

CENTENNIAL BOARD OF COOPERATIVE EDUCATIONAL SERVICES (BOCES) LAUNCHED THE MATH DIFFERENTIATION PROJECT TO IMPROVE ACHIEVEMENT AMONG MIDDLE AND HIGH SCHOOL STUDENTS. NOW, WITH PERFORMANCE SERIES™ SOFTWARE, DISTRICTS PROVIDE TEACHERS WITH DATA TO TARGET INSTRUCTION AND ENSURE ALL STUDENTS ACHIEVE ACADEMIC GROWTH.

Improving Mathematics Achievement

Challenge

- Middle and high school students' CSAP math scores were not improving
- 12 out of 15 school districts chose to participate to raise student scores

Centennial BOCES is an educational cooperative of 15 northern Colorado school districts serving more than 40,000 students across 5,853 square miles. Its mission is to provide programs and services that support member districts' educational priorities and enrich students' educational opportunities. Centennial BOCES is a public educational agency governed by a citizen board of directors composed of one school board member from each member school district, and is advised by the member districts' superintendents. The North Central Region Professional Development Council (NCRPDC) is charged with providing support from the Colorado Department of Education to school districts in the north central part of the state.

After reviewing student achievement data for the region, Centennial BOCES and NCRPDC found that middle and high school students' Colorado Student Assessment Program (CSAP) mathematics scores were not improving. Centennial BOCES then initiated the Math Differentiation Project, supported by a grant from NCRPDC. Schools from 12 of the 15 districts in Centennial BOCES chose to participate in the project to positively impact student achievement and CSAP scores in math.

Solution

- Participating schools use Performance Series to assess students' math skills online
- Tests are administered in the fall for placement, in January to measure mid-year progress and adjust instruction, and in the spring to gauge academic progress and growth.

Through the Math Differentiation Project, participating schools use Performance Series to assess all students in math. Performance Series is a web-based, computer-adaptive test that allows educators to quickly pinpoint students' proficiency levels across a range of subjects that correspond with state standards.

Each school determines its assessment schedule according to testing windows in the Math Differentiation Project implementation plan. In addition to online assessment, the project provides math differentiation coaching at each school site to help teachers use the data to impact instruction.

“Student assessment is central to the Math Differentiation Project,” said Vicki Tonski, instructional program coordinator for Centennial BOCES. “Performance Series provides us with an easy way to monitor student progress and target student needs.”



Measuring Student Gains

Schools that participated in the first year administered Performance Series tests at the beginning of the school year as a diagnostic assessment tool to accurately measure students' learning levels and guide placement. Schools administered the tests again in the spring to measure academic progress. Following the tests, teachers met with the math coach to discuss how to use the results data to differentiate instruction based on each student's needs as well as to evaluate instructional needs for the following year.

The next year Centennial BOCES added a mid-year assessment in early January. "This made a tremendous difference in helping teachers use the data to impact instruction," said Tonski. "By looking at student gains mid-year, we can see which students are meeting the standards and which aren't - well in advance of our state test. We can then discuss how to group students or how to adjust instruction to better meet students' needs."

In addition to gauging individual student progress, educators use Performance Series to track school and district-wide progress, and gain an accurate portrait of students' instructional levels over a wide breadth of knowledge.

"With Performance Series, we can make sure all our students get the instruction they need to achieve academic growth," said Tonski.

"For example, at one school I recently visited, we saw a trend showing that the highest achieving students were not making gains. Their growth was relatively flat, which is not uncommon. So we used the data to ask teachers, 'How can we challenge these students?' That's what's so great about Performance Series - it can be used to measure growth at both the high and low ends of the spectrum so you can make sure all students show gains."

Building Professional Learning Communities

In addition to online assessment and site-based coaching, the Math Differentiation Project provides teachers with time to improve their practice. "Time is a huge issue for teachers who, by and large, are so busy working in the classroom that they often don't have time to sit down and analyze data, talk about it with their colleagues, and then make decisions. Performance Series reports make it easy for us to initiate these conversations so we can focus instruction where it's most needed," said Tonski.

Through the Math Differentiation Project, Tonski's goal is to build capacity in the schools to help teachers become comfortable talking with each other about data, instruction and students. "We want to help schools develop professional learning communities that allow teachers to meet and dialog because that's how schools improve," she said. "I'm starting to see this happen more and more."

Realizing the Benefits of Data-driven Instruction

According to Tonski, districts across the region are realizing the benefits of data-driven instruction. "Districts see the potential of Performance Series to impact student achievement. In fact, a few districts participating in the Math Differentiation Project have purchased Performance Series to assess student progress in other content areas as well," she said. "We've added a few elementary schools to the project this year, too."

"Through the work we're doing, we're helping districts see that improving student achievement isn't just about getting certain students to a particular proficiency level. It's about making sure all students are achieving academic growth," said Tonski. "Our state test has a weighted index. That means we don't simply look at who's proficient and above, and who's not. We look at individual student gains across all levels. That's why Performance Series is such an effective tool. It provides immediate and clear feedback to help us improve instruction for every student at every level."

"WITH PERFORMANCE SERIES, WE CAN MAKE SURE ALL OUR STUDENTS GET THE INSTRUCTION THEY NEED TO ACHIEVE ACADEMIC GROWTH."

VICKI TONSKI
INSTRUCTIONAL PROGRAM COORDINATOR
CENTENNIAL BOCES



For more information, visit us at www.scantron.com/k12 or contact your Scantron Testing & Assessment representative at 800-SCANTRON x7433 (722-6876 x7433) or email k12sales@scantron.com.

© 2007 Scantron Corporation. All rights reserved. Scantron and the Scantron logo are registered trademarks, and Achievement Series and Performance Series are service marks of Scantron Corporation.

SCANTRON®