A NEW WAY OF TEACHING MATH

Janet McClarence is the Director of Curriculum and Instruction for K-8 at Frankfort School District 157-C. She has been leading transformation in her district for the past 10 years. She says, “When the Common Core State Standards came out, I knew they called for a shift in instruction.” She began looking for a standards-based resource to support the new curricular expectations. “I wanted something that was really focused on the Standards for Mathematical Practices (SMPs). When the team of teachers and administrators evaluated materials, Carnegie Learning was the top contender because the SMPs were very evident.”

The curriculum was not the only thing that needed to change. “I needed the teachers to think differently about mathematics. They were used to teaching math the way we learned it years ago. There was not a whole lot of problem-solving or conceptual understanding.” Janet knew that she also had to offer support to her teachers to drive this shift in instruction. “I knew that if I truly wanted instruction to shift, I needed to invest in professional learning. That’s what I valued about Carnegie Learning -- they weren’t just selling a textbook. They were truly concerned about our teachers being successful, knowing that if teachers are successful, they’ll produce successful students.”

THE CHANGE

Frankfort School District 157-C adopted the Carnegie Learning Middle School Math Solution curriculum and partnered with us for professional learning that ranged from In-Classroom Support to customized PL days based on the district’s specific needs. JiLL Swissa, the Carnegie Learning Master Math Practitioner who worked with Frankfort teachers, helped them to:

1. Create tasks aligned to the Standards for Mathematical Practices
2. Develop questioning strategies to encourage student thinking and mathematical discourse
3. Pace through the Carnegie Learning materials effectively
4. Shift to a more student-centered collaborative classroom
5. Analyze assessment results which led to informed instructional decisions

Janet says, “Carnegie Learning came out and did a ton of job-embedded coaching. They walked through classrooms, taught in classrooms, planned with teachers, and really taught the building administrators what to look for in classrooms. This is so important because the single biggest determinant of any of our scores is our teachers — they’re the ones who have to do the learning, be able to assess our kids, use the resource and know when they’re going to scaffold, etc.” She has also been pleased with the partnership we were able to build together.

“I always felt like I was Carnegie Learning’s only client.”
This shift in instruction began to show powerful results. “As we grew and started understanding the resource, our students had more opportunity to practice modeling their thinking. Our students were used to reading, solving problems and explaining their thinking on a daily basis, much like what they are exposed to on the PARCC assessment.” In Illinois, students in grades 3–8 take the state PARCC assessment in the spring of each year.

“Our kids were able to think differently about math, and that’s a result of the willingness of our teachers to learn.”

THE RESULTS

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<th>Partially Met</th>
<th>Approached</th>
<th>Met</th>
<th>Exceeded</th>
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<td>25%</td>
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<td>27%</td>
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<td>2%</td>
<td>6%</td>
<td>23%</td>
<td>53%</td>
<td>15%</td>
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Source: illinoisreportcard.com

Since 2015, all middle school grades have shown steady, year-over-year increases in percentage of students ready for the next grade level according to their PARCC mathematics score. This represents, at minimum, an increase of 22% more students ready for the next grade level. “We’re seeing great gains — double digit growth. I anticipate this upward trend to continue,” says Janet.
Not only that, but students who graduate from Hickory Creek Middle School are going on to be successful in high school as well. “I measure success not by the scores we are experiencing now, but if kids are successful after they leave us. What did we do that made them able to be successful and carry on with the tools in their back pocket when they leave us? In high school, a majority of our students place in honors math classes. We outperform neighboring districts on the high school entrance exam.”

Parents who were skeptical of the new approach to teaching mathematics have also been won over. “It took a few years to convince parents, but now they get it. Yes, it’s not like the math that we learned, but our kids are performing exceptionally well and are very prepared for the next level. In the beginning, parents were not receptive, but now I don’t get any parent phone calls about math at the middle school. None.”

HOPE FOR THE FUTURE

The transformation happening in Frankfort School District 157-C has only just begun. “It’s a journey that we’ve been on,” Janet says. “We’re beginning our 6th year with Carnegie Learning. I liken things to planting a new plant: you plant it, the first year it sleeps, the second year it creeps, and in subsequent years it leaps. Now we’re in the leaping stage. Our teachers are savvier. Our kids come every year with better understanding than they did before. When I speak to the high school, they tell me, ‘Your kids are okay with having to collaborate and work through problems with their neighbor. They don’t have to have the right answer — they’re okay because they’re talking about their thinking.’ “We’re so excited,” she says. “We’re just over the moon with our success.”

“When our kids get to high school, they’re outperforming by leaps and bounds, sometimes quadruple digit gains.”