

# A Vision for Math: Rigor & Joy for Every Child

## MILWAUKEE COLLEGE PREP

2,000 Students

4 Campuses

83% Free or reduced lunch

12% Special needs

2 Rotations daily: digital lessons & small group instruction

3.6 Digital lessons completed each week

120 Minutes independent digital lessons weekly

120 Minutes small group instruction weekly

Milwaukee College Prep (MCP) has a mission to eliminate the achievement gap so that all children gain the knowledge and character to determine their own destinies. To that end, MCP started to teach math according to the new, internationally-normed standards. According to Kari Flitz, Chief Academic Officer at Milwaukee College Prep, the goal of this work was to **ensure every child receives a rigorous math education and builds a love of math** – setting students up to fulfill the school’s mission.

When starting to teach to the new standards, Kari and her team quickly learned that students had significant gaps in content knowledge that made meeting on-grade-level standards difficult. Compounding the problem, students needed support across a differing range of concepts. Kari and her team faced a challenge: How could MCP meet the needs of every individual learner, while also ensuring students mastered grade-level content?

## Partnering with Zearn to personalize math for every child

While searching for ways to personalize math for every child, Kari learned of Zearn. Zearn’s curriculum – Zearn Math – partners with teachers to meet the needs of each child, ensuring high-rigor math learning, every day. With Zearn Math, two things happen – students learn new concepts digitally at self-paced stations and teachers shift to teaching targeted content in smaller groups. Kari and her team believed that in smaller groups, teachers could better meet the needs of the range of learners in the classroom.

## Setting school-wide goals for Zearn

Working with the Zearn School Accounts Team, Kari established expectations for using Zearn in the classroom. “I wanted a simple set of guidelines on the things we needed from every teacher, and then empowered teachers to make Zearn their own in their classroom. This helped create momentum.” Kari set four guidelines:

1. **Teach with Zearn Math every day – it isn’t a supplemental tool**
2. **Balance digital and live instruction time in each day’s math block**
3. **Set goals for lesson completion and celebrate achievement**
4. **Commit to Zearn Student Notes and provide feedback**

With these guidelines, teachers started to teach with Zearn Math in 24 2nd-4th grade MCP classrooms.

## Zearn Math in the classroom: self-paced learning and lively math discussions

To start with Zearn Math, teachers split their class into two groups; while one group spends time working through independent digital lessons, the other group spends time working in small groups with their teacher.

At the self-paced station, students start each digital lesson with fluency, and then move to concept development and

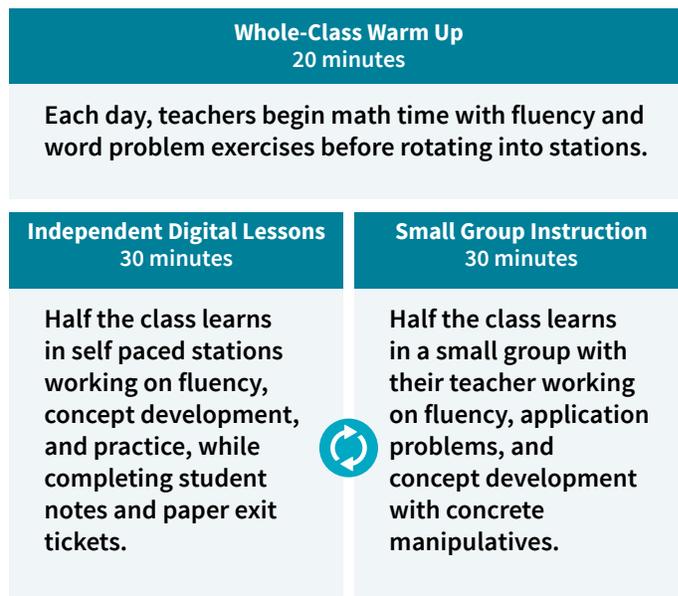


FIGURE 1: SAMPLE DAILY SCHEDULE WITH ZEARN MATH

independent practice. Students who are comfortable with content quickly progress to more difficult ideas, while students who are struggling spend more time working through the math concepts, receiving precise remediation at the exact moment of misconception with supportive feedback and robust digital manipulatives. Zearn digital lessons become an extension of each student’s real-life teacher, helping students learn the exact math content they need to master.

While half the class works in self-paced stations, teachers shift to teaching in a small group with the other half of students. Teachers teach the same lesson they would have taught to the whole group, but in a small group they are more able to deeply engage with each student. In small groups, teachers focus on a balance



FIGURE 2: AVERAGE PERCENTAGE OF MATH GROWTH ON NWEA SPRING 2016 MAP FOR MCP STUDENTS USING ZEARN MATH

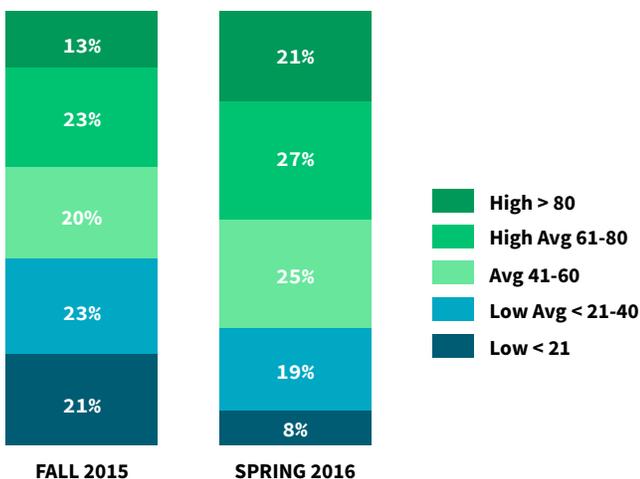
of fluency activities, application problems, and concept development with concrete manipulatives. Many teachers plan for this time using Zearn Math’s Lesson Resource, which provides recommendations on which lessons are most critical for live instruction.

To ensure every student has a balance of independent digital learning and small group learning each day, MCP teachers structure their math block to include time for both stations. (See Figure 1).

MCP teachers remarked that because of the combination of independent digital lessons and small group instruction, students were better equipped to use many strategies to solve problems, and benefited from talking through their math reasoning with their peers. Because of this personalized instruction, struggling students were less anxious, and advanced students were less bored. Teachers also started noticing an overall improvement in behavior.

## A few months in, a new excitement for math

As part of the school-wide goal to create a culture of goal-setting and goal-achievement, Kari and the Academic Deans used school-wide assemblies to celebrate math learning. Each Monday, Kari and her team shared “Zearn Stats,” highlighting the classrooms with 100% of students meeting their weekly lesson completion goals. Kari remarked that “Students loved this. In my years of teaching and leading schools, I have never seen students more invested in math and more excited about math.”



**FIGURE 3: AVERAGE PERCENTAGE OF MCP STUDENTS USING ZEARN MATH BY QUINTILE ON NWEA MAP**

## More rigor, improved scores with Zearn Math

In one year using Zearn Math, students across all grade levels experienced growth. On the NWEA MAP assessment, students learning with Zearn Math experienced 1.27 to 1.55 years of academic growth on average (see Figure 2). The increase was seen across student populations; 21% of students achieved top quintile results, an 8-point improvement from the beginning of the year.

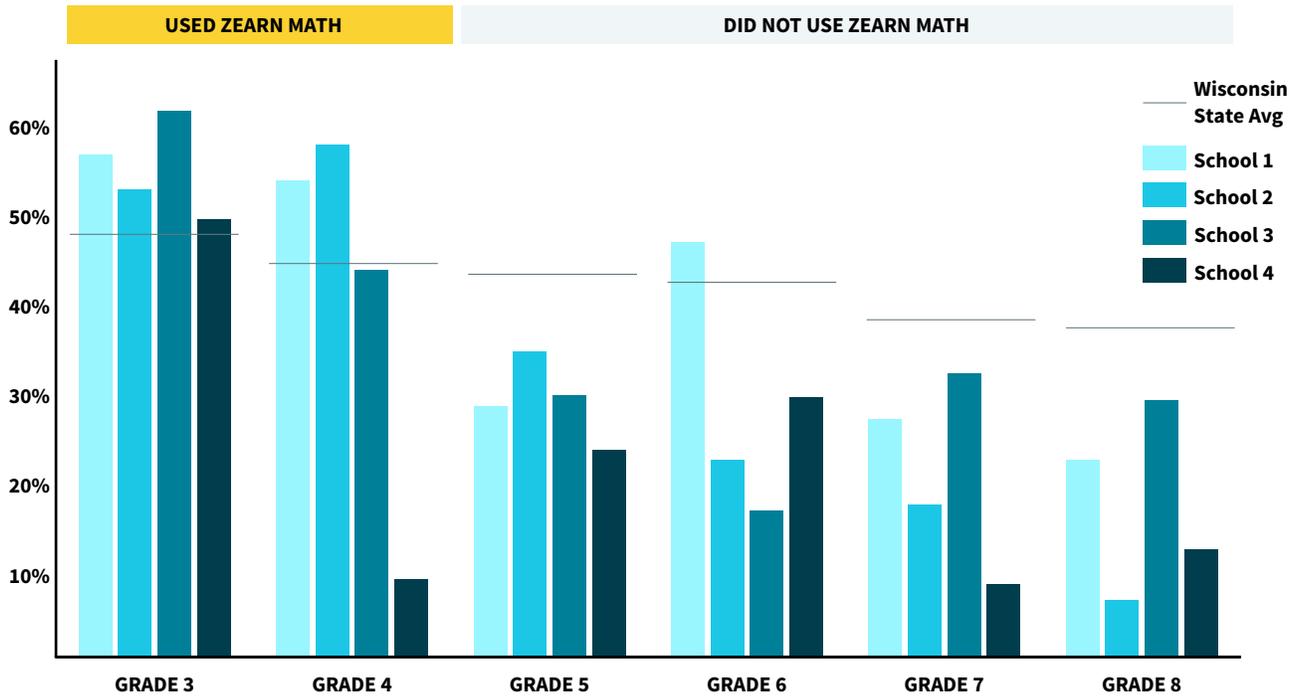
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Similarly, 8% of students fell into the lowest quintile of performance, a 13-point improvement from the beginning of the year (see Figure 3). Teaching with Zearn Math helped MCP teachers meet the needs of every learner, as both the highest and lowest performing students demonstrated measurable gains in math.

Additionally, data from Wisconsin’s 2015-2016 Forward Exam suggested Zearn had a material impact on student achievement within each of MCP’s four campuses. In the 2015-2016 school year, MCP administered the Forward Exam to 3rd-8th grade classrooms in its four campuses. Students in 3rd and 4th grade had learned with Zearn Math all year, while students in 5th grade did not (as Zearn Math introduced 5th grade curriculum in Summer 2016). All schools teaching with Zearn Math in 3rd grade outperformed state averages; two of the four schools teaching with Zearn Math in 4th grade outperformed state



**FIGURE 4: AVERAGE PERCENTAGE OF MCP STUDENTS DEMONSTRATING FORWARD AND DLM PROFICIENCY BY SCHOOL, 2015-2016**

averages; none of the schools in 5th grade outperformed state averages (see Figure 4). This data showed performance differences within a school – and that the difference was Zearn Math. Kari noted, “The 3rd and 4th grade Forward Exam scores are evidence of the impact Zearn is having.”

## Only the beginning

Although MCP experienced strong initial results with Zearn Math, there is more work to be done to ensure every child learns and loves math. In the 2016-2017 school year, MCP plans on implementing Zearn Math across all Kindergarten through 5th grade classrooms. We will continue to follow MCP’s journey – and later this year will publish Part Two of the MCP story, including Kari’s learnings on the K-5 implementation of Zearn Math and advice for educators teaching with Zearn Math.

Zearn is a nonprofit on a mission to ensure every child learns and loves math. Zearn’s core product is Zearn Math, a groundbreaking K-5 math curriculum that combines personalized digital lessons with daily targeted small group instruction. Zearn Math is used by over one million students and teachers, and was recently rated a Tier 1 curricular resource by the Louisiana Department of Education. Zearn supports schools and districts with Zearn for Schools products, including School Accounts, Professional Development, and Printed Classroom Materials. To learn more about partnering with Zearn in your school, visit [zearn.org](https://zearn.org).