

SUCCESS STORY

Math Success at John R. Kment Elementary

Overview

There was no shortage of reasons for why students at John R. Kment Elementary School had low math scores. Over 76 percent of the students were from economically disadvantaged households. The average class was over 30 students. The number of students who were homeless was increasing. And state education funding was decreasing along with parental involvement. But Principal Dr. Shawn K. Wightman and his staff stayed focused on finding a solution to turn around the students' math performance. And they found one.

“We decided to use *Connecting Math Concepts*® (CMC) based on research reports reviewing the program,” said Wightman. He cited the U.S. Department of Education’s What Works Clearinghouse website and John Hopkins University’s Best Evidence Encyclopedia website as sources that provided the data to make the decision. “The data showed that CMC has a proven track record in augmenting mathematics achievement,” he said. Based on the positive data and reviews, Wightman selected CMC as the program to raise his students’ math scores and unleash their untapped potential in mathematics.

DISTRICT INFORMATION



Name:

John R. Kment
Elementary School

Location:

Roseville, Michigan

District:

Roseville
Community Schools

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–Dr. Shawn K. Wightman
Principal
John R. Kment
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Implementation

Asked why it was so important to implement a new mathematics curriculum, Wightman offers a number of statistics. Eighty-three percent of students who take algebra and geometry go on to college versus 36 percent for students who don't take those courses. Almost 90 percent of all new jobs require math skills above the high school level. And the majority of four-year colleges require three to four years of high school math for admission.

He even cites the everyday life skills that demand strong math skills, such as understanding graphs, charts, and opinion polls in the media, calculating house and car payments, and figuring out which long-distance telephone service provider is the most cost effective.

Not everyone at John R. Kment Elementary was on board with implementing *Connecting Math Concepts* at first. “Initially, the staff didn't like the idea of such a drastic change in the instructional delivery of math curricula,” explained Wightman, referring to CMC's Direct Instruction teaching style. But the staff was committed to finding a way to turn around their students' math

achievement scores. And after conducting an initial staff training and designing an ongoing professional development schedule with the help of McGraw Hill, the program was piloted at John R. Kment Elementary in the fall of 2013.

As a Direct Instruction program, CMC initially focused on assessing the students' math skills. Then explicit lessons that included elements such as timed activities, fast pacing throughout the lessons, and incorporating repetition as a math skill-development strategy were employed as instructional methods in the classroom.

Reaction

Although teachers were initially hesitant to use the instructional delivery method of Direct Instruction because of their inexperience with the teaching method, the results they experienced quickly transformed them into strong supporters. “They support Direct Instruction now,” said Wightman. “Students are happy their grades are improving. Parents are happy that grades are improving. Teachers are happy the program is working.” Wightman summed up his thoughts on the program, saying, “It's effective, easy-to-use, and resulted in improved educator efficiency and increased student achievement.”

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In addition to praising the Direct Instruction delivery method, Wightman also referenced *SRA 2Inform*[®], a resource designed to monitor student progress and complement Direct Instruction programs, as a major contributing factor to the success of *CMC*.

After one year of experiencing pilot program success, Roseville Community Schools adopted the *CMC* curriculum in all its elementary classrooms, providing a shared, consistent model for teaching mathematics throughout the district. “We now have a complete horizontally- and vertically-aligned curriculum that is consistently taught with fidelity,” said Wightman.

Results

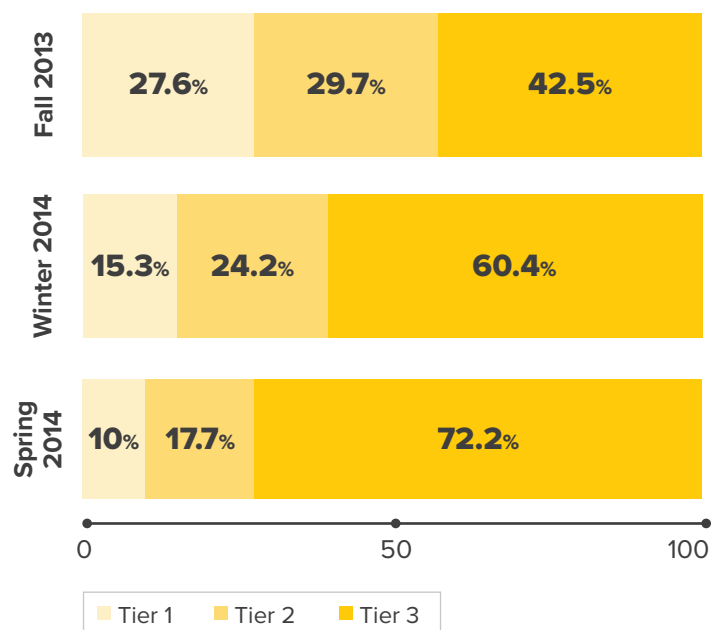
The increase in mathematics achievement demonstrated by John R. Kment Elementary students who were taught with *Connecting Math Concepts* was dramatic. According to AIMSweb[®], a universal screening, progress monitoring, and data management system that supports Response to Intervention and tiered instruction, 56 percent of John R. Kment Elementary students had a high probability of meeting proficiency standards on the state mathematics test when *CMC* was introduced in the fall of 2013. By mid-year, the AIMSweb report jumped 21 percentage points in the same category, identifying 77 percent of the students as prepared to pass the test.

In one case, Wightman saw a previously struggling first-grade special education student score 24 out of 28 on the Math Computation (M-COMP) assessment—a collection of math computation probes that is consistent with the AIMSweb assessment. This improvement was due to skill increases in basic math computation and mathematics concepts and applications.

The gains occurred simultaneously with a decrease in the number of student discipline referrals to the school office. Wightman believes that student discipline improved “because students were experiencing more success in math.” He saw the rising tide of academic achievement as a mechanism that lifted students’ self-confidence in addition to their test scores.

After *CMC* was implemented, the school experienced a reduced number of Tier 3 students and an increasing number of Tier 1 students across all grade levels, even before one full year of instruction was complete. According to AIMSweb statistics that measured the progress of John R. Kment Elementary students from fall through winter, there was a 56.1 percent average decrease in the number of Tier 3 students across grades two through six and an average increase of 77.4 percent in the number of Tier 1 students across the same grade levels. Third graders, whose progress is significant for all districts required to take the state competency test, experienced a 32 percent average decrease in Tier 3 classification and a 22.5 percent average increase in Tier 1.

Grade 1–5 Average Math: 2013–14





The Future

Connecting Math Concepts is now implemented in all K–5 classrooms throughout Roseville Community Schools. According to Wightman, “Student grades have improved, standardized achievement test scores have gone up, and students are more engaged during lessons.” Based on his experience with *CMC*, Wightman feels like he’s making a difference in the lives of his students, which is one reason why he recommends it to other schools and districts. “Our success with *Connecting Math Concepts* is a prime example of why McGraw Hill is a trusted provider of proven, powerful, and innovative education solutions for all students,” he said.

About *Connecting Math Concepts*

With *Connecting Math Concepts*, significant math skills can be taught to at-risk students who could benefit from explicit instruction while bringing them up to grade level. The Comprehensive Edition contains levels A–F and grades K–5 and is a proven solution for students in need of additional support, either as an intervention or as a core replacement.

The program contains:

- Common Core aligned content to help students meet or exceed state standards.
- Track sequencing that allows students to make connections and rapidly build their understanding of concepts.
- Digital resources and activities to engage students’ interest and reinforce mastery.

DIRECT
INSTRUCTION



To learn more about McGraw Hill Direct Instruction programs, please visit:
mheonline.com/directinstruction