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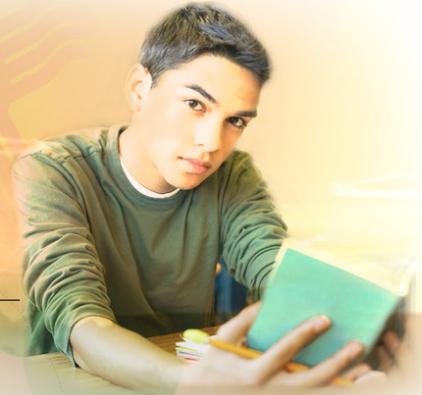
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## CASE STUDY

### AGAINST ALL ODDS: A STORY OF TRANSFORMATION AND HOPE IN NEW MEXICO



Newcomb High School, part of Consolidated School District #22 in New Mexico, became a turnaround school in 2009 when it received a federal School Improvement Grant and approached ASCD for its capacity-building professional development. This case study explores the people, the events, and the turning points on the school's journey toward success.

Principal Scott Story is 6' 2" with a frame that fills much of the space at the front desk in the small, but tidy, main office at Newcomb High School in New Mexico. He greets students as they file into the high school for the day's first class. His height belies his casual manner.

Two years ago, as the new principal of a school serving a student population that is 99 percent Navajo, Story was acutely aware of two things. The first was the enormity of the challenges ahead. Second, he was overwhelmed with the fiscal responsibilities he had recently shouldered. He looked at the copy of the federal School Improvement Grant that Newcomb High School had been awarded two weeks earlier from the New Mexico State Department of Education and recalled his final conversations with the interview team at Central Consolidated School District # 22, where he had talked about what he would do to raise student achievement if he were selected as principal. "This is a great deal of money," he thought. "I have been entrusted with taxpayers' dollars. I must ensure that our country's money is spent on the most powerful interventions to turn this school—and its most deserving students—around."

*ASCD would like to recognize Jeanne Purcell, one of the ASCD Faculty members who worked with Newcomb High School and who gathered data and contributed to the writing of this case study.*



## ABOUT NEWCOMB HIGH SCHOOL

Newcomb High School is situated in Newcomb, New Mexico, one of 11 towns that make up Central Consolidated School District # 22. The school district covers more than 3,000 square miles, larger than the state of Delaware. Newcomb's desert climate allows for just eight inches of rain per year, and the average wind speed is about 10 miles per hour. Dangerous winds, sometimes over 100 miles per hour, can cause power outages and low visibility in brown outs, especially in spring. A land of extreme contrasts, the Newcomb area is high, windswept, formidable, dotted with the remains of ancient volcanic cones that rise thousands of feet from the desert floor, vast, and starkly beautiful.

Many of the 260 students at Newcomb High School ride well over an hour on dirt roads to get to school. Ninety-nine percent of the students are Navajo. One hundred percent of the students are eligible for free and reduced-price lunch. Fifty-six percent of the area population holds high school degrees or higher. Thirty-eight percent of residents heat with wood. Many of the families live as they did 100 years ago by raising sheep and migrating into the hills with their livestock in the summer.

New Mexico requires state assessments in the junior year in reading, social studies, science, and mathematics. In 2011, 22 percent of Newcomb High School students scored at or above proficiency in reading, 18 percent in social studies, 10 percent in science, and 19 percent in math. State averages for each these content areas were 49 percent, 47 percent, 39 percent, and 38 percent, respectively. As of 2011, Newcomb High School has a 60 percent graduation rate.

Consolidated School District #22 sits inside the Navajo Nation, the largest land area assigned to primarily American Indian jurisdiction in the United States. The Navajo Nation covers approximately 30,000 square miles—about the same size as West Virginia. It occupies portions of northeastern Arizona, southwest Utah, and northwest New Mexico, and 2010 census data indicate it has a population density of seven people per square mile. Only Montana, Wyoming, and Alaska are more rural.



HOPE



## BEGINNING THE TRANSFORMATION



In spite of their apprehension about what all the changes would mean to them personally, they knew that they had to try something different.

Story, who admits he will never back away from a challenge, set about his critical mission. It was August 2010, and he and his new leadership team of two coaches—Eric Melsness, the math and science coach, and Kathleen Swope, the English and history coach—had met a week prior to discuss the interventions they would pursue over the three years of the grant. The coaches and he were in agreement. To raise expectations and students' achievement scores, they wanted a small number of linked interventions. This handful of strategies would have to target the unique learning needs of Newcomb High School students and hold the greatest potential to raise each student's achievement scores on school-based and state assessments, including the New Mexico Standards Based Assessments (NMSBA). After lengthy discussion, they agreed on

three interventions: differentiated instruction; data-driven decision making; and the use of professional learning communities (PLCs) to talk solely about students and their work, review benchmark data, and plan next instructional steps.

Story was soon on the phone to ASCD, a membership association that provides expert and innovative solutions in professional development, capacity building, and educational leadership essential to the way educators learn, teach, and lead. He spoke with Director of Professional Development Ann Cunningham-Morris to find two ASCD Faculty members for differentiated instruction who would be interested in taking on a significant challenge; making a long-term commitment to Newcomb High School; and providing ongoing, job-embedded professional



### GAINING STAFF BUY-IN

The Newcomb leadership team took the time to prepare well for this grant and its upcoming cataclysmic shift in thinking and instruction. In June 2009, just before they submitted the grant proposal, the team interviewed each teacher at Newcomb, providing them with details about the grant and asking each to commit to three years of substantial, job-embedded professional development that would result in radical changes in their instructional practice. Only a handful of teachers requested transfers to other schools. Most, however, were relieved because they knew that what they had been doing simply was not working. Marilyn Stuckey, the librarian/media specialist who has worked in the district for eight years, recounts that "some teachers had such a low morale that they had lost hope. In spite of their apprehension about what all the changes would mean to them personally, they knew that they had to try something different." Kathleen Swope words it differently: "They openly admitted they had been failing their students. At the same time, they had remarkable courage to change, try new strategies and ideas." The early commitment of the staff to change their beliefs about students and their everyday practices proved critical. The faculty's dedication to change continues to be a cornerstone for Newcomb's accelerated transformation.

development in math and science and in English and history.



When a district or school contacts ASCD about its capacity-building professional development, they work as a team to customize the professional development based on the needs of the teachers,

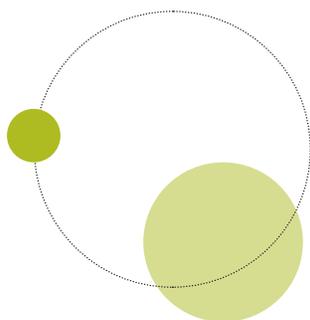
leaders, and students. That was the approach with Story and his team. First, an ASCD regional program manager scheduled a meeting with the leadership team. Cunningham-Morris attended the meeting virtually, and together the team completed an initial needs assessment to determine how ASCD would help Newcomb implement differentiated instruction, data-driven decision making, and the use of PLCs.

Story and his team agreed with the conclusion that the development of teacher leader experts in differentiated instruction was the way to go. The teacher leaders would build their capacity in the use of differentiated instruction in their classrooms, while they, the instructional coaches, and the principal would receive support in leading effective job-embedded professional learning with the teachers and staff schoolwide. This approach would meet all three of the focus areas for school improvement in an integrated way, alleviating the initiative fatigue that is often an issue in many high-need schools. The next steps were to work closely with the Newcomb leadership team to select ASCD Faculty members who would be the best match for the long-term capacity building work and to collaboratively determine

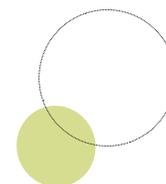
how a more in-depth needs assessment and the resulting implementation plan would be used to guide, monitor, and evaluate the work along the way.

On their initial visit the two ASCD Faculty members sat in every classroom with every teacher and discussed students, instructional practices, and professional goals. Based on the information they gathered, the ASCD Faculty members created a three-year implementation plan for differentiated instruction that was customized around each teacher's unique learning profile. Some teachers were invited to create anchor stations to ensure 100 percent use of instructional time, as well as provide extensions for students who finished their work early. Other teachers worked on getting to know their students and used the information to craft learning activities addressing students' interests. Still others were invited to develop culturally relevant and motivating hooks, or lesson introductions, as a way to increase engagement among their students.

During their visits—which are four times a year for three or four days at a time—the two ASCD Faculty members conduct interviews with all constituents, coplan and coteach with teachers, complete observations and walk-throughs, and provide feedback. At the debriefing, which occurs at the end of every visit, the key stakeholders monitor and adjust the three-year plan.



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## STAFF REFLECTIONS, 2010–12

The school leadership team coaches, Kathleen Swope and Eric Melsness, agree that Story “pegged” the most important intervention as differentiated instruction. It creates a platform for all the other interventions, and Swope characterizes



it as a “pivotal piece” of the school improvement puzzle. With differentiated instruction in place, its resulting data provides a rationale for data-driven decision making and PLC time, which ties into one of the most important outcomes

of ASCD’s capacity-building professional development: supporting teacher leaders, teachers, and administrators in learning about and really using job-embedded practices that make a difference in transferring teacher learning to the classroom.



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Once a week, Newcomb teachers are using intensive PLC time to examine student work resulting from differentiated lessons and to examine their own instruction, give one another feedback, and make the instructional adjustments in their classrooms that would better meet the needs of all subgroups of students. The research on effective professional learning has begun to play out at Newcomb; when teachers and leaders collaborate around the instructional needs of students, it benefits student learning, teacher practice, and the overall school culture.

As Newcomb faculty members reflect on their journey with the differentiated classroom on the Navajo reservation, they reveal several keys to success. Differentiation

- **Requires a Mind-Set Shift.** Differentiated instruction is built on the premise that students are the focus of all of a school’s efforts. Furthermore, it requires teachers to view students as individuals, to see who they really are; it’s a mind-set that simply did not exist before. “Now,” says Story, “everyone here works for the student, from the top down. Students have become the center of everything.”

- **Requires Rigor.** With differentiated instruction come high expectations for all students. Says Judy Douglass, director of the school’s guidance department, “Differentiated instruction is about holding high standards and not backing down and—at the same time—supporting students all the way along.” According to Melsness, who has been with the district for over 15 years, “We needed a whole new way of thinking about rigor. Until now, students moved through the system with hardly any expectations. They were expected to complete worksheets in class and . . . then they graduated. Now, we are coming together to talk about rigor within a particular class and a course of study.” Soon, these conversations will take place across grade levels so that all students have access to a rigorous course of high school study that can lead seamlessly to post-secondary education.

With the increased rigor and higher expectations, students must now complete assignments and culturally relevant projects, something Newcomb teachers are trying for the first

time with the aid of cultural coaches. Fran Hazlewood, the school nurse, reports that students tell her they feel a growing sense of responsibility, pride, and ownership in their work. “They now have to work harder to meet the new more rigorous expectations that teachers hold.”

- **Focuses on Student Strengths.** One of the tenets of differentiated instruction is that teachers have to get to know students and their learning strengths. Hazlewood, who has been part of all of the professional development efforts, tells us that differentiated instruction, “builds from where students are [and] requires teachers to identify what students already know and build new knowledge on that base. As a result, students are seeing themselves in a whole new light, [seeing] abilities in themselves that they never saw before.”
- **Requires Student Responsibility for Learning.** History Teacher Shirley Davis, who was born on the reservation not far from the school, says, “differentiated instruction teaches my students new things. When we use differentiated instruction, students have to own their learning. And I encourage them and say that when they own their learning, their creativity comes out! This is not their traditional mindset. Our children are so innocent and accepting. So, differentiated instruction is them.”
- **Meets the Learning Needs of Subgroups of Students.** Differentiated instruction also meant meeting the unique learning needs of subgroups of students. Story knew there was a

large group of struggling learners at his school. He and the coaches, along with the two ASCD Faculty members, developed Word Walls in every classroom for Newcomb’s large number of English Language Learners. A reading intervention was reinstated in test prep, and tutoring sessions were implemented after school.

- **Builds Expertise.** Once teachers come to know their students, “a whole world opens up,” says Geize Llanes, biology and environmental science teacher who saw that world with her own eyes when students competed in the school’s first-ever science fair. (See “Lawrence Redhorse” on p. 7.) “Our students need opportunities that they haven’t had before, and we just have to watch and figure out how to tap into their interests. We can begin to see the possibilities for our students and provide them with opportunities to develop their expertise.” She summarizes her thoughts exuberantly: “Believe in them, encourage them, and communicate with their parents!”
- **Fosters Hope, Positive Energy, and Humor.** Two years of hard work to transform the culture of Newcomb High School has other unexpected outcomes. The school has a new sense of hope and energy. There is a sense of urgency about the importance of education and the value it holds for each student. In some cases, teachers and students are planning their learning journeys together. Humor, unheard of before, finds its way into classrooms and hallways. It is not hurtful or cutting. It’s about the journey and its twists and turns. “Hope and feelings of positive-



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## LAWRENCE REDHORSE

Lawrence Redhorse is a reserved and thoughtful senior at Newcomb High School who now has a driving passion to learn and a new career goal. He always had a desire to learn, but it was not as focused as it is now. The science fair, offered at Newcomb High School for the first time ever in 2012, opened new doors for him.

His life changed in his freshman year when he was introduced to lab science. "I didn't know about the 'good' science until I was 14—you know, laboratories, field research, and documenting. And then, this fall, my life changed again, kind of spontaneously. I was sitting outside after school one day, when Ms. Llanes was talking to her students about a science fair. I just wanted to tag along and listen."

It was then that Lawrence realized that he wanted to do a science fair project. "Ms. Llanes told me to think up an idea where I can make something important out of nothing. And so, I kept looking around. There's so much tumbleweed out here. It's everywhere! And then I thought about the energy crisis and that so many people out here on the reservation rely on wood to heat their homes. They either have to pay a lot of money to have wood shipped to their houses or go out on the mountain to cut it. What can I do with tumbleweed?"

Eventually, Lawrence focused his idea into a research question: Can tumbleweed be used efficiently as a heating source? And he decided to explore the production of densified "logs" that could be used for heating. "The hardest part," says Lawrence, "was the manual labor—taking the raw tumbleweed, stomping on it, and reducing it to pulp. Then, I had to do a lot of measuring to make my bricks and then see if they would burn for a long time at high temperatures."

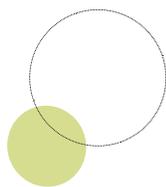
Lawrence submitted his project to the local science fair, where he won a ribbon. He was then nominated to go to the 2012 National American Indian Science & Engineering Fair in March, where he was a Grand Award Finalist. From there, he would go to Pittsburgh, Pennsylvania, in May to compete at the International Science and Engineering Fair.

Even though Lawrence will finish with the fairs in May, he explains that his work is not done. He is seeking a patent for his process. Part of the patent will involve the bonding agent he is creating, which is "top secret" and made out of natural substances found in the local area.

Lawrence explains that his participation in the science fairs has changed his life: "I never saw myself as a scientist, just as a civil engineer working in the field or office with paperwork. Now, I can see myself working as an environmental scientist. And universities are writing to me, asking if I would apply!"



DESIRE



ness are the foundation for change and school improvement,” says Story. “I have worked to foster a positive atmosphere and open feelings in this school. Differentiated instruction, especially its focus on the strengths of students, has helped teachers see students in a positive light.”

## NEWCOMB’S UNIQUE SCHOOL IMPROVEMENT NEEDS

Two decades ago, the U.S. Department of Education published *Indian Nations at Risk* (1991), a report that raised awareness about the difficulties faced by schools serving large percentages of American Indian children. Subsequently, Richard St. Germaine (1995) identified special barriers American Indian children must overcome if their schools are to succeed in their mission to educate all children. Two of the seven barriers are

- Curriculum presented from a purely Western perspective.
- Lack of opportunity for parents and communities to develop a real sense of participation.



The keen interest about each student at Newcomb fostered by the introduction of differentiation blends seamlessly into a unique component of Newcomb High School’s transformation plan: their outreach efforts. Outreach efforts have always been in place at Newcomb, but the grant has created a heightened sense of urgency to increase parental participation. “The parents of our students are critical to our success,” says

Judy Douglass, the guidance counselor. “They are initially wary, and understandably so. Once we can gain their trust, however, they know our door is always open. They never have to make appointments, and they know we will do what we can to help them with any issue.

To a fault, parents want their children to go on to school. We work with them to help create academic and career goals for each of their children.”



Coaches Melsness and Swope also touch on the outreach efforts to the community. The school conducts many of its functions in the Chapter Houses, local governing agencies on the reservation that are similar to city councils. Additionally, the coaches say, the school looks for ways to celebrate successes and invites parents to join the festivities.

To address the other barrier cited by the *Indian Nations at Risk* report, Newcomb High employs a cultural coach to work side-by-side with teachers to ensure curriculum has more than just a Western perspective. She consults with teachers to increase the cultural relevance of lessons, which, in turn, supports student self-esteem, respect, and success. Finally, the school hired a liaison to provide outreach to the community.

## EVIDENCE OF SUCCESS

While it is too early to know if measurable increases have been achieved on the most recent administration of NMSBA,

anecdotal results abound for Newcomb High School staff and students:

- A 75 percent increase in the enrollment of students in test-prep sessions and after-school tutoring.
- Increases in scores on benchmark assessments by students receiving intervention in math (30 percent) and reading (40 percent).
- An increase of about 35 percent in scores of all students, grades 9–12, across common formative assessments and across content areas.
- More than 70 percent reduction in the number of tardy students.
- A decrease of 30 percent in the number of in-school suspensions. Reports Shirley Davis, the history teacher, “The students are *absolutely* different! There’s an academic focus. In my eight years at the school, I have never seen a shift like this before.”
- Student participation in the first-ever school-based science fair. Coach Melness reports that “59 students out of 260 participated, and two have been selected to go on to the national level competitions.”
- A more than 100 percent increase across all grade levels in the number of library books checked out and read.
- Increased participation in state assessments. It was not unusual in past years for there to be large numbers of students missing from state assessments. In 2012, only one student was absent from the entire sophomore and junior classes. Says Judy Douglass: “In all the years I have been in education, 39 years, I have never seen that kind of attendance.”

Clearly, the students understand the importance of what is going on here.”

Staff members waiting for the June 2012 NMSBA results are cautiously optimistic. With the results in hand, they anticipate much summer planning to differentiate their lessons and units for subgroups of their students.

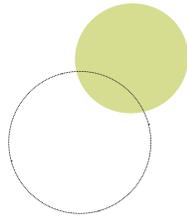
## TRANSFORMATION FAST TRACK

How has the staff of Newcomb High School brought about these transformations in less than two years? Research tells us that school change is daunting. And, real change is fragile and can take a long time: from three to five years (Fullan 2001). The staff at Newcomb High School share insightful reasons for their remarkable turnaround:

- **Capacity Building.** The focus on building teacher and leader expertise in differentiated instruction and on helping our staff to collaborate on our professional learning journey was a powerful way to start.
- **Coalescence Around Common, Specific Goals.** Teachers are focused on increased student achievement. The constant focus on the same goals over time creates a sense of urgency and hastens their progress. Furthermore, the job-embedded professional development—aligned with the same goals—is a top priority
- **Mind-Set Shift.** Most teachers now put their students at the center of everything. They have also come to understand that their students can, indeed, achieve at high levels. The common



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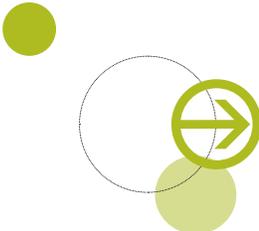


beliefs and mind-set shifts help to accelerate student progress.

- **Focus on Student Strengths.** When teachers look for student strengths, they can no longer focus solely on deficits. Teachers are coming to see the possibilities in students. Says Marilyn Stuckey, “These students are unbelievably creative and smart!” The positive attitude is infectious and lends support to achievement goals.
- **The Coaches.** Having full-time coaches has made a tremendous difference in the speed of our transformation. “We

have the closest support,” says Davis. “I have learned so much through them.”

- **Walk-Throughs.** In the second year of the grant, the coaches and principal began walk-throughs and accompanying debriefings. These building-level tours provide a great deal of information about classroom practices. “Our classrooms,” shares Story, “are now more consistent, more aligned with rigorous standards. Teachers are teaching at a higher level and with more understanding and empathy for students.” The walk-throughs also send



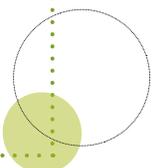
### NEWCOMB HIGH: NOT A LONE, BRIGHT STAR

Newcomb High is not alone in its remarkable progress. Two ASCD Faculty members report similar stories working in other schools that serve largely American Indian populations. When the staff at St. Labre School in Ashland, Montana, adopted curriculum differentiation in 2010, “teachers challenged themselves during PLC time to rethink prevailing assessment pedagogy in an effort to boost motivation within their classes,” says one faculty member. “Specifically, they find success using the data from formative assessments to appropriately challenge each student. In addition, they have adjusted their grading practices to emphasize individual growth.” The result is that “teachers are beginning to see positive changes in the classroom.”

Another ASCD Faculty member has been with the Many Farms High School in northern Arizona for two years and reports that teachers see differentiated instruction as “good teaching.” Furthermore, “students are at the heart of differentiated instruction,” the faculty member continues, “which helps them get the most out of their day. Teachers are leaving the one-size-fits-all curriculum behind.”

In addition to these observations, Many Farms reports similar outcomes to the ones experienced at Newcomb:

- Teachers respond positively to new ideas about instruction.
- Teachers expressed desire to meet together by grade or subject area to plan for instruction.
- Staff have a new appreciation for real, sustained professional learning, not just a one-day conference.
- There is an ongoing dialogue about the type of leadership needed to improve instruction.



a powerful signal that what happens in the classroom is vital to success.

- **The Isolation.** The palpable isolation in Newcomb is a double-edged sword. “Out here,” says Swope, “we are so isolated that everyone has to pull together. We are it! The isolation helps to fuel our progress.”
- **Size.** Newcomb High School has a small staff of 23 regular classroom teachers and three specialists. The small staff size lets the teachers be more nimble and change course or adopt new policies easily.
- **The Principal.** Scott Story is a collaborator and includes everyone in decision making. Hazlewood shares, “He models collaboration and brings all issues to the forefront. Teachers have, in turn, become collaborators with students and their parents.”

and develop “small-group instruction that is differentiated around critical student learning differences,” Story continues. “Finally, we need high levels of thinking in every classroom, all the time.” Adds Judy Douglass, “The momentum is here. We are seeing continuous improvement, and things will continue to turn around. Our students will rise higher and higher, and we have yet to see the real impact of this initiative with our freshman students who started with the grant.”

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## NEXT STEPS FOR NEWCOMB HIGH

What are the next steps for Newcomb High School? “It’s no secret,” says Story. “It’s more of the same.” Newcomb will seek greater consistency in the classroom



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GROWTH

