

## Gains Go Far Beyond Academic with Aha!Math

Supplemental curriculum helps struggling students see themselves as successful math learners, and show improvement in scores

**In eight short days, students at Alicia Cortez Elementary School made some critical discoveries about math. First, they learned that they *can* be successful math learners. And second, they discovered they enjoyed math when given an engaging, motivating curriculum targeted to their needs.**

The solution that motivated these discoveries is Aha!Math, a K-5 Web-delivered, supplemental math curriculum by Learning.com. Aha!Math includes critical components recognized in research to make an impact on student learning. Aha!Math:

- Is built on a research-based instructional model,
- Uses technology to engage student learning through exploration and discovery,
- Extends instructional time beyond the regular classroom day,
- Uses digital coaches for feedback, guidance and enhancing student motivation.

Until just recently, Cortez Elementary ran on a single-track, year-round school model. Its students took one-month breaks every three months. During those breaks, struggling students participated in an intercession with concentrated support in areas in which they were behind. In the spring of 2008, 83 students took part in an eight-day intercession using Aha!Math. The results were carefully followed and documented to better understand Aha!Math's impact on student learning.

The positive results were far more than merely academic. And the students were not the only ones who learned a great deal – teachers and administrators were also excited by what they found and could apply to the regular school sessions.

### The Intercession Program

Students in third through sixth-grades whom teachers identified as lagging in math were invited to take part in the intercession program, and while 83 attended, only 65 percent maintained perfect attendance.

The staff at Cortez was very motivated to create a special intercession program using Aha!Math for a 35-minute period on each of the eight days of the program. Because space in the school was tight, and resources painfully limited, the school patched together a make-shift “classroom” in a corner of a shared commons area. Staff pulled together dividers, desks and chairs and borrowed laptops from the mobile computer cart to run the Web-delivered Aha!Math curriculum. An aide and teachers who participated even took their own time to go through a short training in how best to use the supplemental curriculum with these struggling students.

Students took a pretest before the intercession and, with those results, teachers assigned instructional units from Aha!Math that specifically focused on the state standards most critical for them to learn. Each day, students logged onto Learning.com to engage with the interactive curriculum assigned specifically for them. Teachers led students through Aha!Math's instruction modules, designed to engage groups in learning new concepts. Students then worked individually on lessons, built their fluency through instructional games and even completed off-line activities that all reinforced the specific standards in which they were weak.

As students engaged with Aha!Math's motivating digital teacher and digital student coaches, they gained confidence and an enthusiasm for a subject that until now was daunting for them.

"You could literally see students have those aha! moments," says Michele Douglass, a teacher trainer who assisted the Cortez teachers in running the intercession. "The kids really did say 'Aha, I get it.' And we teachers would really grin at that. It was exciting to see the motivation come back in these students as they succeeded in developing their math skills."

At the end of the intercession, students took a unique posttest that was aligned to the pretest, designed to align to the grade level standards, and modeled after the types of questions students would see on a state assessment. Students who were absent on the last day of intercession when the test was given did not take the posttest. Students took a second posttest three weeks after the intercession when school was back in session.

## The Results

In all grades, students made measurable progress in learning, based on the test results. Student knowledge for specific concepts increased, especially in the third-grade students, which was also the only grade that completed all the assigned curriculum in Aha!Math. While students in grades four through six did not complete all the instruction assigned to them in Aha!Math, every mean score increased on the post-test, suggesting that for the content students covered, their mathematical achievement increased.

In summary: with less than five hours of instruction time using Aha!Math, students all showed improvement in their understanding of the concepts they covered.

"We found Aha!Math can make a real difference for students in prescriptive activities like after-school programs and summer school programs," Douglass says. "Just as important we found we could reignite in students the motivation and enjoyment for math that will help them be successful going forward."

## "Like Adding More Teachers"

Staff at Cortez also discovered that with very little in the way of resources for staff and even space, they could launch a simple and highly effective program to target students'

individualized needs in math, provide an online instructional tool that not only improved student learning, but also changed students' minds about being successful math learners. In just eight days and with less than five hours of instruction, the students saw themselves differently than when they started.

"For us, that was as eye-opening as seeing improved test scores," Douglass says. "We saw how well Aha!Math provided these students with exactly the individualized instruction and the successes they needed."

Cortez principal Rod Federwisch is also enthusiastic about Aha!Math's impact on his students and teachers.

"Aha!Math is an exciting program for the kids. It's not paper and pencil and not a handout. It's a visual hands-on," he says. "Our kids were definitely seeing the light. They were catching on and were understanding concepts that up until now they just weren't getting."

Teachers were equally as enthusiastic. "Teachers could see exactly whether kids got it or whether they didn't. It gives them a way to change how they're teaching. They know exactly if the kids are struggling and not getting a concept, and step in with content in Aha!Math to support those students. Everyone is moving at their own pace," he says.

Teachers now use Aha!Math during the regular school year at Cortez, providing a resource for teachers on their in-class computers for students who need support with key concepts, and a way for high-achieving students to move faster and still be engaged. Teachers also have the option to use Aha!Math in the school's computer lab as well.

"For me, it's like adding more teachers to the classroom," he says.

## Resources

Learn more about Aha!Math and view sample curriculum

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