

TERC | Using Data Case Study

Lewis-Palmer School District, Colorado Springs, CO



Colorado Schools Make the Grade With "Using Data"

Schools' Teams Empowered Through Innovative TERC Program

When principal Aileen Finnegan struggled with how to boost achievement at Wildflower Elementary in Colorado Springs, Colo., a school dealing with the effects of an economically disadvantaged, high-mobility population, she found the answer in a unique process of collecting, analyzing and using data. A few years later and at the helm of Prairie Winds Elementary, in Monument, Co., an affluent, high-achieving school, she discovered that success in helping students achieve to their highest potential came the same way.

At both schools, gains came with the implementation of "Using Data," an innovative program designed to fundamentally change teaching and learning through the use of data. Developed by TERC, a leading educational research and development organization, with a grant from the National Science Foundation and evaluated by independent researchers, Using Data has documented gains in student achievement in mathematics, science and other content areas and has been successful in narrowing achievement gaps between economic and racial groups, as well as increasing collaboration, data use and instructional improvement. The Using Data process takes teachers beyond the "why" and "what" of data-driven decision-making to the important question of "how." Teachers learn how to use data to inform their day-to-day practice and to put every student on the path to success.

Data Teams Change Teaching Strategies at Wildflower Elementary School

When Finnegan became principal of Wildflower Elementary eight years ago, she was tasked with taking achievement to a new level, to rise above the school's "low" state rating. While attending a Principals' Institute, she learned about the Using Data process and thought it might be the answer. After receiving training on it later in the school year, she returned to implement what she had learned, "and it was a really, really positive experience," she said.

Highlights

- Teachers and staff lead the way to improved student learning
- Data culture supports targeted intervention programs
- Vertical teams make connections between grade levels stronger
- High performing students have even greater success

Every teacher and staff member comprised the school's "data team," and they met weekly after school to look at data and find solutions. Each year, they saw higher levels of achievement. Three years after implementation, Wildflower Elementary was showing significant improvement in state testing data and had jumped to an "average and improving" rating from the state.

Once the teachers and staff knew how to interpret and use data, we only moved forward," said Finnegan. "It's not magic, and it's not chance, and it's not the students you inherited. With Using Data, you can make a plan and see something different happen."

Teachers initiated some innovative teaching strategies based on the data, said Finnegan. For example, when they saw poor performance with the fourth grade, they piloted gender-based groupings for these students the next school year. "They came up with the idea, found the research and received approval from the district. It came from the bottom up and led to improved learning and a significant success."

Another change the teachers initiated was "looping" – keeping students together for two school years in the same classroom with the same teacher. "We gained six weeks of learning with it, because we could move into the curriculum so quickly," said Finnegan. "The data showed this works, and I would never have it any other way."

Prairie Winds Receives "Excellent" Rating

Since beginning her work as principal of Prairie Winds Elementary in Lewis-Palmer School District four years ago, Finnegan, along with the teachers and staff, have applied

the Using Data process to this high-performing school to bring the students even greater success. Prairie Winds teachers and administrators had a history of looking at data to shape instruction, so taking the process to a higher level with Using Data was a logical next step, said Finnegan.

Today, Prairie Winds holds an “excellent” rating from the state, which, with a new rating system based on growth, is reserved for the top seven percent of schools. “The list was much shorter this year, and we are very proud to be on it,” said Finnegan. Prairie Winds showed 65th percentile growth for three consecutive years in math, which earned the school this prestigious rating.

Finnegan and her staff begin each school year with a problem statement based on drill-down data from the state, from which they create goals, based on a tight set of criteria. The teachers and staff meet weekly in teams – alternating between grade-level teams and “vertical,” mixed-grade-level teams, continually examining data and addressing gaps in learning. “It’s exciting to see the connection between the grade levels getting stronger,” she said.

Working With Existing Initiatives

Finnegan noted that the Using Data process supports targeted intervention programs such as the Response to Intervention (RTI) model, which has gained great momentum in Colorado. RTI is a framework for addressing school improvement, student achievement and positive behavior, as outlined in the federal Individuals with Disabilities Education Improvement Act (IDEA). “Using Data fits hand in hand with RTI,” she said.

Finnegan believes, that with the Using Data training she received, she is well equipped to tackle any challenge that comes her way. “The training was very thorough and detail-oriented. When a teacher on our staff sees a roadblock, I know I have 15 options or ideas of what she can do to get to the next place,” she said.

Deb Chittenden, who was Lewis-Palmer School District's director of professional learning, was the one to introduce Using Data to the superintendent, “who has fully embraced it – he’s behind this process 100 percent,” Finnegan said. Chittenden and Finnegan spread the Using Data message throughout the district, training administrators, teachers and staff members in the process. “It was a really exciting time for the district,” said Chittenden. “We changed the conversation about assessments, and then we began to see benefits.”

Getting Started at McKinley Elementary School

Chittenden recently moved from her district role at Lewis-Palmer to a principalship at McKinley Elementary School in Colorado’s Cañon City Schools. Despite a 38 percent free/reduced lunch population and a growing English as a Second Language population, McKinley Elementary maintains stable scores and is one of the higher achieving schools in the district. Chittenden is looking forward to seeing what Using Data can do for McKinley. “When I interviewed for this position, I said if I come on board, Using Data is coming with me,” she said.

Now just a few months into her new position, Chittenden is forging ahead with implementing the Using Data

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process. While the teachers at McKinley Elementary have done some work with data in the past, the Using Data process is a new experience for them, as it is systemic. “This is the first time they’ve been so actively involved in the bigger process, and they can see how they fit into the puzzle,” she said. “This process has even hooked people who didn’t think they were interested in this sort of thing.”

Using Data is bringing a deeper understanding of what students are supposed to know, so teachers know where to target instruction, Chittenden said. “I have some inferences about what I think is happening, but we will find out. We can easily identify potential problems,” she said. Chittenden is working with data teams to look at cause and effect, as well as how students are performing in areas that aren’t state-tested. “Our plan is to move from being a school that’s doing well to a school that’s doing better and to know why we’re seeing success,” she said.

As McKinley Elementary implements Using Data at a deeper level, Chittenden will draw students and parents into the conversation, starting with the school’s advisory board and then the parent-teacher organization. “This is

engaging for everyone,” she said. “We all need to see where we’re headed.”

With a process that’s easy to sustain, Chittenden foresees a long future with Using Data, she said. “It gets easier the deeper you get into it. You reach the point where the teachers and staff are leading the way with it, and you can’t imagine turning back.”

Chittenden said Using Data gives her direction “that is based on more than a gut feeling.” When teachers can see gains that aren’t apparent at the aggregate level, they know whether they’re on the right track, she said. “To be able to give our teachers data that show the way is truly empowering. It gives them focus, which gives me focus.”

For more information about Using Data, visit <http://usingdata.terc.edu/>

About TERC

Founded in 1965, TERC’s mission is to improve math, science and technology teaching and learning. Each year, TERC’s programs and products reached more than 3.5 million students in the United States and abroad. For more information, see www.terc.edu.