

Flattening the School Walls

Principal Tom Horn, a self-described "hippie kid from Eugene," has transformed a troubled alternative high school in Oregon—not to mention his teachers' job descriptions—by introducing a radical project-based learning model.

By [Liana Heitin](#)

Tom Horn, rugged and composed in a fleece jacket, hiking boots, and a baseball cap, points down at the several rows of winter vegetables in planter boxes. "We already harvested three and a half tons of food for the community from this garden," says the principal of Al Kennedy, an alternative public high school in Cottage Grove, Ore. He gestures to the neglected soccer field beyond. "But pretty soon the garden will extend all the way out there." Standing nearby, Maggie Matoba, the school's garden coordinator and founder of a local nonprofit that provides horticultural therapy, shrugs and smiles. This sort of lofty planning from Horn is nothing new to her.

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In a sense, the garden project can be seen as a metaphor for the way Horn operates in every aspect of his job as a school leader. The 42-year-old principal is equal parts quixotic and practical. He thinks big—dashing off seemingly far-fetched ideas with tangled webs of text and arrows in his ever-present sketchbook. He then gets others excited about a project, convinces some experts to get involved, procures the resources—and watches the project bloom.

By many measures, Horn's leadership style—and his emphasis on beyond-the-classroom learning—appears to be working. The attendance rate at the 100-student high school, formerly called Al Kennedy Alternative School but now referred to by students and staff as the Kennedy School of Sustainability, has jumped from 23 percent in the fall of 2006, when Horn took over, to a current rate of about 90 percent. The dropout rate is now at 12.5 percent, down from 20 percent in 2004-05. Test scores, though still below par, are on the rise. The once-stigmatized alternative school now has a 180-student waiting list. And for the first time ever, students from Kennedy are going to college.

A self-described "hippie kid from Eugene," Ore., Horn claims that he never actually wanted to be a principal. In his mid-20's, he gave up a nomadic existence of surfing and rock-climbing to head back to school. He then opted for a master's degree simply to move himself up the teacher pay scale, and at age 30, became a special education teacher—a position he was happy to stay in. But several years later, persistent urging from Krista Parent, superintendent of Oregon's 2,900-student South Lane School District, who'd heard of Horn's reputation as an innovator, convinced him to apply for the principalship and, eventually, to take on the task of turning the ailing Kennedy around.

Parent, the 2007 National Superintendent of the Year, says she envisioned transforming Kennedy from an alternative school for students who had "blown out of the regular system" to an option for "kids who need more real-world relevant kinds of opportunities." Under Horn and the teacher team he's assembled, she notes, the school has "far exceeded our expectations and our vision—and more quickly than I thought it could be done."



The Kennedy school's garden coordinator, Maggie Matoba, center, supervises students Cassidy Pace, 17, left, and Tina Woody, 20, as they plant potatoes in the school garden.

—Chris Pietsch for Education Week

A Unique Curriculum

Horn recalls showing up on the first day of school in a suit and tie only to be cursed out by students smoking cigarettes and what smelled like marijuana near the front door. Within his first two months, several students experienced crystal methamphetamine and cocaine overdoses. Horn took time to visit the trailer parks his students lived in and saw what he describes as "abject poverty." Once a thriving mill town with well-paid jobs that did not require a high school diploma, Cottage Grove was now economically downtrodden. It dawned on Horn that finishing school would be even more important for these students than it had been for previous generations in the rural town.

Horn determined that the students needed a unique curriculum to keep them engaged and in classes. Because of the natural resource-rich surrounding area as well as his own interest in green technology, he chose project-based learning and the theme of sustainability. He divided students into five cohorts, each of which would complete projects related to a subtheme—agriculture, energy, forestry, architecture, or water.

All of the projects were aimed at having "tangible positive effects on the entire community," he explained. "We've flattened the walls of the school." Since many Kennedy students had been demoralized in the traditional school system, Horn hoped getting kudos from community members might help restore their feelings of self-worth. In addition, he figured, the projects themselves, visible in the surrounding neighborhoods, could serve as a source of pride.

The cohort design, in which students remain with the same teacher all day, is perhaps Kennedy's most unusual trait. The model gives teachers complete autonomy with their schedules. "You never know when [students] will take off like fireworks and get excited about something," says Vickie Costello, who teaches the water cohort. Having a static group "allows me to extend a lesson or end it and come back to it the next day and get them up and active. So many lessons lend themselves to being outside." According to Horn, "the model is a mixture of elementary school and a master's cohort."

The fluid schedule also lets teachers take students on day trips to Portland or extended trips of up to two weeks—for example, to go snow camping or exploring the Oregon coast. (All teachers at Kennedy, in addition to being dually certified to comply with highly-qualified teacher regulations, are licensed bus drivers.) The trips are closely tied to themes students are studying in class.

"Sometimes we listen to a book on the CD player on the bus," says Costello, who has been at Kennedy a year longer than Horn. "I ask questions and we have a discussion about it."

In addition to going on regular out-of-school study excursions, students spend one day a week doing field work for their thematic projects. One group is growing tilapia (freshwater fish) as an energy-efficient protein source for the community. Another cohort is building Aleutian kayaks and taking them out to monitor the river's water quality. Students are also doing beekeeping, pulling invasive species of plants from the riverbank, and working on sustainable housing prototypes. While there are only five full-time teachers and four instructional aides at the school, Horn has assembled close to 60 community volunteers to lend their hands and expertise to the various projects. Funding for the projects



Former student Clint Shepherd, 16, who now teaches Kennedy students about beekeeping, inspects one of the school's beehives. Skills learned at the school led Shepherd to a job working at an apiary near Cottage Grove, Ore.
—Chris Pietsch for Education Week

comes mainly in the form of grants—Horn has secured \$3 million in grants from places such as the University of Oregon and the U.S. Forest Service in the last six years.

Extreme Teaching

The teachers at Kennedy have an extraordinary—even potentially overwhelming—amount of responsibility. In addition to the overnight trips and projects that require much out-of-school planning, they are working with a demanding population: According to Horn, 38 percent of Kennedy students are homeless, 14 percent are teen parents, many have dealt with addiction issues, and all are at risk of dropping out. The school has a full-time counselor, but teachers need to be tuned into students' mental health and emotional needs, too.

All of Horn's staff members—some of whom he hired, others of whom stayed on from the previous administration—are willing to go above and beyond the conventional teacher job description. "There isn't a weak link," Horn says. "It's serendipitous." But in truth, the staff's dedication is far from a matter of luck. Some former teachers at the school self-selected out once Horn came onboard with his outsized ideas, and Horn himself screens new candidates for dedication to the model and the students. "The passion that each teacher brings to their work as an educator at Kennedy comes from an understanding that learning should be a fascinating adventure," he says. Not surprisingly, his teachers are all outdoor enthusiasts like himself—skiers, surfers, and snowboarders, among other things.

Horn also creates staff cohesion by using a democratic decision-making process. "Not a decision is made here that doesn't involve everyone's voice and opinion—which is really hard," says Horn, who meets with his staff twice a week. "But when we solidify the notion of what we're doing, there's 100 percent commitment." Costello says the democratic process has been critical to her experience at Kennedy. "I can't imagine working somewhere else without it," she says. "It's empowering and motivating. And it keeps evolving."

Standard Operating Procedures

One question local school board members and other school visitors often ask is how the teachers address state standards within projects. Parent, the district superintendent, notes it's something she and Horn regularly confer about. "One of the criticisms of the old alternative high school, and any alternative school, is that the standards have been watered down," she notes. "You lower the bar and that's how kids are successful there. We had to fight that perception and make sure the rigor was present."

Horn describes project-based learning as "working down Bloom's taxonomy instead of up." The students are given a task that requires higher-order thinking skills—often to create something—and they must learn and practice lower-level skills along the way. Whether or not students realize it, the standards are embedded into the projects from the start. Horn and his teachers map out each project on a matrix, with the content subjects on the horizontal and phases of the project on the vertical. The state standards are embedded in the boxes. For instance, a student doing beekeeping might need to research and write a paper on bee behavior to address a language arts standard. The overall goal of completing a project that will benefit the community motivates kids, according to Horn, and is an "entry point for reshaping their love of learning."

In most alternative schools, where students have fallen behind academically due to behavioral and social problems, the focus is remediation. "We do this weird thing with setting benchmarks before we let students do something fun," says Horn. At Kennedy, by contrast, teachers' first concern is engagement—keeping kids in school. "You get kids hooked on personal interest," says Costello. "You give them articles to read and



With dirt still on his hands from helping students in the garden, Horn gets some work done on his laptop.

—Chris Pietsch for Education Week

they don't realize they're doing language arts." In many cases, a student "comes to the realization they are lacking skills they need," says Horn, which acts as an intrinsic motivator.

Teachers do address students' individual academic needs as well. Students take a battery of assessments three times per year to determine their basic skill levels, and teachers set aside time for individual interventions based on those results. For math, some students participate in online digital lessons through Khan Academy, a provider of free video tutorials. According to Costello, Kennedy is "more student-centric [than other schools]. Every student has an individualized plan—not just the special ed. students. We look at their assessments and what they need."

Marcus West, a 17-year-old student who recently transferred to Kennedy, says he appreciates getting personalized attention. "The teachers actually work with me and show me things hands-on," he explains. "I'm getting help with the classes I need instead of just getting pushed toward the back."

The school still has a ways to go to meet state benchmarks and adequate yearly progress under the No Child Left Behind law. According to data from the Oregon Department of Education, 52 percent of Kennedy students passed the state reading assessment for grades 10 and 11 in 2011. While that's much higher than Kennedy's 2008 pass rate of 9 percent, it's well below the state average of 83 percent. The school's writing scores have been up and down over the years and are currently at a 28 percent pass rate.

The area students "haven't progressed as well in is math," says Parent. "Math is so sequential, with pretty big gaps in these students' education that's a little bit harder for us. We've got work to do in that area." But while Kennedy's pass rate in grades 10 and 11 is low in math—36 percent—it's double the pass rate from 2010 (the only one available for comparison).

Dana Beck, program manager for Oregon GEAR UP, a federally funded program that works to get low-income students into college, says Kennedy—the only alternative school the organization works with—is making "impressive" gains. "I think there's still room for growth and still room for them to adapt in their model to better meet testing requirements, but we're seeing positive trends, and that's a really good sign" she notes.

Costello is also optimistic about the growth she's seen in the last six years. "Not only are test scores moving up but interest in community college is increasing," she says. According to Horn, between dual enrollment and postsecondary matriculation, as many as 40 percent of Kennedy students and recent graduates have enrolled in college in the last few trimesters.

Growth Models

As progressive as his approaches may seem, Horn fastidiously roots his work in research and best practices. He's a proponent of the **5 Dimensions of Teaching and Learning**, an instructional framework developed by the University of Washington's Center for Educational Leadership. He is also a devotee of the practice of **"instructional rounds,"** based on the work of a group of professors at the Harvard Graduate School of Education, in which teachers observe their colleagues and compare their own practices to what they see. Horn's explanations about his work and school are peppered with the names of authors, philosophers, and entrepreneurs who inspire him—Daniel Pink, Will Allen, Angela Duckworth, and Alice Waters, among others.

Horn is also emphatic that the work being done at his small school can be replicated in larger high schools—albeit with a bit of restructuring. "You take the traditional high school and put Kennedy into that school. That's the replicability—it's a school within a school." The smaller school communities, which might be developed around themes to "build cohesion," could be led by teacher leaders, says Horn. The charter school movement has bred innovative school models, he adds, but districts should also look to bring project-based learning to alternative and comprehensive high schools.

The big-picture project of spreading his model is on the horizon: Horn will be featured in an upcoming PBS documentary and is slated to give a TED Talk. But the principal takes time with the more immediate issues as well—for example, sitting down for a hot cup of tea with a defiant student or finding a way to build a weight room for his athletes. These day-to-day smaller responsibilities seem to keep him grounded. "It all sounds really wonderful, but it's still growing," he says. "We're ironing out the difficulties."

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