Mc Graw Hill Education

Everyday Mathematics®

CASE STUDY

Union Public Schools Foster Dynamic Thinking With *Everyday Mathematics*®

ABOUT THE DISTRICT

Name
Union Public Elementary Schools

Location
Tulsa, Oklahoma

Grades
K–5

Overview

Union Public Schools in southeast Tulsa is the eleventh largest school district in Oklahoma. Its 14 elementary schools serve nearly 7,500 PreK–5 students. The district is full of diversity and a growing English language learning (ELL) population. In some schools, less than 40% of students are eligible for the Free and Reduced Lunch program, while other schools in the district have nearly 100% eligibility for these programs.

22%	32%	32%	14%
ELL	HISPANIC	CAUCASIAN	AFRICAN AMERICAN

TOTAL ENROLLMENT: 15,960

Despite economic variances, every Union student has access to strong academic programs, caring teachers, and an education focused on future success. Union is one of the leading districts in Oklahoma and boasts an impressive number of teachers who have earned National Board Certification and Presidential Math and Science Awards. The district's stated mission is to ensure that 100 percent of its graduating students are college and/or career ready.

As part of that commitment, Union elementary schools use *Everyday Mathematics* to provide students with more extensive exposure to math concepts through a unique spiral curriculum.

Implementation

Paige Bergin is the instructional coach at Jarman Elementary in the Union District. Paige taught 5th-grade math at Jarman from 2002 to 2014 and was there in 2003 when *Everyday Mathematics* was adopted district-wide.

"*Everyday Mathematics* was implemented in grades K–3 before expanding to 4th and 5th the following year," recalls Bergin. "I spent my first couple years teaching math from a traditional textbook, so I wasn't so sure what to think about this 'new math.'"

Bergin began researching the algorithms taught in *Everyday Mathematics* and learned that the program's approach wasn't actually new at all.

"For instance, lattice multiplication, which breaks the multiplication process into smaller steps, has existed for hundreds of years," says Bergin, "and it is an effective way to teach students more than one way to solve a math problem."

Everyday Mathematics, developed by the University of Chicago School Mathematics Project, presents different algorithms to solve math problems as it reinforces abstract concepts through real-world applications. It revisits content over time, providing varied and robust opportunities for practice while supporting all learners.

> *"Everyday Mathematics really brought to light the process of learning math and not just the end-result...our kids are much better problem solvers than they were before."*
>
> Paige Bergin,
> Instructional Coach

"*Everyday Mathematics* really brought to light the process of learning math and not just the end-result," Bergin says. "I could show one way to solve a problem and reach some students. Then, five minutes later, I could show another way to solve the problem that other students might understand better."

Student Engagement

Everyday Mathematics materials were designed purposefully, according to research-based principles, with features that provide a range of opportunities for students to learn. Because they are flexible, these materials provide teachers with an array of resources for meeting their students' diverse learning needs.

"Our kids are much better problem-solvers than they were before," Bergin says. "They have better number sense than they had a long time ago. And that was when we didn't have as many ELL students."

The Student Learning Center (SLC) is a digital learning environment that's an integral part of *Everyday Mathematics 4*. It provides students with access to games that encourage them to practice math concepts, provides immediate feedback on their work, and even includes support for parents.

Bergin says McGraw-Hill Education's continued support, as well as its approach to training, sets *Everyday Mathematics* apart. "People who use the program are the ones to train you and teach you how to play the games, use the assessments, understand the practicality of the program," she says.

And the curriculum remains current. "It's gone through some really big changes, not only in the program, but in the teacher-friendliness of the materials. The online portion has changed incredibly, to the point that *Everyday Mathematics 4*, the most recent version, can be implemented fully digitally.

Results

Union Public School District has eight Title One elementary schools and a growing ELL population, and the district continues to show strong results using *Everyday Mathematics*.

"We've seen a huge increase in mobility throughout our district, which has a 28-square-mile boundary," Bergin says. "When we adopted *Everyday Mathematics*, it came out of wanting to see test scores improve and ensure that if a student moved from one area of our district to another, he or she could pick up again relatively easily where we left off in math."

According to recent data, this approach is working.

The Future

Every seven years, Union Public School District goes through a math adoption process. *Everyday Mathematics* has been readopted every time.

"From the beginning, the district liked the alternative algorithms, the open-endedness, the problem-solving and games," Bergin says. "As a teacher, *Everyday Mathematics* helped me give students options. I didn't focus on them becoming experts in a certain algorithm. I just wanted to know if they could do these types of math problems. It got them thinking, and I loved the spiraling because the concepts come back."

ABOUT *EVERYDAY MATHEMATICS:*

Everyday Mathematics is a comprehensive Pre–K through Grade 6 mathematics program engineered for the Common Core State Standards and grounded in an extensive body of research into how children learn. Among the approaches on which the program is most closely based is "distributed practice," a technique that involves repeated exposures to key ideas in different contexts over time. The program's signature spiral curriculum uses distributed practice to help students build depth of knowledge and achieve long-term mastery of concepts and skills.