades six through eight and one eighth-grade exceptional childhood education teacher.

MDC uses formative assessment lessons (FALs) to build students’ fluency with their procedural skills and deepen mathematical reasoning and understanding. Instead of giving students predetermined steps for answering math problems, FALs engage students in productive struggle. Students, working in pairs or small teams, use mathematical reasoning to solve problems.

For years, Newburg struggled with test scores. “We took an honest look at ourselves. We came to the agreement that we were in crisis mode; not just because of our test scores, but because of the children impacted by those scores,” said Irvin. That’s why the school turned to SREB and its team of MDC trainers.

Principals on the Front Lines Supporting Teachers

Classroom Observations: It’s essential for principals to attend MDC training with teachers so that they know what the new math process looks like in a classroom and can provide constructive feedback and encouragement. Irvin insists principals must know their teachers and what they are prepared to do to in order to encourage them.

The Southern Regional Education Board (SREB) provides middle grades and high schools in member states with intensive professional development in leading edge literacy and math strategies that enhance students’ abilities to meet new college- and career-readiness standards. The training is offered at no cost to qualifying schools in member states except Florida, Kentucky and Tennessee.*

Pass this information on to your peers: superintendents, principals, math and literacy supervisors, and others who might consider offering this professional development to teachers. Contact us to share your successes.

Read on: Find out how your school and district will enhance students’ creative thinking and problem-solving abilities while enhancing their skills to meet state standards and succeed in school and life.

This Week: Kentucky administrator supports teachers by joining in MDC training.

No-cost teacher training: We are offering training in your area now; contact us to register your school team.

* Training fees negotiated separately for direct contract states.

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Principals must address teacher misconceptions and stressors such as, “My kids can’t do this — this is too hard;” or “My kids can’t work in groups due to their behavior;” and “I’m not sure I can do this.”

Principals become sounding boards who help teachers think outside the box when planning lessons, while still keeping the focus on students. Principals also organize teacher-to-teacher observation and feedback, “not to look for ‘gotchas’ but as a way of support” and learning from each other, noted Irvin.

Creative schedules: Making time in schedules for teachers to collaborate in professional learning communities on assessment lessons and follow-up lessons is critical to success, Irvin maintained — so is analyzing student data and developing next steps.

Principals on the Front Lines Supporting Teachers

Data analysis is a powerful strategy that helped improve students’ math scores at NMS. Irvin said teachers and administrators took data, broke it down into standards and looked at every student to figure out what standards students had not mastered.

Each eighth-grade classroom focused on a certain standard, and eighth-grade teachers brushed up on their own math skills. “The kids felt that personal intervention,” said Irvin.

Evidence of Change in Practice and Mindset

After implementing MDC, Irvin noticed a change — a shift in how teachers teach and students learn. Teachers had better questioning techniques. They didn’t give students the answers to problems, but let them struggle to find the answers themselves. There were fewer teacher-centered activities and more student-centered activities; and there was more teacher collaboration among grade levels and within grade levels.

Students began to have conversations about math — justifying their answers compared to just giving answers — and students were more focused and engaged. Students’ attitudes toward math began to change, and their math scores began to climb.

NMS uses the Math Proficiency Assessment (MPA) and tracks four levels of student growth: Distinguished, Proficient, Apprentice and Novice.

NMS has three eighth-grade math teams and all showed growth in student scores in the 2014 school year. Team 1’s Distinguished and Proficient scores rose 10 percent, while the Novice scores dropped 19 percent. Team 2’s Distinguished and Proficient scores increased 21 percent, while the Novice score declined 29 percent. And Team 3’s Proficient and Distinguished scores climbed 8 percent, while the Novice score dropped 2 percent.

Irvin credits SREB’s MDC coach, consultant Leslie Texas, as a valuable part of the school’s progress. “It’s key to choose the right teachers for the training,” said Texas. “Select leaders in the school who others will follow.”

Administrator to Administrator Tips

- Be actively involved so you are viewed as a partner, not an observer.
- Keep the vision clear at all times; it’s about the kids.
- Know your teachers and highlight their strengths.
- Celebrate small successes.
- Create large blocks of time so teachers can do the deep planning necessary to implement the new practices with fidelity.
- Establish realistic timelines for improvement.
- Ensure the leadership team has a clear understanding of the MDC implementation process.
- Be able to communicate to all teachers, parents and other stakeholders.

Don't miss the opportunity to send your teaching and leadership team to the most important professional development conferences of the year.

Networking Conference

Can your district benefit from planning strong math assignments to meet college- and career-ready standards? Join us for the **Fourth Annual College- and Career Readiness Standards Networking Conference**, July 11-13, in Louisville, Kentucky.

HSTW Conference

Share and learn best practices for engaging your students while preparing them for life after graduation. Join us for the **30th Annual High Schools That Work Staff Development Conference**, July 13-16, 2016, in Louisville, Kentucky.

SREB Readiness Courses Institute

The **Readiness Courses Institute** will be held July 11-15 during the 30th Annual HSTW Staff Development Conference in Louisville, Kentucky.

[Click here](#) to learn how you may receive up to **\$600 in stipends** to attend the Readiness Courses Institute. **Bonus:** Attend and receive complementary registration for the High Schools That Work Staff Development Conference.

Ready for High School courses in literacy and math prepare eighth- and ninth-graders for high school and strengthen their critical thinking, problem-solving and communication skills. They will be available at no cost to schools starting in 2016-17. For schools interested in implementing these courses, we encourage you to attend the Readiness Courses Institute.

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