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ABSTRACT

This document contains the four issues of Northwest Education published during the 2001-02 school year. Issue themes are: (1) "High Standards for All: Confronting the New Paradigm"; (2) "New Teachers: From Surviving to Thriving"; (3) "Living Lessons: How Projects Engage Kids and Deepen Understanding"; and (4) "Beyond the Bell: Extending Opportunities for Learning." Typically, each issue consists of a lead article that reviews current research and issues related to the theme, followed by five or six articles describing model programs and practices in schools of the Northwest--Washington, Oregon, Idaho, Montana, and Alaska. Issues also contain information on related resources, book reviews, letters from readers, and practitioner commentary. (SV)

Northwest Education, 2001-2002

Lee Sherman, Editor

v7 n1-4 Fall-Sum 2001-2002

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NW

EDUCATION

HIGH STANDARDS FOR ALL

Confronting the New Paradigm

NORTHWEST REGIONAL EDUCATIONAL LABORATORY

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High Standards for All

Confronting the New Paradigm

ON THE COVER:
At Sacajawea Elementary School in Caldwell, Idaho, teacher Renee Bettencourt works with student Efrem Pesine during the daily, 90-minute, schoolwide reading block, part of an intensive effort to boost reading skills for all students. *PHOTOGRAPH BY TROY MABEN OF BOISE.*

ARTICLES

2 **Taking a Second Look at Standards**
Beneath the controversy, the movement holds great promise for education—*if* the proper resources are provided.

12 **Birth of a Standard**
Bucking a longstanding tradition of local control, the Idaho Legislature has launched mandatory statewide standards in reading.

22 **Where Teachers Are Learners, Too**
At Glenfair Elementary School, teachers turn to research to meet the needs of an increasingly diverse student body in a district where high standards are nothing new.

30 **When the Stakes Are High**
Although high academic standards are widely accepted in concept, there is little consensus on the practical matter of testing.

36 **Oregon Out Front**
Opinions fall all over the spectrum, even in Oregon, which has been blazing trails in the standards area for several decades.

46 **Eye of the Storm**
Two groundbreaking Washington districts demonstrate the pivotal role the central office plays in making standards work.

DEPARTMENTS

45 Resources
51 Letters
52 Expert Opinion

Teachers and students across America are feeling the push for high academic standards. The message: Expect more, demand more, achieve more. But the push isn't uniform from school to school. Depending on the state, the district, and the community, it can range from a gentle nudge to a forceful shove. That's because some states and districts are taking a wait-and-see attitude, while others have plunged in headlong, The skeptics wonder, Is the standards movement destined to be just another reform bandwagon that came and went? Meanwhile, the optimists have dedicated not only policy statements but also time and money to helping schools meet the benchmarks. They insist that standards are the rails upon which school reform will glide into the future.

If so, the journey promises to be a rough one for many educators. A recent special report from *Education Week*, which graded states' progress toward standards and accountability, handed out D's and F's to 20 states, including four in the Northwest. Only one of the region's states, Oregon, fared reasonably well, rating a B. Nationwide, just four states ((Kentucky, Maryland, New Mexico, and New York) pulled off an A—a couple of them, miraculously, in spite of scarce resources.

At a recent NWREL forum on standards, Nanci Spear of Alaska's education department summed up the standards drive in her state this way: "We have some people who are really riding the train and staying with the movement. Then we've got other people who are doing a little piece here and a little piece there."

Even in Oregon, the Northwest leader in standards, schools are "all over the board," Carla Wade of the education department reported at the forum. "Some are embracing the movement. Others have blinders on, saying, 'If we ignore this, it will go away.'"

Even among the pacesetters, significant issues remain unresolved. One huge question turns on measurement: What's the best way to gauge students' progress toward standards? Multiple-choice tests can miss important learning goals, many experts argue. Yet the more authentic tests, such as portfolios and performance exams, are time-consuming and tough to score.

Another question at the heart of the debate is, What's at stake? Should standards-based tests be used to decide promotion from second to third grade? graduation from high school? Should teachers' salaries or principals' raises be determined by test results? The intense anxiety churned up by high-stakes tests is clear from recent news coverage. The papers have reported cheating scandals in places where the pressure is most intense. Broadcasters have aired stories about parental revolts, where moms and dads have taken to the streets in protest, refusing to send their kids to school on test day.

Other questions gnaw at the movement: How can schools maintain local control while beholden to a mandate from the state about what kids should know? Is it reasonable for legislatures to hand down standards without providing funding for teacher training, textbooks, and appropriate technologies? Do standards create one more roadblock to keep disadvantaged kids stalled on the sidelines? How can schools ensure that curriculum and instruction are aligned with district, state, and national goals?

Despite the unanswered questions, standards command the spotlight in school reform circles today. Supporters say that standards offer the best foundation for finally building an equitable education system—one that holds schools accountable for the learning of every child in every community.

In this issue, we survey the standards movement in the Northwest, sharing with you the opinions and experiences of the educators and kids who are affected by standards every day.

What do you think? Join the dialogue. Send us your opinion at shermanl@nwrel.org.

—Lee Sherman

TAKING A SECOND LOOK AT STANDARDS

Criticism has caused reformers to rethink the pace and priorities of a movement that has caught on in virtually every state.

Story by LEE SHERMAN, Photos by TROY MABEN

A few minutes of digging on just about any state education department Web site will yield a rich vein of information about K–12 academic standards. If you visit the sites for Alaska, Idaho, Montana, Oregon, and Washington and print out the pages detailing what kids should know about everything from algebra to media literacy, hundreds of pages containing tens of thousands of words will spew from your inkjet. Stack up the printouts for all five sites, and you'll be looking at a pile of paper more than three inches deep.

Many an educator has felt buried in the verbiage. Many also feel threatened by the expectations that come with those imposing tomes. That's because states and school districts must have some kind of yardstick to measure progress toward the lofty new goals. Usually, that yardstick is a standardized test. Some funding agencies and policy setters are using such tests to reward and/or punish schools, teachers, and students for their performance.

But not without a fight. From coast to coast, the standards movement is increasingly battered by controversy. Reporters and researchers write story after story—for the mainstream press as well as scholarly journals—on the beleaguered reform effort. Page One articles give troubling accounts of cheating as teachers and administrators succumb to pressure for improvement. Banner headlines portray schools as winners and losers in a battle for better numbers. Demonstrations erupt in the streets, where parents carry signs proclaiming, "CHILDREN ARE MORE THAN TEST SCORES!" Teachers trade anecdotes about kids getting sick to their stomach on test day. An expert speaking on a radio talk show passionately warns against turning kids into "trained seals who bark out the right answers on command." The leader of a teacher union cautions that, indeed, the very "soul of education" is in jeopardy as


A Cool Man

schools become riveted on test results.

Can the standards movement survive the onslaught of critics on so many fronts? Some observers predict the movement's certain demise under assault from unhappy parents and resistant educators. But others are more optimistic. It's not the standards themselves that are the problem, they say. It's the shortage of support for teachers and the over-reliance on tests that could doom the movement. What's needed is a "a better balance" among standards, tests, and teacher training, asserts *Education Week* in its recent special report on the state of standards nationwide. "State tests are overshadowing the standards they were designed to measure," the editors write in *Quality Counts 2001,* an exhaustive examination of how standards are playing out in each state. "And many states may be rushing to hold students and schools accountable for results without providing the essential support."

MIDCOURSE REVIEW

"The idea is simple: Set standards for what children should know and be able to do at particular grade levels, align curriculum and teacher training to ensure that students are taught what they need to know, create statewide tests to measure pupil performance relative to the standards, and use the results to allocate assistance, rewards, and sanctions."
—Robin Lake, Paul Hill, Lauren O'Toole, and Mary Beth Celio,* Making Standards Work, *July 1999

It's hard to pin down the genesis of the standards movement. But most researchers trace its twisting path to the 1984 release of *A Nation at Risk,* the now-classic report that heaped criticism on the educational system and called for "a tougher set of academic basics for high school graduation." Others believe standards go back to the 1970s with the "minimum-competency" movement, which sputtered and died after a public backlash. By the dawn of the 1990s, then-President George Bush and the nation's 50 governors had hammered out the six national education goals (later expanded to eight) to spur U.S. schools to outscore Asian and European countries that were consistently beating U.S. students on international exams. About the same time that the federal Goals 2000 initiative took off running, professional associations were crafting sets of standards for their subject areas. Beginning with the National Council of Teachers of Mathematics—closely followed by comparable groups in other content areas, including science, reading, world languages, and PE—national standards began popping up. These standards in turn became models upon which many states built their own sets of academic content standards—that is, statements that describe what students should know and be able to do at each grade level.

Some 10 years later, virtually all states have academic standards in at least some subjects, *Quality Counts 2001* reports. The state-level standards, however, were barely off the copy machine before demands for accountability arose. *Education Week's* analysis found that more than half the states hold schools accountable for results, either by rating all schools or identifying low-performing ones. Teachers and principals found themselves suddenly sitting on the hot seat, typically with very little training in how to use the standards, very little time to become familiar with them, and very few new resources (if any) to draw upon. In states where educational dollars are tight, educators complain about the "unfunded mandate," especially where high stakes (raises, bonuses, promotions, transfers, school closures) are attached.

Similarly, with little or no exposure to standards-based instruction, many students were hit with make-or-break tests. Even though critics charge that many tests fail to reflect what students have been taught, such tests can carry huge consequences: In 20 states, students must pass these tests to take home a diploma. In the view of many experts, the cart (assessment and accountability) has gotten way out ahead of the horse (standards-based instruction).

In response, lots of voices have been crying, "Whoa!" In the winter of 2000, noting that the decade-old movement was at "a critical juncture," then-U.S. Secretary of Education Richard Riley called for a "midcourse review." Saying, "I urge leaders at every level to take stock of where they are and where they are going when it comes to implementing standards," Riley cautioned against using a "here's-the-test, top-down approach" to as-

sessments. One policymaker, Arizona state Representative John Huppenthal, went so far as to call the situation a "train wreck." Talking with *Education Week* in January, he said, "They're high-quality standards, but they present an enormous political problem in which children who have been accepted to quality universities can't get out of high school."

As state lawmakers and education policymakers bump up against irate parents, skeptical teachers, and distraught students, they often engage in some furious backpedaling. *The New York Times* reported in December that nearly a third of the states that had drafted high-stakes graduation exams (Alaska included) were scaling back or slowing their initial efforts. They've been "rattled" by high failure rates on early tests—or simply by the fear of high failure rates based on experiences like Arizona's, where almost 85 percent of students flunked the math exam. "These states," reported Jacques Steinberg, "have winnowed material to be tested, lowered passing grades, or delayed the effective dates of those exams."

Again and again, as you wade through the literature on standards you will find yourself stumbling over the topic of testing. Indeed, it can seem as though the debate about standards is mostly a debate about testing, particularly the high-stakes kind. One big issue that critics frequently seize upon is the disconnect between the complex, rich kinds of learning that standards evoke and the more superficial, rote kinds of learning that standardized exams typically sample.

"Standards require that students have deeper levels of knowledge about content matter and are able to apply that knowledge," Mid-continent Research for Education and Learning (McREL) asserts in its November 2000 publication *Noteworthy Perspectives on Implementing Standards-Based Education*. "Typical multiple-choice questions, true-false items, and fill-in-the-blanks assessment methods are not adequate for assessing this type of knowledge and application." Aligning tests with standards is, many experts insist, the linchpin of the standards movement. Daniel Domenech, writing in *The School Administrator* in December 2000, minces no words when he says, "It is the question of validity, or how these high-stakes tests are being used and interpreted, that threatens to undermine the whole standards movement."

One independent, bipartisan, nonprofit organization is helping states tackle this most critical of issues. Achieve, Inc., created in 1996 by governors and corporate leaders to help states and private-sector organizations raise standards and performance in America's schools, has devised a process for determining how well tests line up with standards. As described in a March 2000 publication titled *Measuring Up: A Report on Education Standards and Assessments for Oregon,* Achieve identifies five dimensions for consideration:

(1) Confirmation or construction of test blueprint. Does each test question correspond to at least one state standard?

(2) Content centrality. Does the content of the test item match the content of the standard it is intended to measure?

(3) Performance centrality. Does the type of performance presented by each test item match the type of performance described by the corresponding standard?

(4) Challenge. This dimension includes two components. First, for each item, does the source of the challenge come from content in the standards that students must know to get the item correct, or is the question hard for some extraneous factor, such as the language of the item or trick built in to confuse test-takers? And, second, for a set of items related to a given standard, does the level of challenge represent a range of difficulty that is appropriate for the grade level tested?

(5) Balance and range. These criteria attempt to uncover whether certain concepts and skills delineated in the standards are emphasized on the assessment and, if so, whether they are emphasized at the expense of other important areas.

What these dimensions together attempt to approximate is, in essence, what McREL calls the "ideal approach" to standards-based reform: devising an accountability system that "interacts in a meaningful way with instruction."

Bob Chase, president of the National Education Association, summed up the union's position at its July convention. "At a time when testing is being exalted as a cure-all," he said, "we must insist that tests be used as a stethoscope, not a sledgehammer." The 9,000 delegates listening to his speech erupted in applause.

A DELICATE DANCE ON EGGSHELLS

6

STATE EXPERTS CONVERSE ON THE CHALLENGES AHEAD

Standards are without doubt the priority topic on the minds of Northwest educators these days. A recent NWREL survey found that standards—especially, how to make them mesh with local curriculum—rank Number One on the list of concerns for practitioners across the region.

So when education department officials from Alaska, Idaho, Montana, Oregon, and Washington gathered in May to talk about the issue, a spirited discussion ensued. A full spectrum of emotions, ranging from deep frustration to guarded optimism, surfaced during the two-day NWREL-sponsored forum.

Although each state is approaching standards in its own way, several common themes emerged. Here's a recap:

Professional Development. Teachers already in the trenches need high-quality, ongoing inservice training if they are expected to effectively retool their approach to align with standards. "The general challenge we all face is helping teachers live and work in a standards-based environment," said Linda Peterson, school improvement administrator for the Montana Office of Public Instruction. But the challenge is daunting. "How do you get to 5,000 teachers to help them understand the paradigm shift?" Rich Mincer, chief of federal programs for the Idaho Department of Education, wondered aloud. Dennis Small, educational technology specialist for the Washington Office of State Superintendent of Public Instruction, shared his own version of the same frustration: "We have 40 to 60 inservice providers, with little coordination. We need to have an inservice summit."

Data-Driven Change. Standards provide a clear target—typically captured in test scores—for school improvement. But if data are to drive practice, those numbers must be available and reliable. Too, teachers must know how to use them in pursuit of higher standards. "A lot of educators don't understand what the numbers mean—for example, you can't average your percentile rankings," noted research and evaluation specialist David Breithaupt of Idaho. At the same time, the participants expressed worry over putting *too much* emphasis on test scores. There is a danger that the growing focus on scores will "turn student achievement into a horse race by the media and the public," Breithaupt warned. Small said his state of Washington is holding summer institutes on the appropriate use of data. For instance, breaking down scores by group ("disaggregating" them, in the lingo of statisticians), can illuminate inequities and help target services. "The whole idea of data-driven decisionmaking is becoming a part of people's thinking," Small said, adding, "How to use data to inform instruction is a *huge* issue." In Alaska, schools must devote at least one in-service day each school year to examining and discussing their data.

High Standards for All. "All" means everyone. In particular, it means the poor and minority kids who have too often been left behind, victims of low expectations and scarce resources. "Schools are now being held more accountable for those low-achieving kids," remarked Alaska math specialist Nanci Spear of the Department of Education and Early Development. To help at-risk kids meet benchmarks, Alaska legislators passed the Quality School Initiative to fund projects geared at disadvantaged students. Intervention teams are reviewing students' work and crafting plans for improvement using a variety of instructional strategies and feedback. Michael Hall, who oversees Technology Literacy Challenge Grants for Montana, worries about high-end students, as well. He favors an approach that aims for "continuous progress" or "continuous student growth" for all rather than a single "cut score"—what one participant termed an "arbitrary mark in the sky." Hall fears that in the rush to bring low-performing kids up, high achievers' needs will go unmet. "What about gifted kids?" he asks. "What about finding the appropriate standard for *each* kid?"

Kids on the Move. Keeping up with mobile children is an imperative if standards are really going to help boost achievement for each and every student. Breithaupt of Idaho said that in his state's southern half and elsewhere in the region, the migrant population is high and getting higher—pushing 80 percent in some schools. And, he noted, it's a challenge shared by Oregon and Washington, who often host the same families as they move from state to state to harvest crops or fight wildfires. He insists that a tracking system that follows each child as she or he moves from school to school is essential if educators are to have any chance at bringing all kids up to standards. "We have to track every student from K though 12, no matter where they go," he argues. He's working with district superintendents toward a "unique universal ID code" that would follow each kid from Parma to Vale, Lewiston to Pullman, Clarkston to Salmon—or wherever.

School Sanctions. Low-performing schools that fail to bring achievement up will likely face funding cuts and possible closure under federal proposals being hammered out in Washington, D.C. Forum participants cautioned, however, that such sanctions can be problematic in rural states, where the local school may be the only option on vast tracts of tundra or rangeland. Besides, Spear observed, "kids deserve a great education in their own community."

Curriculum Alignment. Districts are in various stages of revamping their curricula to match state-mandated standards, according to the participants. Washington has formed content-area leadership cadres and has held summer institutes on "transforming the environment," among other strategies for supporting teachers in the transition to standards-

From top to bottom:
Tom Farley
Linda Peterson
Carolyn Mauer
Rich Mincer

based instruction, Small reported. In Idaho, legislators recently allocated $8 million to be parceled out to districts statewide in formula grants for standards implementation. Districts that collaborate with charter schools or other districts will get a bonus.

"We have districts all over the board on curriculum alignment," said Carolyn Mauer, chief of curriculum and accountability for the Idaho Department of Education. "We are appealing to the districts that are out front to become the hub of a consortium in their region—to share curriculum with other districts." Montana, too, is moving toward a regional approach. "Our challenge," said Peterson, "is to regionalize the state so we can build capacity" through peer reviews, site visits, and mentoring. Hall, who specializes in technology, stressed that teachers must understand that the technology standards are "for infusion"—that is, they don't stand alone, but rather must be blended into subject-area content—math, social studies, and so on. To help teachers do this, Montana is developing searchable, color-coded tables in Excel; when posted on the department Web site, they will show where all content standards, including technology, intersect and overlap. "There are standards in all content areas, and teachers need to be reminded that they can teach many standards simultaneously," Hall told the gathering, adding, "Teachers are saying, 'I've absolutely got to have this now.'"

Local Control vs. State Standards. In states with a deeply rooted tradition of local decisionmaking about what kids should know and be able to do, a blanket mandate can be a bitter pill. "Since we're such a local-control state," said Spear, "we try to inspire instead of push." Balancing local control and statewide standards, Small observed, is a "delicate dance on eggshells."

Chronically Low-Performing Schools. Participants voiced frustration about those schools that post poor scores year after year and seem immune to change. "It's like the critical-care unit," said Steve Nelson, who directs planning and program development at NWREL. "It's not just about *improving* the school, it's also about *stabilizing* the school." Spear shared the stories of several Alaska districts that have used creative strategies to begin turning around troubled schools and win community support. One district, for instance, hired a dance team to teach traditional native dance. Another district paid elders to bring their knowledge, wisdom, and experience to the classroom. "Kids started showing up for school," Spear said, then noted, "The pivotal point of change is the community."

Preservice Training. Participants heartily agreed that schools of education at the region's colleges and universities need to bring their programs into alignment with the standards environment so new teachers are ready to work effectively toward mandated targets. In Idaho, the state board of education is leading an effort to develop teacher certification standards aligned to content standards, reported Mauer. At Montana State University-Bozeman, neophyte math teachers are being trained in the nuances of teaching statistics and geometry—two areas in which tests have turned up weaknesses among middle schoolers. "This training is a direct tie to standards," said Peterson.

The Backlash. Parents and students who are unhappy with the move toward high-stakes testing and standardized teaching have been rising up to protest—"bicker, bicker, bicker," is the way one participant described the growing unrest around standards. In Washington, the grassroots group Mothers and Others Against WASL (Washington Assessment of Student Learning) has encouraged students to refuse testing, according to Small. Montana, Peterson noted, has been "stalwart on not going the high-stakes route." Montana's state-level standards framework is designed to be "general" so local districts can develop their own curriculum aligned to state standards, she said. In Alaska, the education department held a summit on how to communicate high-stakes test results to the community—that is, "how do we interpret this data to people so it doesn't look like an apology, doesn't talk down to them, and it doesn't look like information overload," said Ed McLain, who recently joined the state education department from his post as assistant superintendent of the Kenai Peninsula Borough School District.

Most participants agreed that the standards movement has turned a corner. "We've moved from, 'Are we going to do this?' to questions of degree, implementation, and local control," McLain noted. "We've got models out there—schools that are standards-driven. We've got cadres of people who know what they're doing. We didn't have that 10 years ago.

"We will always have critics, but at least we are a topic of conversation," he observed. "We can't open the *Anchorage Daily News* without seeing an editorial about standards." □

ALIGN, ALIGN, ALIGN

"This is the first time all 50 states have ever tried something so ambitious, so it is important that we have a 'midcourse' review and analysis to make sure everybody understands what the standards movement is all about."

—Mid-continent Research for Education and Learning*, Noteworthy Perspectives on Implementing Standards-Based Education, *November 2000

Think of the standards movement as a continuum, with inputs on one end and outputs on the other. On the inputs end are the curricula we use to teach the content embedded in the standards. On the outputs end are the tests we use to gauge students' learning. A breakdown at either end interrupts the continuum and weakens the whole approach. Other elements along the continuum must also line up: local standards with state standards. Grade-level standards from year to year. Content across classrooms, buildings, and districts. Content across subject areas. Notes McREL: "Standards are intended to serve as the organizing point for curriculum, instruction, and assessment .... One of the main tasks of shifting to a standards-based system is aligning all of the elements of the system (curriculum, instruction, assessment, teacher evaluation, resource allocation) around standards." When all of the pieces are clearly arrayed and articulated, standards can become a road map in the bewildering mishmash of the countless strategies and products available to educators. McREL cites one teacher who sees standards as a "blueprint" that guides her teaching in a concrete and visible way.

Clearly, getting all the aspects of a complex system to match up is a daunting endeavor. Changes need to happen on many levels at once. Experts agree that high-quality training for teachers ought to top the "to do" list. "District and school leaders should guide the development and implementation of a coherent and comprehensive professional development plan that will help teachers acquire the knowledge and skills needed to align curriculum, instruction, and assessment with state and local standards," McREL advises. The laboratory then goes on to list the things that district and school leaders can do to smooth the transition to standards for teachers. "Specifically," McREL recommends, "they can support teachers by clearly communicating the changes that standards-based education will entail and their support for them; pacing the progress of reform; providing structures and opportunities for teachers to learn the knowledge and skills to implement standards; aligning other aspects of the system (for example, time, technology, and teacher evaluation) with the goals of standards-based education; assisting with support of failing students; and helping to make needed resources available."

ALL KINDS OF KIDS

"The posturing about education reform is always the easy part, particularly if you have magic-bullet solutions like, If we raise the bar, kids will jump over it. But I think we're at one of those tipping points where some politicians are stepping back from the brink."

—Robert Schaeffer, National Center for Fair & Open Testing, as quoted in* The New York Times, *December 22, 2000

The tenet that anchors the standards movement philosophically is that all kids can learn at high levels. Research tells us that the expectations we hold for students affect the achievement of those children. The pre-standards approach too often relegated disadvantaged and minority kids to an educational ghetto of dumbed-down curricula and unchallenging lessons, often in the isolation and stigma of pull-out programs. In contrast, a standards-based approach includes all kids in a high-quality learning environment, striving for the same goals, sharing the same resources.

But researchers caution that when misapplied, this philosophy can backfire, hurting the very kids it means to help. Two studies commissioned by the Harvard Civil Rights Project found that low-performing schools in low-income areas tend to focus more on test preparation than schools in more affluent neighborhoods. [The researchers reported that "test preparation is replacing academic curriculum for much of the year in these schools," Hannah Gladfelter of *Education Daily* wrote in January 2000.] One of the researchers, Linda McNeil

of Rice University, told the journal that this "teaching to the test"—drilling for test-taking skills—happens for "months and months" rather than just a couple of weeks before the exam in the schools studied. Besides robbing students of time for quality learning, these schools also are spending money on test preparation that would have gone toward other educational needs. One primarily Hispanic school in Texas spent $20,000—the bulk of its instructional budget—on commercial test-prep materials, despite a shortage of library, textbook, and laboratory resources. It also "required top teachers to discard their lessons" and replace them with test preparation, according to Gladfelter. Although scores on the statewide test of academic skills did rise a bit, the school saw a decline in overall reading and thinking skills—a result that clearly runs counter to the goals of *any* school reform effort ever undertaken.

"It's not teaching to the tests that winds up getting good results," Jeff Howard, founder of the nonprofit Efficacy Institute, said on National Public Radio's "Talk of the Nation" in October. "It's teaching to a clearly identified proficiency standard. Teachers understand it. Parents understand it. Kids understand it. When that begins to happen, people can organize instruction around it."

Kids with disabilities are another category of students that can be overlooked or underserved in the standards environment. A disability rights group, Disability Rights Advocates, has filed suits in California and Oregon, claiming that high-stakes state-level tests discriminate against children with disabilities, Ted Gotsch of *Education Daily* reported in May. Charging that the California education department has "created chaos and confusion" with its testing program, the group asserts that kids with special needs have been given no alternative assessment, no procedure for requesting accommodations, and no process for appeals. The suit goes on to allege that the exam tests students on material they have never been taught—an accusation that has been leveled against other states, as well, and not necessarily by kids with disabilities. This charge brings up, once again, the absolute necessity of fitting curriculum, standards, and assessments neatly together—and then giving teachers the training they need to translate standards into classroom practice.

A study in Washington state explored the differences between schools that showed rapid growth on standards-based tests and those that showed little or no progress. The study, conducted by the Center on Reinventing Public Education at the University of Washington, found that in rapidly improving schools, "principals and teachers assessed strengths and weaknesses, set a limited number of priorities, focused on improving instruction, and took the initiative to find the help the school needed," according to the 1999 study report by Robin Lake, Paul Hill, Lauren O'Toole, and Mary Beth Celio. The report, *Making Standards Work: A Case Study of Washington State,* goes on to say, "To make sure planned improvements truly happened, principals and teachers re-allocated funds, rearranged teacher work assignments and instructional schedules, and made sure all staff members coordinated their classroom work. The improving schools also continually—and candidly—assessed their own progress."

From the mostly low-income schools it studied, the research team compiled a summary of key findings—insights into why some schools are able to make big strides on the path to high standards:

• **Effective changes in teaching methods and materials are focused and schoolwide, not random and fragmented.** In the two years since statewide testing began, most schools have made changes in what and how they teach. However, the majority of schools whose scores have increased made a single change that affected the whole school and unified the efforts of all teachers. Schools whose scores did not increase added on new programs or materials that affected some teachers and not others and did not lead to a more unified schoolwide approach.

• **Improving schools focused their efforts on developing children's skills in a few core subjects or skill areas.** To make time for these efforts, many schools abandoned activities that were fun and familiar but had no well-defined instructional objectives. Schools whose scores did not increase were generally less focused on skills and more reluctant to eliminate activities that teachers enjoyed but were not clearly productive.

• **Improving schools operate as teams, not random associations.** Improving schools did more than

plan; they implemented, every day and in every classroom, and they made sure that teachers at every grade level were coordinating their efforts. Principals and teachers recognized that even the best-conceived strategies fail unless every teacher executes them even when the classroom door is closed.

- **Professional development is school development.** Improving schools had no more funding for teacher professional development than schools whose scores did not increase. However, the former group of schools took much more initiative to find and use professional development programs designed to remedy their particular instructional weaknesses and prioritized the use of their professional development to support the school's improvement plan.
- **Performance pressure is positive when it leads to determination, not fear.** The vast majority of principals reported that the state standards and tests had created pressures for better and more effective teaching. None were complacent, even those whose scores had recently improved. Many principals of improving schools were proud of their gains but worried that some might not be sustained if future fourth-grade classes were less capable than those tested in 1998.
- **Improving schools don't wait for help, they seek it out.** Principals of schools whose scores did not increase often criticized the help and materials provided by their school districts, complaining that help was too general, unfocused, and hard to use. Principals of improving schools were much more likely to say, "the help is out there; it is up to us to select and use what we need."
- **Improving schools use limited resources strategically.** Improving schools focused all available funds on instruction by setting priorities and directing resources toward them. Schools whose scores increased were no more likely to have received extra funding than schools whose scores did not increase.
- **Parents can help.** Improving schools were more likely than other schools to reach out to parents, explaining the state tests and the need for improved performance and asking for help at home, such as reading to children and checking homework.

A TIME TO CHANGE

"States must balance policies to reward and punish performance with the resources needed for students and schools to meet higher expectations—especially when the futures of individual children are at stake."
***—The editors,* Quality Counts 2001, Education Week**

Another theme that pops up regularly in discussions of standards is that oh-so-scarce but precious commodity, time. Without enough time for planning, training, and reflection, educators will likely fall short of the laudable standards states have put in place. McREL has found that of all the possible support schools may give to teachers, time is Number One on most teachers' wish lists. Researchers at the University of Pennsylvania reported in 1998 that teachers need time to "select, adapt, or develop curricular materials that are aligned with the standards framework." Teachers interviewed by McREL said they need time "to develop an understanding of what standards-based education means ... and to work with colleagues to develop their own implementation strategies." As one teacher put it, "We need time to just look at standards books and digest what's there." A teacher survey for *Quality Counts 2001* found that because state standards are "too voluminous" (remember the three-inch stack of printouts!) seven in 10 teachers have insufficient time to "cover everything in their state standards"—a problem that is "worse for elementary and middle school teachers" than for high school teachers.

Washington state's standards effort is notable for the great chunks of time that have been built into the plan. An effort that began in 1993 is not scheduled to culminate until 2008, when the first class of seniors will need to pass the four Washington Assessment of Student Learning tests (reading, writing, listening, math) to get a diploma. The *Seattle Post-Intelligencer* lauded the approach in a March 2001 editorial. "Washington is nearly alone in the nation in having embarked on a carefully thought-through and deliberately phased-in multiyear approach to reforming schools," the newspaper asserted. "That gives educators, students, and parents plenty of time to adjust to the new expectations. The deliberate

pace of reform gives educators time to get the curriculum and tests right .... At each step of the way, it gives time for intensive intervention for students and schools needing help."

There is, however, some danger in padding the process with too much time, at least one expert suggests. "While Washington state has taken a careful, step-by-step approach to improving its schools, that strategy can also have negative side effects," Stephen Nielsen of the Partnership for Learning told *Education Week* in April. "After a while, 'people sort of fall asleep' and stop paying attention."

In spite of the controversy it has generated, the standard movement in America is marching forward. And it is getting results. According to the teachers surveyed for *Quality Counts 2001,* "student and teacher behavior is changing, to some degree, because of state standards." Most said the curriculum is more demanding, expectations of students are higher, teachers are collaborating more, and students are reading and writing more.

Standards hold great promise for schools, most experts believe. Nancy Grasmick, state superintendent of schools in Maryland, argues against caving in to political pressure, as minimum competencies did in the 1970s. "The predictable backlash has already begun," Grasmick wrote in *Education Week* in January. "Cries are being heard to soften or even scrap the new requirements. Such a scenario would be a national tragedy." □

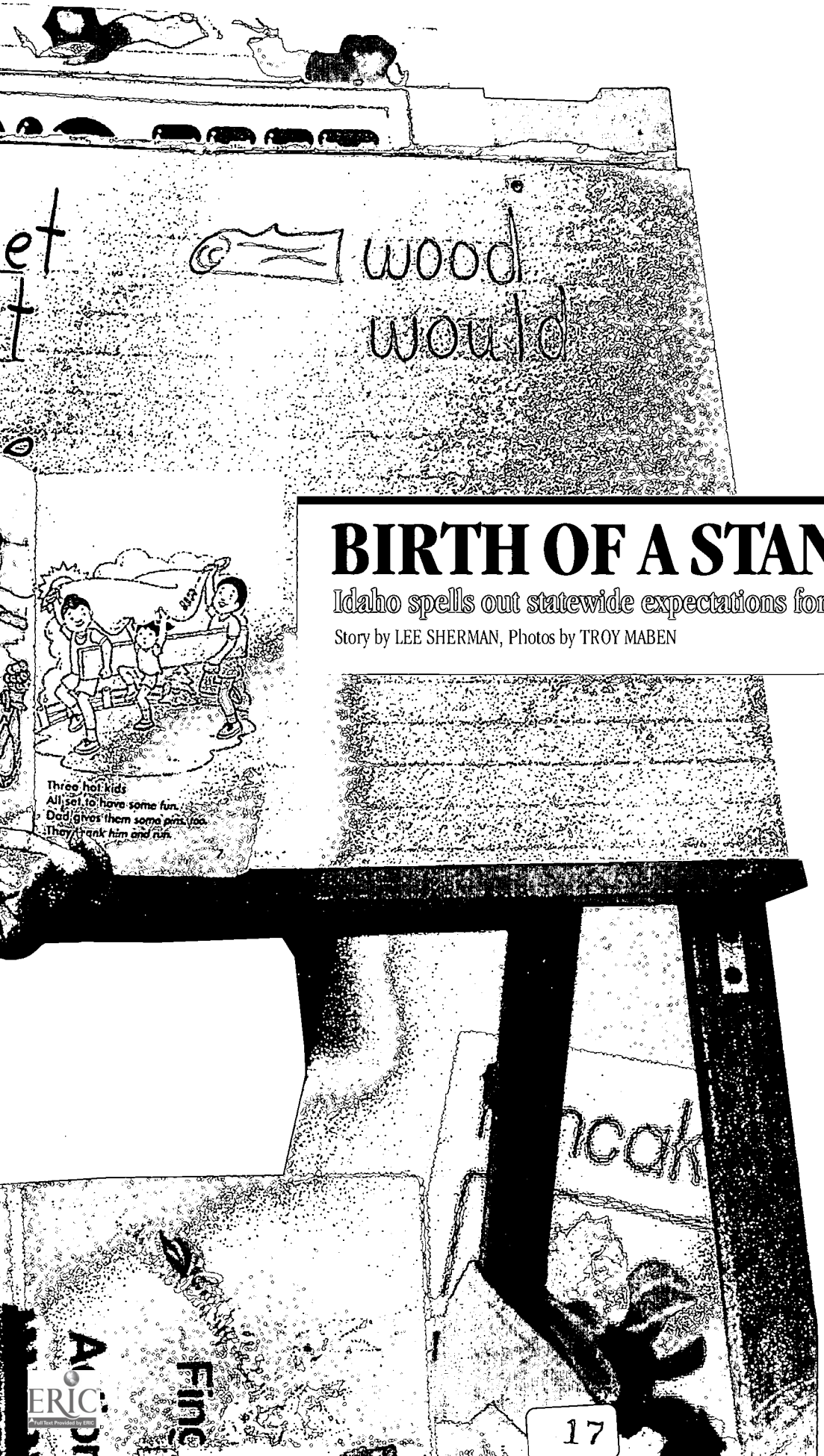
Idaho teacher Carol Caba leads her students through a sequenced reading discussion that stresses sound-letter relationships.

IDAHO—Shawna Exline talks about her year on the front lines of Idaho's school reform effort with satisfaction at meeting a tough challenge head-on. Still, a lingering note of anxiety creeps into her voice as she recalls the superhuman pace and heated resistance she endured as the leader of a new statewide reading initiative.

BIRTH OF A STANDARD

Idaho spells out statewide expectations for reading instruction

Story by LEE SHERMAN, Photos by TROY MABEN



"It was an exciting time," she says; then, after a pause, "It was a scary time, too. I'm still picking up the pieces."

Sitting in the pleasantly cluttered office she shares with another district administrator, Exline doesn't look at all like a rabble-rouser. Her everyday hats—reading expert and devoted mom—are evidenced by stacks of books on early literacy and snapshots of her two young children. Yet the affable 40-year-old spearheaded a revolution of sorts. In a state with a deeply embedded tradition of local control, she was charged with carrying a statewide decree to every district. By all accounts, she negotiated the bumpy landscape with uncommon skill. Exline's colleagues talk about her with awe.

"Shawna Exline was the most extraordinary leader of this process imaginable," says Dr. Lynette Hill of the state education department. "She was the person with the brains as well as the 'brawn' to get the job done."

In her current job as reading specialist in the quiet community of Meridian, Exline is now far from the fray of statewide politics and policy. But she remembers every last detail of the genesis of Idaho's groundbreaking reading initiative. Appointed two years ago by state Superintendent Dr. Marilyn Howard to guide schools through the minefield of mandated reform, Exline and her staff felt the ire of disgruntled educators from the northern panhandle all the way south to the Blackfoot reservation.

"When we went out to train the first time around, it was kind of ugly," Exline admits. "People were upset." With a wry smile she adds: "We often joked that we should wear T-shirts with a tire track across the front and a bull's eye on the back. We had to keep reminding people, 'We are only the messengers.'"

RESPONDING TO THE RESEARCH

The message Exline carried forth originated in the Idaho Legislature. It was seeded when a 1997 study, commissioned by the House and Senate education committees, found sub-par reading skills among Idaho's youngsters. But it was in 1998, at the intersection of a national movement and a landmark report, that the idea for a state-mandated reading plan really grabbed hold. Across America, parents, pundits, policymakers, and employers were demanding better performance from their schools. With the standards movement revving up to full throttle, the National Research Council released a study on how kids learn to read and what gets in their way. Synthesizing 20 years of research, the report, *Preventing Reading Difficulties in Young Children,* affirmed what many teachers know from practice: Kids need explicit phonics instruction, in addition to exposure to good literature and immersion in language, to become strong and successful readers. The 17-member committee chaired by Catherine Snow of Harvard University recommended direct and systematic instruction in sound-letter relationships. Phonics got another boost when a second key piece of research by Jack Fletcher of University of Texas and G. Reid Lyon, Chief of the Child Development and Behavior Branch, National Institute of Child Health and Human Development, came out about the same time. "Failure to develop basic reading skills by age nine predicts a lifetime of illiteracy," the researchers warn in the report, *Reading: A Research-Based Approach*. Their solution echoed that of the earlier study: Beginning readers should receive explicit, systematic instruction in sound-symbol relationships and decoding.

This conclusion wasn't welcomed by many practitioners and professors who have a longstanding commitment to whole-language instruction, as most Idaho educators and teacher colleges do. The State Board of Education and the legislature, however, embraced these reports. Dissatisfied with state reading scores and recognizing that reading is the support beam for all learning, the board formed a committee to begin developing a statewide reading strategy. The committee hired a consulting firm to prepare a framework—a kind of blueprint for teachers—to guide literacy instruction blending phonics with whole language. The Legislature adopted the *Comprehensive Literacy Plan, Grades K–3, for the State of Idaho* designed by the Lee David Pesky Center for Learning Enrichment, a Boise nonprofit offering assessment, remediation, and counseling for learning-disabled kids and their families.

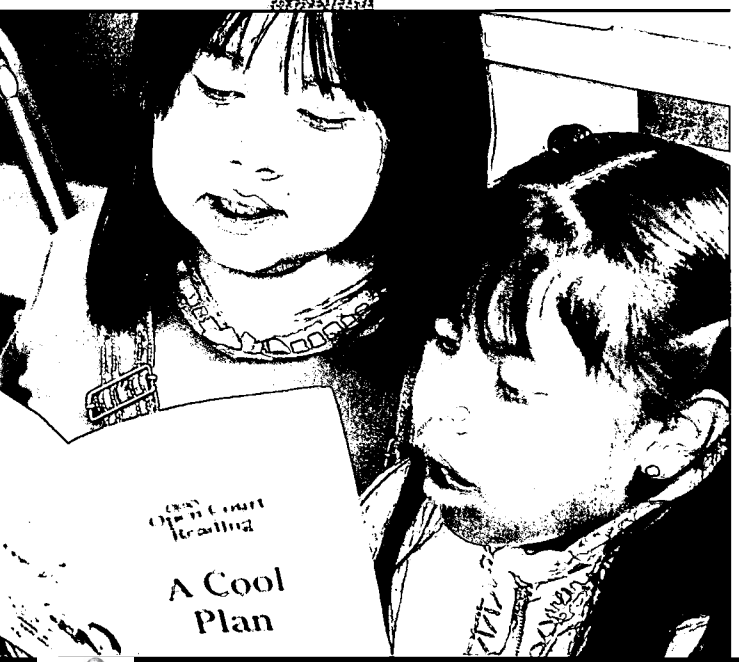
"It really spelled out, in response to the research, what students in K–3 need to know and be able to do in order to demonstrate grade-level proficiency," says Hill, a state-level language arts specialist who helped develop the plan. "The legislature required that all schools use it. It's not optional."

The committee next turned their attention to making sure the plan was put into practice. They were astonished to learn that kids can be doomed to limited life options as early as first grade if they don't catch on to the mysteries of print.

"Fewer than one student in eight who is failing to read by the end of first grade—less than 12 percent —ever catches up to grade level," Hill reports.

So the committee resolved to make sure that no child slips through the proverbial cracks. Without teacher training, targeted intervention, and financial support, they knew that the most ambitious of plans would stall. So in 1999, they crafted what has come to be known as the Idaho Reading Initiative. The three companion bills mandated:

- A one-on-one assessment of every K–3 child's reading skills and comprehension twice a year—in fall and winter—based on the *Comprehensive Literacy Plan* (a spring test has since been added for kids testing below grade level)
- A 40-hour intervention per year



for each child in the bottom 25 percent of readers

• A Comprehensive Literacy Course for all K–8 teachers and administrators, and a preservice test for all beginning teachers

"The IRI is the first piece of legislation we've had that impacted every classroom in the state," notes Margot Healy, Curriculum Director for the Caldwell School District 30 miles west of Boise.

About $4 million in surplus education funds generated by declining enrollments was earmarked for the initiative. Despite the promise of extra dollars, however, the education community's reaction to the legislation was bitter.

"First, there was a lot of shock, and then dismay and anger," Exline reports. One administrator, who asked for anonymity, says the initiative sparked "a lot of hate and discontent among superintendents" who resent the intrusion of lawmakers into educators' domain. Idaho's two largest districts—Boise and Meridian—argued against the initiative on the grounds that it would deprive local schools of their "autonomy to decide teaching methods and curriculum," the *Idaho Statesman* reported. The Nampa district complained that the initiative interfered with a monthly local testing program that drives curriculum there.

Teachers at Sacajawea Elementary School in Caldwell were stunned. "The way it was presented to us—the legislative mandate—made us very defensive at first," recalls second-grade teacher Angelina Wilson. "We had been so heavily whole-language, and all of a sudden it was phonics, phonics, phonics—you *have* to do phonics. It came from very, very high up—from people who weren't in the schools. At first, it was very overwhelming."

Many teachers felt vilified. "It was kind of like, here we go again—teachers are the bad guys, we're not doing our jobs right so somebody's got to tell us what to do," Wilson says.

Wilson's colleague at Sacajawea, Carol Caba, recalls: "At first it was like, phonics? We're going to drill phonics? Are we going back to *m-m-m* and leaving the language behind? Most teachers were skeptical. We didn't know if it was the only thing we were going to be allowed to teach. About every five years, something else comes along, and everything changes. We've followed almost every wave, and it was like, Is this the next one?"

First- and second-grade teacher Renee Bettencourt was unhappy about noneducators taking potshots at teachers and dictating solutions to educational problems. "I'll be honest," she says. "I've been a little upset with what I read in the paper from legislators. It's hard to hear people being critical when they're not here in the school. I think it needs to come from real-world people who know what's going on here."

Debate on the initiative got front-page coverage in the *Idaho Statesman* for weeks. There, the concerns voiced by educators found their way to Idahoans' breakfast tables. In February 1999, for instance, state Representative Lee Gagner of Idaho Falls told fellow legislators that some school boards and districts perceived the new rules as creating "state reading police who were encroaching on local officials' territory." Despite the

Mer[illegible]akes a break from her book during an all-school 90-minute reading block.
TOM)[illegible]s and Judy Juarez read together from the phonics-based reading curriculum by Open Court.

heated rhetoric on the capitol floor and in teacher lunchrooms, the package passed both houses overwhelmingly in March 1999. On July 1—just 83 working days later—it became the law of the state.

Not every educator was dismayed. First-grade teacher Jeannie King of Boise's Cynthia Mann Elementary, for example, told the *Statesman:* "A lot of us aren't taught everything we need to know. This (initiative) gives us a guide of what we are doing right." Another first-grade teacher, Barb Friedt, applauded the initiative's provision for small summer classes for struggling readers. "Any opportunity for smaller classrooms is good," she told the newspaper shortly after the initiative took effect.

FASTER THAN A SPEEDING BULLET

Months before the legislation passed, the state education department had seen the writing on the wall. They knew the law was coming, and coming soon.

"There was no stopping this train," Exline notes.

Angelina Wilson's students are fully engaged in their discussion of *Scrambled Eggs and Spider Legs.*

So, while lawmakers were still hammering out the details of the initiative in Boise's capitol building, Exline was in her office just across the street, working at warp speed for 12 or more hours at a stretch. She ate a lot of Chinese take-out, and mostly saw her kids after their dad had tucked them in for the night.

Her first burning task was to find an assessment tool suitable for little kids—an "indicator" that could signal a possible problem that could be followed up with a more diagnostic tool if necessary. What she quickly discovered was that she would have to design something from scratch.

"There weren't any good primary literacy assessments on the market," Exline explains. Most, she says, were of the fill-in-the-bubble variety. "Multiple choice is not appropriate—it's not really kid-friendly."

What she envisioned was a short (maybe 10-minute) test that could be administered face-to-face. With the phone glued to her ear for days on end, Exline contacted all 113 districts to ask what kind of assessments they were currently using.

"It became really obvious to me that we were all over the board—from nothing, to well-designed CBMs (curriculum-based measurements)," Exline recalls. "It was looking pretty grim."

But then something serendipitous surfaced. Coincidentally, a reading initiative launched in Idaho by the J.A. & Kathryn Albertson Foundation was in its first year of implementation. As part of that initiative, the foundation had supplied all districts with an early literacy program designed by an Idaho firm called the Waterford Institute. Exline called CEO Benjamin Houston. "We're piloting our own literacy test in eight districts right now," Houston told her. That very day, he Fed-Exed her the test—developed with consultation from national reading expert Marilyn Jager Adams. As soon as she pulled the string on the overnight envelope and the test flopped out on her desk, Exline knew she was onto something.

"I looked at it and thought, 'This is what we need,'" she says. "So I called them back and said, 'Would you be willing to sell us items for our Idaho Reading Indicator?'"

So a deal was struck. For $1 per student—about $73,000—the education department, using money appropriated by the legislature for the assessment, bought items that had undergone some preliminary testing for validity and reliability. (The Northwest Regional Educational Laboratory conducted further reliability and validity studies of the items the following year.)

Waterford also laid out, printed, and distributed the test, which is administered to students not by their classroom teacher but by retired or substitute teachers, paraprofessionals, or others trained to administer the indicator.

"When you look at what other states are paying, it was a *bargain,*" Exline says emphatically.

After massaging and tweaking the test items in response to input from teachers and reading specialists, the cut scores were set for three levels: (1) below grade level, (2) near grade level, and (3) at grade level. The test items attempt to get at what kids should be able to do at each grade to be on target for reading. For example, kindergartners should know how to write their name, detect rhyme, detect syllables, and identify upper- and lower-case letters. By first grade, kids should be able to produce rhyme ("Tell me a word that rhymes with 'fat'"), write letters of the alphabet, say beginning sounds, and read sentences. A beginning second-grader should know how to read a story, answer comprehension questions, and sound out words. Third-graders should have the ability to read sight words, read a passage, spell, and answer comprehension questions.

"The Number One change brought by the IRI is the focus on the skills that are the greatest predictors of success in reading," says Healy. "Our teachers are now real clear. Their teaching is becoming more powerful, more intentional. There's nothing like accountability to sharpen your focus."

Caldwell Superintendent Rick Miller concurs: "The IRI provides a real formalized monitoring system in the area of early literacy—essentially, that three times a year, we're monitoring our progress. That keeps everybody on task, and we can adjust as we go along."

Adds Healy: "Instead of waiting till the end of the year to see how our kids are doing—which is what we all tended to do—now we know we're going to have an assessment in January. So where do my kids need to be in October and November and December? It gives us a better framework for that monitoring than we've ever had before."

Most of the kids who score a 1 bring multiple issues to school with them, according to Exline. Their families may be recent immigrants or migrant workers whose first language is something other than English. The obstacles created by language, poverty, culture, and frequent moves may be compounded by learning disabilities. Because students from Mexico and other Latin countries are attending Idaho schools in increasing numbers, the state has developed a Spanish version of the 10-minute assessment. Spanish-speaking children are tested in both Spanish and English so that schools can determine whether difficulties are really reading problems or are in fact language problems.

MAKING READERS OF ALL KIDS

At the top of a gentle rise on Caldwell's northernmost edge, a reader board outside a tidy brick schoolhouse proudly proclaims the top priority of Sacajawea Elementary: All Children Will Learn To Read. Remarkably, for a school with lots of English language learners and free-lunch recipients, the sign is more than just a slogan. Rather, Sacajawea's first-grade reading scores on the 10-minute assessment would make many a more affluent school drool. In the fall of 2000, after the first year of the initiative, almost 80 percent of first-graders were at grade level. The remaining 20 percent were split evenly between near and below grade level. If you drop the scores of first-graders who were new to Sacajawea that fall (that is, kids who hadn't received the instruction in reading readiness mandated by the law), the numbers are even more dramatic. More than 90 percent of that cohort of kids were reading at grade level. No child—not a single one—scored below grade level. Scores for 2001 have hovered right around the same numbers.

For the handful of students who don't catch on in the regular classroom, Sacajawea provides a variety of safety nets. One net is a six-week reading clinic for Title I and special ed kids. On a balmy morning last spring, three children sit in a classroom with teacher Janet Hofstra reading a series of sight words through a "frame" or small window cut out of a ruler. A girl with long, raven hair and smiling eyes zips along the line of print with her frame, calling out each word with the confidence of a seasoned reader.

Carol Caba's students pay close attention to her direct instruction in decoding skills.

"Wow!" Hofstra exclaims. "I could hardly even move my frame that fast!" Based on strategies devised by Lindamood-Bell, the clinic approaches reading instruction kinesthetically for the 10 percent of students who can't auditorily process phonemes—the sounds made by letters and combinations of letters when spoken.

"We know that good instruction is multimodality," says Miller. "So we keep looking for the variety among the visual, the auditory, the kinesthetic."

Just down the hall, nine third-graders are cradled in another safety net, this one in quite an unlikely location: the principal's office. If you didn't know any better, you'd think you had accidentally wandered into the wrong room. Principal Gary Johnston's space looks more like a mini-classroom than an administrator's den. On the wall next to a dry-erase board hangs a spelling-sound chart; beside it is a list of "irregular sight syllables."

Here the principal huddles daily with his group of struggling readers to focus on decoding big words—those multisyllabic monsters that can be terrifying to young readers until they learn to break them down into manageable chunks. When even the boss is helping kids gain command of print, there's no mistaking the impression that this school is riveted on reading.

Johnston and his staff, alarmed by findings that 75 percent of kids who aren't reading at grade level by age nine lag behind their classmates throughout their schooling, actually had gotten a jump on the reading initiative. As soon as Johnston took the school's helm (two years before the law passed), he started right in tracking every child's progress, compiling data from running records, direct writing assessments, and ITBS scores. He shares those data with his staff, who can then act upon the information immediately.

"It's a lot more proactive than waiting for the end of the year or the end of third grade to assess where they are," says Johnston. "We take a preventative approach."

When a child is lagging behind her peers in an area that can be addressed in pull-outs—for instance, speech, English as a second language, reading fluency—she carries a "book bag" with her to each special setting. The bag holds the books she has been reading in her regular classroom. In this way, the child's core instruction becomes the nucleus around which supplemental instruction turns.

"Our teachers and teacher assistants use the book bags to reteach, preteach, or expand language skills," Johnston explains. "By coordinating services across programs and using the same books in all the different settings kids encounter, we simplify things for them. We're helping them make connections. The key is everybody working together to meet the needs of that child."

The initiative requires schools to make an individual reading plan (IRP) for every low-performing third-grader to guide his progress in fourth grade. Not content to dally, Sacajawea prepares an IRP for *every* K–3 student who's below grade level.

"Why wait for the third grade to start getting specific about planning?" Johnston asks rhetorically.

Before the initiative, the Caldwell School District had already mandated a 90-minute reading block for every elementary classroom. At first, the school grouped all kids by reading level for the whole 90 minutes. But the groupings weren't working for everyone. As time went by, the teachers began tinkering with the groupings to better suit their needs. Before long, new configurations had emerged for every grade but one. Only the fourth-grade teachers continue to group kids by reading level for the whole 90 minutes. The fifth-grade teachers now group kids by reading level for 30 minutes, and then form heterogeneous groupings for the remaining hour. The first- through third-grade teachers stopped sharing kids across classrooms at all. Healy offers this reconfiguration as an example of how schools can continue to innovate and to customize their programs even while meeting the requirements of top-down decisions like the IRI.

"The goal—meeting the standard—hasn't changed," says Healy. "But at this school, with their staff and their kids and their schedule, they've finagled the configuration of groupings around and fixed it so it works for them. It's a site-based decision."

Sacajawea has been able to serve kids better not only by reconfiguring groups but also by reconfiguring funds. Johnston and his staff funnel Title I money into a full-day kindergarten for kids who aren't hitting reading benchmarks. For the struggling first- , second- , and third-graders, Title I money supplements state IRI money to finance a "fifth quarter" of extra reading instruction in the summer. While the state mandates (and funds) only 40 hours of extra help, Sacajawea is using the federal money to add math to the mix and hours to the total intervention. The mingled dollars also help to boost the pay rate of teachers who sign up for summer duty.

Teaching as teamwork is a key theme at Sacajawea. Even the mug from which Johnston sips his morn-

ing coffee is stamped with a definition of "team." To move kids along a trajectory of continuous growth, he says, each building's teachers and principal must be in sync. To that end, the principal has carved an hour out of the weekly schedule when teachers meet with the other teachers at their grade level. They trade stories and share strategies for boosting performance for struggling students. Johnston circulates through the grade-level meetings, sometimes offering an idea but mostly just listening.

"We've had a paradigm shift here —from hierarchy to teamwork," Miller notes. "It used to be that the superintendent would think a good thought and then reveal it on clay tablets to everyone else."

Teamwork got another big boost in the four-credit Comprehensive Literacy Course required for all K–8 educators under the IRI and taught by consultants hired by the state. Johnston took it two years ago with his K–3 teachers and again last year with his 4–5 teachers. "It's given me a chance to work side-by-side with my staff," he says. "*My* success is only because of *their* success. I set a few outside boundaries, but I give them the freedom to move within those boundaries—and to be responsible for the results."

Miller stresses the importance of staff working together across class-

Almirante Pacheco shares his thoughts about a reading lesson on the book *Flat Stanley*.

rooms and grade levels. "Reading, and the instruction of reading, is a complex task, and it's a multiyear, integrated task," he says. "If I'm a teacher, I can't do it by myself. I have to count on *her*. She has to count on *him*. Because of that, we have to have a conversation about what the standard really looks like. It's a whole system, a four-year sequence that we're talking about. One of the ah-ha's in our buildings is that we have to rely on each other in a way we never thought we had to do. We used to think we could do this in isolation."

Second-grade teacher Angelina Wilson agrees.

"Before, we didn't have a system to fill in the gaps in kids' reading skills," she says. "One first-grade teacher might have taught reading one way, while another first-grade teacher did it another way. Then the kids would come to me, and I'd do it *my* way. Now, we're all using the same system, and the kids are hearing the same things over and over—first grade, second grade, third grade. It's smoother for them."

Adds Healy: "What the standards have brought is that every classroom, every teacher has the same goal—and it's research-based."

ROUNDING A CORNER

By August of 1999, with the initiative just barely underway, the tenor of the media debate had rounded a corner. Under a headline reading, IDAHO TEACHERS ON RIGHT TRACK: NATIONAL EXPERT APPLAUDS EFFORTS OF NEW PROGRAM, the paper reported that national reading guru Louisa C. Moats, director of a five-year study of early reading instruction for the National Institutes of Health, praised the initiative at a Boise conference on reading instruction. "Now the real work will come in implementing it," Moats told the 400 teachers present.

By last summer, the tide seemed to be turning for teachers, too. By the time Idaho schools wrapped up their second full year of IRI implementation in June, teachers like Wilson and Bettencourt were conceding some respect for the new approach, which includes a districtwide adoption of a phonics-based reading curriculum called Open Court. When Wilson entered the classroom at Sacajawea straight out of college, she found that her whole-language training hadn't prepared her to meet all the complex needs that diverse learners bring to school along with their lunch boxes and backpacks. "It was apparent that there were a lot of gaps, and the kids *did* need more phonics skills," she reports. "So I'm thankful that we have the programs that we have now, because I think our kids are a lot stronger readers. I *know* that they're stronger writers and spellers."

Renee Bettencourt sees the changes as part of a natural evolution already unfolding in the Caldwell district. Although she had doubts initially about using a scripted, phonics-based curriculum, she has seen big gains among her disadvantaged learners: "You turn around and your Title I kids are reading, and your resource room kids are beginning to break the code a little bit. It's because they have that one piece—decoding sound-by-sound and word-by-word—that they can hang on to. If they're limited in vocabulary and they're limited in language, they still have that one piece that's pretty tangible, pretty concrete, so that they *know* they can read."

Twenty-year veteran Carol Caba was pretty leery of the initiative when it first came down. But two years later, she concedes that phonics has a place in reading instruction, especially with at-risk kids.

"So many of our kids come in without background experiences," she says. "They don't know what a rake or a mower is. They've never been to an amusement park. Blending and decoding words is their best help when they first learn to read. They go, 'Oh, *that's* how people figure out those words!' When they see a big word, there's no reason to panic because it's just like a whole bunch of little words all put together."

Caba is careful to note, however, that phonics must not crowd out reading strategies such as multiple word-attack skills, high-quality literature, and reading for meaning. "You have to do both," she insists. "I teach both."

Still, she sees the curriculum narrowing down as teachers come under increasing pressure to meet the new standards. "As much as I hate to say it, I think we are driven to prepare students for the test," she laments. "We all want to score well. I would love to be doing more plays with my kids, but I don't have time. I don't have time to do dioramas. I don't have time to make mobiles. I don't have time to do puppets. But if you put something in, you have to take something out.

"Teaching is so different than it was even five or six years ago." □

Teresa Krall, whose third-graders come to Glentair from all over the globe, seeks to teach the whole child.

Where Teachers Are Learners, Too

A deeply committed staff at Glenfair Elementary School scours the research relentlessly for ways to better serve a diverse mix of kids

Story and photos by SUZIE BOSS

PORTLAND, Oregon— The books lining the shelves in the back of the classroom read like a hit parade of fourth- and fifth-graders' favorites. There are titles by Betsy Byars and Beverly Cleary, Roald Dahl and Gary Paulsen. J.K. Rowling's young Harry Potter looks right at home among these classics—but there's something a little different about the cover. Instead of *Harry Potter and the Sorcerer's Stone* it says, in Spanish, *Harry Potter y la piedra filosofal.*

The book offers a clue about the bigger story unfolding here at Glenfair Elementary. And so does the wall outside the school office, where "welcome" is painted in Spanish, Ukrainian, Vietnamese, Romanian, and Chinese to greet the growing number of families who speak a language other than English.

Across the Reynolds School District, which stretches from the eastern edge of Portland to the western end of the Columbia River Gorge, the community is undergoing nothing short of a cultural transformation. Once solidly middle class and predominantly white, the face of the region is changing as families from Eastern Europe, Mexico, Central America, Southeast Asia, and other parts of the world arrive here, drawn by an American dream that often begins with low-cost housing and entry-level jobs in the service economy. Since 1990, the proportion of English language learners (ELL) in the district has soared—from less than 5 percent to more than 20 percent. Classrooms at schools such as Glenfair are even more diverse, with about a third of the 550 students speaking a first language other than English.

The school, built half a century ago to educate a homogeneous population of baby boomers, has come to resemble "a mini-United Nations," says Principal Anita Harder.

Those changes tell only half the story. At the same time that community demographics have been shifting, the Reynolds School District has been phasing in the most rigorous academic standards in all of Oregon. To graduate from Reynolds High School, students now must earn 27 credits (the equivalent of nearly a year's more study than the state-required 22 credits), complete an indepth focus on a particular career field, and demonstrate a high level of competence in a portfolio of work samples.

This vision of achievement is no distant dream. It's the new reality in a district that has elected to set a high bar, regardless of students' family circumstances or language fluency. The Reynolds High Class of 2001 was the first to face the new set of graduation standards. Of the 360 seniors, not one failed to complete the portfolio or finish the 27 credits required for graduation, reports Assistant Superintendent John Deeder.

"It's not an option to just pass kids through the system here," says Deeder, a 22-year veteran of the district. "We still have kids who struggle," he acknowledges. But after more than a decade of standards-based school improvement efforts, he adds, "we know more today about why they're not successful. And we know of more things we can do to help them in weak areas. We also know that teachers from K–12 are more connected. Elementary teachers can see that what they do is so important for kids to be successful later."

To keep students on track to complete high school, district teachers have invested years of effort to write Expected Outcomes that align with state standards, spelling out in detail what students need to know and be able to do each academic year.

The standards have proved such a powerful force for change in the Reynolds district that "if the state standards went away tomorrow," Deeder attests, "we'd still do this."

And what exactly does "this" look like? Glenfair Elementary offers a glimpse of life on the front lines of the standards movement. Here, staff members generally agree on the value of standards—but they struggle every day to find ways to help their students meet them.

FRANTIC PACE

To help her class of 30 diverse learners succeed, fourth- and fifth-grade teacher Andrea Daret knows it will take more than translating a few words of welcome. Research has taught her that students who are learning to speak English also need ample opportunities to read and think at the higher cognitive levels they already have mastered in their first language. So if it takes a Spanish-speaking Harry Potter to turn some of her students into lovers of literature, then she'll make sure he has a place on her bookshelves. And if it means working ever harder to find new ways of helping her students thrive, Daret will just keep pushing.

"It's a frantic pace," she admits on a morning near the end of the school year, "and there's no one magic model (for working with English language learners). It depends on your population, and that can change every year." Just the previous week, three new students joined her class—a common occurrence in a school with a high mobility rate.

Fortunately for Daret—and for her students—Glenfair is a school that doesn't duck challenges. A decade ago, the school embarked on an improvement process called Onward to Excellence (a model developed by the Northwest Regional Educational Laboratory; see sidebar for more details). The OTE process, used widely throughout the Reynolds School District, involves the use of data and research to drive decisionmaking.

At Glenfair, a reliance on research has become tightly woven into the school culture. Teacher Joyce Rosenau says that when staff members come to the principal with questions, Harder invariably answers: "Let's take a look at what the research says. Let's look for models that have been successful elsewhere. What might work here?"

Teachers have gradually adopted a similar attitude, says Rosenau, who also serves on a district K–12 committee on implementing the state's Certificate of Initial Mastery. "You don't hear complaints about standards here, but you do hear teachers having informed discussions about the best way to meet them."

Over the years, the research process has guided the school in adopting several programs, such as teaching higher-level thinking and life skills, and planning curriculum around integrated themes. Before any new classroom practice is adopted, Glenfair teachers investigate it thoroughly. One or two teachers will typically visit other sites where the approach is being used. They evaluate how it might benefit their students and also how well it would fit with their school's culture. Then, they return to Glenfair to share their knowledge with colleagues. Earlier this spring,

MODELS FOR IMPROVEMENT

Schools that set their sights on comprehensive improvement face a huge undertaking, affecting everything from what happens in the classrooms to how decisions are made. Although some schools chart their own route to reform, many seek help from organizations that have developed school reform models. Dozens of models are now available and vary widely.

The *Catalog of School Reform Models*, available on the Northwest Regional Educational Laboratory Web site (www.nwrel.org/scpd/catalog/), offers schools a place to begin their search for effective models that will best meet their needs. Generally, reform models divide into two broad categories: models that outline a process for change, and models that focus on teaching specific content or subject area as a route to improvement.

The following examples and many more are described in detail in the catalog:

PROCESS MODELS:

- **Accelerated Schools,** developed by Harry Levin of Stanford University, aims to bring students to grade level through enriched curricula and instruction, rather than remedial work
- **Coalition of Essential Schools,** developed by Ted Sizer of Brown University, uses a set of "common principles" to guide whole-school reform
- **Onward to Excellence,** developed by the Northwest Regional Educational Laboratory, outlines a process to bring school communities together to set goals for student achievement and use data to drive decisionmaking

CONTENT MODELS:

- **Core Knowledge,** developed by E.D. Hirsch Jr., aims to boost student achievement by establishing a strong foundation of a specific and shared body of knowledge
- **Direct Instruction,** developed by Siegfried Engelmann, uses scripted and sequenced lessons and frequent assessments to improve students' academic performance
- **Success for All,** developed by Robert Slavin and others from Johns Hopkins University, uses a schoolwide reading curriculum and cooperative learning to ensure that students learn to read during the early elementary grades

Daret and third-grade teacher Teresa Kralj scouted a program being used with ELL students in the Forest Grove School District and hope to convince their colleagues that it will be worth introducing at Glenfair.

Functioning as this kind of active learning community means that teachers are often cast in the role of learners. At staff meetings and in workshops, teachers and administrators are constantly sharing information on topics they have investigated—ranging from brain-based learning to native literacy, from discipline to differentiated instruction. "That's powerful for us," says Rosenau, "to be able to sit and talk together in an informed way, comparing the research with our own experiences." But all this effort comes on top of the day-to-day demands of the classroom and the more subtle but steady pressure to help students meet state benchmarks.

If the task begins to feel insurmountable, a teacher like Daret can find inspiration in the eager faces of students who have traveled thousands of miles to reach her classroom. Four were born in the Michoacan region of Mexico and grew up speaking Tarasco, an indigenous language with no written tradition. There's a girl who wears the long braids customary in her native Russia, and several students who hear only Spanish at home. Sometimes they remind Daret of the first ELL student she ever worked with, back when she was still in college. "I was doing a community service project in a second-grade classroom. A sixth-grade boy was assigned there, and I saw him sitting alone with crayons all day. I was told that he couldn't do more challenging work because he didn't know English. That made me mad," she says, her eyes flashing, "and I began to do my own research."

She wound up becoming fluent in Spanish, traveling to Costa Rica for advanced language studies, and eventually getting an endorsement to teach English as a second language. Now eight years into her career as a teacher, Daret is happy to have joined the staff at Glenfair, a school she praises for being "kid-focused, not staff-focused." This is a school where "the staff is open to new things, where teachers genuinely want to learn," Daret says. In her own evolution as an educator, she says, "I try to keep thinking of the priorities of our kids. What will help them learn?" It's not an easy job, but Daret is quick to remind herself, "We (teachers) are not here for our own comfort."

THE SKY IS FALLING

Minutes after the final bell sounds on a sweltering May afternoon, teachers make their way to a classroom on the side of the Glenfair building that happens to be air-conditioned. This choice of location for the staff meeting is no accident. Principal Harder is a leader known for keeping her cool—even when facing hot-button issues.

She starts by explaining the details of a summer renovation project that will involve, literally, taking the roof off the building. She doesn't mince words. "It's going to be messy, dirty, dusty," she says. And the timing is tough. "You're going to have to pack up your rooms. Take home anything you don't want to risk getting ruined." The preparations will have to happen the same week when teachers will be conducting parent interviews and finishing other year-end work. But there's a bright spot. Suggests Harder, "Think of this as your chance to do some major reorganizing."

"So now the sky is falling," sighs a weary-sounding teacher.

It can feel that way. Even Harder, who is credited with leading Glenfair through the ambitious improvement process that has boosted student achievement, acknowledges the "huge challenge" still facing her staff. "When a third to a half of your students start with a language other than English, how does that affect learning in the classroom? How will we meet the needs of this new group? Many of our most experienced teachers—our senior staff—have never confronted this before in their careers. It's an issue they've never had to face until now." On a personal level, Harder understands just how difficult language acquisition can be. "I've failed in my own efforts to acquire a second language," she admits. "So I have to also ask myself: Do I have the expertise to meet this challenge?"

What's more, the high mobility rate at Glenfair means that teachers are constantly embracing newcomers and bidding farewell to departing students. The staff works hard to build a feeling of community, to be welcoming. "But I worry about our teachers feeling exhausted," the principal admits. "One teacher told me she can't bear to say goodbye to one more child this year."

As if that's not enough, Harder and her teachers have been meeting weekly to make scheduling and programming plans for the coming school year. The principal is hoping they reach consensus soon. Then, grade-level teams can make plans for how they will use their blocks of time to offer flexible groups for reading, so that all levels of learners will receive the focused instruction they need to improve literacy skills, and struggling readers will be able to receive more intensive intervention to help them progress.

The staff also has been discussing broader themes—reexamining the beliefs the school adopted six years ago. Since 1995, Glenfair has seen a wave of teacher retirements and an influx of new faces. It's time, Harder believes, to revisit underlying school beliefs "and see if they still make sense."

One belief that continues to resonate with Harder is the value of building consensus before attempting change. By the end of today's staff meeting, for instance, the principal is not hearing the hum of agreement that she was hoping for on the scheduling issue. Glenfair teachers aren't shy about expressing strong opinions, and that means it can take time for them to come to an accord. Harder draws a robust laugh from the group when she says, "In keeping with our decision not to make decisions until everyone is comfortable, we'll wait to ponder this for another week. But in the meantime, be thinking: Would this new schedule help our kids?"

Although Andrea Daret teaches a class of 30 diverse learners, she finds time to focus on the needs of each one.

TEACHING THE WHOLE CHILD

After 22 years as a teacher, Teresa Kralj is hardly a rookie. But when she looks around her classroom and sees students from Russia, Romania, Albania, Somalia, and elsewhere in the world, she admits, "I feel inadequate. How do I reach all these kids?" It doesn't ease the pressure that Kralj teaches third grade, a benchmark year when her students will be tested and measured against third-graders from all across the state—many of whom have enjoyed advantages far beyond the reach of low-income immigrant families.

To teach students from such diverse backgrounds, Kralj uses classroom methods that include the arts to appeal to different modes of thinking, reaching different styles of learners. She focuses not only on academics, but also on teaching life skills such as effort, curiosity, patience, and perseverance. She constantly searches for ways to help students make connections between what they are learning in class and what they will need to succeed in the world beyond the school. "I want to teach the whole child," she says, "not just the benchmark."

Kralj is eager to expand her classroom skills—which are already considerable. She was Glenfair's employee of the year for the

2000–01 school year. But even excellence isn't enough to get the job done today. "Teachers have to be willing to keep learning," she says. "Back when I did my teacher prep, we didn't study things like different learning styles, whole-brain research, and how students acquire fluency in English. We didn't even have the labels and terms yet to understand all these things. We just followed the textbooks."

Today, of course, she wouldn't consider planning her lessons around a single textbook. Instead, her instructional methods and choice of materials are based on the needs of her diverse students. The Expected Outcomes spell out what third-graders need to learn, but it's up to the individual teacher to select how to teach the subject matter. Like her colleagues at Glenfair, Kralj uses broad themes to organize her lesson plans and integrate subjects across disciplines. Pausing to admire a student's painting, she adds: "The kids are the same as ever, but they're dealing with so many new issues. And we expect them to learn so much."

But at Glenfair, teachers also expect much of themselves. Most of all, they expect that, when a fresh challenge arises, they will find a way to meet it. Between 1996 and 2001, a period that saw increases in diversity and mobility rates, the percentage of Glenfair students meeting or exceeding state standards in reading climbed from 57 percent to 83 percent for third-graders and from 50 percent to 69 percent for fifth-graders.

Some years have been better than others, and test scores plateaued or even dipped once or twice. But the general trend is powerful evidence of success. Staff members have gained the confidence to keep trying new approaches in the classroom, as long as the research is solid.

Around the corner from Kralj's class, speech and language specialist Sandy Garr is listening to an animated discussion among a dozen fifth-grade ESL students about why the Earth spins. The question came up a few days earlier in a discussion about seasons, and three students did independent research to find an explanation.

The active discussion reminds Garr of the value of a program called Instrumental Enrichment (IE) that she helped introduce at Glenfair two years earlier. Developed by an Israeli psychologist, IE teaches basic cognitive functions —the "how" of thinking. Rather than focusing on a particular content area, the program targets more overarching concepts such as problem-solving strategies. In essence, says Garr, "It gets you unstuck in your thinking."

Garr first introduced IE to a group of special education students, who improved their impulse control as a result of improving their problem-solving skills. With staff support, Garr wrote a grant for books and materials to introduce the program to mainstream classes. Now it's taught in grades three through five, and is proving especially beneficial for students who are learning English. Nearly every fifth-grader in the room, for instance, met reading benchmarks this year.

Andrea Daret's students devote an hour a day, four days a week, to IE. At first, she worried about taking so much time away from specific content instruction. But as she learned more about the program, she was won over by its success in teaching the thinking skills that will lead to success in all subject areas. IE worksheets open the door to discussions about such important concepts as similarities and differences, or understanding the criteria required to complete a specific task.

"What if you don't know the criteria?" Daret asks her students.

"Big trouble!" says a fourth-grade boy. "Then you won't know how to solve the problem."

Daret reminds her students to think "beyond these worksheets. These papers alone won't get you anywhere. But learning how to fig-

MAKING THE GRADE

In the Reynolds School District, earning a high school diploma is a rigorous process. To make sure students are staying on track throughout their K–12 years, and to help parents understand the standards, teachers have written Expected Outcomes for every grade level. Here's what Reynolds fifth-graders are expected to know and be able to do in the area of language arts:

- Read and identify literary forms, including novels, short stories, poetry, plays, and nonfiction from a variety of cultures and time periods
- Analyze how the development of character, plot, and setting contribute to the overall impact of the selection
- Identify literary devices such as similes, rhyme, and dialogue
- Identify the author's purpose and recognize how structure and word choice contribute to it
- Describe the ways in which a writer has been influenced by life experiences

ure things out, understanding the criteria—that's a skill that will help you in real life."

At Glenfair Elementary, learning "how to figure things out" is a task that the entire staff has taken on. After a decade of standards-based reform, the criteria are clear. The challenge is huge. But as students continue to arrive from far-flung places and different life experiences, they find a community where learning is an ongoing task for everyone —teacher, student, and principal alike. □

Andrea Daret (bottom photo) encourages her fourth- and fifth-graders to develop skills that will help them in real life. Her students (top photos) focus on cognitive skills that unlock the "how" of thinking.

WHEN THE STAKES ARE HIGH

TESTING IS THE "HOTTEST PANCAKE ON THE GRIDDLE" FOR THE STANDARDS MOVEMENT. NORTHWEST EDUCATORS HAVE JOINED THE HEATED NATIONAL DEBATE ABOUT THE BEST WAY TO MEASURE KIDS' AND SCHOOLS' PERFORMANCE.

By MAYA MUIR

In the spring of 2000, Alaska administered its first round of a graduation qualifying exam to all 10th-graders. The results were devastating. More than one-quarter of students statewide failed in reading. More than half failed in writing. Two-thirds failed in math.

Reactions were strong. Teacher Susan Stitham, who chairs the Alaska State Board of Education and Early Development, complained that the testing timeline was "just plopped" on the schools. "Nobody ever said, 'When can you be ready? or when can the kids be ready?'" she told *Education Week*. Noting that the first wave of students taking the exam are "guinea pigs," state Deputy Commissioner Bruce Johnson said, "We don't want to duck the accountability issue, but we want to be fair" to all kids, including those with disabilities. Governor Tony Knowles summed up the situation by calling it "neither acceptable nor fair."

The following January, the Alaska board of education unanimously recommended postponing further initiation of the test until 2006. The legislature voted to hold off until 2004.

"The testing issue is the hottest pancake on the griddle for the state legislature," says Richard Smiley, head of assessment and testing for the Alaska Department of Education and Early Development.

Nationally, 18 states require students to pass exit exams to graduate, and six others will soon follow. Although Alaska is the only Northwest state so far to raise the stakes as high as students' diplomas, the others are hotly debating the issues. The conversation about testing to standards and holding teachers and schools accountable for the results stirs up strong emotions. But the topic cannot be ignored, as it sits at the very center of the standards movement. Educators and policymakers are searching for answers that ultimately may decide the success or failure of standards. Critical questions include:

- Do high-stakes tests narrow the curriculum dangerously?
- Do test results justify the loss of valuable instructional time to test preparation?
- Do standardized tests measure what we really want kids to learn?
- Do high-stakes tests unfairly discriminate against minority students or those with disabilities?
- Will holding teachers and schools accountable for test scores really drive improvement—or will it just drive educators out of the profession?

Oregon and Washington have established "benchmark" exams—tests that gauge whether students are reaching grade-level achievement targets tied to state standards. Strictly speaking, these tests are not "high stakes"—that is, tests that determine important outcomes: whether a child passes or graduates; whether an educator gets a raise or promotion; whether a school gets a bad rating, gets "reconstituted," or, in really extreme cases, gets shut down. But because newspapers publish the results and because those results are used to judge teachers and schools, many feel they have become so *de facto*. Oregon, which jumped into standards in the early 1990s, instituted benchmark tests in 1996. But it has no plans to make the 10th-grade Certificate of Initial Mastery (CIM) a requirement for a diploma. Washington is introducing its benchmarks gradually. Not until 2008, when the first cohort of kids has passed through all of them, will its 10th-grade Washington Assessment of Student Learning (WASL) become a graduation requirement.

The region's maverick is Montana, where resistance to standards is still strong at all levels of the community, says Tom Rogers, director of educational accountability at the state education department. Despite that resistance, standards have been developed and are up on the education department's Web site. In another move toward standardization in this strongly local-control state, students will take the Iowa Tests of Basic Skills in grades four, eight, and 11 for the first time this year. "Some people in Montana think the Iowa Basic *is* a high-stakes test," notes Rogers, adding that the last legislative session adjourned without an allocation of funds for the test.

Idaho, another state with a deep commitment to local control, has taken the surprising step of mandating a research-based reading program that includes student assessments, teacher training, and interventions for struggling students. Idaho educators predict that standards in other content areas aren't too far behind. (See "Birth of a Standard" on Page 12 for an in-depth look at the challenge of implementing Idaho's new legislative initiative.)

Across the region, politicians, educators, students, parents, and the public are finding the reorientation of school systems to standards a complex and thorny process. For example, tests must be aligned with curriculum in order to have validity. That is, the tests must measure students' mastery of content they actually had an opportunity to learn. Also, standards typically require the mingling of subject matter. Reading and writing standards, for instance, are being integrated into math and science curricula. Yet few teachers in those disciplines have been trained to teach skills that were once the exclusive domain of language arts teachers. Professional development is critical if teachers are to become comfortable and effective in these new roles. But in an increasingly money-strapped field, training is often unavailable.

The fact that Oregon's CIM is *not* a graduation requirement has created a whole different set of problems. Student Slavak Drofyak, a senior at McKee High School in Salem-Keizer, argues that the CIM is superfluous. "It's dumb; we don't need it," he insisted one day last spring when make-up CIM tests were in full swing. "They've said we need this to get work, but employers around Salem don't care about it. Half my class is down at McDonald's, instead of taking the test."

With or without teeth, how high should testing standards be set? Should they be high enough to prepare students to perform ably in the global economy? Or should they be aimed at minimum competencies? In the aftermath of Alaska's disappointing test results, many concluded that the standards were set unfairly high. "NEA-Alaska believes all students should have the opportunity to meet standards, and the diploma ought to mean something," says Rich Kronberg, president of the teachers union. "However, the intent of the law was to test *basic* skills, and at least in the area of math, the tests that were developed may have gone beyond that."

Others fear that the standards will dip so low that they become meaningless. While educators—and jurists—agree that students should have multiple chances to pass the final test, some standards proponents fear that tests will be watered down to ensure students' success. Students typically take a standards-based mastery test in the 10th grade to allow them enough time to try again if they fail. In a recent opinion piece in *The New York Times,* Kate Zernike points out that if the tests are given in the 10th grade, they can reasonably measure only material taught through 10th grade. And in some states, the level is set low even for 10th-graders—closer, according to some estimates, to an eighth-grade level, Zernike asserted in her op-ed piece, "Why Johnny Can't Read, Write, Multiply, or Divide."

ARE HIGH-STAKES TESTS THE BEST MEASURE OF STUDENT PROGRESS?

In McKee High School's airy, two-story cafeteria, a handful of students bend, frowning, over make-up CIM tests. Senior Tiffany Graves has already graduated, but she has returned to take her math test yet again in hopes of finally passing it. "I don't even remember how many times I've taken it," she says. Near her, junior Corrie Gowan is also taking the math test—for the fifth time. It's been two years since she's been enrolled in math, and she doesn't look very hopeful.

Many educators, parents, and assessment experts wonder, Are these tests the best way to measure student accomplishment? The number of educational organizations answering "no" is growing. In the April 2001 report, *Knowing What Students Know: The Science and Design of Educational Assessment,* the National Research Council states that tests used for "accountability purposes" typically "do not chart students' progress over time or provide adequate insights into students' thinking

strategies." The council goes on to argue that many existing tests "focus on discrete bits of knowledge and skill rather than complex aspects of student achievement."

In 1999, the National Council of Teachers of English weighed in, declaring in a resolution that: "Raising test scores does not improve education. Therefore, the use of any single test in making important decisions ... is educationally unsound and unethical."

Critics have arisen within the region as well. "Like SATs, (high-stakes tests) tend to become one data point used to evaluate what happens over 180 days with 90 staff and 2,000 students," says one Oregon high school math teacher who asked to remain anonymous. The superintendent of Oregon's Hillsboro School District, Joseph Rodriguez, says, "Testing compares last year's performance by one group of students to this year's performance by another group of students taught in many cases by different teachers." Jean Ward of Bonney Lake, Washington, co-founder of Mothers and Others Against WASL, recently told *Northwest Education* magazine: "These tests are of no benefit to my child, or to the teachers. They are just a raw score, with no feedback. And we don't know what's on those tests. I'm hearing about kids getting sick with anxiety around these things, and for what?"

Washington's Vancouver School District has been particularly critical. "We have a real philosophical disagreement with the state," says Teri Cassidy, the assistant superintendent of learning improvement. "Our mantra," she says, "is that we believe in the success of each of our diverse students, and in personalized instruction for each." In 1995, two years before the state adopted standards, Vancouver adopted performance standards based on *gains* (rather than benchmarks), which rely on multiple measures of student performance through a portfolio of student work. A computer system stores data (available to students and parents) on each student. "We personalize the delivery of instruction by screening (diagnosing and getting baseline data), prescribing, and intervening, facilitated by the data warehouse, which holds and updates the information on each student," says Dr. Tom Cone, Vancouver's assistant superintendent of special education and learning support.

The Tacoma School District has also carved its own approach, creating more—but kinder and gentler—high-stakes testing than the state. Students there are evaluated in fifth and eighth grades to see if they are ready for promotion based on a score composed of standardized tests, report cards, and classroom assessments. Students who fail benchmarks but perform well in other areas may be promoted. "If kids don't meet the standards, they discuss the course of action with the principal, their parents, maybe their teacher," says Joe Willhoft, who directs research and evaluation for the district. "Together they decide whether promotion, remediation, or repetition is best."

Home-grown alternatives such as the Tacoma and Vancouver School Districts' approaches are producing good results, although they struggle to survive under the burden imposed by WASL. These districts' philosophies and programs are a good fit for new findings in cognition and measurement research described by the National Research Council in *Knowing What Students Know.* The report calls for shifting resources away from high-stakes, large-scale exams toward in-class assessments by teachers, and the use of portfolios. The report praises advancements in technology that make possible the tracking over time of all areas of student proficiency, much as Vancouver does today.

TEACHERS REACT TO HIGH-STAKES TESTING

Salem-Keizer evaluation and assessment coordinator Charlene Hurst believes that benchmark testing is good for kids. "In the elementary schools, 95 percent of students used to get A's and B's because they were graded on effort," she says. "When they hit middle school, they failed. We weren't doing them a favor. Now we have consistency. Also, educational reform brought in more complex material: algebra, geometry, probability and statistics in elementary school. These kids are better prepared for the world."

But walk the halls of many Oregon schools, and you will find teachers struggling with the effects of benchmark testing. The sheer time consumed is one consideration, says a math teacher. Not only is there a full week for the testing, but test prep takes an "enormous amount" of instructional time, she says. "They pay me to watch students take tests when they should be paying me to teach," she notes.

A biology teacher remarks: "The goals are noble, but if the people who thought it up had to cope with testing on top of the workload we already have, they might rethink it," he asserts.

Teachers also feel they must make time to accustom students to the kinds of tests and ranking they will experience. "Principals are encouraging teachers to return to multiple-choice test formats," reports Linda Christensen, coordinator of language arts for Portland Public Schools. "Some teachers are scoring elementary school kids on how well they tie their shoes so the kids learn this grading concept. What does it do to children to educate them this way?"

The effect of high-stakes testing on curriculum is the topmost concern to many parents and teachers. "Our curriculum is totally whittled down to various tests, not just the CIM," says Jessica Dayson, English teacher at Salem's McKee High School. "There's never time to breathe."

Scott Evers, chairman of McKee's social studies department, and history teacher Dan Gordon bemoan retiring popular and valuable classes such as "Advanced Placement Social Studies" and "American History Before 1880" to make way for classes required for CIM.

"Everything feels test-driven," admits fifth-grade teacher Barb Parker at Scott Elementary in Salem-Keizer. Her principal agrees. "We don't even do an assembly anymore without asking if it will help with the benchmark tests," says Heidi Litchfield.

On the heels of reductions in the arts caused by funding shortages, Alaska's Rick Kronberg worries about curriculum being further eroded by over-attention to tests. He worries, too, about the effects of schools being "held accountable" for poor scores without being given adequate resources. "Schools here will be given one of four designations on the basis of test scores: *distinguished, successful, deficient,* or *in crisis,*" he says, referring to a new federal "designator" system linked to federal dollars. "If they are found *deficient* or *in crisis,* who will want to teach there? Teacher turnover and shortages are already a problem, especially in rural areas. This has the potential to make things worse." Educators in other states report that pressure put on them by the publication of results makes it impossible for them to do anything but teach to the tests.

LEARNING DISABLED AND LEP STUDENTS

Most educators, however, voice concern about quite different populations: students with learning disabilities, limited proficiency in English, and/or different ethnic or cultural backgrounds. In the first round of the exam in Alaska, special ed students, for whom no different provisions had been made, fared particularly badly. In May, the legislature, after pushing back the date for the next round of high-stakes testing, created new guidelines allowing Individualized Education Program (IEP) teams to develop alternative assessments (to be approved by the state board) for their students who fail the exam once. In Washington, IEP teams decide whether students should be given alternate assessments and whether accommodations should be made, but alternatives are allowed for only a small percentage of special ed students. In Oregon, a Disabilities Rights Advocates suit resulted in a ruling mandating the use of aids such as spell-checking software for special-needs students.

Students with different cultural backgrounds and little English, especially recent immigrants, pose another type of problem. "Many simply do not perform well on high-pressure exams that focus on memorization," Monty Neil, director of the National Center for Fair and Open Testing, told *USA Today* in 1999. "Minorities whose parents do not speak standard English . . . are at particular risk, because the fast-paced exams fail to assess their learning accurately." At Fort Vancouver High School, more than 300 students from Russia and Ukraine are enrolled who have had little formal schooling in any subject, let alone English. These students, as well as immigrants from Mexico and a mixture of other countries, are exempt from the WASL for one year after arrival in the United States. "Three years would be more realistic," says Claire Smith, director of the English Language Learner Program. "Research shows students generally need about seven years to approach the level of their peers. It isn't fair to evaluate these students the same way."

Other teachers are concerned about students who are simply slow learners. Fort Vancouver math teacher Lorraine Pishion worries about her students being tested on algebra in the WASL. "Half my kids are below that level," she says. "Some of them will never get to algebra *or* geometry. Should they be denied a diploma because of that?"

At Salem's Scott Elementary, Barb Parker talks about her students who fail benchmarks one by one, year after year. Unlike the high school exit exams, benchmark tests typically are one-time opportunities for kids. "What does it do to their self-esteem and their chance at an education?" she asks. "Two weeks of half-day summer school isn't going to fix this problem."

In theory, one of the purposes of benchmarks is early identification of students who need extra help. But without funds, the theory cannot become reality. In Alaska, a task force convened by Governor Knowles found that the state would need to earmark $100 million over five years to help all students meet standards. At the most recent legislative session, progress was made in this direction with the allocation of $24 million for this year's standards remediation.

Oregon faces the same funding challenge. "Remediation is a huge concern in Oregon," says Hurst. "Some districts have focused support intensely in that area; our district hasn't had the funds." Money for remediation has not yet been allocated at the state level in Washington, but there, as in Alaska, funds may be raised locally by levies. This gives more prosperous areas a better chance at achieving additional funding, but often increases inequities between localities. In Oregon, levies for school funds other than construction are no longer allowed, and funds for schools—particularly those for "extras" such as extended-year remediation classes—have been particularly tight in recent years.

"Will these kinds of remediation make the difference anyway?" asks Christensen. "We don't really know."

THE FUTURE OF HIGH-STAKES TESTING

If students and educators in the region feel overburdened by testing now, they are only likely to feel more so in the future. President Bush has made annual testing of grades three through eight the cornerstone of his education policy. Federal funds would be tied to the test results. Students attending low-scoring schools that fail to improve scores for three years would be able to use their share of federal funds to attend other public schools.

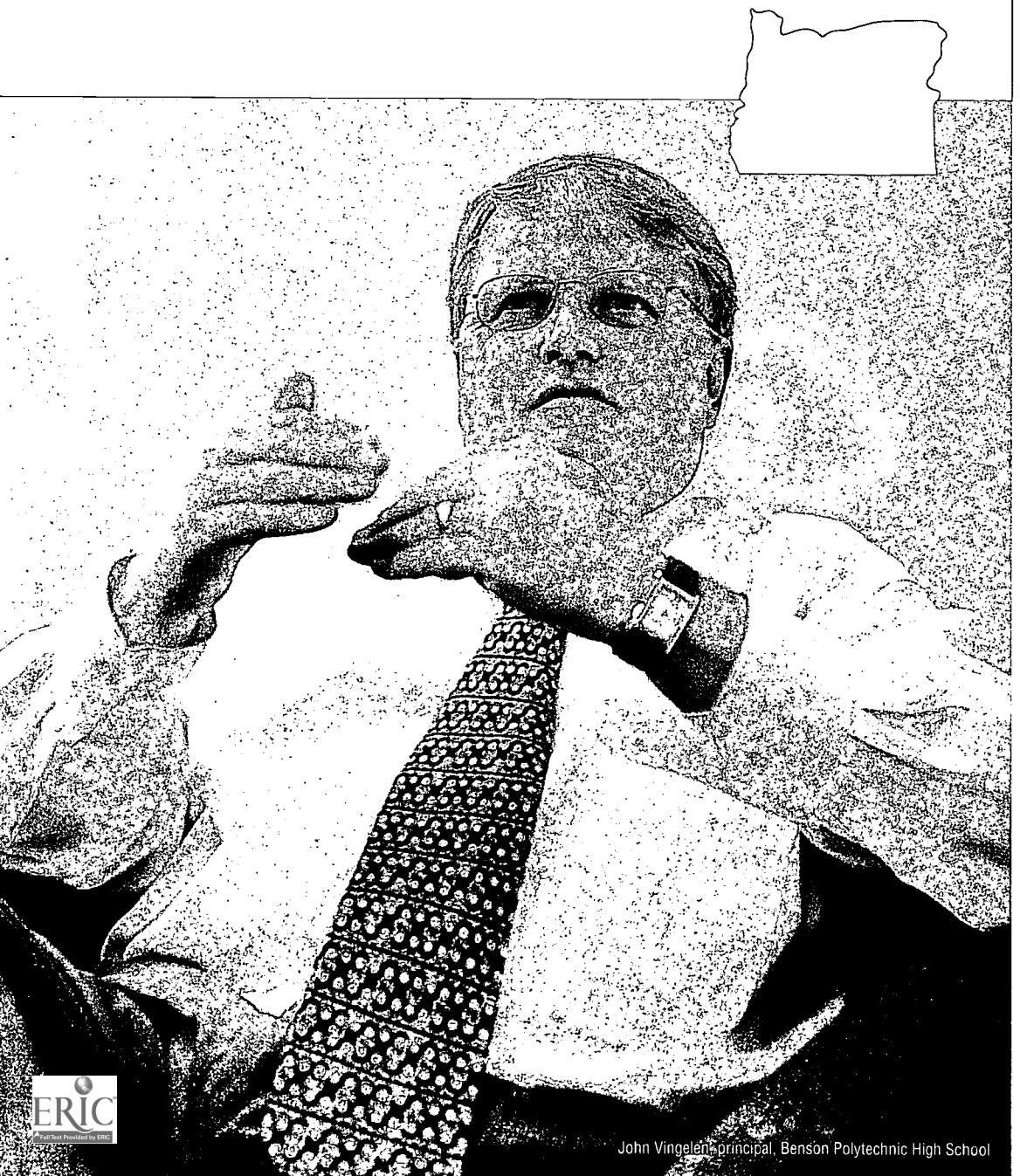
Advocates claim that high-stakes tests are a valuable tool in raising the educational level of all students. Many educators, however, differentiate between tests and the standards themselves. Despite generally strong support for standards, a growing chorus of voices is questioning the wisdom of high-stakes tests.

Here in the Northwest, as in the nation at large, the next few years will be crucial in showing which view is closer to the truth. □

OREGON
OUT FRONT

AS THE FIRST NORTHWEST STATE TO CLIMB ONTO THE DIZZYING ROLLER COASTER OF STANDARDS-BASED EDUCATION, OREGON OFFERS AN EARLY LOOK AT THE UPS AND DOWNS OF THIS ACCELERATING REFORM EFFORT.

By CATHERINE PAGLIN



John Vingelen, principal, Benson Polytechnic High School

"Grandpa, what benchmark score did you get in second grade?" asks seven-year-old Celia as she leafs through her report on levers, pulleys, and four other simple machines. Celia's report contains a table of contents, the requisite number of discussions and drawings, and a bibliography. Her teacher has marked it 3—"meets expectations for second grade"—on a scale of 1 to 6.

"What?" says her 79-year-old grandpa, unfamiliar with the terminology. "Oh," he says after it's been explained to him, "I always got the best."

Benchmarks vs. bell curves, standards vs. seat time, proficiency vs. credits. Is it merely jargon that separates the schooling of today's Oregon children from that of their parents and grandparents—or something more profound? Oregon is 10 years into a change to standards-based education, a change that is—depending on whom you ask—exciting, effective, difficult, misguided, sinister, or a just a passing fad.

Oregon's adventure in standards-based education has roots that go back almost three decades. In 1974, the State Board of Education adopted the "Oregon Minimum Standards for Public Schools" to steer schools toward "minimum

competencies" that all students must meet. "Almost nobody realizes that Oregon has been pursuing an emphasis on outcomes and accountability since the mid-1970s," says Bob Blum, director of school improvement at the Northwest Laboratory. With the passage in 1991 of HB 3565, the Oregon Educational Act for the 21st Century, standards once again moved to the forefront. The act established certificates of initial and advanced mastery for higher levels of achievement than those required for a high school diploma, which can be attained with 22 credits of straight D's. In 1995 the legislature refined the act to focus on academic standards in specific content areas and established a three-part assessment system consisting of multiple-choice tests, performance tests for skills such as writing and math problem-solving, and classroom work samples assessed by teachers using state scoring guides.

Today, according to *Education Week's* indepth report on the standards movement—"Quality Counts 2001"—Oregon is out front, not only among Northwest states but also nationally, in implementing standards and accountability. In fact, only seven states in the nation ranked higher. According to *Education Week's* analysis, Oregon has clear and specific standards in more core areas and at more grade levels than Alaska, Idaho, Montana, and Washington. It has criterion-referenced tests aligned to state standards in more subjects and at more grade levels. It has a greater number of accountability measures such as school report cards and school ratings.

"School districts in Oregon are making good progress because of the state's long-standing commitment to competencies," Blum asserts.

All this change has been accomplished with resources that *Education Week,* in the same report, graded C-minus for adequacy. "It's like asking to produce a Rolls Royce product on a Yugo budget," says James Sager, president of the Oregon Education Association. Only eight states ranked lower in the funding category.

Rankings and grades, of course, can't measure or express what this ongoing "paradigm shift" means day-to-day for the teachers, students, parents, principals, and state education personnel who are living through it. It doesn't measure how they feel about changes in what and how teachers teach, who teaches what, when they teach it, how student learning is measured, and how schools are judged.

The Oregon standards movement has its advocates and its detractors. Its harshest critics don't cluster at a single point on the political spectrum. In the June 1999 issue of *Brainstorm Magazine,* Rob Kremer, president of the Oregon Education Coalition, slams the movement's "neo-fascist" origins and the "left-of-center political ideology" of its proponents. The idea of a Certificate of Initial Mastery as a prerequisite to more schooling or a job is "a radical departure from the American concepts of freedom, markets, and individual choice," he writes. Reform based on standards, he says, does not address the true problem with public education—that it is a government monopoly that can only be reformed through competition.

On the other hand, Tim Hardin, a Portland high school English teacher writing in the October 1999 issue of the Berkeley-based magazine *Bad Subjects: Political Education for Everyday Life,* argues that the standards trend only increases the "commodification"—turning kids and learning into commodities for the enrichment of business—of social relations already inherent in our educational system. Public education, he argues, provides "the systematic underpinning of capitalist consciousness" by identifying students and their futures with their grades, GPAs, and scores. As an English teacher, Hardin worries about a potential sameness and standardization of student papers, a potential emphasis on form over content, that could arise from teachers evaluating writing using the state scoring guide with its so-called "objective descriptors." But Kremer dislikes such performance tests because the scoring is, in his opinion, not objective at all.

Whether Oregonians support, oppose, or tolerate state education standards, it's likely most do so for nonideological reasons based on personal experience. Many, in fact, remain unaware of the existence of efforts to raise standards. A 2001 survey by the Oregon School Boards Association found that just under 70 percent of 500 registered voters polled were not even familiar with the Oregon Educational Act. This is not surprising considering the results of a recent national poll by Public Agenda, in which just 55 percent of parents—a group one might expect to be more informed about education than voters in general—were aware of their district's attempts to raise standards.

Perhaps because it does not make graduation or promotion contingent on passing scores on state tests, Oregon has not been the site of any highly publicized anti-standards or anti-testing actions such as the recent boycott in Scarsdale, New York, where according to the *The New York Times,* parents

"The majority of the students aren't getting the attention they need," says Scott Chirgwin.

kept 67 percent of eighth-graders home during state tests. Oregon does have its activists. "DON'T LET THE STATE EXPERIMENT ON YOUR CHILDREN," reads a page on the Oregon Education Coalition Web site, which then instructs users to "Click here to pull your child from the statewide assessment." However, according to Wayne Neuburger, associate superintendent for assessment and evaluation with the Oregon Department of Education, those exempted because their parents object to testing make up fewer than 1 percent of students.

Views From the Classroom

From one point of view, standards preempt the teacher's authority, narrow what is taught, and interrupt or detract from the "real" curriculum. "The teacher's job is to design their own curriculum," says Clayton Paddison, a sophomore at Benson Polytechnic High School in Portland. "Now they're not doing that anymore. They teach the CIM stuff." Because he and his parents feel there is no value in "what the state wants you to know," he will complete any assignment that receives both a course grade and a CIM score, but will not take any test that is solely for CIM.

Paddison's English teacher, Pat Matteri, has a different take on the same situation. "All of us like choices," she says. "If we told parents, as I try to tell my students, what the choices are, then I think it takes some of the mystique or confusion away. One choice is that every teacher does anything she or he wants in the classroom. Sometimes you'll hit a good one, sometimes not. This (the standards movement) at least gives some equity. There's a base, and then teachers can enrich that and underscore it in their own way."

Matteri, who is responsible for her freshman students producing two work samples and two speeches that meet benchmark, and her sophomores three of each, is enthusiastic about CIM writing standards and plans all her lessons around them. Her students' work is showcased in Benson's front-hall bulletin board under the banner, "Freshmen show off their CIM writing skills by comparing and contrasting Odysseus, a Greek epic hero, to a modern hero." Student choices of a comparison range all over: Harriet Tubman, Mother Teresa, rock star Beck Hanson, Malcolm X. The student comparing Mother Teresa with Odysseus thinks the two wouldn't have gotten along because their personalities and philosophies about killing were so different.

Benson seniors—the first class of graduates to experience the

"Teachers can enrich and underscore the standards in their own way," says Pat Matteri.

CIM—have lots of complaints:

- "It's kind of like a school uniform. No one can express themselves in it," says Liam Nagy.
- "They teach us to pass the test instead of giving you the well-rounded education that would enable us to pass it anyway," says Lianne Kelley.
- "The teachers don't even understand it. They should teach the teachers," says Jessica Bauer.
- "I think it's too easy," says Zack Cross.
- "When you're focusing on two kids passing the test, the majority of the students aren't getting the attention they need," says Scott Chirgwin.
- "I think a lot of the teachers share our point of view. It's a hassle," says Luke LeTourneux.

Matteri isn't put off by student grumbling about the CIM. She feels it's part of her job to convince them of its value. "When my students read the first pages of *Taming of the Shrew,* they're going 'Oh my God. What is this?' Do you think I don't have to sell this Elizabethan language to these students of television? Sure I do. So why shouldn't I also have to say there are some goals that we're going to reach?"

Amy Meabe, a language arts teacher at Waluga Junior High School in the Portland suburb of Lake Oswego, finds standards reassuring both professionally and personally. "I *like* the fact that there's

WHAT CONSTITUTES MASTERY?

The capstone to Oregon school reform—the Certificate of Advanced Mastery, meant to prepare students for post-secondary "next steps"—is not yet in final form. But after four design drafts, its outlines are clear:

- The CAM will not involve more state multiple-choice tests
- Each student will have an "education plan"—or "road map" for learning—and an "educational profile" to track progress toward the CIM and CAM, the diploma, Oregon University System and community college admissions standards, and other benchmarks (the Department of Education and the State Board are working on aligning these systems)
- Students will be able to work on the CIM and CAM simultaneously
- CAM will give students opportunities to apply academic and career-related knowledge and skills in an area of interest
- Schools will provide opportunities that match student needs and interests, which need not mean developing a predetermined set of programs or "endorsement areas"

But the CAM, first attainable in the 2004–05 school year, is more than this, says Theresa Levy, CAM education specialist with the state. She says: "CIM is a benchmark. CAM is the change agent for high schools. CAM makes CIM relevant." Starting in 1999, the department began assisting six high schools in developing CAM strategies. Diverse in size and location, these "New Century Schools" offer a variety of models. Powers High School in southern Oregon has 98 students in grades seven through 12. Though Powers is a rural community with few employers, students participate in service learning and in "telementoring" with staff at Hewlett-Packard and Intel. Near the other end of the spectrum Churchill High School in Eugene has schools-within-schools, such as an International High School, as well as small learning communities—rigorous interdisciplinary programs built around the interaction of, for instance, business law and politics or science and humanities. "They've taken the stereotypical suburban high school and set it on its ear," says Jim Schoelkopf, a state education specialist.

—CP

"The teachers don't even understand it. They should teach the teachers," says Jessica Bauer.

been a group of people who have collectively decided it's important for all 10th-graders to have algebra, it's important for all fifth-graders to be able to write a one- or two-page paper," she says. "I think that's better. As a parent, I don't want my child's teacher just randomly deciding we're going to study nothing but dinosaurs all year."

Like Matteri, Meabe, who has given teacher workshops on assessment and the CIM around the state, sees standards as bringing equity and priorities to what students are taught school to school, district to district. "Until the state started saying we will assess these other modes, there were high schools in Oregon that taught nothing but expository writing," she says. "There were middle schools that did nothing but narrative writing. There were grade schools that thought you couldn't expect a third-grader to write a persuasive piece. Well, any third-grader worth his salt can tell you 16 reasons why he needs a Nintendo. I think it has really opened a lot of teachers' eyes about what their kids are capable of and broadened what they do in the classroom in a very beneficial way."

Where some see a broadening of curriculum and teaching approaches, others see a narrowing, especially in content areas such as science and social studies. Social studies has been one of the most contentious areas of standards-setting in Oregon. "Which hundred facts of world history are you going to test?" says Sager, pointing to the difficulty of constructing a fair multiple-choice test in this subject. In 1999 a Portland high school social studies teacher publicized questions from a pilot test in protest over the quality of the questions and the idea of multiple-choice testing. A debate ensued, and the state agreed to delay testing for several years. The first social studies tests are now scheduled for 2004.

Social studies teacher Christine Haug-Chin, Meabe's colleague at Waluga, says the advent of standards brought about "a total reshuffling" of the social studies curriculum in the Lake Oswego district. "We had put together a scope and sequence that worked for a lot of us but wasn't necessarily as traditional as some others," she says. The standards forced a change in sequence so that students would be taught U.S. history closer to the time of eighth-grade assessments, even though not all district teachers felt it was the best decision pedagogically. As Haug-Chin notes wryly, "You can't really explain to parents that the kids didn't do well on the test because they're going to get U.S. history *next* year."

Haug-Chin does, however, like

"I think a lot of the teachers share our point of view. It's a hassle," says Luke LeTourneux.

the state writing and speaking assessments. "The things that they put more money into, the authentic assessments, are the ones that so far have the greatest value and I think are bearing the greatest fruit for our kids," she says. But in order to cover benchmark material in social studies, she has reluctantly dropped some projects she valued: studying the pros and cons of a ballot measure, creating a culture based on the resources of a given environment. She finds she works more closely with her department colleagues now. But, perhaps ironically, she does less integration with teachers in other disciplines. That's because the testing tends to measure discrete subject knowledge rather than connections across fields.

Theory Into Practice

Even those who endorse the idea of standards in principle often have criticisms about the way the system works in practice.

"I'm frustrated with some of the bureaucracy," says Astoria High School Principal Larry Lockett. He sees no benefit to students when they're tested in April and the results aren't available until September or October. With such a schedule, his site council doesn't have up-to-date test information on which to base school improvement goals. "If I had a teacher who gave a test and gave feedback even two weeks later I would be furious," he says.

There may have been good reasons, acknowledges Haug-Chin, for the state's recent change to the scoring formula for the writing assessment—doubling points for conventions (grammar, spelling, and punctuation) and not counting toward the final score the points for voice and word choice. But she complains that teachers weren't given time to accommodate that change. Because the number of students meeting standards dropped in many Lake Oswego schools after the change in the formula, she and other teachers were concerned the public would think students were losing ground on the tests. "I don't really mind when they change things, but what we experience is the political ramifications of those changes not being articulated," she says.

Math teacher Mike Kennedy of West Sylvan Middle School in Portland thinks the state math standards are well thought-out, yet doesn't like the idea of how much is riding on some of the tests such as the problem-solving assessment in which students choose one question out of three. "Problem-solving is a good skill to have, but it's not the be-all and end-all," he says. "Who's to say how that student was thinking that day? I have students who are very good in math skills but they are not test-takers."

Testing students on concepts they haven't yet covered in their coursework is another problem. Benson student LeTourneux remembers dropping everything in a sophomore math class in order to study other math—"things that should have been in our next year's class, things that were way over our heads"—in order to prepare for a state test. Haug-Chin, whose husband is a high school math teacher, finds this situation distressing. "How does that feel to a kid who has no way of passing that assessment?" she wonders. "And what does that say to them and the school when they get these horrible scores, and what kind of picture does that paint to the community? I think there's some real political damage that's being done that could be corrected by letting kids take the geometry test after they take geometry."

Parent Frank Esposito was baffled when he received the CIM progress report for his son, who attends C.E. Mason High School in the suburban district of Beaverton. "I thought I was an intelligent person until I received the test results and tried to decipher them," says Esposito, a building contractor. "I spent a lot of time looking at the report, but I still wasn't sure I understood it. It's obvious this report-

"Is an employer going to call down to our school and ask for information? I don't think so," says Dave Nelson.

ing system was devised by people involved totally in testing. It doesn't cater to parents who don't have that background. We've talked to other parents and they've just thrown them away."

Fending Off a Backlash

Oregon's system of standards and testing has been changing ever since the passage of HB 3565, mostly in the direction of greater flexibility. "The standards movement in many states, I think, has promoted a backlash by being a fixed bar, almost a pass-fail situation," says Joanne Flint, associate superintendent in the state's Office of Curriculum, Instruction, and Field Services. "We have really struggled to give Oregon a somewhat different take on that." Recent State Board of Education decisions will allow students to work on the CIM, once limited to the 10th-grade year, throughout high school and to work on the CIM and CAM simultaneously.

"We are opening up the process by which students access the CIM and CAM," says State Superintendent of Public Instruction Stan Bunn. Bunn did fail recently, though, to convince the state board to "uncouple" the CIM—in other words, to allow districts to give separate certificates in each academic area, thus rewarding students who meet standards in some areas but not in others. He hasn't given up, however, on some kind of "comprehensive effort to recognize intermediate levels of success," asserting that "the state needs to take a leadership role in that."

"Some of the stuff that's on the tests you don't even learn in some of the classes," says Andrew Grenawalt.

State education department staff have high hopes that online testing, which was piloted in 28 schools during the 2000–2001 school year, will eventually address many of the current concerns about standards-based education. The new system (Technology Enhanced Student Assessment), which allows schools to administer tests over the Internet, will expand to 300 schools in 2001–2002. Because online testing is linked to a testing contractor in Pennsylvania, it requires less onsite oversight. Schools can be more flexible in scheduling testing and can test a transfer student at any time, says Neuburger. "If a kid has a bad day, he can test again," he notes.

Bunn anticipates the Internet testing will answer criticisms about the timeliness of test results, which will be available to students and teachers in a matter of minutes, rather than months. "Then the standards begin to function more as they're meant to function—as feedback criteria," says Flint.

The standards themselves have undergone constant revision based on review by Oregon teachers and several national groups. "We've subjected our standards to fairly rigorous critiquing. That kind of extensive review is unusual," says Flint. Through the review process standards are clarified and streamlined. "Our first target is to reduce them by half," says Flint, who anticipates that eventually standards will number one-third of what they did originally.

More difficult than revising the standards, says Flint, is helping teachers who have been trained that their primary function is to "make sure you've taught everything" to shift their focus to student performance and student learning. "The thing we always underestimate is the length of time it takes to redesign a large institutional system and the amount of retraining or continuing education necessary in that process," she says.

Standards, says Flint, should occupy only a portion of a teacher's attention. Treating standards only as a curriculum—teaching to the test—won't provide the best instruction. "You use them in balance," she says. "That may mean spending a good amount of time on curriculum that ties to student interest, for motivation, and only a small amount will scaffold to the standards."

Haug-Chin is an example of a teacher who uses standards but isn't limited by them. When she evalu-

"The testing's good only if it's executed in a timely manner," says Noel Gaudette.

ates a student's speech, for instance, she scores the final presentation using the state scoring guide. But she also evaluates whether the student's bibliography is formatted correctly, and—because she feels middle school students need structure—she gives points to students for staying on schedule with their research during the three-week preparation process.

"A lot of teachers say, 'These standards on the scoring guide don't capture everything I want to evaluate in my students,'" says Meabe. "They don't understand that they can go beyond it. Making all the components tie together—what you value as a teacher, what your district wants you to be doing, what meets the state standards—it's hard."

CIM in the Real World

As the first Oregon seniors graduated with CIM stickers on their diplomas last spring, they and others are unclear about the CIM's meaning for their futures. "The sticker's there, but what's it going to mean when they get outside?" asks Benson Principal John Vingelen. Like other aspects of Oregon's standards-based education system, that is still taking shape. Thus far, the Oregon University System has incorporated CIM into its admission standards and the legislature has created a scholarship program as a carrot for those who earn the CIM. So far, though, the program is unfunded.

Will students with a CIM have an edge over others in qualifying for jobs? "My mom wants me to get the CIM because she thinks in the future it's going to be real important," says Letourneux. "But now, being one of the first years, to get a job it's not going to be 'Oh, you didn't get your CIM, so you can't work here.' That won't happen for a while, I don't think."

Benson social studies teacher Dave Nelson is skeptical that it will ever happen. "Is an employer going to call down to our school and ask for information?" he asks. "That's kind of the idea, but employers don't operate the same as schools. If we think employers are going to use the records—I don't think so."

The Oregon Business Council has committed to a publicity effort to educate employers about the value of CIM and encourage them to use it in hiring. In the north-coast town of Astoria, the superintendent and high school principal are already working on that, making presentations about the CIM to groups such as the Rotary Club and the Chamber of Commerce. "We've tried real hard to enculturate it in the community," says Principal Lockett. "We've worked with the merchants, asking them to post job applications requiring the CIM certification." In addition, a local foundation has allotted $15,000 in scholarship money to be divided among the 50 Astoria graduates (out of a class of 130) who earned CIMs and are headed for college or other postsecondary education.

The Halfway Point

Does the Oregon standards movement have staying power? With the number of fads teachers have seen, that's difficult for some of them to believe. "If you go back we had goals and objectives and you had some other things and throughout my almost 30 years they all disappeared, they've all been shelved," says Nelson.

Flint believes Oregon is now at the halfway point in its journey to an education system based on standards and accountability. "We've been disadvantaged in not having large amounts of funds. We've been advantaged by the collaborative, pioneer spirit of educators that is characteristic of Oregonians in general," she says.

Flint anticipates that a fuller acceptance of standards-based education will come when the students now experiencing the system become parents. She hopes she's still around at that point so she can stand back and enjoy "the objective view of what has stood the test of time." □

GLOSSARY OF TERMS

The National Dialogue on Standards-Based Education, sponsored by the North Central Regional Educational Laboratory, Mid-continent Research for Education and Learning, and the Berkana Institute, offers the following definitions of terms to guide educators and others through the literature and discussion on standards:

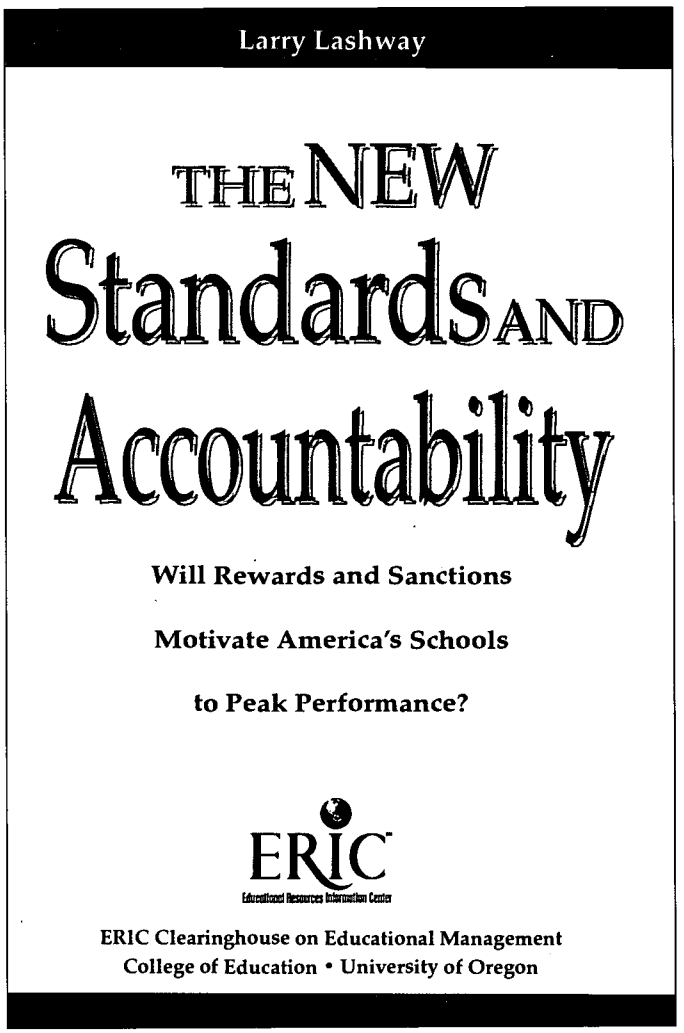
Academic or Content Standards	Statements that provide a clear description of the knowledge and skills that students should be developing through instruction in specific content (or academic areas)
Assessment	A method used to determine what a student knows, has learned, and/or is able to do
Benchmark	Level of performance that is expected in a given subject, in a given grade. A benchmark is usually a set measurement point used to assess whether students are progressing toward a specific goal
High-Stakes Testing	Achievement tests (or assessments) that may carry serious consequences for students (such as being held back a grade or denied a diploma based on low scores) or for educators (such as sanctions for low scores or financial rewards for high scores)
Performance-Based Assessment	An evaluation in which students demonstrate they know something by using knowledge and facts. Practical applications and real-life tasks are used (sometimes referred to as "authentic assessment")
Performance Standards	Statements that describe what it will take for a student to demonstrate mastery of a standard (sometimes called benchmarks)
Rubric	A scoring guide that gives specific criteria on which a piece of student work will be evaluated based on standards for student performance
Standard	Generally speaking, a description of what students should know and be able to do
Standards-Based Accountability	Policies, procedures, and systems designed to hold students, teachers, and schools responsible for their performance with regard to academic standards; standards-based accountability systems use various measures and are implemented at various levels (school level, districtwide, statewide)

Retrieved on 8/6/01 from: www.nationaldialogue.org/bkground/why

RESEARCH ANALYST LARRY LASHWAY has dug into the messiest aspects of the standards movement to write an engaging book titled *The New Standards and Accountability: Will Rewards and Sanctions Motivate America's Schools to Peak Performance?*

Published this year by the ERIC Clearinghouse on Educational Management at the University of Oregon, the book begins by examining "the many faces of accountability." The author weaves into his discussion topics not typically tackled in the standards literature—topics such as the psychology of human motivation, including the relative power of intrinsic versus extrinsic rewards. He grapples with such fundamental questions as, Why do people do what they do? What motivators are teachers and students most likely to respond to?

In addition to covering topics as diverse as the science of behaviorism and the lure of video games, Lashway gets into the nitty-gritty of testing and such mundane issues as "indicators," report cards, and graduation requirements. The wide-ranging discussion is enlivened by pithy writing and new perspectives. Readers are treated to quotes from blockbuster movies *Dead Poets Society* and *Mr. Holland's Opus*. Mixed with Lashway's impeccable scholarship, this prevents the book from being overly pedantic.



The book manages to be both concise and comprehensive. It hits the key themes that characterize the standards movement in the United States today. Chapter headings are:

- The Accountability Challenge
- Understanding Human Motivation
- Educational Standards
- Assessment
- Use of Performance Data: Indicators and School Report Cards
- Incentives: Motivating by Rewards and Sanctions
- Building Capacity for Improvement
- Unanswered Questions and Leadership Imperatives

The author offers reassurance for frazzled educators who see standards as one more burden in their already jam-packed school day. Soothes Lashway: "Where standards are concerned, no school starts with a blank slate. There is always a curriculum in place that can serve as a worthy foundation. Standards add precision and accountability to the curriculum, but much of what teachers already do is easily adapted to the new system. Psychologically, it is vital for teachers to recognize that standards do not require them to start over."

Based on his analysis, Lashway offers this caveat in his closing chapter. "Thus far," he writes, "research does not tell us much about the effectiveness of standards-based accountability. Few states have fully implemented their systems, and it will be years before trustworthy evidence is available." Still, he observes, "The fact that policymakers have managed to get 50 state bureaucracies headed in approximately the same direction at the same time is an astonishing achievement, and it attests to the depth of the public's desire to make the system work."

To order a copy of *The New Standards and Accountability: Will Rewards and Sanctions Motivate America's Schools to Peak Performance?*, call the ERIC Clearinghouse on Educational Management at 1-800-438-8841.

—Lee Sherman

EYE OF THE STORM

THE CENTRAL OFFICE IS THE PIVOTAL PLAYER IN STANDARDS-BASED REFORM

By MELISSA STEINEGER and LEE SHERMAN

Tucked away in the trees near the windswept mouth of the Columbia River, southwest Washington's Naselle-Grays River Valley School District fits into a single building. The district offices and 300-plus students in grades K–12 share space not far from the spot where Lewis and Clark made camp after they reached the blue Pacific. Employing about 20 teachers, a part-time superintendent, a business manager, a principal, and four office staff members, the district is the area's second-largest employer (behind the state-run Naselle Youth Camp for juvenile offenders).

A hundred miles upriver on the eastern edge of the Vancouver metro area, Camas School District serves more than 10 times as many students. Kids who live in the fast-growing area, where high-tech R&D firms operate next door to pulp mills, fill four elementary schools, a middle school, and a high school.

These districts—one isolated, the other closely linked to city life—share the struggles that all districts large and small face in implementing standards. In particular, their experiences point up one of the often overlooked but critical components of successful standards-based reform: the role of the district office.

The spotlight in the standards drama tends to fall on individual schools. But research suggests that district leadership plays a crucial role in determining whether standards infuse teaching. Districts expect schools to improve, support them as they do, and check periodically to assure improvement.

Researcher Lizanne DeStefano, a professor of educational psychology at the University of Illinois, is heading a national study of the role districts play in implementing state standards. DeStefano believes districts hold the key because they set personnel, instructional, and resource policies. And they hold the ultimate power—the purse strings. The importance of district-level involvement in standards implementation, she says, cannot be overestimated.

"When you actually look at the processes," DeStefano writes, "many are district-controlled. And when you get down to the building level, it is very rare to find a building implementing standards that doesn't have district support to do that."

Bob Blum, Northwest Regional Educational Laboratory program director of school improvement, agrees. A district's central office, he says, bears the burden of helping staff, teachers, parents, and students to not only understand but also embrace the state standards. Rather than viewing standards as another

pile of red tape imposed by the state, these key players must view standards as vital for improving student learning in their community.

"Getting kids to meet the same standards, but in ways appropriate to the kids and the adults in the school, is important," says Blum. "But we can get to the same end via many methods."

NASELLE-GRAYS BECOMES A GUINEA PIG

The Naselle and Grays rivers wind through the woods toward Willapa Bay just around the bend from where the mighty Columbia flows into the ocean. Mingled with the rustle of alder leaves and evergreen needles, you can almost hear the constant rumble of the log trucks and loading equipment that once signaled the area's economic mainstay. As the timber industry has waned in recent years, the decline has been felt in the district, says Superintendent Gerald Schmidtke. A quarter of the students qualify for federal lunch programs.

When the prospect of state standards began blipping on Washington state's radar screens in the early 1990s, Naselle-Grays River Valley immediately volunteered to be a guinea pig for the state's fourth-grade benchmark test. "It gave our teachers the chance to see what the students would have to know and the formats and types of questions," says Schmidtke.

The pilot served as a launching pad for the district's efforts to align its math and reading curricula with the Washington standards, or Essential Academic Learning Requirements. "The pilot test . . . in a sense forced teachers to talk with each other about this," says Principal Steve Quick, who was a math and Spanish teacher back then.

Prior to the pilot, Naselle-Grays teachers worked in relative isolation, covering the material they'd always covered, giving the tests they'd always given, officials report. How well that material meshed with earlier and later grade levels was not formally discussed. "I don't think any (curricular communication) was going on," admits Schmidtke, who notes that such a communication void undermines any chance for cross-grade consistency.

After teams of teachers reviewed both state and national math and reading standards, they began wrestling with how the district would meet them. The district put teachers in the driver's seat in the development of a standards-based curriculum. As the work unfolded, teachers began to take ownership of and accountability for the impending changes. "The teachers developed the sequence," says Schmidtke. "They felt very strongly that when 'their' kids leave their classroom, they must have completed their sequence." It's not easy to dodge accountability in a district where each grade has only one class—and one teacher.

The principal's leadership and commitment were critical to the effort's success. "Having a principal who supports the goal is critical," says Schmidtke. "If the principal buys in, that goes a long ways toward getting real teacher buy-in."

The close-knit community was another big factor in getting teachers on board, says Quick. The teams spent many unpaid hours after school and on weekends hammering away at the process. It's pretty tough to refuse a colleague's request to meet on a Saturday morning when you know you'll run into her over at Okie's Select Market on Saturday afternoon.

Once the teamwork was finished, the principal made sure the teachers' ideas were implemented. "If you don't do that," Schmidtke says, "you lose your credibility." Quick agrees. "You have to give up the power or control and let teachers do it, then implement what they did," he stresses.

Earmarking money for standards is one of the most powerful ways administrators can demonstrate their commitment to making standards work. To ensure alignment with standards, Naselle-Grays budgeted $30,000 to $45,000 for textbooks each year for several years, versus the $10,000 to $15,000 it would typically spend. The district had the flexibility to allocate extra dollars for textbooks for a couple of reasons. For one thing, Naselle-Grays is able to hire part-time or temporary teachers from the youth camp to meet short-term needs, thus saving money on faculty salaries. For another, the school receives extra funds from the state (they call it the "small-school factor") in lieu of a straight FTE formula to compensate for its size. Besides being aligned with standards, the new books are also closely sequenced through the grades to foster continuity from level to level.

Naselle-Grays tests students at every grade level except kindergarten. That, officials say, helps put kids at ease by giving them practice with test-taking and familiarity with the test format. And it helps the district find weak spots in the curriculum. This year, the district teacher teams will review the entire math curriculum, K–12, and make adjustments where needed.

Overall, says Quick, there has been very little resistance to the new expectations in the district. "Not too many people balk at high standards," says Quick. "The state just

got us all on the same page."

The process is paying off in terms of student achievement, especially in the area of reading. For example, 89 percent of Naselle-Grays fourth-graders and 87 percent of 10th-graders met the standard in reading in 1999–2000. Statewide, the percentages were 66 and 60, respectively (see Figure 1).

"Our biggest problem is children who come in from out of the district," says Schmidtke. "How do we get them ready for the test?"

MAKING CHANGE BENCHMARK BY BENCHMARK

A bedroom community to the rapidly swelling Vancouver metropolitan area, Camas has seen its population almost double since 1991, reaching nearly 13,000 residents today. School enrollment has ballooned as well, from 2,400 in 1991 to 3,800 in 2001. Employers in the area range from Information Age companies such as Wafer Tech Industries and Sharp Microelectronics to the Georgia-Pacific paper mill, employing nearly 1,500 workers.

Like Naselle-Grays, the Camas School District also had a head start on state standards. A few years before standards implementation, the district received a federal 21st Century Schools grant, which it used to implement exit requirements for grades six and up. Camas wanted to know with certainty what a graduate with a Camas High School diploma knows and what he or she can do, says Tanis Knight, assistant superintendent of curriculum.

Using the grant to pay for 10 planning days a year over several years, the district began developing standards subject by subject, setting expectations, and garnering community buy-in. "We held 'coffees' all around the district," says Knight, to help inform parents of the new expectations. "And once we set the expectation that this was what students would have to do, they did."

For students who did not meet the exit requirements for their grade, summer school was mandatory. When the state developed its own set of standards, Camas was in a good position to capitalize on the work already done. A committee of teachers undertook a "gap analysis" of the curriculum—that is, they looked for the missing pieces between the desired goal and the status quo. The committee tacked up a big blank piece of paper on which they created a "map" of the curriculum, showing the places where the benchmarks and current realities failed to connect.

"We went benchmark by benchmark . . . and we plugged the holes," Knight reports.

Committees for each grade and subject put together a two-page "target" document for each curriculum area and each grade—for instance, the first-grade writing target or the seventh-grade math target.

To keep expectations clear and the approach standardized, district officials recommend compressing the information into bare essentials. "You don't need a huge document," says Knight. "Strip out everything except the core expectations. Ours is one page, front and back."

The target sheets formed the basis for the central office's efforts on behalf of standards. Knight went over the target sheets with every school. For parents, the district sent home a brochure of expectations for each grade level. The standards have been embedded in the students' report cards, too, to help parents keep track of and monitor their children's skill development relative to standards. "This," says Knight, "helps align it all."

This is not to say that the process was simple. "These things don't happen overnight, " Knight says. For instance, the state standards require punctuating dialogue at an earlier age than the district had done. And algebra and geometry are introduced in fourth grade now to meet state benchmarks—an expectation that made Knight initially skeptical.

"I would have said, 'I don't know if children can do that at that age'," she says. "But we dove in, and, surprisingly enough, our fourth-graders are doing well."

On the other hand, the district conducts math, reading, and writing assessments at grades not required by the state. These tests are tied to the standards and give students and teachers the opportunity to experience a format similar to the state tests. This also helps teachers at all grade levels see where students are—or are not—on track for state tests. "You can't just say it's a fourth-grade 'problem,'" says Knight. "Every grade must 'own' their role."

Accountability is further enhanced by the district's scoring approach. At each grade level, teachers for that grade come together to score the tests. "This allows a healthy discussion of what students must show to earn a three or four," says Knight. "It helps teachers internalize what the standards are."

If expectations are more clearly defined, it does everybody a service, Knight says. Ultimately, it will make the teacher's job easier. "Once you internalize the standards," she says, "you can put back in stuff you've set aside"—that is, reintroduce projects and strategies you've used successfully in the past. Most teachers, she points out, are conscientious. They want to do a good job,

so there is typically a lot of professional pride at stake. "When you know you're going to sit down with colleagues at your grade level (to score the tests), it ups the ante," says Knight. "You want your kids to look good. *You* want to look good."

Knight says that teacher buy-in started with the attitude conveyed by the central office. The message that came through was that the standards offer an opportunity to help students rather than being a "burden" imposed by the state. "Just having the right attitude makes a difference," Knight says. "This is an open, friendly district. We approached this as 'We're all in this together. This is the hand we were dealt.'"

The district stayed focused on the benefits for students, and incorporated teacher ideas in the final curriculum. Once the curriculum was set, Knight took on the role of coach. "My job as the central office person is to help them keep their eye on the ball," she says. "It's easy to get caught up in the day-to-day. I'm like their obnoxious conscience."

Part of her role was ensuring that professional development was in place to help teachers build knowledge and skills. Teachers don't get a degree in teaching state standards, she notes.

Camas used several innovative strategies to provide support to schools, such as pooling elementary and middle school professional development dollars to focus on state standards. Districtwide meetings allowed teachers from different buildings to zero in together on a particular standard. And individual buildings could choose to specialize in one subject.

Camas also tapped the unique power of e-mail in professional development. After identifying skills that could help children in any subject area—for example, how to identify a main idea, how to summarize, how to compare and contrast, how to support an opinion—Knight's office summarized them and e-mailed them to teachers one at a time, every two weeks. Posters placed around the schools reinforced these overarching concepts for teachers and students. It was a simple but effective technique, Knight reports.

Despite Camas' strong central office approach to implementing standards, Knight says it is a mistake to try to do everything from the district level. Better, she says, to closely involve teachers in areas such as staff development. Knight used building-level teachers to teach some workshops in each school. This, she believes, was much more effective than bringing teachers to a districtwide training. An added benefit was establishing an onsite expert at each building as a resource.

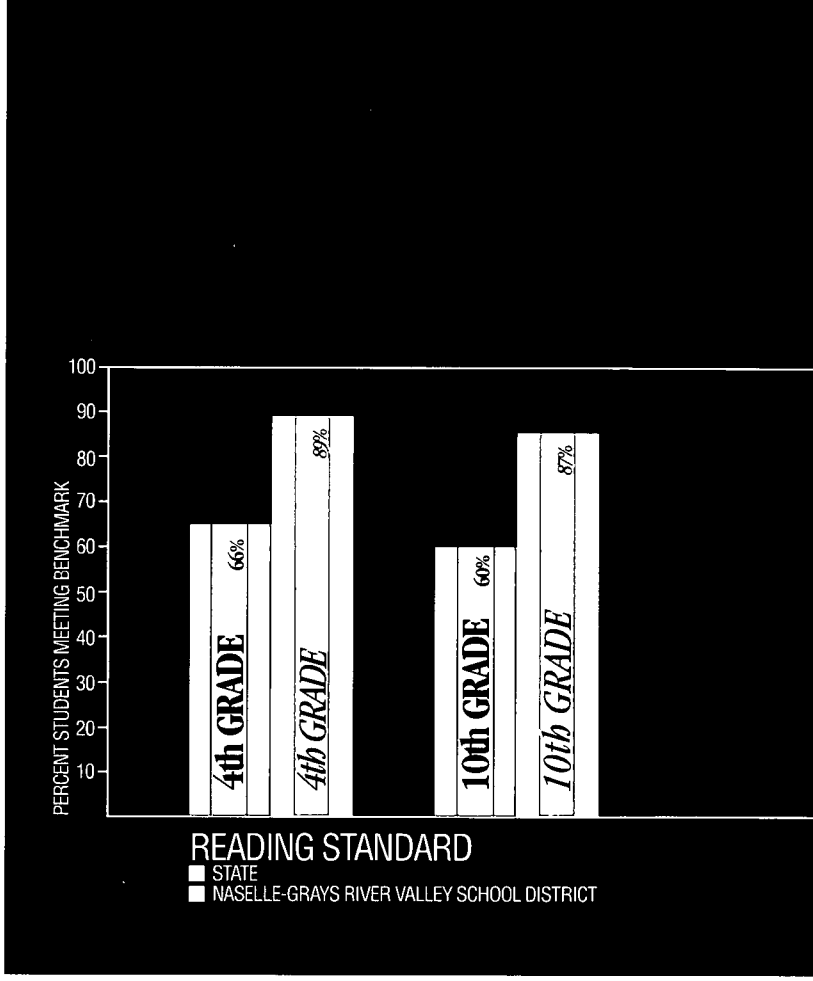


Figure 1

In the end, she notes, the standards are important, but even more vital is helping students, teachers, and schools reach the new standards in ways that are appropriate for both students and staff in each individual school.

In the latest report of state results, Camas' approach appears to be working. The district's 1999–2000 WASL results are higher than state averages on every standard at the fourth and seventh grades, and are close to state averages at 10th grade (see Figure 2).

"It's hard work—politically sensitive," says Knight. "Everybody gets pretty weary. But when I see how much students have improved, I know it's worth it."

DANCING TOWARD EXCELLENCE

In the dance of the standards, districts approach curriculum alignment in sometimes radically different ways—from, say, the precise choreography of a traditional ballet to the more free-form flow of jazz. Some districts tightly and centrally engineer the elements of curriculum and instruction. Others take a looser, more developmental approach. More often than not, though, curriculum guidance is a blend of loose and tight control from the center, and this can vary by subject matter.

Districts using a more engineered approach tend to opt for closely entwined, explicitly detailed curriculum documents that are reinforced by district workshops,

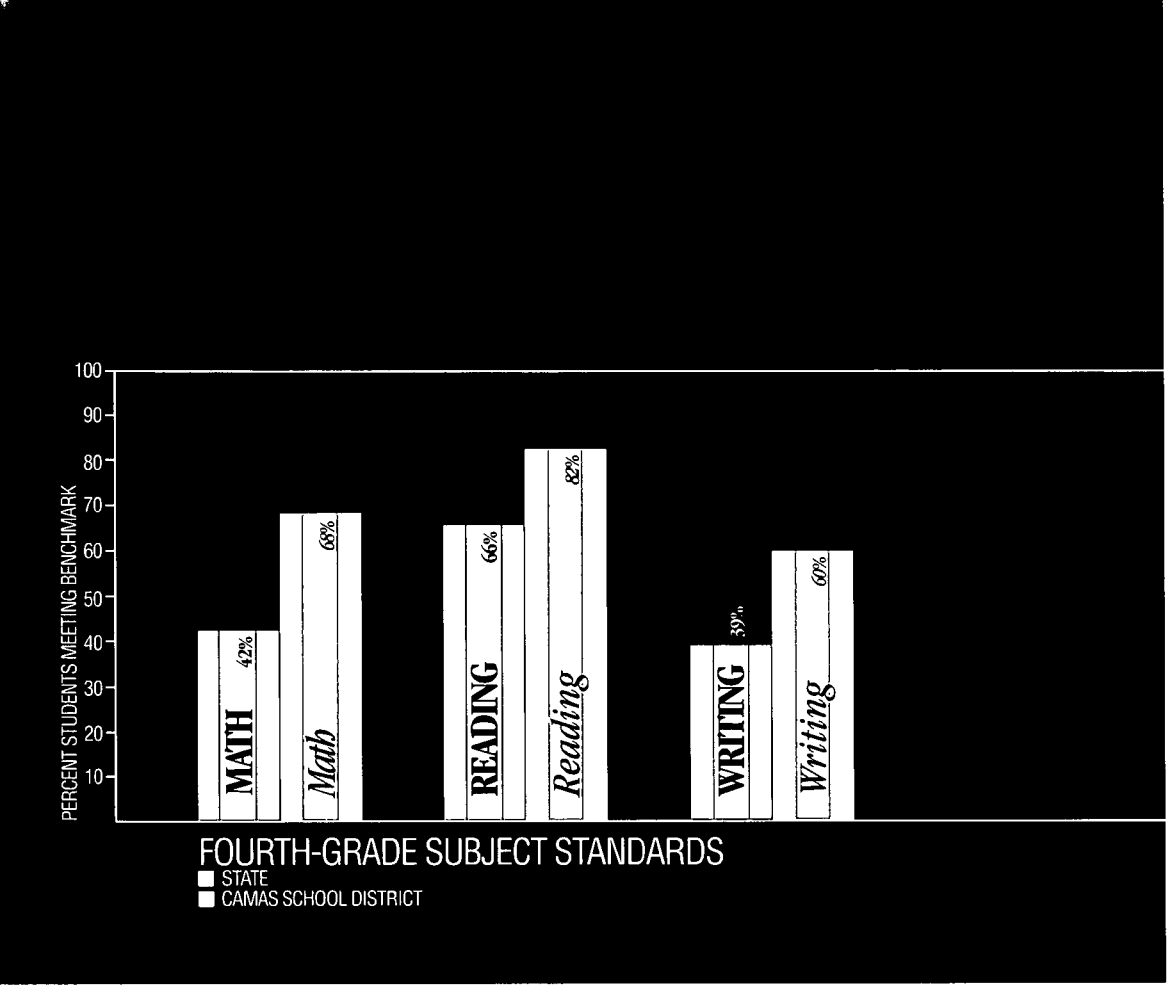


Figure 2

instructional oversight, and assessments. Lengthy and highly specific curriculum guides provide standards, frameworks, and pacing sequences. These guides can contain a hierarchy of desired outcomes, from state to county to grade-level and, finally, to unit outcomes. Other components may include resource guides for each grade level and planning guides for each unit outcome. A guide might show teachers in detail how to allocate their time, supplying an example of a year-long planning matrix covering all outcomes.

At the other end, districts may pursue alignment to common goals through fluid, more open-ended means. One East Coast district, for example, created abbreviated rather than full-blown outcomes linked to state standards so that schools would have flexibility in determining how to meet the outcomes.

Whatever the approach, the district has three key responsibilities, according to NWREL's Blum. It must:

- Set expectations with schools that standards are important and that students must show positive results when measured by those standards
- Support the schools toward those goals with time and resources so schools can meet them
- Establish clear accountability measures for schools

"The biggest and most important piece is in the middle—the district supporting schools and teachers as they learn to teach the standards and improve student performance," says Blum.

Throughout the process, a delicate balance must be achieved between local control and state mandates. How, in other words, does a district meld local needs and priorities with the overriding state mandate?

Another balance must be struck between district control and school autonomy. Site-based decisionmaking—giving schools significant control over budget and staff and the flexibility to make the changes they need to improve learning—is standard procedure in many districts these days. Does the central role of districts in standards implementation portend a shift away from site-based management? Blum says no. Schools can maintain their autonomy despite the need for a strong central office role, he asserts. To be sure, the central office holds schools accountable for results. But the school gets to decide *how* to meet the targets determined at the state and district levels. In the nuts-and-bolts process of prying standards from the pages of a ponderous document and bringing them to life in the classroom, the school retains a lot of leeway. For one school, the key mechanism might be more math workshops for teachers. Another school might decide to use more direct instruction in reading or to hire more teacher assistants.

A national study of standards-based reforms in 22 districts across eight states has identified some strategies that successful districts use. Conducted by the Consortium for Policy Research in Education and funded by the U.S. Department of Education, the study is detailed in a September 2000 policy brief, *The District Role in Building Capacity: Four Strategies* by Diane Massell. The brief is part of a large-scale, multiyear study by the consortium examining the design, implementation, and effectiveness of school improvement efforts.

Strategies for implementing state standards vary nationwide, the consortium has found. Some districts make extra staff and resources available to low-performing schools. Some create specific offices, teams, or units to provide assistance. In one unspecified district,

schools in need of support receive coaches or special consultants, additional staff, and professional development for administrators. In another district, support teams of principals, teachers, and other staff from high-performing schools are paired with a low-performing school to help raise performance. Other districts require or encourage low-performing schools to network with the more successful ones to stimulate fresh thinking about how to improve performance. In one district, an intervention team spends about a half-day at each school visiting every classroom and focusing on four areas: school organization and management; culture and climate; curriculum and instruction; and parental involvement.

In synthesizing all these approaches, the study identifies key elements of successful districts:

- Aligning curriculum and instruction
- Building teacher knowledge and skills through professional development
- Interpreting and using test results to concretely affect teaching
- Targeting low-performing schools

LETTERS

STRATEGIC DODGEBALL

I am in the eighth grade. When my class plays dodgeball ["The Death of Dodgeball," Fall 2000], two teams are made discretely. Then each captain calls out his or her team. When the game starts, nearly all the people play. When someone is weak and can't throw very well, they get in close or slip around behind him (when we play, there are about 15 feet where both teams can go). For example, when I have the ball I charge, get in close, throw or tag, and move out. By the way, I am not that strong (in throws, anyway), and I have no hand-eye coordination. I can't run very well, but I can still play dodgeball and get people out and play a good game. Oh, and even overweight people can do good in dodgeball if they can shoot baskets well.

Lance Magmer
Manistee Middle School
Manistee, Michigan

WASHINGTON'S CHARTER WARS

Your article ["Stuck on the Starting Blocks," Spring 2001] relies mostly on Jim Spady's version of reality about the "charter school wars" in Washington. Jim is certainly entitled to his viewpoint, but I'm surprised that you would present it as if it were the only perspective or the full story.

One could argue plausibly that Washington would have charter schools by now if it were not for the character of Jim and Fawn Spady's activities to promote them. The Spadys antagonized many possible supporters with their self-righteousness and politics of personal attack. In their rhetoric either you were with them or you were corrupt or selfish. In 1996, Jim debated Rosemary McAuliffe in one of my graduate classes, and he devoted perhaps a third of his time to personal attacks on her character and integrity. A good number of my students who were attracted to the idea of charter schools were appalled by Jim's behavior.

The Spadys moved quickly from identifying themselves as liberal Democrats to accepting support from Bill Bennett and Jack Kemp and the editorial page editors of the *Wall Street Journal* —and accepting hundreds of thousands of dollars from several right-wing donors recruited by same. Much of the funding for the 1996 initiative campaign came from these donors. The Spadys' willingness to identify themselves with these right-wing champions and donors, most of whom were hostile to public schools, led to many folks questioning both the Spadys' real motivations and the desirability of charter schools.

The 1996 charter initiative was much more like a voucher initiative than what was identified as charter in most other states. This initiative had the result of miseducating many Washington voters about what charter schools could be. In 1996 Jim told me that he wrote the initiative himself.

I could go on, but you probably get the idea of my critique from this. I find your article to be simplistic, incomplete, and uninformed about the complexity of events and personalities involved in these issues. I'm surprised to find an article of this character published by the NWREL.

For the sake of establishing my motivations, I voted against the 1996 Initiative because I viewed it as a "backdoor" voucher system. I supported the 2000 initiative until I learned about Paul Allen's involvement. Given his funding and his previous activities in buying elections, I needed regretfully to vote against it.

David Marshak
Associate Professor
School of Education
Seattle University

By STEVE MULLIN

EIGHT YEARS AGO, Washington state and its teachers embarked on an ambitious plan to improve teaching and learning. The goal was the right one for our public schools: To ensure that all students, and not just a lucky few, were prepared with the skills and knowledge to be successful. But the simple premise behind this strategy—agree on clearer and more rigorous standards for what every child should be learning—belied the hard work that lay ahead.

Looking back, we shouldn't have expected otherwise. We've taken on the challenge of completely rethinking assumptions about *how* children learn and *how well* children can learn in an effort to make sure all children are equipped with 21st century skills in reading, writing, and mathematics.

Our schools are being asked to redesign curriculum, to make lessons richer and more rigorous. Principals are being asked to study student performance data and mobilize staff and resources to tackle weaknesses in instruction. Teachers are being asked to become smarter about student assessment and to use teaching strategies with a track record of success. And all of us are being forced to confront the old assumption that only some kids, those from the best neighborhoods or most stable families, are capable of high levels of achievement. Higher expectations for what students are learning places greater demands on everyone.

But although the work is hard, it absolutely is the right work to be doing. And Washington residents seem to agree, with recent polls showing high percentages of the public familiar with and supportive of these efforts (70 percent of the public is familiar, and 80 percent of those people are supportive, according to a statewide poll by Elway Research in January). Teachers see the benefits, too; although many express concerns about the new workload and testing requirements, nearly 70 percent still conclude these changes have had a positive impact on student learning.

Our challenge now is to keep learning more about what works —and what isn't working—and to support teachers and principals in their endeavors to improve student learning.

State leaders have worked hard, for example, to address educators' concerns about the Washington Assessment of Student Learning (WASL). The WASL is the new state exam measuring how well students and schools are meeting high academic standards in fourth, seventh, and 10th grades. It's important because it provides an external benchmark to gauge progress, give feedback on strengths and weaknesses, and identify best practices at successful schools.

Some educators have expressed concerns about the rigor of the test, worrying it is too challenging for students. In response, Washington asked the Northwest Regional Educational Lab to review the fourth-grade mathematics assessment. Although NWREL found the overall test sound, the review did identify test questions that could be improved and Washington made these changes:

- Reformatted some questions so directions and problems are clearer to students
- Removed the few developmentally inappropriate test items
- Spread test-taking over three days rather than two to lessen the stress on younger students

The business community, as one of the strongest advocates for high-quality public schools, has a role to play in supporting educators, too. Business leaders have advocated for making these sorts of adjustments when warranted, to help ensure educators have the best tools possible. Countless Washington businesses have also advocated for other programs and initiatives that give teachers added skills and knowledge and help them apply best practices.

The Partnership for Learning, a nonprofit coalition of Washington companies that is helping parents and community members learn more about these school improvement efforts, plays a unique role in Washington. By providing an independent source of easy-to-understand information about the new standards, tests, and instructional changes in schools, it helps community members understand these changes and see how they can help.

They say few things worth doing are easily done, either when it comes to changing business practice or changing instructional strategies. Partnership for Learning respects and appreciates the hard work of educators as they retool and redouble their efforts to help every student succeed. We know it isn't easy. But thousands of teachers and students across Washington are showing that the choice to reach for higher standards was the right choice and a realistic goal.

Steve Mullin is the Executive Director of Partnership for Learning. The partnership is a nonprofit coalition of businesses that works to support and communicate about Washington's school improvement effort. To find out more about the partnership's work you can visit its Web site at www.partnership4learning.org. □

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Watch for upcoming issues

Winter issue
Preparing New Teachers: What Helps Them Succeed?

Spring issue
Project-Based Learning: Putting It All Together

Summer issue
Beyond the Bell: Extending Opportunities for Learning

You are invited to send us article ideas,
identify places where good things are happening,
provide descriptions of effective techniques being used,
suggest useful resources, and submit letters to the editor.

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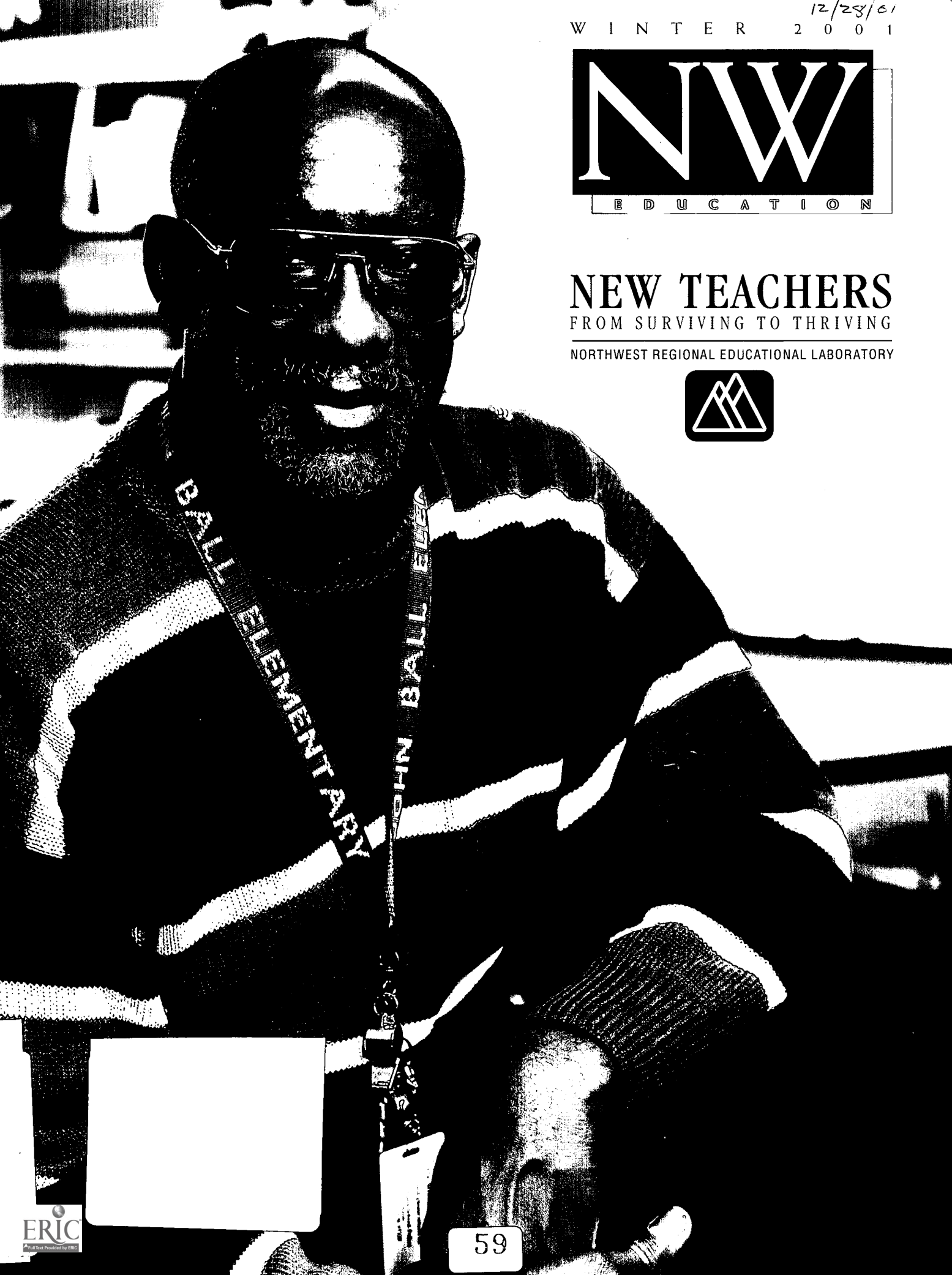
EDUCATION

NEW TEACHERS

FROM SURVIVING TO THRIVING

NORTHWEST REGIONAL EDUCATIONAL LABORATORY



NW EDUCATION
VOLUME 7 NUMBER 2
WINTER 2001

New Teachers
From Surviving to Thriving

ARTICLES

2 **Facing the Future**
Meeting the need for qualified teachers will require fresh ideas, including better support for rookies and more training for mentors.

10 **Building a Teacher's 'Repertoire' Takes Time, Training**
Dean of the University of Washington College of Education is helping to pave a more coherent pathway into teaching.

12 **Under the Same Sun**
In rural Alaska, village residents are discovering they can grow into the teaching profession without having to travel far from home.

20 **Mr. Fisher Finds His Calling**
A rookie teacher navigates the rough waters of the first year with a classroom of Oregon fourth-graders.

24 **Pipeline to Tomorrow**
A model program recruits, sustains, and inspires teachers of color.

30 **Surviving the Crossfire**
In Walla Walla, Washington, a school district earns praise for its wise approach to mentoring new teachers.

DEPARTMENTS

42 In the Library
44 Voices

ON THE COVER:
Lemil Speed was a banker before he switched careers and found his calling. He credits the Portland Teachers Project with providing the comfort and comradeship that made the transition possible. His story, "Pipeline to Tomorrow," begins on Page 24.
PHOTOGRAPH BY MOUNT BURNS.

All across the country, the looming teacher shortage has been earning headlines and raising concerns. This is a democratic trend, affecting schools in big cities, small towns, and rural areas. It's a demographic trend, too, fueled by the anticipated retirement of baby boomers. Social factors also play a role. Before the civil rights movement, schools of education were filled largely with women and minorities. Today, women and minorities enjoy expanded career opportunities in fields offering higher pay than teaching. And it's a political issue, with everyone from the Secretary of Education to the First Lady to members of Congress weighing in with suggestions and sound bites.

By 2010, experts predict that 2.2 million new teachers will be needed for the nation's classrooms. What's more, today's teachers are expected to help students reach high academic standards. Students are increasingly diverse, with many facing challenges related to poverty or language fluency. The national push for accountability can make even the most experienced teachers feel as if they're working in a pressure cooker. Many rookies face the additional challenge of drawing the toughest classroom assignments.

But all is not doom and gloom. When education researcher Ellen Moir, founder of the New Teacher Center, looks at the faces of students enrolled in teacher preparation programs, she sees good reason to hope. "These people," she says, "are dying to teach." The challenge is finding ways to support prospective teachers so that they can overcome the inevitable bumps of the first year or two in the classroom and become the capable educators they dream of becoming.

This issue of *Northwest Education* takes a look at promising approaches to support new teachers. First, we offer a look at what research tells us about why so many novices leave the field and what strategies may help them remain in the profession. We hear from Patricia Wasley, who is retooling teacher induction at the University of Washington so that new teachers gain support over several years. We take a look at mentoring programs, such as the award-winning approach underway in Walla Walla, Washington.

We also zoom in for a close-up look, introducing you to some of the talented individuals who are choosing to make their careers in the classrooms of the Northwest region. Through the eyes of Dorothy Epchook, you'll see why the bond of a shared heritage is vital to the success of rural teachers and their Alaska Native students. In the words of Lemil Speed, you'll hear why seasoned adults are considering new careers in teaching and what kind of support they need to survive the transition. And in the story of Sam Fisher, you'll experience the highs and lows of the first year in the classroom.

These are a just few of the fine people who are dying to teach—the ones who are rising to the challenge with courage, dignity, and humor. We hope you join us in cheering for their continued success.

—Suzie Boss
bosss@nwrel.org

FACING THE FUTURE

WITH A NATIONAL TEACHER SHORTAGE ON THE HORIZON, THERE'S NO TIME LIKE THE PRESENT TO BUILD, SUPPORT, AND SUSTAIN A CAPABLE TEACHING FORCE

Story by SUE HUSE / Photos by DENISE [illegible]

Three future teachers—(left to right) Willa Towarak Eckenweiler, Paul Reynolds, and Debbie Toopetlook—are interns in Alaska's Rural Education Preparation Program. (Related story begins on Page 12.)

Standing not quite five feet tall, Beth doesn't tower over anyone in her class of high school freshmen. And that's a shame, because she's the teacher.

If she were a tad more intimidating, suspects the 23-year-old with the sweet face and friendly demeanor, maybe the students wouldn't be so quick to test her. Maybe she wouldn't have had to live through the nightmare of seven large boys "deciding to riot on me" in the middle of a science lab.

That awful spring day marked the low point of her first year of teaching. With papers flying across the classroom and students out of control, she had to "call in reinforcements" from the front office. Nothing in her four years of college, nothing in her training to become a teacher, nothing in her student teaching experience had prepared her to manage that kind of misbehavior. Her small, rural Oregon school district provides no induction or mentoring program for new teachers, so she had no ally to turn to—not even a friendly shoulder to cry on—within the faculty.

Did she think about quitting?

"Oh, yeah."

Did she feel isolated?

"Not physically, but certainly mentally. Sure, the other teachers are nice. But they didn't seem to want to get to know me or make sure everything was going OK."

So why is she back in the same classroom this school year?

"I made a deal with myself that I was going to teach for at least three years. Then I'll decide."

The first three years mark a critical period in the life of a new teacher. Researchers estimate that as many as 30 percent of novice teachers leave the profession by the third year, and up to half of those teaching in urban schools depart within five years. New teachers recruited under fast-track programs—designed to attract those who have subject-area knowledge but lack a background in education—fare even worse. An estimated 60 percent of those who enter teaching through shortcut programs leave by their third year.

Barnett Berry of the National Commission on Teaching and America's Future (NCTAF) suggests that employers in the private sector "would not tolerate that kind of turnover. They would be absolutely mortified," he told *Catalyst* magazine, if they were losing even one out of three.

R & R

To improve these odds, both recruitment and retention are emerging as key strategies.

On a number of fronts, initiatives are underway to bring new faces into teaching—from paraeducators to retired military personnel to mid-career professionals itching for a change. Pipeline programs start as early as seventh grade to encourage more young people to consider teaching careers. In particular, recruiters are eager for faces that better resemble the diverse student body filling the classrooms of America. In 1999, 35 percent of the nation's 52 million school-aged children came from linguistic- or racial-minority families, but only 5 percent of teachers, counselors, and administrators were from racially diverse groups, reported Mary Hartwood Futrell in the May 1999 issue of *Educational Leadership*.

U.S. Secretary of Education Rod Paige, announcing $31 million in Transitions to Teaching grants in October, said, "Casting a wider net for experienced professionals ... will help school districts address teacher shortages, particularly in subjects where there is a great demand for qualified instructors." Both urban and rural districts across the country are reporting shortages in the areas of mathematics, science, foreign language, English as a Second Language, and special education. (See sidebar, Page 5, to learn about new Transitions to Teaching programs in the Northwest region.)

Some communities have already rolled out innovative efforts to lure new teachers. Most dramatic, perhaps, was the offer of $20,000 in signing bonuses for recent college grads or career changers who agreed to teach in Massachusetts. New York City Schools Chancellor Harold Levy launched his Teaching Fellows program in 2000, targeting young professionals and mid-career changers with the promise of financial help to obtain a master's degree in education in exchange for teaching in underperforming schools in the Bronx and Brooklyn. Clark County, Nevada, has become legendary for its aggressive teacher recruiting, even posting teachers-wanted advertisements in the Las Vegas airport. Chicago has so far lured 125 "global educators" from a host of countries—China, Ghana, India, Mexico, Pakistan—with the promise of work visas and help to earn an Illinois teaching certificate. And a number of school districts offer new teachers assistance with down payments or low rates on home mortgages.

More aggressive recruitment is just half of the equation being devised to solve the looming teacher shortage. Researchers and those on the frontlines of teaching are teaming up to reshape induction programs so that these new recruits will survive—indeed, thrive—once they enter the teaching profession.

As NCTAF's Berry asserts in *Educational Leadership* (May 2001, "No Shortcuts to Preparing Good Teachers"), alternative routes into teaching are necessary, "but they must be good programs. ... Effective teachers need to know more than subject matter." Without adequate preparation, Berry writes, "many mid-career recruits lack the wide range of knowledge and skills necessary for effective teaching ... understanding how students think and behave, and how to motivate them." Research shows that "knowledge of both subject matter and of teaching and learning acquired in teacher education is strongly correlated with teacher performance in the classroom."

The public seems to agree. In a recent opinion poll by Louis Harris, 89 percent of those surveyed cited having a well-qualified teacher in every classroom as an important measure for lifting student achievement. Three-quarters of those surveyed oppose allowing those

TRANSITIONS FOR NORTHWEST TEACHERS

Although a teacher shortage may be looming on the horizon for communities across the country, "it's here now in rural areas," says Joyce Ley, rural education expert at the Northwest Regional Educational Laboratory. To recruit and train new teachers needed in rural classrooms in northeastern Oregon and southeastern Washington, NWREL has joined with partners in the region to conduct a Transitions to Teaching project, funded by a grant from the U.S. Department of Education.

In addition to NWREL, partners in the $750,000 effort include three educational service districts (Umatilla-Morrow and North Central ESDs in Oregon and ESD 123, serving several counties in southeastern Washington); Eastern Oregon University in La Grande, Oregon, and Heritage College in Toppenish, Washington; and 40 local school districts—23 in Washington and 17 in Oregon.

Two additional Transitions to Teaching grants for the Northwest region also were announced by Secretary of Education Rod Paige in October. The Washington Office of State Superintendent will receive $1.2 million to enhance statewide professional education and certification of new teachers. Salem-Keizer Public School District in Oregon will receive $550,000 for a local recruiting and training initiative.

In all, the U.S. Department of Education is awarding $31 million to 42 projects designed to recruit skilled mid-career professionals and recent college graduates into teaching careers. "Casting a wider net for experienced professionals—those with a wealth of experience but who lack a teaching credential—will help school districts address teacher shortages," Paige said, "particularly in subjects where there is great demand for qualified instructors." Areas of high demand include mathematics, science, foreign language, English as a second language, reading, and special education.

RURAL INITIATIVE

Beginning in January, a cohort of 30 new teachers will embark on the accelerated, intensive training program through the Northwest Transitions to Teaching Partnership being directed by NWREL's Joyce Ley. Training will lead to full state teacher certification at the end of the second year. "It's not an alternative certification program," Ley points out. "What's alternative is the pathway they take" to licensure.

The Transitions to Teaching program will provide these teacher candidates with practical training in pedagogy and instructional practices preparing them to hold down classroom assignments at the same time they participate in the intensive training. Some of the coursework will take place via distance learning and teleconferencing—delivery well suited to the teachers' rural geography. Grant funding will provide stipends for participating teachers and help offset the costs of graduate-level coursework.

In addition to formal training, new teachers will receive additional support from mentors in their local school districts. "The mentor teachers will work closely with them over the two years," Ley explains.

Training coordinators for the project are Dick Pratt of Umatilla-Morrow ESD and Bob Plumb, chairman of the Department of Graduate Education and Counseling at Heritage College. Pratt has developed a professional development toolkit that addresses topics required for teacher certification. Researchers looking for solutions to the teacher shortage have identified access to professional development as a key strategy for solving shortages in rural areas, which often are located great distances from traditional graduate schools.

Ley predicts that the new teacher participants will fit one of two categories. The first category she describes as "placebound. These are adults who are already living in the region where they will be teaching but hold a degree in a field other than education." Because of family commitments or other reasons, Ley explains, "they can't easily pick up and go away to earn certification." The second category includes students who are about to graduate from college and have an interest in teaching, Ley explains, "but aren't on track yet" for a teaching certificate.

with college degrees to enter teaching without also requiring preparation in the field of education.

Recruiting and training "new quality teachers," acknowledges Paige, "will require persistence and imagination." If he makes the cause sound urgent, it's no accident. Current forecasts call for 2.2 million new teachers within the coming decade to replace an anticipated wave of baby boomer retirees and keep pace with growing student enrollments. In the Northwest alone, some 35,000 new teachers will be needed by 2005, according to research by the Northwest Regional Educational Laboratory. The spike in demand for teachers is "unprecedented," reports the University of Washington's Center for the Study of Teaching and Policy.

And it comes at the same time that states are setting high standards for student achievement. "States are clearly serious about standards for good teaching," write researchers from the Center for the Study of Teaching and Policy, "but not when those standards interfere with the ability to ensure an adult, qualified or not, in every classroom."

Who will teach tomorrow's children? How well will they be prepared for the task? At a time when a third of the nation's teachers are 50 or older—old enough to qualify for membership in AARP, the American Association of Retired Persons—these are urgent questions, indeed.

DYING TO TEACH

When she looks out on the sea of eager faces of students enrolled in teacher education classes, Ellen Moir is filled with hope about the future of the profession. "We have people who are dying to teach," says the veteran education professor at the University of California at Santa Cruz and executive director of the New Teacher Center, a nationally recognized resource. The question Moir has been working hard to answer: "How do we keep their spirits alive?" She worries about sustaining rookies' optimism and energy once they head out to work "in a [school] system that's complex, and can drain you."

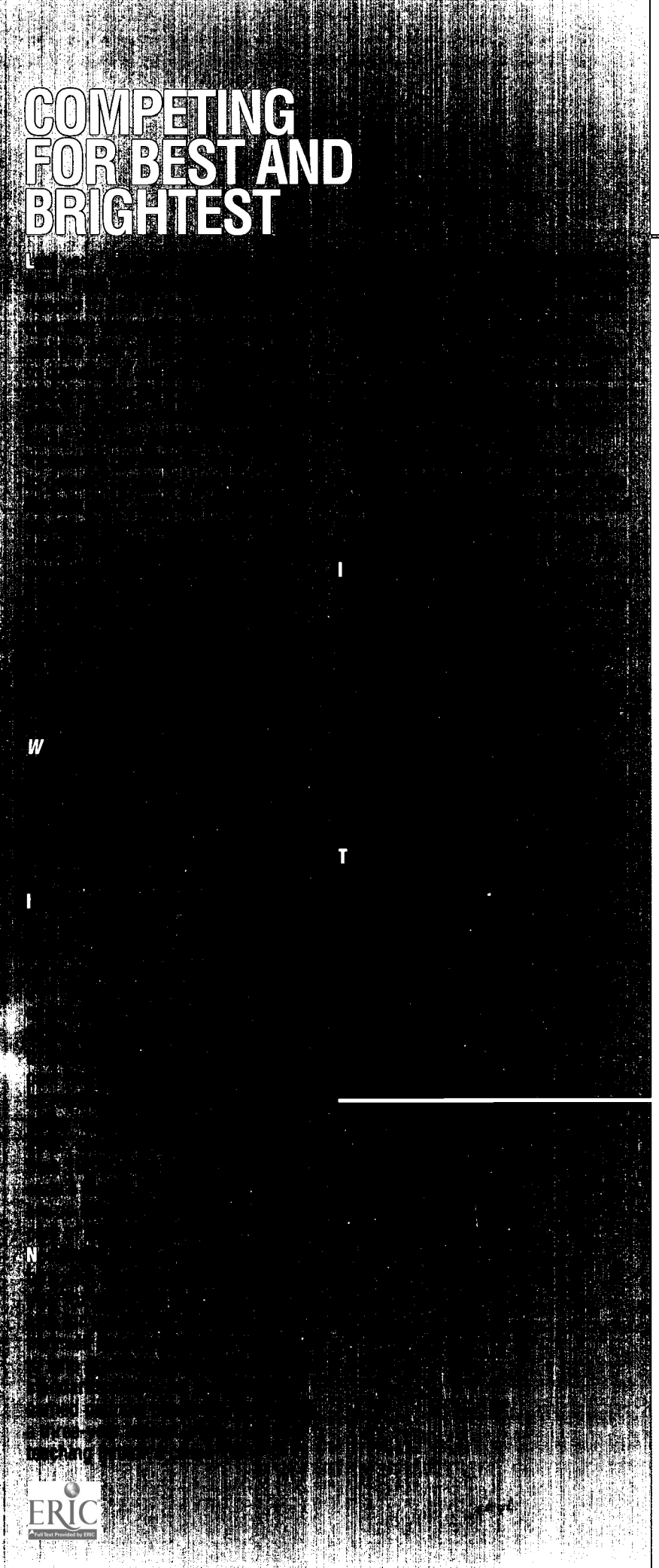
Patricia Wasley, dean of the University of Washington College of Education, has not lost sight of what drew her to teaching 30 years ago. "I love working with kids," she says. That aspect of the job remains as appealing as ever, whether teacher candidates are fresh out of college or—like at least a third of the current crop of UW education students—more seasoned by life and looking for a career change.

Yet, a number of factors make it challenging to maintain interest in the profession. Women and minorities—once the mainstay of the teaching ranks—have a wider range of career choices open to them today than those who went into teaching before the civil rights movement. What's more, many beginning teachers "have a hard time," Wasley admits. "We know from research that they typically get assigned to the hardest jobs, the most difficult kids. Salaries are low, and esteem is low. Teachers are often blamed," she says, if student performance is not up to par. On top of all that, many teachers begin their careers in virtual isolation—having little interaction with anyone except the students they're assigned to teach. "There's been very little collegial interaction," admits Wasley. (See Page 10 for an interview with Wasley about UW's initiatives to support new teachers.)

Indeed, researchers Dwight Rogers and Leslie Babinski of the University of North Carolina at Chapel Hill have written of the "reality shock that comes with being the teacher in charge. Beginning teachers," they wrote in an issue of *Educational Leadership* (May 1999) devoted to supporting new teachers, "feel isolated and are afraid to reveal uncertainties about their practice and reluctant to ask for assistance for fear of appearing inadequate."

The Southern Regional Education Board drew on research from the National Center for Education Statistics to track what happens to those who leave the field. Approximately 25 percent quit within their first five years to pursue other careers. Another 25 percent leave because they're no longer interested in teaching, or have grown dissatisfied with teaching. And 40 percent of those who quit say they would not teach again. Although money plays a role, low salaries are cited as the primary cause by only 10 percent of those who flee the field.

Recruiting New Teachers, a national nonprofit organization based in Massachusetts, suggests a simple way to think about remedying the complex situation: For new teachers to remain in teaching, *"the good must outweigh the bad."*



BETTER BEGINNINGS

The National Commission on Teaching and America's Future views high-quality mentoring as one of the most effective ways to address new teacher concerns. NCTAF recommends structuring the first year or two of teaching like a residency in medicine, in which novices continually consult veterans. Instead of coaching rookies through appendectomies, however, veteran teachers can help novices overcome such daily challenges as classroom management, assessing how well students are learning, lesson planning, and understanding the culture of the school.

About half of all new teachers already participate in some type of induction during their first year of teaching. The scope and quality of these programs vary widely, however. As RNT points out in its 2000 publication, *A Guide to Developing Teacher Induction Programs,* "Well-funded, comprehensive, developmental induction programs that serve all teachers who need assistance are far from the norm in U.S. school districts."

In a recent NWREL publication, *Supporting Beginning Teachers,* authors Cori Brewster and Jennifer Railsback point out, "Although many schools provide orientation programs for new hires, they often focus primarily on school policies and procedures, falling short of the ongoing professional support, training, and encouragement that new teachers need."

Well-designed induction programs, RNT reports, hold promise to slow teacher attrition; remove incompetent teachers and retain talented ones; help novices continue to develop as proficient, knowledgeable, and successful teachers; improve the climate for teaching and learning; and build community between new and veteran teachers.

The most effective programs, described in *A Guide to Developing Teacher Induction Programs:*

- View induction as a multiyear, developmental process. Two or three years of support may be needed to move new teachers from basic survival skills and orientation to focus on instructional effectiveness and, eventually, address systemwide issues such as student assessment, teacher leadership, curriculum reform, and school improvement.
- Ensure that school administrators understand how to orient new teachers, create supportive working conditions,

effectively meet their professional needs, and convey to the entire staff the importance of welcoming, guiding, and assisting them. This means principals may need training to be alert to new teachers' needs and concerns.

- Provide high-quality mentoring, backed by adequate funding.
- Link inductee evaluation to standards.

Researchers at the Center for the Study of Teaching and Policy, in a 2001 report called *Revisiting What States Are Doing To Improve the Quality of Teaching,* point out that formal induction programs are becoming increasingly common. In the 1980s, only 15 states offered new teachers some form of induction. By 1999, 38 states and the District of Columbia had adopted induction programs. They range from small projects that reach only a fraction of a state's newcomers to California's Beginning Teacher Support and Assessment Program, a $100 million effort intended to match every beginning teacher with a mentor for the first two years on the job. To the extent that states require new teacher induction, "they send a powerful message to districts, schools, and new teachers themselves," conclude *Revisiting What States Are Doing* authors Eric Hirsch, Julia Koppich, and Michael Knapp.

Out of necessity, California is emerging as a national leader in supporting new teachers. Since the state passed a class-size reduction initiative five years ago, local districts have had to scramble to find teachers to fill new assignments. Between 1999 and 2005, the state projects hiring another 265,000 new teachers—at least 10 percent of whom are expected to arrive at the classroom with emergency credentials, without adequate training or experience.

The New Teacher Center in Santa Cruz grew out of a California study to identify effective approaches to beginning teacher support. It has been designated as an exemplary mentoring program by the U.S. Department of Education and highlighted by Recruiting New Teachers. The center consults with districts across the country, including some in the Northwest region, and attracts educators from more than 20 states to an annual symposium. The staff, headed by Executive Director Ellen Moir, also works in close collaboration with local school districts in the Silicon Valley, Oakland, and elsewhere to teach classroom veterans how to observe, coach, and support new teachers.

Moir and her hand-picked staff of veteran teachers have developed "a curriculum of mentoring," but they had to learn their lessons the hard way. "It took us a lot of messing around to come to our current understandings" of what new teachers need, she admits, and move beyond providing emotional support. No one will deny that kind of support is important for the survival of rookies. "Being new and facing the complexities of the job causes new teachers to question their sense of efficacy," Moir explains. Her research has shown that new teachers start the school year full of hope and optimism, but then "their confidence typically falls by October."

To keep up their own spirits and bolster their students' learning, novices need access to materials and strategies to support the development of sound instructional practices. "We want to support their learning over time," Moir explains, and to do so in the context of the new teacher's own classroom. A veteran teacher—known at the New Teacher Center as an "adviser"—can help by employing such methods as observation, coaching, role-playing, lesson modeling, and assessment. That way, the program becomes focused on "teacher learning to support student learning." What's more, the strategies that help new teachers learn align with sound classroom practices. Formative assessment, for example, is a powerful tool that advisers use to gauge new teachers' understanding of their own learning. New teachers, in turn, can use the same tool to help their own students become more self-directed learners. "It's all nested," Moir explains.

Harry Wong, author of the best-selling *The First Days of School,* argues that new teachers want instructional support more than hand holding. Although Wong is a believer in "the efficacy of mentoring," he asserts in a recent column in *Education Week* that what a new teacher needs and deserves "is a tutor, a master teacher, or ultimately, a group of teachers, staff developers, and administrators who will teach that new teacher and get him or her up to speed quickly. ... Novice teachers want teachers—teachers they can watch teach in their rooms, teachers who will give them activities and lesson plans, teachers who will tell them what

to do with those kids who challenge even the best in the field."

TRANSFORMING THE PROFESSION

When 18-year teaching veteran Jan Miles was invited to leave her regular duties and become an adviser for a group of new teachers, she felt as if she was letting down the children assigned to her classroom. But then she thought about all those new teachers struggling to get along—many of them without teaching credentials, working under emergency certification because of a dire shortage. "I told my students that if I didn't help, it would be as if I saw a building on fire and walked past it. I hated to leave my own kids, but I knew I had to help," she says.

She's had no time to look back. As senior outreach coordinator and educator-in-residence at the New Teacher Center, Miles has spent the past six years advising novice teachers in a variety of school settings, including the Silicon Valley. There's no doubt the program has made a difference for the rookies—more than 90 percent of whom have remained in teaching after six years.

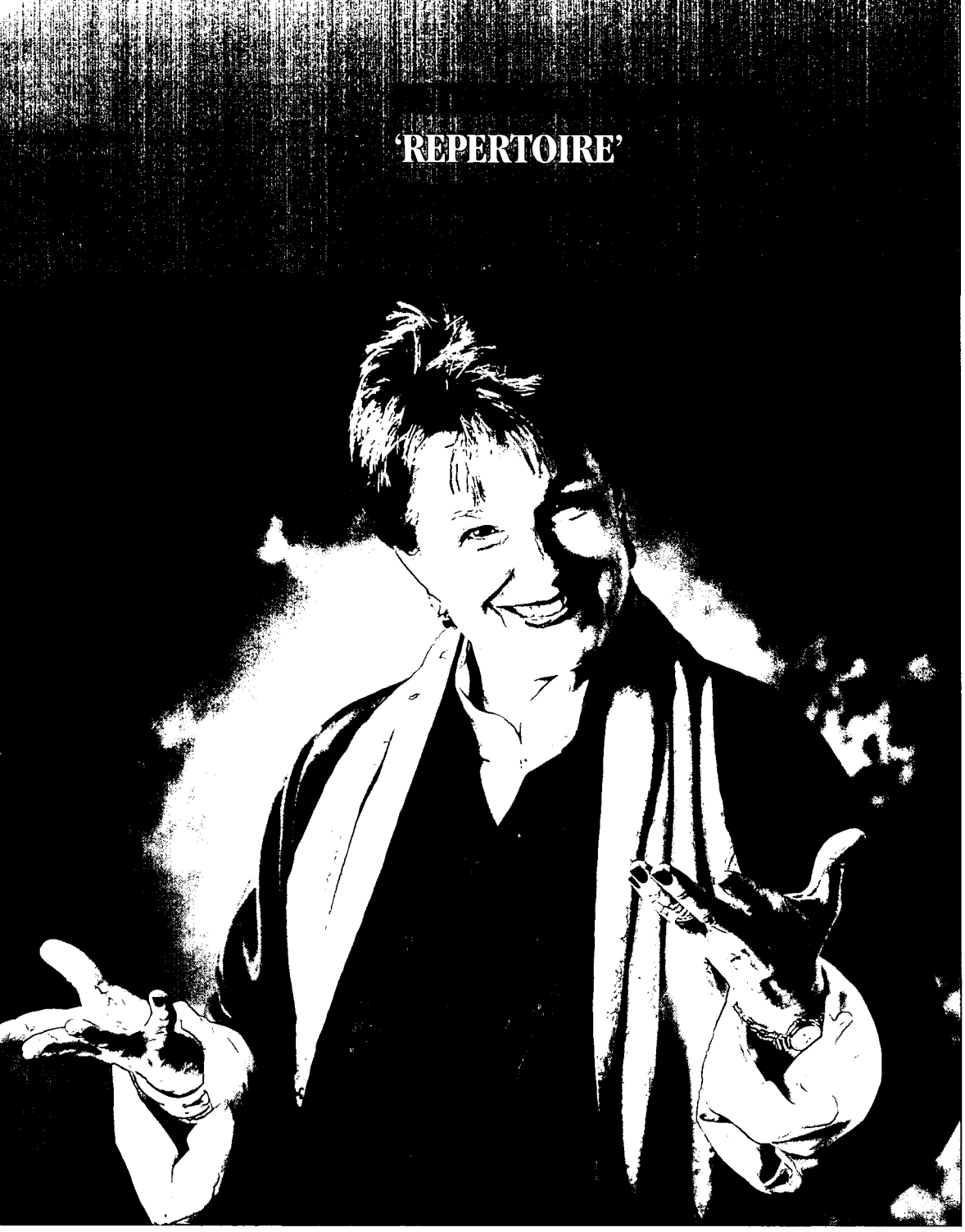
The surprise, says Miles, is how much she has learned about her own teaching from being an adviser. "I knew before that I was a good teacher," she says, "but I didn't know why." Being an adviser has caused her to examine her own teaching practices, to understand her own wisdom well enough so that she's able to share it with others.

Moir sees that reflective process as one of the most useful aspects of mentoring. "It means the exceptional teacher has to ask, What have I been doing that's so effective? They have to unpack that, deconstruct what they've been doing well in the classroom," she explains, so that they're able to explain their strategies to novice teachers.

The assignment has given Miles the opportunity to visit scores of classrooms—also a revelation. "I seldom left my own classroom in all my years of teaching," she admits. "I'd never gotten a chance to see all the other ways there are of doing things." Perhaps best of all, being an adviser "has taught me to listen, to pause, to reflect," Miles says.

Another educator-in-residence in the program, Tomasita Villarreal-Carman, sees mentoring as "a real op-

Continued on Page 41



SEATTLE, Washington— When Patricia Wasley embarked on her career in education 30 years ago, teachers didn't get much in the way of mentoring, on-the-job training, or even hand holding. "On the first day of school," she recalls, "the principal would say, 'See you at lunch.' At lunch he'd say, 'See you in the spring.'"

Today, as dean of the College of Education at the University of Washington, Wasley is working to reinvent induction so that new teachers not only get off to a good start, but can continue expanding their skills and knowledge over the course of their careers.

University of Washington is working with school district partner sites in Seattle, Albuquerque, New Mexico, and Portland, Maine, to develop "a more coherent continuum" of support for new teachers that includes mentoring and professional development through their fifth year in the profession.

The initiative, called Sustaining and Strengthening Teaching, also includes Bank Street College where Wasley was dean of the Graduate School of Education before joining UW a year ago. Other partners are the National Commission on Teaching and America's Future, the Teachers' Union Reform Network, and the Center for Educational Renewal, also based at the UW.

Such partnerships can go far toward breaking down the isolation between university-based teacher preparation programs and the classrooms where teachers practice their craft. "Too often new teachers hear that old saw, 'Well, you might have learned that in the university, but you're in the schools now,'" says Wasley. "I'd like to see more of a link so that we have a coherent pathway into teaching."

This means making changes in the schools of education, the dean acknowledges. "We're redesigning our teacher preparation to focus on getting our candidates ready for the first two years of teaching," she explains, rather than trying to prepare them for a lifetime in the field.

By their third year, most teachers are comfortable with the routines of their job "and are ready to go deeper into subject areas. They're ready to master content and learn new ways to present it." That's the time to bring them back to the university for summer institutes and other forms of professional development that will help them build their repertoire of classroom skills, Wasley says. By the end of the fifth year, she expects, teachers who have been through the program should be ready to pursue certification by the National Board for Professional Teaching Standards "and see coherence in their profession."

Within the UW College of Education, this new approach to teacher preparation is getting nods of approval from the faculty. "We've known for a long time that induction has been a problem. We know that many new teachers have a hard time," Wasley says. "For our faculty, it's a relief to consider a different way to prepare teachers. They no longer have to try to cover it all in one year. We recognize that new teachers need extended preparation and support," she says.

It doesn't hurt that Wasley has been down this path before. At Bank Street College, she led the faculty through a comprehensive redesign of the teacher education program and built new school-university partnerships with school districts. Previously, she focused on school change as a senior researcher at the Coalition of Essential Schools and Annenberg Institute of School Reform at Brown University.

As the UW teacher preparation program evolves, Wasley hopes it has lasting value for educators. "We hope our alumni will cycle back to us" for the support they need at different stages of their professional development. "We want the university to be a place that prepares, sustains, and supports teachers through the life of their careers."

This year, for example, 10 first-year teachers are meeting regularly in a beginning career network, facilitated by Keiko Kawasaki who recently completed her master's degree at UW. "She gathers them as a group every couple weeks, and she also meets with them individually" to provide additional collegial support, Wasley explains.

The university can also play a key role in training mentors to work with new teachers. "We know from research that mentors need training to be successful," Wasley says. For starters, mentors need to know "what new teachers learned while they were here at the university, so that they can build on that knowledge," she says. "A mentor should be able to tell a new teacher: 'OK, I know you learned these two ways to teach reading while you were at the university. Let's work with those methods until you're comfortable using them in the classroom, then I'll show you something new to add.'" Mentoring that is infused with intellectual content becomes connected to professional development and goes well beyond "showing someone where the erasers are kept," Wasley says.

In her own career development, Wasley frequently returns to the classroom when she wants to master a new skill or try out a new approach for delivering instruction. Early in her career, she taught high school in rural Washington. "It's powerful," she says, to be back in a classroom. "It keeps me fresh. And it's good to remember how hard it is to teach—how wily kids are!" What she likes best is finding a public school teacher willing to take her on as a temporary classroom partner. "We can decide together what skills we want to add to our repertoire. Then we can coach each other." She hopes to be teaching ninth-grade English part time next year.

"Expanding the repertoire" is something all teachers need to do throughout their careers, Wasley believes, whether they work in the elementary grades or teach graduate students. "It's our professional responsibility." Without change, teachers fall into predictable patterns that fail to excite students about learning. "Kids figure out routines quickly. They need greater variation, and not just in the curriculum. I'm also talking about pedagogy and assessment. We need to switch it up on them, keep them fresh." The saddest scene in any classroom, says this veteran educator, "is when we don't ask enough of kids, when we don't push them, when we don't keep them on the edge of their seats."

—*Suzie Boss*

UNDER THE SAME SUN

RESEARCH SHOWS THAT WHEN TEACHER AND STUDENT SHARE BONDS OF CULTURE, LEARNING SOARS. IN ALASKAN VILLAGES LOCATED FAR FROM TRADITIONAL TEACHER PREP PROGRAMS, NEW RECRUITS WITH DEEP LOCAL ROOTS ARE TAKING AN INNOVATIVE ROUTE TO BECOMING TEACHERS.

Story and photos by
DENISE JARRETT WEEKS

KWETHLUK, Alaska—"We don't want you there. Get out," the Saudi man told the *Frontline* TV reporter, referring to the American troops stationed in his homeland since Desert Storm. I'd never heard it stated so baldly before, and it made me feel defensive and a little dense, like an expansive guest who's just discovered that everyone at the party thinks she's a lout.

I watched this television interview shortly after visiting a Yup'ik village school in Alaska, near the Bering Sea. The urgency of cross-cultural relations, disastrously apparent to all of us after September 11, had preoccupied my thoughts the day I strode down the rutted road from Kwethluk's dirt airstrip to its community school. I was there to learn about the interplay of Western and Alaska Native knowledge in the education of village youth. But, that day, I was particularly conscious of being a *kass'aq,* a white person with good but, perhaps, uninvited intentions.

I grew up in Anchorage, but this in no way educated me about the state's first people. So I felt privileged to walk through Kwethluk, casting my eyes over the mottled tundra with its lacework of Kuskokwim River tributaries and having the chance to talk with students, teachers, and village elders. I particularly wanted to talk with Dorothy Epchook.

Epchook grew up in Kwethluk and has been an associate teacher at the school for 10 years. She teaches Yup'ik Studies, instructing students in traditional skills and crafts and coaching them in the use of their native language. I wanted to talk to Epchook about the benefit to village students of having teachers who share their heritage. I'd heard that Alaska's rural schools import up to 85 percent of their teachers—mostly white—from other states, and that many don't stay beyond their first year. While the Lower Kuskokwim School District, which includes Kwethluk, hires the greatest number of Alaska Native teachers in the state, there are never enough.

I found Epchook in the library. We sat at a table near a row of Macintosh computers and a wall display of handmade fishnets. As she talked, her ready laughter dispelled my worry about being an unwelcome outsider, and, wanting to grasp every nuance of her meaning, I barely took my eyes off her. She sat back a moment and reminded me, kindly, that it was customary to lower one's gaze when another speaks. I had a hard time remembering this, but, no matter, she cheerfully talked about what I'd come to learn.

"I was raised speaking Yup'ik, but when I was 10 we moved to Egegik, and we lost it somehow. We were teenagers and wanted to be like everyone else, and the others didn't speak Yup'ik," she told me.

About 250 air miles south of Kwethluk, Egegik is on Alaska's peninsula and has had a history of white influence since 1818, unlike many villages in the Lower Kuskokwim region where whites moved in a century later. English is commonly spoken there. Epchook finished elementary school in Egegik, but, when it came time for high school, her options were distressing.

At that time, Alaska typically funded village schools only through the lower grades. Village students were sent to boarding schools for their high school years. Like others, Epchook faced these prospects: Quit school and stay in her own community, or attend a boarding school on the other side of the state or a Bureau of Indian Affairs high school in the Lower 48. She chose to stay in school and was assigned to the Chilocco Indian School in Oklahoma. It was 1969.

"I learned the word hatred, bigotry," she said. "In our culture there was no such thing. I was taught never to pass judgment on anybody. Grandfather always said, if you're under the same sun, we're the same."

monstrating how to use traditional Yup'ik
ls to make fish nets, Dorothy Epchook, an
ociate teacher in Kwethluk, teaches her
dents skills and values of village life.

REPP intern Willa Towarak (top) meets with her university partner, who will work closely with Towarak and her mentor teacher during the coming school year.

Students in rural Alaska win big when their teachers share their roots–or are willing to put down new roots in the community.

SHAPING DESTINIES

The civil rights movement of the 1960s fueled objections to the Indian boarding school system, but little changed for Alaska Natives until the 1976 "Molly Hootch" Alaska Supreme Court out-of-court settlement, in which the state agreed to provide a tax-supported high school in any village that wanted one—and nearly all did. This settlement, coupled with the 1971 Alaska Native Claims Settlement Act that established influential Native corporations, empowered Native communities to shape the educational destinies of their own young people. Schools were then expected to help village youth build a firm foundation in their heritage and language as part of preparing them for adulthood.

"I think it helps the students to have a Native teacher because they understand more about their culture," said Epchook, who relearned the Yup'ik language when she returned to Kwethluk as an adult, "and learning how to make things for survival. If anything should happen, they'll know how to survive anywhere and by any means. The [attack on the World Trade Center] towers made me think that I need to teach the kids how to survive, maybe without electricity."

She'd invited a village elder to come to the classroom the next day to show students how to make a *qalu,* a dip net for catching small white fish from the nearby Kuskokwim River.

"Every one of us is capable of teaching," she continued. "By sharing [my teaching responsibility] with elders, students can learn from the elders how to stand on their own two feet. They will understand by teamwork, by working as one, they can accomplish anything."

Epchook herself will be learning to make dip nets along with her students—how to use traditional finger measurements and where among the stands of reeds and grasses on the tundra one can find the special roots needed for the bindings. Teachers should foster an exchange of teaching and learning with their students, she said.

"It's OK to have a student teach you, and that way you'll see how much they've learned, and you can help them advance. I think being an excellent teacher you have to be, personally, humble. By being humble, by being very meek, students learn more from you, you learn more. If you let them know that you are a student, no matter what age, then you can go from there. And that's how our elders taught us. That way, you have respect and trust. Even a non-Native teacher can do that—work hard to learn the culture—if you're willing to.

A non-Native could be a teacher and a Native can help convey meaning to the students—it would be a working team."

Such teams are common in the Lower Kuskokwim School District, a 44,000-square-mile area encompassing about 23 villages. A quarter of the district's teaching staff is Alaska Native—about 65 teachers—and half of them are instructional aides who assist elementary teachers (requiring some college coursework) or teach Yup'ik culture and language (requiring village recognition of one's expertise and nomination by the local school board). While such partnering is valuable in these bilingual schools, the need to increase the number of fully certified Alaska Native teachers persists. Instructional aides can't teach core academic subjects such as mathematics and science, where the confluence of Western and Native knowledge is especially rich. While their classroom experience and cultural expertise help make them strong candidates for a teacher preparation program, living in rural Alaska presents formidable challenges to pursuing college degrees.

"Life here is very demanding," Epchook told me. It's easy to see what she means. A village lifestyle not only includes modern chores—jobs, bills, taxes, elections, and community meetings—it involves the traditional demands of subsistence fishing and hunting, extended family obligations, close living quarters, and geographic isolation and hardship. Phone and Internet service can be patchy, if available at all. There are no roads to these villages. All transportation is by small airplane or barge, skiff, or snowmobile up the Kuskokwim River from the Bering Sea.

These realities of village life make it difficult to leave to attend college in a city. While some Alaska colleges and universities offer distance-delivery courses leading to undergraduate degrees and teacher certification, an aide who is working full time in the classroom may need up to 10 to 15 years to complete her program.

"For me, I'm 50, I'm looking at maybe I should go back and get that degree," said Epchook, laughing wryly, "I keep taking [distance-delivery] courses, and I'm always at level 101. It's almost like a glitch in the computer: one-oh-one, one-oh-one, one-oh-one."

And so, the conundrum: To staff Alaska's schools with more Native teachers who are grounded in Western knowledge and Native tradition, prospective Native teachers frequently must leave their villages to get their college degrees. But this separates them from village life and the sources of tradition that help make them especially valuable as teachers.

PREPARING RURAL EDUCATORS

Since the "Molly Hootch" settlement, the state of Alaska has tried to provide Alaska Native students with teachers who can teach the curriculum in the context of Alaska's indigenous heritages. One strategy has been to prepare *all* teachers to teach in village schools. To be certified in the state, all prospective teachers must complete coursework in Alaska studies and multicultural education. As part of its reform measures, the state also introduced voluntary Standards for Culturally Responsive Schools, a document prepared by the Alaska Native Knowledge Network and approved by the Assembly of Alaska Native Educators.

But the ideal, most agree, is to increase the number of Alaska Native teachers, especially in schools serving a majority of Native students. Studies validate this. A recent study by the National Bureau of Economic Research demonstrated that students of color significantly improved in their math and reading achievement after having spent as little as one year with a same-race teacher.

The state has launched several programs over the years to help individuals from the villages earn teaching certificates. One of the latest is the Rural Educator Preparation Partnership (REPP), launched in 1996 by University of Alaska, Fairbanks, with funding from a half-million dollar federal grant. In the first year of the program, 11 of the 13 REPP interns who enrolled were Alaska Native. Today, very few of the 40 interns enrolled are Native. The reason for the reversal, said REPP Director John Weise, is the small number each year of Native students who complete undergraduate degrees, a requirement to qualify for the REPP program.

"We nearly depleted our qualified pool of Native applicants that first year," said Weise.

REPP is a "fifth-year," or post-baccalaureate, teacher preparation program that is aligned with the state's teaching standards. It enables students with undergraduate degrees in any major to earn their teaching certificates by working full time as interns in village schools, teaching side-by-side with regular classroom teachers who serve as their mentors. Both mentors and interns receive guidance from university faculty members. During the school year, interns teach, complete assigned readings, participate in audio seminars, write papers, and occasionally meet together at the university in

Fairbanks. Their portfolios are expected to reflect their mastery of theory, practice, and academic content, as well as a deep understanding of multicultural contexts and how to involve families and communities in the schools.

BRIDGING CULTURES

REPP Director John Weise grew up in Bethel, across the river from Kwethluk in the district's largest community with 5,500 residents. He is a tall, soft-spoken man with a ready sense of humor. A professor of education at UAF, Weise also has been a classroom teacher and district superintendent in rural Alaska communities. He remembers being a college freshman at UAF and flipping through the pages of the course catalog. To him, it was "like a supermarket" of tantalizing discoveries, and he wanted to pluck a course from every shelf. One class, Orientation to Education, required him and his classmates to help out for a couple of weeks in classrooms at Lathrop High School and Joy Elementary. The experience was a decisive one for Weise. "Something clicked, I guess, and I wanted to become a teacher," he said.

At the time, UAF offered a field-based teacher education program, the Alaska Rural Teacher Training Corps (ARTTC), in which students could earn teaching degrees while assisting teachers in rural schools. Weise chose to earn his teaching certificate through this program, and, in his final year, he went to Metlakatla, on the southernmost tip of Alaska's Panhandle. Mornings, he and a few fellow ARTTC students would study and discuss their coursework, and afternoons they would teach in classrooms at the local school.

The program, later called the Cross-Cultural Education Development Program (X-CED), graduated more than 200 Alaska Native teachers through the 1970s and 1980s. Students followed the same curriculum as campus-based students—general education, teaching methods, and a teaching practicum—but their instructors were UAF faculty field coordinators who traveled a regional circuit. Videotapes featuring lectures by other UAF faculty arrived weekly.

"I learned to be a teacher by teaching, reading, and looking at these tapes. I could read Piaget and then go the next day into my sixth-grade classroom and ask my students if the clock on the wall was alive or dead—then I'd go back and read that book again!" said Weise, poking fun at his first attempts to blend theory and practice. But he's very serious about the value of learning to teach while teaching, believing it can be better

Kwethluk teacher Beverly Chmielarczyk (at right) has made the village her home for several years, learning by living there to see where Native and Western knowledge intersect and how to infuse this into her instruction. When village students learn from both non-Native and Native teachers, they can look to these adults as role models for cross-cultural relationships and ideas.

preparation for the profession than traditional campus-based programs. He stresses, however, that any distance-delivery program must factor in human contact.

As a team, mentor teachers and interns work closely every day of a school year. This one-to-one relationship is an essential aspect of the program, said Weise. And if one of them is Alaska Native and the other non-Native, they have an opportunity to model for students how to work together and negotiate the intersection of Native and Western cultures, essential lessons for village youth. Even the most remote Alaska village has been deeply influenced by mainstream America, said Weise, whose own family includes Yup'ik and Norwegian ancestors.

"You tell me where I can live as only a one-race type person," Weise stated flatly. "You can't do it in Alaska." To help prepare students for productive and fulfilling adult lives—whether they choose to stay in their village communities or move elsewhere—they need role models, others who've successfully bridged the cultures, he said.

MENTORING AND ROLE MODELING

Sam Bailey and his wife Lana grew up in Unalakleet, on the shores of the Bering Sea. With an undergraduate degree in mathematics from University of Alaska, Anchorage, Sam earned his teaching certificate through the REPP program. Today, he teaches math and she is vice principal at Galena High School, on the Yukon River.

In some ways, Sam envies Lana, who received her teacher training from a traditional program at Pacific University in Oregon (although the REPP program supervised her student teaching practicum in Galena). He suspects he might have learned more about the nitty-gritty of teaching from formal coursework.

"You spend an entire year in the classroom" as a REPP intern, he said, "but I don't think you really understand all of it. You're at the mercy of your mentor teacher, and if they can't help with methods or how to present a lesson, you have to learn on your own. I never knew what to ask my mentor teacher."

Although the REPP program helped them earn their teaching certificates, Sam and Lana, who are Alaska Native, are ambivalent about creating special programs for prospective Native teachers. While the intent might be good, they worry about creating a two-tiered system in which Native teachers might receive inferior training.

"It's more important to have a good teacher than to have a lousy teacher who looks like you," said Sam.

But what if you have a *good* teacher who looks like you?

Willa Towarak Eckenweiler is a REPP intern in Unalakleet this year. For several weeks now, she's been working with a small group of first-graders on their reading skills at the same school she attended when she was a child. The youngsters are cute and eager, and they remind her of herself—at the very age when one of her teachers made a lasting impression.

"I had some Native teachers who were from the village, and I think about them, about how we were taught and how we used to enjoy listening to them," said Eckenweiler. "I have been thinking about my teacher I had in elementary school, who enjoyed telling us stories about hunting and Native games."

Today, Eckenweiler is married and the mother of two daughters. For the past 14 years, she's coached Unalakleet's Native Youth Olympics in which students compete for state

championships in such contests as the Alaskan high kick and the seal hop. Now, she is training to be a classroom teacher. It's easy to trace the line of influence back to the teacher who captivated her students with stories of Native life.

"We need to have role models to let the kids see that there are jobs to be had if they go and get their education," she said. "One way to keep our culture, values, and traditions alive is for local people to stay here and work in the village."

In fact, as Sam Bailey pointed out, Unalakleet is a village where "the professionals look like the community," meaning that Native people are among the physician's assistants, dentists, economic developers, airline managers, and other college-educated specialists.

"I have 11 brothers and sisters and . . . six got degrees from the university in Fairbanks. Education was a big deal in our house," said Eckenweiler. "I even have a niece who will be graduating from MIT [Massachusetts Institute of Technology]."

The credit must go to the parents in the village for having high expectations for their children, she said.

"It was really stressed that you really needed to go to school. Once that standard was set, where students went to college, then they came back and had kids and they expect a little more from their own children," she said.

Eckenweiler expects her own two daughters to follow suit, but there's another part of their lives that she wants them to embrace, too.

"I would like to see them earn a college degree *and* be able to remember their Native heritage," she said. "I think it's important not to lose our identity. Nowadays, it's so easy to get caught up in mainstream society and be just like everybody else. It's important to keep our own culture alive, our own identity, and be proud of it. So they will not be afraid to accomplish their goals."

TEACHING TO LEARN

For many, teaching students about their heritage becomes a personal journey in which they, too, discover the richness of their ancestry. "Teaching in your own language builds your self-esteem," said Nita Rearden, a specialist in Yup'ik Studies for the Lower Kuskokwim School District and an alum of the University of Alaska, Fairbanks, campus-based teacher preparation program. "You discover who you are, your ancestors, your values."

While much about village life has changed from the old ways, young people still need to nurture their roots, she said. "They adapt into another culture, but they still need their tools, their Yup'ik values. Those were already in existence before we ever had contact with white people."

In fact, ancestral ways of viewing and being in the world still exhibit a strong influence on village youth, and students are more apt to master Western knowledge if they also can apply their Native knowledge and skills and learn in the context of their environment and culture. "If we build where kids are, how much easier that would be," said Rearden.

Ray Barnhardt, education professor at University of Alaska, Fairbanks, and director of the Alaska Native Knowledge Network, agreed. "The extent to which instruction and curriculum are linked to students' language and cultural context, you reap all kinds of benefits," he said. Students' academic achievement rises—even on standardized tests—their motivation improves, and they're less likely to drop out of school, he said.

"If we accept that, then how do we do it? By developing curriculum and instructional strategies to engage students in the study of their place and their culture. But teachers need to know something about that place, its history, how they live their lives. So the next question is: Who's best equipped to do that?" he said.

A new non-Native teacher will need at least a couple of years to learn something about the village's culture and incorporate it effectively into classroom instruction, Barnhardt said. "And then they leave. But people who are from the villages, those people don't leave." Eighty-five percent of the 300 Alaska Native teachers who began teaching during the past 25 years are still out there teaching, he said.

"Those teachers are now senior staff, and they're beginning to influence their schools . . . leading the way for providing Native students with an education that's second to none. But we need the educational system to be supportive of what they have to offer," not only by developing curriculum and instructional models for integrating Native and Western knowledge, he said, but by recognizing the special attributes Alaska Native teachers bring to the classroom.

"There's often an expectation from principals that a quality teacher is bubbly and high-energy. Native teachers very seldom exhibit all of those qualities, yet their students outperform those who don't have a Native teacher," Barnhardt said.

Expecting those who live in the villages to leave their communities to attend campus-based teacher preparation programs, "like everyone else," is misguided, he said.

Their cultural expertise is often inextricably linked with being a part of the fabric of that community.

"Coming to a university in Fairbanks or Anchorage or wherever, you can become detached from your own community. In the four or five years it takes to complete your degree program, you have other experiences, and it's sometimes hard to come back to the village," he said. Programs such as REPP allow village residents to do their studies in the context of their community and language.

However, Rearden said, "I feel that it is important to mention to those who choose to complete their college degree, it is OK to do so on campus, and they do not need to stay in a village. You can always regain any Native knowledge when you return to your village or in other villages, but I really think colleges should include Alaskan Studies to make the learning on campuses interesting, relevant, and to be aware of the importance of learning our own language."

But distance-delivery programs are neither easier nor a shortcut to a teaching career, said Barnhardt. "I find the students in the distance-education program more motivated, more mature, and less concerned about grades. They're grappling with real-world issues out there. They're going to be going into the classroom the next day and trying to put into use those ideas and strategies they're learning about."

LEARNING THE ROPES

In the Kwethluk school library that day, Dorothy Epchook taught me, just as she teaches her students every year, how to make a fishnet for catching salmon. She brought out a finished net, maybe 12 feet long. It was rolled neatly, and the layers of thin nylon cord gave it a silky sage-colored appearance, like a bound lock of hair from a beautiful giant. She showed me how she grades the students' handiwork, pointing to the tight knots of nylon cord that should align perfectly when the net is rolled up.

"They must line up, like this," she said, running her finger across each straight row. "Here, I will show you how to make a net."

I was nervous, afraid I'd prove to be a slow learner. She said, "Everyone can learn. This is how I teach my students."

From a large plastic bag she pulled out nylon cord, rope, hand-tooled wood blocks, and net-weaving tools.

"These are made by the students," she said, showing me a wooden square block measuring *patneq,* or a width of four fingers. We sat on the floor of the library. She tied one end of the nylon to the leg of a chair, let out a length of cord, and wrapped the other end around the wooden block, crossing over and under, and knotting it in such a way as to create the first square in the mesh.

"Do you see?" she asked me. "Here, I will do it again."

I watched intently, wanting to be able to replicate her movements exactly. She handed me the spool and said, "Now you do it." I tossed the cord around the wood block. "No," she said, "like this. Let me show you again." On my next try, I worked the nylon cord around the block of wood as she had, knotting it snugly. "Very tight," she said. "Make sure it is very tight. Good! You did it!" She praised me, and I laughed with her, proud of my little triumph.

"Now do another one," she said, firm in her desire to see me make perfect knots that would align in an elegant row. Afterward, we cleaned up—she, insisting that I keep my little net and keep practicing—and I noticed that I felt good, valuable, and worthy. And this, of course, must be how she makes her students feel.

That afternoon, Epchook walked with me back down the dirt road to the airstrip. She continued to teach me all along the way—the medicinal uses for the wormwood that grew beside the road, the historical value of an age-old sweat house. When we came to the end of the road, I asked her how to say goodbye in Yup'ik, and she said there is no such word. Instead, Yup'ik people say, *tua-i-ngunrituq,* it's not the end. I practiced the word, and she praised me loudly: "You've got it! You've got it!"

Then my plane taxied up, and we parted. I called back to her, *"Tua-i-ngunrituq!"* and, without thinking added, "Bye!"

"No!" she hollered back, "There's no goodbye!"

I hoped she was right. □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MR. FISHER FINDS HIS CALLING

IN A FOURTH-GRADE CLASSROOM, A NEW TEACHER GRAPPLES WITH HIS STUDENTS' DIVERSE LEARNING NEEDS, INADEQUATE TEXTBOOKS, AND THE ISOLATION THAT COMES WITH BEING A ROOKIE. CAN HE BECOME THE TEACHER HE WANTS TO BE?

Story and photos by SUZIE BOSS

ESTACADA, Oregon—At 6:45 a.m. on the day after Labor Day, Sam Fisher enters the doors of River Mill Elementary School and walks to a classroom located at the far end of a long hallway. His fourth-graders won't join him here for another two hours and 20 minutes, but he wants to be ready. The week before, he came in to set up bulletin boards, arrange desks, and meet his fellow teachers. A few of them rolled their eyes and wished him luck with "that bubble" of fourth-graders he's been assigned. He shrugged off the warnings, eager to start the year with hope as his only prejudice. Outside his classroom, he has posted a construction paper sign that reads, "Welcome to Mr. Fisher's School." There are 24 little fishes—one for each student—swimming toward a schoolhouse.

At 9:05 a.m., when the students enter the room, they are quieter than he expected. He settles them onto the carpeted corner of the room for a get-acquainted game. Shyly at first, they size him up. They notice that he is bearded but has shaved his head so he looks bald as a cue ball. He wears shoes with the heels missing and tie-dyed socks. One student asks why he wears those hoop earrings. Doesn't he know that guys wear studs? When he smiles in response, 24 grins come back at him. He tells them that he and his brother grew up in Estacada, too. They play a name game, filling in the blanks in the sentence: "I'm _____ and I like _____." At the end, he manages to go back around the circle, showing that he knows all their names and something special about each person.

The next day, the school counselor tells him that a boy who had a rough go of it last year is excited to be assigned to this classroom. "I think Mr. Fisher is interested in me," the boy confided. Hearing this, Sam Fisher grabs for his heart.

His teaching career has begun.

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WHAT EVERY STUDENT CRAVES: UNDIVIDED ATTENTION.

In classrooms all over the country, about 100,000 new teachers are launching their careers this school year. They are among the most closely observed rookies in history, as researchers search for effective ways to support newcomers and stem the looming teacher shortage. Half of those who started teaching in September are expected to leave the field within five years. Why do some stay? What makes others leave? And how do the inevitable bumps of their first year affect the learning of students entrusted to their classrooms? For a new teacher like Sam Fisher, the school year opens with more questions than answers. Has he made the right choice? Is he up to the task? Can he be everything he hopes to be? He and his 24 students will discover the answers together as the school year unfolds.

At 30, Fisher is a little older, and perhaps a little wiser, than the typical rookie. Although he grew up in a family of educators, he didn't head into the field directly after college. "Money was important to me for a while," he admits. After earning degrees in business and theater from Lewis & Clark College in Portland, he worked in sales in Seattle and then moved to San Francisco, hoping to combine his passion for music with business opportunities in technology. That bubble burst around the time a first marriage failed, and he came home to Oregon to regroup.

Estacada is the kind of place that made the Westward Migration worth the walk. Located on the banks of the Clackamas River and in the shadow of Mt. Hood, it's a classic timber town of about 2,000, 45 miles from Portland. Fisher's great-great grandfather homesteaded here in the 1860s along a spur of the Oregon Trail, and members of his extended family still own 700 acres of forests and fields. From the living room of the house his parents built when he was 10, Fisher can see a patchwork of green rolling toward the horizon. Every stick and stone within sight belongs to someone in his family.

For all its splendor, Estacada has seen hard times in recent decades, with a rural poverty rate pushed upward by mill closures. When Fisher was in sixth grade and again during his junior year of high school, Estacada made headlines for having to close its schools because tax levies had failed. Today, the state has a safety net to prevent such school closures, but Estacadans are still debating how to build a more stable economic base for their town.

For Fisher, especially, Estacada holds a melancholy beauty. In 1998, he spent what he remembers as "a perfect day" here with his parents, enjoying the sweet, simple pleasure of being in each other's company. A day later, his mother and father were killed in a car accident. Suddenly, everywhere he looked he could see their footprints—at the house they designed to have no right angles, at the historic community church where the family has gathered for generations, in the garden they tended during long summer vacations. His mother taught high school German in Portland; his father was a school psychologist in Vancouver, Washington.

After some soul-searching, Fisher decided to steer his own career toward the familiar waters of education. "I took some time first," he says, "to make sure I was deciding to go into teaching for the right reasons." He re-enrolled at Lewis & Clark College. But as the old saying goes, you can never step into the same river twice. This time around, he was a graduate student in education, pursuing a master's degree in teaching. During the 15 months of that rigorous program, he somehow found time for love. His new wife and her two young sons joined him at the Fisher family home, which began to feel wonderfully full again. When he heard the boys' voices echoing from the loft, he couldn't help but smile. This was a house made for child's play.

When it came time to look for a teaching job, Fisher set his sights on Estacada. During the summer before the 2000–2001 school year, the principal at River Mill called to invite him for an interview. Fisher recognized the name: Larry Adamson had been his pre-calculus teacher at Estacada High School. Fisher was excited by his summer interview. It involved not only the principal, but also a team of teach-

A BEGINNER'S BOOKSHELF

Which books offer the advice and inspiration a first-year teacher needs? Here are a handful that Sam Fisher found helpful as he navigated his rookie year of teaching in a fourth-grade classroom.

- ***Tribes:*** *A New Way of Learning and Being Together* by Jeanne Gibbs. Fisher relied on this classic guide to building a learning community to get the school year off to a positive start. Gibbs draws on more than 20 years of experience to outline a process for building collaboration, cooperative problem solving, and inclusion in the classroom.
- ***Comprehensive Classroom Management:*** *Creating Communities of Support and Solving Problems* by Vernon F. Jones and Louise S. Jones. Fisher credits this book with helping him build a strong foundation for managing his classroom and dealing fairly with behavioral challenges.
- ***Mosaic of Thought:*** *Teaching Comprehension in a Reader's Workshop* by Ellin Oliver Keene and Susan Zimmerman. Fisher first encountered this book in graduate school and found it worth another look as he sought to help students of diverse abilities become more proficient and enthusiastic readers.
- ***Craft Lessons:*** *Teaching Writing K–8* by Ralph Fletcher and Joann Portalupi. Fisher turned to these authors to help make his writing workshops more successful. He liked the book for its discussion of concepts as well as its practical ideas and mini-lessons.

ers. What's more, the principal had arranged for five students to come in so that Fisher could demonstrate his classroom skills. "It felt friendly," he recalls. When Adamson showed him around the building, Fisher discovered that his classroom would be right next door to the music room—where the same teacher who taught him when he was in elementary school is teaching a new generation of children to love music.

To be honest, Fisher doesn't remember much about his own fourth-grade year. "I remember the relationships, but not what I learned in history or science." He knows that standards have become substantially more important since he was a kid, but he hopes there's room to help kids reach benchmarks and also master social skills. "A lot of school is about how to relate," he says. "If these kids can function as human beings, they can learn to do anything."

* * *

A month into the school year, Fisher stands before his class, textbook open to a unit on earth science. The book describes an experiment in which students are supposed to mimic erosion by dripping water onto sand. It isn't working. Sand doesn't behave the same way that soil does. The teacher detects another problem. During his year of student teaching, Fisher worked alongside a skillful veteran who used the inquiry method to teach science. He remembers the look in her students' eyes when they were engaged in investigations that answered their own authentic questions about the world. He looks up now and sees vacant stares heading for the windows. He snaps his book shut and asks the class, "Is it just me, or is this boring?"

That gets their attention.

"Tomorrow," he promises, "we'll start a new unit."

Then he asks the class to suggest ways that the Earth changes. That's the larger lesson that fourth-graders are supposed to master in science. What do they wonder about? What intrigues them? In the lively discussion that ensues, several students bring up questions about volcanoes. Fisher feels his own curiosity heating up. "Tomorrow," he promises, "we'll start on volcanoes."

A promise made to 24 students means that a rookie teacher will be

See FISHER, *Page 36*

STUDENT HIGHLIGHTS: SINGING THE ELECTRICITY SONG, WRITING GHOST STORIES.


JOHN BALL ELEMENTARY

PIPELINE TO TOMORROW

NONTRADITIONAL TEACHER CANDIDATES OFTEN MUST MAKE HERCULEAN EFFORTS AND FINANCIAL SACRIFICES TO PREPARE FOR NEW CAREERS IN THE CLASSROOM. A MODEL PROGRAM HELPS SMOOTH THE WAY.

Story by LEE SHERMAN
Photos by MOUNT BURNS

PORTLAND, Oregon—A trio of third-graders files solemnly into the office that Lemil Speed shares with another teacher at Ball Elementary School. Two little girls, neatly coiffed in pigtails and cornrows, and a very small boy, as serious as a diplomat on a dangerous mission, line up before him. It's impossible to miss the respect in their wide eyes as they wait for Mr. Speed to speak.

You'd expect this powerfully built man (who looks more like a former football player than the ex-banker he is) to talk in the booming tones of a coach. But as he leans toward their expectant faces, his voice is softly reassuring, quietly encouraging. With congratulations for their good work and a gentle admonition to keep it up, Speed awards daily stickers to the threesome before sending them back to class.

As you follow Speed around this struggling inner-city school, as you watch him teach a writing lesson, pinch-hit for the principal, or mentor another teacher on meeting benchmarks, you'd think he'd been an educator forever. But teaching is a second career for this 56-year-old who grew up in an all-black community in the segregated South. After a long stint in the Air Force, a couple of years at McDonald's, and then a solid banking career that included being affirmative action officer for First Interstate, Speed found himself out of work during the recession of the 1980s. It was then that someone told him about the Portland Teachers Program. And it was there that he found his calling. Now in his seventh year of teaching, he says of the profession: "I don't see myself doing anything else."

For 13 years, the Portland Teachers Program has been redirecting the talents and ambitions of people like Lemil Speed toward the classroom. A public school-university partnership that recruits and supports minority teacher candidates throughout their professional training, the program serves students ranging in age from 18 to 55. The average age is 29. These nontraditional students are, in the words of PTP Director Deborah Cochrane, "entrenched in reality."

"We tend not to take the kinds of people who have stars in their eyes," says Cochrane, who runs the program almost single-handedly out of the northeast Portland campus of one of the program's sponsors, Portland Community College (PCC). Many of the 65 current students are parents themselves; many have steered their own kids through Portland Public Schools, another PTP partner. Virtually all have had some first-hand experience working with kids, lots of them as paraeducators. The program waives full-time tuition at PCC for two years, and then at Portland State University for upper-division and School of Education graduate requirements. But students are on their own to pay bills and buy groceries throughout the five-year program. Most must make a Herculean effort to support themselves and their families.

"These are amazing people," says Cochrane, who herself grew up with hardship as a child of rural poverty. "I was talking to one of my graduate students last night, and she waits till her kids are in bed to do *enormous* amounts of homework after student teaching all day and taking courses in the late afternoon and early evening."

Lemil Speed is no exception to this characterization. He and his wife tried to scrape by on her income and keep up with child support payments to his former spouse. But when the budget wouldn't stretch anymore, he took a $6-an-hour job at the Expo Center as a laborer.

His keystone through the five-year grind was PTP. When the going got rough, he and his fellow students found comfort in the comradeship of others with a similar struggle and shared goals. Equally important was Cochrane herself. By all accounts, she is infi-

nitely more than an administrator. Her role includes mentor, counselor, confidant, and, now and then, mother. For her students, she provides encouragement, problem solving, advocacy, and guidance.

"There were a lot of people who helped me along the way," says Speed, "but Deborah was the one who was always there, always checking in. To me, she *is* the Portland Teachers Program."

Speed's career has taken off. Last year, he was recruited for a new position at Ball—instructional specialist—created to assist teachers in a districtwide push to raise academic standards at struggling schools. And he has been accepted into a competitive principal preparation program sponsored by the district.

NUMEROUS INITIATIVES

PTP is one of the oldest of a number of programs throughout the Northwest designed to pull nontraditional candidates into the teacher-preparation pipeline (see sidebar, Page 28). The need for new teachers over the next decade is critical. The need for minority teachers who reflect the growing diversity of America's student population is perhaps even more acute.

In Oregon, for example, minority students make up almost 20 percent of public school enrollment. Yet, minority teachers, including administrators, account for only 4 percent of faculty employed by school districts and education service districts, according to the *Minority Teacher Report: A Ten-Year Perspective* prepared by the Oregon University System and the Governor's Office of Education and Workforce Policy and presented to the legislature in February 2001. The report describes progress on Oregon's Minority Teacher Act of 1991, which called for equalizing the proportion of nonwhite teachers and the proportion of nonwhite students.

The act mandated that the Board of Higher Education require each public teacher education program to prepare a plan with specific goals, strategies, and deadlines for recruitment, admission, retention, and graduation of minority teachers. The numbers show, however, that 10 years later, the gap remains. Reasons cited in the report include sluggish school employment due to scarce resources and teaching's low salaries and prestige relative to other professions. Also, the legislature's mandate had no funds attached, and it coincided with the devastating impact of Oregon's property tax-limitation Measure 5.

But the picture is not all bleak. "In spite of resource scarcities," the report notes, "numerous initiatives have been instituted over the past decade to attempt to address the shortage of minority educators, particularly teachers, in Oregon schools." One such initiative was the November 1997 meeting, Diversifying the Teacher Workforce in the Northwest, sponsored by the Northwest Regional Educational Laboratory. According to the report, the Oregon group formed a planning team that developed a "multistep plan" that included: (1) coordinated, statewide commitment and action; (2) multiple, targeted strategies among the key stakeholder groups; (3) statewide policy direction from the top; and (4) specific projects and initiatives with the highest priority on paraprofessional career-ladder programs, professional development of the current workforce, and a statewide Oregon diversity teacher program. That program, the group said, should be modeled on the Portland Teachers Program.

Over its lifetime, PTP has turned out 70 graduates, most of whom have gone to work in the increasingly diverse Portland School District. But it's not just the numbers that make the program an attractive model for others to follow—it's the quality behind the numbers. Cochrane is careful to point out that the program is selective and committed to turning out *good* teachers, not just minority teachers. "The PTP really pushes excellence—that's Number One," she says. "We expect that all the teachers who come out of the program will be exceptional teachers."

PTP students must keep their grades up and attend seminars, colloquia, and other special activities in addition to their formal coursework. Although students sign a contract promising to apply to teach in Portland, and if hired, to stay for at least three years, a job with the district is not guaranteed. "We want Portland Public Schools to hire them because they're the best person for the job," Cochrane explains, "*not* because they're African American, *not* because they're Native American, *not* because they're Latino or Asian American."

FOLLOWING HER HEART

Takiyah Williams grew up on the

West Indies island of Trinidad off the Venezuelan coast. The diverse people who populate this former British colony speak English, though their lineage spans the planet, particularly Africa, India, China, and Syria. When the islanders speak, consonants are soft and languid. Williams' voice as she teaches carries a melodious lilt hinting of rain forests and azure surf lapping at trackless sand. From the birthplace of calypso and steel drum, she also brings a love of music.

If you observe Williams at work with her first-graders at Faubian Elementary School, you're likely to be invited to join a joyous march around the room before recess to "The Marching Song" on a tape called *Run, Jump, Skip, and Sing*. You'll hear 20 tiny voices singing the days of the week in Spanish and see 20 tiny bodies gyrating to silly rhyming songs such as "My Dog Dingo" or "Luckless Lucy," created to teach letter sounds. And you'll see students smoothly transition from one activity to another at the cueing of a soothing Celtic tune.

"Music and the arts are really big for me," says Williams, lamenting that districtwide budget cuts have whittled most visual and performing arts programs down to bare bones.

Williams perfectly reflects the program's emphasis on excellence. "Principals fight over her," Cochrane reveals. Like so many PTP students, Williams started out in another field. For her it was business administration and computer applications, which she studied at City University of New York while living with relatives and earning money by babysitting, walking dogs, and any other flexible work she could find. The child of an impoverished family who was the first to finish college, Williams was initially motivated by the promise of a fat salary that could help lift her and her loved ones into the middle class. She managed a Wendy's fast-food restaurant in New York for a while, worked for the provost at CUNY, and then moved to Atlanta where she worked in human resources at MCI. The money was good, but she felt no passion for the work. "It just wasn't my thing," she recalls.

Determined to seek a career in teaching, she loaded her kids, then two and six, into the car and headed to Portland, where she has family. To save money on food for the

RECRUITING TEACHERS OF COLOR

"A student today could go through 12 years of education without ever seeing a teacher of color," Mildred Hudson of Recruiting New Teachers told the National Education Association in May. In its newsletter, *NEA Today*, the teacher union points out that nationwide, one-third of public school students are minorities, yet only 13 percent of the teaching force are minority educators. Fully 40 percent of schools have no minority teachers at all.

To address this discrepancy, educators in the Northwest are employing a variety of strategies to bring more minorities into the teaching profession and keep them there. Here is a sampling:

Bilingual Teachers Pathway Program—This Portland State University program is designed for bilingual and bicultural educational assistants who want to become licensed teachers. In partnership with four area community colleges and 20 local school districts, the program recruits paraprofessionals for a seamless program of coursework and field experience. With the support of Title VII dollars, the program will create a teacher licensure and degree program with an English-as-a-second-language endorsement, as well as providing individualized advising, assessment, student services, financial support, mentors, and community building. For more information, call (503) 725-4704.

Montana Systemic Teacher Excellence Preparation (STEP) Program—A National Science Foundation–funded project, the STEP Program was designed to smooth the pathway between the state's seven tribal colleges and campuses with teacher preparation programs, according to Professor Elisabeth Swanson, Director of the Science and Math Resource Center at Montana State University, Bozeman. To attract more Native American students to the teaching profession, particularly in math and science, the program has held a series of summer institutes to bring faculties together to reform math, science, and education curricula. They have also worked on ways to attract and retain minority students. Because "there can be more students in one introductory course at the university than in an entire town on the reservation," Swanson says, many Native students find four-year colleges "daunting" and "scary." So the program has organized "bridge" institutes to provide cohorts of tribal students with math and science coursework and experience in campus life within a supportive structure. For more information, call (406) 994-5952.

Alaska Recruitment and Retention Project—To keep new teachers in the classroom and address a severe shortage of teachers in Alaska's isolated villages, a $2.5 million U.S. Department of Education grant is funding a variety of activities delivered through school districts and service providers, says Eric Madsen, project director. One strategy is providing trained mentors and extra inservice days for all new teachers. A rural practicum for preservice teachers gives novices a "realistic picture of teaching in the bush—that it isn't 'neat and romantic' as some people imagine," says Madsen. Other incentives aimed at retaining teachers in the bush include improving teacher housing by providing, for example, new carpeting and insulation, and paying for professional development expenses. The other piece is providing better "connectivity" to ease isolation—that is, reliable phone, Internet, and e-mail services, according to Madsen. For more information, call (907) 465-2970.

seven-day drive, she bought a one-burner hot plate and cooked oatmeal, eggs, and rice in rest stops and supermarket parking lots along the way.

It wasn't long before she heard about PTP, but the application deadline was tight. With no typewriter or computer, she was frantically trying to finish the application on the bus just hours before the deadline. She flew off the bus, ran to the PTP office, squeezed herself into the crowded office, and begged to use the computer.

Cochrane says this kind of intensity is the norm for her students.

"I really feel passionate about the commitment level of my students—they really *want* to be here," she says from her office as she juggles a constantly jangling phone and a steady flow of students dropping in for a minute of her time. "When you ask them, 'Why do you want to be a teacher?' they say things like, 'I want to make a difference for someone like me,' or 'My kids are in public school, and I don't like what I see—I want to change it.' The career-change people say, 'This wasn't satisfying to me,' or 'I realized money's not important,' or 'I want to do something meaningful.' A lot of it is just wanting to give back to the community—somebody made a difference in *their* life, and they want to pass that on."

ROLE MODELS FOR ALL

Bud Mackay's ancestry is a blend of European and American Indian. Although his dad came from the Ute tribe (from which his home state of Utah got its name), he was raised by his mom and stepfather off the reservation. In the small town of Vernal, Mackay stood out.

"Nary did I ever have a teacher of color as a role model," he recalls. "It was not uncommon for me to be called 'nigger' as a child. I was the closest thing to black that they had in our district. It was painful and hurtful."

It was partly to spare other children the experience of being "negated" that he decided to pursue teaching after his used-car dealership failed during an economic downturn. He landed a job at Clark Elementary School, where he teaches ESL behind the scarlet curtains of a stage converted to a classroom. "I think it's very important that we have teachers of color in the classroom," he says. He felt validated the very moment he met Cochrane. "She gave me this feeling that 'you may have been negated then, but you're not going to be anymore.'"

Cochrane offers several reasons that kids should have teachers who represent all groups in the nation's multiethnic mix. First and most obvious, she says, children of color need role models who "look like they do." They need to see that "they, too, could achieve a position of authority and power—the power to pass on knowledge. They need to know that they can accomplish things, that they can go to college and get a degree and be a professional."

Second, she says, kids need teachers who are connected to their culture, teachers who "understand the cultural implications of learning, understand different learning styles, understand family dynamics and incorporate that into the curriculum."

Third, says Cochrane, these teachers can bring cultural insights into the school as a whole, sharing their perspective with other teachers and with administrators. And, finally, minority teachers are important role models for kids who *don't* look like them, as well.

"On a larger scale, long term, what you really hope is that having more diversity in the teaching workforce will have some impact on racism in this society," she says. "If children—all children—learn from a diversity of cultural and ethnic perspectives, then they grow up with a whole different view of reality." □

Tracy Williams (left), mentoring coordinator, and Margaret Yount, president of the teacher's union, display the district's Distinguished Winners award.

WALLA WALLA'S MENTORING PROGRAM HELPS NEOPHYTES TRIUMPH OVER THE CHALLENGES OF TEACHING

STORY & PHOTOS BY JOYCE RIHA LINK

WALLA WALLA, Washington—Amidst the arid bunchgrass and sagebrush plateaus of southeastern Washington winds a verdant river valley, steeped in history. The Walla Walla, Nez Perce, Cayuse, and Umatilla tribes once roamed this valley and fished in its rivers and streams. Lewis and Clark passed through during their legendary westward journey in 1805 and traded goods with the Native Americans. Not long after, the settlement of "many waters"—Walla Walla—was established as a fort and trading post, while the neighboring Whitman Mission became home to one of the region's first schoolhouses.

Evidence documents that this school's early teachers faced monumental challenges: the harshness of frontier life, for starters, plus the charge of teaching "reading and writing" and "the rudiments of agriculture" to the Cayuse and Walla Walla Indians, alongside the settlers' children. Unfortunately for one Judge Saunders, these challenges were augmented by a particular incident involving flying tomahawks when a dispute broke out between the mission's founder and a small band of Cayuse, ending the career of a promising young schoolteacher caught in the crossfire.

Although today's education challenges are decidedly different, they are no less formidable to new teachers saddled with enormous responsibility and often dodging the latest crossfire in the public education arena. It's no surprise that, without proper support, nearly a third of new teachers abandon the profession within the first three years and as many of half are gone within five.

But history is not repeating itself in Walla Walla where an award-winning teacher mentoring program has managed to boost the new teacher retention rate to 93 percent in the five years since the program has gone districtwide.

"It started out as a real grassroots effort," says Tracy Williams, mentoring coordinator for the district. Williams recounts her own experience as a first-year teacher in Walla Walla nearly 20 years ago, when she was one of 15 new teachers on a staff of 26. "We were lost," she says. "We'd stand around the copy machine and say, 'What are *you* going to do?' 'What are *you* going to do?' And we just tried to figure out how to teach on our own. So I was really committed to the fact that people who are new to the profession of teaching need some guidance and peer support."

About 15 years ago, Williams reports, the program started as "a voluntary, after-school kind of thing." Williams and others in the district took it upon themselves to take new teachers under their wings and tried to find ways to plan helpful workshops. "It was hit and miss," Williams says, "until, about seven years ago, we applied for a pilot grant from the state of Washington and got the resources to make it more formal."

Today the program is a finely coordinated effort carried out by the Walla Walla School District and the Walla Walla Valley Education Association. Working as a team, a school principal, the mentor coordinator, the local education association president, and an assistant superintendent pair up veteran educators with teachers who are either new to teaching or new to the district. In addition, the team provides training and ongoing support throughout the year to ensure success.

This collaborative process was recently recognized when the Walla Walla Mentoring Program was one of six programs across the country selected as Distinguished Winners in the 2001 National Education Association/Saturn/United Auto Workers Partnership Award for Teacher Mentoring Programs. Recipients were honored for their use of strong union-management partnerships to create outstanding mentoring programs for new teachers.

Current funding for the program comes primarily from Washington's Teacher Assistance Program (TAP), which provides approximately $1,400 per new teacher as long as the school district meets certain training criteria. This money is split between stipends for mentors and new teachers, and release time for participants to engage in classroom observations. The district provides additional financial support, funding the district coordinator's salary and footing the bill for training and materials.

JOINING THE RANKS

This year, Walla Walla has 21 first-year teachers and 19 new-to-district teachers in the program. All 40 have a mentor.

Some even have two.

Each new teacher is assigned a "peer coach" and a "peer mentor." The peer coach is a veteran teacher who has taught the same or similar curriculum and can help the neophyte "develop a yearlong plan with the curriculum that they're actually going to teach," Williams explains. The focus is on the "what" of teaching, addressing specific course content. The peer mentor focuses on pedagogy, the "how" of teaching, with an emphasis on

issues of performance and classroom management. When possible, one person fills both roles. When this isn't possible—for instance, when there is no "job-alike" in the building—two separate veterans are assigned the roles of peer coach and peer mentor. In these cases, the peer mentor will most likely be a veteran within the same building, while the peer coach may be from elsewhere in the district.

These pairings are monitored and adjusted when necessary. Today, for example, Williams and Margaret Yount, president of the teachers' union, are discussing changes. In one instance, they've decided to assign a new peer mentor to one of their new-to-district teachers, a 40-year-old veteran who may relate better to a contemporary than to the 22-year-old teacher originally recommended by the principal because of a similar job assignment. In another case, Williams and Yount discuss alternatives for a mentor who both think may be "overbearing."

"We want new teachers to succeed," says Yount, "because when teachers don't succeed, then you have plans for improvement and probation, and then a teacher is ushered out of teaching. Nobody wins. It's much better to train them, get them the right mentor in the beginning so that they're successful teachers."

But even with this thoughtful attention to matchmaking, mentoring goes far beyond the simple pairing of veterans and neophytes. According to research, programs that do little else than assign mentors inevitably fail. Training and ongoing support are essential elements of a successful induction program.

TRAINING THE JEDI KNIGHTS

Like the valley's early inhabitants, Williams—the key figure in the development of Walla Walla's mentoring program—has demonstrated great resourcefulness. Elements of the program are based on a California teacher-training model developed by education researchers Ann Morey and Diane Murphy. Williams also utilizes references on instructional strategies and classroom management, notably work by Harry Wong. Additionally, Williams pulls useful information from any promising piece of research or tool she can get her hands on. This includes books, journal articles, Web sites, and even the odd movie classic when the situation calls for it.

"In training, I talk a lot about the qualities of a peer coach, the qualities of being a good mentor," Williams says. In short, she tells mentors to follow in the path of one wrinkly space gnome named Yoda. "Yoda doesn't tell," she counsels veteran teachers, reminding them of the wisdom exhibited by the *Star Wars* character. "He just asks questions and guides. Yoda doesn't see himself as superior. He doesn't come with all the march music and the regalia and the fanfare. He comes in the mud, with questions. He pulls it out of Luke Skywalker. He says, 'It's in you. You have the ability to do this,' and he helps Luke pull it out. And he's always there in Luke's head—his words echo. That concept works for me. The people who were my mentors—their words echo in my head. And you can't get rid of those, the little gems of advice."

Training also addresses how mentors can avoid common communication barriers with those under their tutelage. Most find it obvious that they should avoid criticizing, preaching at, or threatening their wards. But some are surprised to learn that general praise, reassurance, or diversion can shut down communication. "Too much praise can shut down a teacher from asking questions," Williams observes. "They'll say, 'Well, I'm supposed to be really good at this,' and so they don't ask questions."

District Elementary Science Coordinator Peggy Willcuts reflects on her first-year assignment, many years ago, as a fifth-grade teacher teamed with two very experienced male instructors. "I didn't want them to think I was this stupid, young, inexperienced little thing. So I kept to myself." Willcuts had questions about basic procedures for lunch and recess and how to deal with behavioral issues, but she kept quiet. "You know, sometimes, it's the really dumb questions that you need to ask. But you don't have anybody who's supposed to answer those, so you decide you're not going to ask and you hope, somehow, you're going to assimilate the information just by observing."

Many veteran teachers remember contracting strains of Emperor's New Clothes Syndrome, where they felt they couldn't let others see what they didn't know. That's why Williams provides tutorials for new teachers, including curriculum scavenger hunts and how-to lists for basic procedures. It's also why, at a training session with administrators and mentors, she promotes discussion of the "unwritten rules" of each school's environment and encourages mentors to share these insider tips with new arrivals.

LEARNING TO JOUST

Cindy Nass, a veteran at Prospect Point Elementary, says Williams "put us empathetically back in the shoes of being a first-year teacher again."

BUILDING A BETTER SUPPORT SYSTEM

Before a new doctor ever touches a scalpel, she watches at the elbow of an experienced surgeon. Before a rookie lawyer argues his first case, he typically sits "second chair," assisting a more seasoned colleague. Even a rookie baseball player usually has to work his way up through the minors to debut in The Show. But new teachers? They're expected to shoulder all the responsibilities of classroom veterans, starting on day one. Worse, rookies often inherit the most challenging assignments in schools where teachers come and go as if by revolving door. Words of encouragement or advice from a veteran colleague can make a huge difference as rookies grapple with classroom management, lesson plans, and school procedures.

But in the hectic first weeks of school, "it can be easy to overlook new teachers or assume that somebody else is keeping an eye out for them," acknowledge Cori Brewster and Jennifer Railsback, authors of *Supporting Beginning Teachers: How Administrators, Teachers, and Policymakers Can Help New Teachers Succeed*, a new publication in NWREL's By Request series. *Supporting Beginning Teachers* outlines strategies that promise to improve the induction of new teachers so that they—and their students—get off to a better start. The authors outline three models that are finding more widespread use: formal induction programs, teacher mentoring programs, and school-university collaborations. Any of the models can be developed within a single school, across a district, or at the state level. But all of them require planning and the commitment of resources and time.

Formal teacher induction programs seek to introduce beginners to teaching methods and school policies, as well as to the "culture of teaching," the authors explain. Elements may include orientation; individual plans for growth and development; ongoing seminars; regular opportunities to observe and be observed by other teachers; opportunities to team teach with a more experienced colleague; action research; modified teaching schedules in which newcomers receive smaller loads, fewer preps, less difficult classes than teachers with more experience, or release time for professional development.

Teacher mentoring programs pair a novice teacher with a veteran or a team of veterans. Well-designed mentoring goes far beyond pep talks, and aims at maximizing the new teacher's effectiveness in the classroom. *Supporting New Teachers* underscores the importance of training mentors in order for such programs to be effective. Good programs take care to match new teachers with mentors who share such bonds as similar subject areas, grade levels, or teaching philosophies. In addition, the booklet points out, mentoring should not be tied to evaluation, and mentors should not be seen as "stand-ins" for principals. Regular times for mentors and mentorees to meet should be built into the school schedule.

School-university collaborations bring together the worlds of classroom practice and educational theory. Although models vary widely, such programs may involve university staff in leading seminars, training mentors, or facilitating discussion groups for new teachers. Although such partnerships are most likely to occur near college campuses, proximity is not essential. Technologies such as videoconferencing, e-mail, and electronic bulletin boards are making it easier for programs to be effective across long distances.

The booklet describes several programs in the Northwest region that provide hopeful examples of support for beginning teachers. As the authors conclude, "Schools that provide high levels of support for beginners will not only retain more teachers, but better teachers—and students will reap the rewards of a more positive and effective learning environment overall."

Copies of *Supporting Beginning Teachers* can be ordered at no charge by calling (503) 275-0666.

Those shoes cover some rough terrain. According to the research of Ellen Moir, first-year teachers move through a predictable cycle. They slide from anticipation to survival and then disillusionment in the first half of the year. They go on to experience rejuvenation, reflection, and renewed anticipation by year's end. By understanding this cycle, mentors can gauge how best to support new teachers through the inevitable peaks and valleys.

When Lance Longmire came to the district two years ago, he was fresh out of grad school and starry eyed. "I was very idealistic," he says. "I thought I was going to hop in school, change the world. Everything was just going to go my way. Things didn't go as smoothly as I expected."

Like many new teachers, Longmire was given an especially tough first assignment. The latest in a string of bodies meant to fill a revolving-door position, Longmire became the Lead Special Education Teacher at Green Park Elementary. Charged with developing Individualized Education Plans (IEPs) for 30 kids, he had his hands full.

Longmire says Williams and Nass, his mentor, "saved my life." Nass walked him through initial IEPs and parent conferences, and shared invaluable techniques for classroom management and basic survival.

And, Longmire says, Williams shared one gem of advice that got him through the rough spots: Expect train wrecks.

"She told me that sometimes, when you're a first-year teacher, it's like a train wreck coming through. Sometimes things just get messed up and, the next day, you have to pick it up, put it back on the tracks and just keep on going. And I'd say that I derailed a few times. It was humbling. But it was good to know that was normal and that it's OK to make a mistake, and then pick things up and move on."

This concept of "failing forward" is an important lesson Williams attempts to impart. She says it is imperative that teachers are given license to try things that might not work as they attempt to improve learning in the classroom, and it is essential that the education environment allow failure not to be fatal. "Trying new things is essential to growth and achieving," she says. "Bret Boone of the Mariners wouldn't hit home runs if he wasn't making good attempts and striking out sometimes. You have to take the chance that you're going to make mistakes, and then learn from those mistakes. And know that, even in failure, we find things that improve performance." Williams says this is especially important in the culture

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of first-year teachers where mistakes will be made. "If veteran staff don't criticize them as much, things will get better for those new teachers faster."

Throughout the year, new teachers meet with their mentors, usually on a daily basis, for troubleshooting and guidance. "The first few months, it's like being on call," says Nass. "Then as the year rolls on, there are fewer and fewer questions and more conversations about how things are going instead of what fire is burning at the moment and needs to be put out."

Additionally, mentors and new teachers engage in assigned observation-feedback cycles, tied to their stipends. To further support teachers through that crucial first year, neophytes attend monthly workshops covering a range of topics, including such things as how to conduct parent conferences and prepare substitute plans.

GAINING GROUND

Teachers who have been through Walla Walla's mentoring program have nothing but praise for it. Kenny Singer, who joined the eighth-grade staff at Pioneer Middle School last year, says, "I don't think anything prepared me better for teaching than working in this mentor program. I mean, being able to collaborate on curriculum, being able to talk about classroom management, being able to talk about how the day went or how this kid was so hard or, you know, wow, that class was really intense. Or a parent called me and was not happy, or even—woohoo!—a parent was *so* happy . . . Just being able to talk about the emotional roller coaster that is teaching was great."

Lisa Firehammer, Singer's mentor, says she also benefited from the experience. "The nice thing about the program," she says, "is that it's not all Ken asking me things. It becomes more of a collaborative relationship. It's not one teacher always getting help from another teacher. It's just teachers working together. It fosters that—the give-and-take that you really would like to have happen. Everybody's used to working together and talking things over, and we're just all really comfortable with collaborating. I think the fact that it's established around our district makes everyone more open."

Williams gives a Yoda-like nod. "We're trying to build a culture of collegiality," she says. "We don't expect teachers to teach in isolation. We want them to be models for students. We want them to be continual learners."

For the district, the mentoring program has become a good recruitment tool. Judy Reault, assistant superintendent, says that with the current teacher shortage, "we're in a sellers' market. For teachers deciding between Walla Walla and another district, this may give us the edge." Certainly, Reault notes, "it has given our district the ability to maintain quality teachers."

Evidently so. While new teachers fall in droves around the country, those in Walla Walla stand steadfast and tall.

Now in his second year of teaching at Walla Walla, Singer shares a story about a fallen comrade: "I was at a wedding this weekend and met a woman who graduated with honors from Stanford, then got her master's in teaching. She taught for one year in California schools and she'll never teach again. I asked her, what was her year like? She didn't have a staff that she could talk to; she didn't work with anyone all year on anything; she had contact with her principal or vice principal only once or twice; neighboring teachers didn't talk to each other. It was completely isolating. And she was miserable because she had to do everything and she had no one to talk to about, you know, the problems or the good things. She had no support.

"And I told her if she had taught her first year in Walla Walla, she would still be teaching." ■

FISHER

Continued from Page 23

up all night, surfing the Internet for materials he can use to teach about volcanoes. But over the following weeks, as he invents a hands-on earth science curriculum one day at a time (and with the help of a Web site called Core Knowledge, at www.coreknowledge.org), he has no regrets. He watches students build their understanding by making clay models of Earth. They start with the core then build out, using a different color for each layer. When the tennis-ball sized planets are complete, he slices into them with a guitar string, revealing the geologic layers within.

Next he assigns a team project. Table groups build models of volcanoes using papier-mâché and cardboard tubes. He enlists his students as fellow researchers. With resources they find at home and online, they assemble a class library on volcanoes. Meanwhile, Fisher gets the idea of weaving together science, social studies, and writing. While the completed volcano models sit "dormant" on a window ledge, he assigns students to write their own myths, in the style of the Native American story that describes the long-ago eruption of Mount Mazama and creation of Crater Lake. After the students read their myths aloud, they will imagine their own volcanoes erupting. To connect the volcano projects to the real world, they begin planning their first field trip: a full-day outing to the observatory at Mount St. Helens. Six parents have volunteered to drive, keeping costs to a minimum.

It's an ambitious plan, to be sure. But so far, Fisher's energy shows no signs of flagging. Shucking that dull science text was one of his smartest moves, even though it's meant more work for him. "I felt high for a week," he reflects later, "like a weight had lifted." The experience reminds him of something he learned from Nancy Nagel, a professor of education at Lewis & Clark. "She taught us that to tackle the hard work of problem solving, we need to be interested and involved. That's true for both teacher and student—we all find it hard to try new things. We have to struggle to break out of what's comfortable."

Even as he gains confidence to try new approaches in the classroom, Fisher worries about the pace of teaching. "How much should I try to do? And what's fair to expect of my kids?"

Those would be good questions to discuss with the two other fourth-grade teachers in the building, but he seldom bumps into them. Fisher's room sits between the music room and an exit to the blacktop, across the building from his grade-level colleagues. He makes a note to check in with a fifth-grade teacher who looped with her fourth-graders from last year. He recalls hearing about a program in California, where new teachers are matched with mentors for two years. There's no time for feeling envious; he has a million details to take care of before that field trip.

* * *

Twenty minutes before school begins, half a dozen kids have put away their backpacks and are dancing to the music that spills out of Mr. Fisher's boom box. A couple others play computer games. One girl relaxes with a book on the sofa that Fisher picked up at a garage sale. These are the precious moments that make the classroom feel like a community.

With a ring of a handbell (the same one his grandmother used in a one-room schoolhouse and his mother used in her high school classes), Fisher signals that it's time for students to take their desks. But not everyone's quite ready to settle in for the day. One boy realizes he left his backpack on the bus. Another has forgotten his glasses. Fisher sends them off to take care of business while he steers the rest of the class toward a math assignment. About every six seconds, someone else begins a question with, "Mr. Fisher. . .?" He makes the rounds as fast as he can. He's in such constant motion, he might as well be on roller skates.

Peter*, a quiet boy with dark hair and big brown eyes, tries to focus on the assignment on his desk. But he's easily distracted. He chews his fingers, writes on his hand, builds little sculptures out of masking tape. He's one of nine students in the class identified as having special learning needs, which range from attention deficit disorder to giftedness. His needs are the result of fetal alcohol syndrome. Fisher has been meeting with Peter's foster parents to learn more about the syndrome and how it affects learning. Usually, the boy is pulled out to work with an aide during math. It's a subject he understands well, despite his struggle to concentrate. Today is an experiment, to see if Peter can stay on track within the larger class setting. Fisher keeps circling past his desk, calling the boy's attention back to the task at hand with a soft word or deliberate arch of his eyebrows.

Without warning, Fisher stops in his tracks and claps his hands together. Conversation halts. "I just heard a scream," he says. "There's no reason ever to scream during math. Math isn't scary." The noise level plummets and he's off again,

* *Names of students have been changed.*

answering the next 'Mr. Fisher . . . ?" question. With five minutes left in math period, Peter picks up his pencil and tackles the math problem.

So far, class management hasn't taken up too much time. "These are great kids, and most days the class takes care of itself," Fisher says. "But," he adds, "so much more is going on here besides academics." Three times a day, for instance, a timer on his belt goes off and he gives a hand signal for a certain boy to head to the office for his medication. He uses motivators with a couple kids who struggle to keep their behavior under control. He's grateful that fourth-graders will extend themselves for a reward as humble as a Pokemon pencil.

Fisher has been reading aloud *Tales of a Fourth-Grade Nothing.* He draws on his drama background, throwing in funny voices that the kids seem to like to underscore the wise humor of author Judy Blume. His acting skills come in handy for crowd control, as well. "You don't want to see Mean Mr. Fisher make an appearance," he warns when the noise level starts to escalate. Even at his silliest—when he's using Monty Python accents during a math lesson—Fisher is careful not to seem too loose. "I dance on that fine line all the time," he admits, "between having fun and keeping things under control. I figure if the kids are happy to be here every day, that's not a bad place to start. And I make an effort to stay consistent so they know what to expect from me."

When it's time for morning recess, 24 pairs of shoes hit the floor, ready to dash for the outdoors. Fisher motions for a boy named Jeremy to stay behind. He balks, but Fisher reminds him, "It's the consequence of not doing your homework last night. Have to do it now." He doesn't back down when Jeremy tries whining. He tries not to let Jeremy see him smile when the boy makes a crack that, truth be told, is pretty funny. But when Jeremy turns in his homework, Fisher is quick to offer praise. And he stretches out recess for an extra five minutes so the boy can enjoy some time outside.

* * *

Grace perches on the sofa, signaling that she has a story ready for conference during writers' workshop. Mr. Fisher leans in to hear her read a tale about two girls on a quest to find a golden diamond. When she finishes, he compliments her effort. But he has questions. So many questions: Why did the girls sneak out of the house? Why do they need the golden diamond? Why is it important? How did it feel when they walked through the spider web?

Grace's eyes seem to get bigger with each question. She nods when he reminds of her an earlier class discussion, when they talked about how reading is like mountain climbing. "Every detail the author gives is something the reader has to put into his backpack," Fisher tells her. "The reader has to carry that backpack to the top of the mountain. If a detail is not important, then why ask the reader to carry it?"

She takes back her paper and makes a beeline for her desk.

Karen plunks onto the sofa next with a story about a horse race and three girlfriends. "This is so much better than the first draft!" her teacher says. She beams. He goes on, "Now it's time to edit. You don't need to add anything more to the story. Check the spelling of these words," he suggests, circling several spots on the page. "And use quotation marks to let the reader know when someone is talking. Remember how?" She does.

Karen is barely off the sofa when Grace returns. She has added more details. But Mr. Fisher has even more questions for her. She rolls her eyes on her way back to her desk. The girl who's next in line for a conference reminds her, "Don't make that backpack too heavy!"

Writers' workshop has moved into first place as Fisher's favorite part of the week. His students seem to concur. Last week, because of an assembly, the class had only half the usual time for writing. Students groaned their disappointment. "I was thrilled," Fisher says. He also has begun to appreciate the benefits of having a smaller class for the part of the day when eight students are pulled out for tutoring or other help. "That leaves me with only 16 kids for writers' workshop," he says, "and I can give them so much more attention."

To his surprise, students were slow to warm up to writing fiction. "They all wanted to write about their dogs, or what they did last summer." Then, inspired perhaps by the approach of Halloween, one boy tried his hand at a ghost story. Fisher invited him to read it aloud. Suddenly, everyone was writing ghost stories. As part of the school's Halloween festivities, the fourth-graders will share their scary tales with the first-graders. Knowing that they will soon have an audience is adding energy to the writing process.

When he sees his students so excited about learning, Fisher feels exhilarated. "I can't wait to come to work in the morning," he says.

At other moments, however, he looks around the room at the miscellaneous activity and asks himself, "We're busy, but have I really taught them anything yet?"

Reading, for example, has been a frustration. Although his students are all nine or 10 years old, they read at levels ranging from second to seventh grade, perhaps even higher. Fisher has tried splitting the class into literacy groups but struggles to find the right reading materials. His training gave him a solid understanding of literacy theory, but what he needs now are practical tips to help him teach struggling readers. "We talked in grad school about how to form meaning, but not how to form *words*. That's where I feel weakest right now," he admits. It doesn't help that he has no class sets of books for students who read below the fourth-grade level. He's tried having one group read *How to Eat Fried Worms,* a personal favorite, but the girls don't seem to appreciate the book's humor. Meanwhile, his most proficient readers want to tackle *The Sword and the Stone.* Fisher worries that it will prove too challenging, but he doesn't want to get in the way of their ambition.

In a few weeks he'll have to issue his first report cards, assessing not only reading and math, but also skills such as spelling, public speaking, and handwriting that they haven't given much attention yet. Assessments will have to show students' progress toward meeting the state requirements for the certificate of initial mastery. He makes a mental note to design a template so he can write report cards on his laptop. But where's he supposed to find the time to work with these kids on their handwriting?

* * *

Winter has spilled indoors, dusting the halls of River Mill Elementary with cut-outs of penguins and paper snowflakes. Fisher has decked his room with an evergreen he harvested from his own property. The kids made paper chains to decorate it. He has rearranged the classroom furniture, too. "I like change," he says with a shrug. His once-shaved pate is sprouting a fresh growth of brown hair. But he's still wearing those tie-dyed socks.

Fisher introduces a guest who's guaranteed to hold the students' interest, even with the start of the winter holidays just two days away. Elwin Shibley, Fisher's uncle and a retired principal, arrives wearing a plaid shirt and jeans with a big buckle. With his white beard and that twinkle in his eyes, he'd make a great Santa. "Did you know," he asks the class, "that you're sitting right on the Oregon Trail?" Before they can answer, he's tossing handfuls of pennies onto each table. "Whose picture is on those pennies?" "Lincoln!" the kids answer. "Right, and that's who was president when Mr. Fisher's family came across the Oregon Trail." History has come to life in Room 16, and Shibley draws everyone into it. "You're all part of this story," he says. "Wherever you've come from, you're Oregonians now."

Although Fisher grew up amid the landmarks of the Oregon Trail and has a family tree loaded with ancestors who made the trek West, he dragged his feet when it came time to teach the subject to his fourth-graders. The social studies textbook devoted only three pages to the Oregon Trail. Fisher knew the rich subject matter deserved better treatment, but he wasn't sure how to tackle it.

When he decided to stop relying on the canned material in the textbook, he began to envision new possibilities. "I had to psych myself up," he admits, "but when I got excited, the lesson plans started coming together, just as they did with the volcano project." Using resources he found at a Portland bookstore, he has turned his classroom into a caravan, with each table group playing the role of a family aboard a covered wagon. In this simulation, they are now 500 miles into the 2,000-mile trek. Today's task: Write a letter home, telling the highlights of your journey so far.

As he explains the assignment to his students, Fisher reminds them to make use of the writing devices they've been studying. They began to get acquainted with similes and metaphors on a recent day when the principal stopped in for a formal observation. Adamson was pleased to see the students excited and actively participating in the lesson, and equally impressed by Fisher's animated use of body language, voice inflection, and facial expressions to keep the pace upbeat. "Students were required to think a great deal in this lesson," Adamson noted in his written observation, "but I doubt they realized it."

At times, Fisher can make learning seem as easy as breathing for his students. Behind the scenes, though, he drives himself like a taskmaster. He arrives at school by 7:30 a.m., and seldom goes home empty-handed. Lunch is an orange, which he eats on the run. He constantly pushes himself to stay organized, to plan ahead, to get papers graded and returned quickly. "Where's my clipboard?" he mutters now, looking for the checklist he uses to keep track of where students are with their various writing projects. He starts each day with a clean desk, but by noon it's buried in papers.

What the students want most from him, of course, is his undivided attention. He does his best to spread it evenly among the 24 ex-

pectant faces. When he listens to a boy read his journal entry for today's Oregon Trail assignment, Fisher catches certain words as if they were treasures. "I like a word you used there—you said *tumbled.*" Or, "I loved how you said 'something tragic' was about to happen. That got my interest." When he hears an ending he likes in another story, he tells the girl who wrote it, "That's beautiful," and mimes wiping away a tear.

When a quiet, bespectacled student named Lydia volunteers to read her passage to the whole class, he tells her, "Pretend your great grandmother is sitting in the back of the class, and she really wants to hear you." Lydia amazes him by booming out her story. "Awesome!" he says at the end, clapping and grinning. "We could hear you and understand you! Fantastic!" Another girl, for whom speaking up is no challenge, is next to share. She cranks up the volume in imitation of Lydia, making herself giggle. Soon the whole class—including Mr. Fisher—is giggling, too. But she manages to work in two similes, which her teacher catches with delight.

* * *

By the time parent conferences roll around in March, the year feels as if it's shifted into hyperspeed. The calendar has taken on added importance since Fisher learned that in May, he'll become a father. He's planning to take a week off when the baby arrives, which means he'll be mapping out his lesson plans even further in advance.

The class has recently wrapped up a four-week unit on electricity. Fisher introduced the subject with a hands-on project. Giving students batteries, light bulbs, and wires, he asked them to see what they could figure out. Principal Adamson happened to stop by just as several kids were discovering how to wire up the components to shock themselves. "I'd never try that again," Fisher admits, "at least not when I'm being observed."

Although they're now focusing their science studies on the human body, Fisher's students have no trouble recalling key concepts about electricity when he calls out random questions. If they get stumped, they can refresh their memory with the words to the song they wrote as a class. "We brainstormed the lyrics, which include all the major concepts I wanted them to remember—atoms, conductors, closed circuits, insulators," he says. Coming up with a tune meant acceding to his students' musical tastes. But he seems to have struck gold with the catchy number "Whoops! I Got Shocked Again," set to the tune of the Britney Spears single "Whoops! I Did It Again." (Fisher rolls his eyes, admitting he had to listen to the pop star's music for a week to get inspired. "The sacrifices you make as a teacher!")

Out on the playground, when Fisher overhears his kids belting out the song or teaching it to others, he knows it was worth the effort. And he's amazed, looking back, that he was terrified to try songwriting with his kids, even though he's been performing music for most of his life. "Writing songs together was a goal I had, but I kept putting it off. Then one day the school counselor visited our class, and she brought her guitar. She made it look so easy! So I brought in my electric bass when we were studying the Oregon Trail. We wrote a song called 'The Oregon Trail Blues' (set to the tune of 'Heartbreak Hotel'). One of my best experiences as a teacher was having my kids ask me if we could write a song about electricity, too. Wow!"

During parent conferences, the mother of a boy who has been mouthing off and missing assignments lately mentions that she and her husband are splitting up. That helps explain the boy's change in attitude. The toughest session, though, is with parents whose daughter is one of four in the class identified as gifted. They want to know if Fisher is doing enough to keep her challenged. Is he pushing her hard enough?

The silver lining of the week: a rare Friday holiday—no lessons to plan, no homework to grade, nobody calling out a question that begins, "Mr. Fisher. . .?"

* * *

When the calendar reaches May, Fisher has mapped out his lesson plans two weeks in advance. The baby is not due until mid-month, but he wants to be ready to hand off his responsibilities at the first labor pain. Plus, he's promised the class a beach trip to end the year, and that will take some organizing.

He's not the only one looking ahead. The principal will have to make some hard decisions next year because of a district budget squeeze, exacerbated by declining enrollment. Would Fisher be willing to loop up to fifth grade with his current students, plus a few more?

Meanwhile, Fisher has been struggling with Jeremy over missing assignments, bad attitude. He begins wondering whether he wasn't firm enough earlier in the year. "Did I let him get away with too much? Laugh too easily at his jokes?" Such are the questions that keep the new teacher awake at night. "At times I've questioned my ability to teach him," he admits, "but not to be a teacher."

There have been more high points than lows, however. A girl

who never seemed to catch on to multiplication has had a breakthrough in understanding. When Fisher showed her how to group numbers, she could see that four *groups* of five means the same as four *times* five. "The lights went on! And she just took off." A favorite moment: calling her mother to share that the girl had won a math award.

Another high point: Watching a reading group decide to tackle *Call of the Wild.* One boy in the group had seemed unmotivated all year during literature circles. "But he liked that book, and he kept up." The group had to work hard to understand the book's symbolism, and Fisher warned them that it would be difficult. "I told them, if it's too hard, they can stop and move on to a new book. They saw me do that earlier in the year when I closed the science book and tried something else. We've all found out it's OK to struggle." They did struggle at times with Jack London, but they plowed ahead. "When they were done, they felt fantastic." And so did he.

And another: A boy's story about brain-sucking aliens. "He's a really quiet, shy boy, and this was just hilarious. And he went on for five pages, longer than anything he's ever written before. Amazing! That's what it's all about—moments like that."

In late May, two weeks behind schedule, Kenneth Steele Fisher is born. The substitute for Room 16 arrives to find a week's worth of lesson plans ready and waiting.

* * *

Between the new baby's arrival and the end-of-the-year assemblies and the day trip to the beach, the last days of school fly by in a blur. A week after the final bell, Fisher is taking a well-earned moment to catch his breath on the deck overlooking his garden of roses and raspberries. He and his wife Robin have just finished a leisurely, late breakfast. Baby Kenneth is napping in his cradle. The horses are munching new grass. The sun is shining over Estacada. An entire summer stretches before him—a gift to be opened one day at a time.

Time for quiet reflection is rare in the life of a teacher, especially a new one. "If I have any advice to offer other new teachers," he says, "it's this: Make time and effort to go talk to your peers, because they probably won't have time to come find you. Make an effort to hang out in the staff room. I didn't do that early enough or often enough." Not once did he have an opportunity to watch another teacher at work in the classroom, or to be observed by a peer. Late in the year, he was worrying aloud in the faculty lounge that he might not get all the way through the math textbook because some students needed more time to cement their understanding of division. Some veterans exploded in laughter. "I was beating myself up, but they reassured me that nobody finishes the textbook!"

He suspects he also spent too much time inventing materials that other teachers would have been willing to share. "Good teachers collect ideas. They have files full of stuff. The major weakness of being a new teacher is that you don't have five years of stuff to pull from." Every day, for instance, he invented math challenges for the kids who breezed through their homework. "Then I had a great substitute who gave me a book of ready-made math challenges. Sometimes," he admits, "I work too hard."

As for next year, he's agreed to loop up to fifth grade, a benchmark year. Because of budget cuts, class sizes will be larger. He expects to have 31 or 32 students, 22 of them returnees. Jeremy, the boy with whom he found himself butting heads by spring semester, will be assigned to another room. So will the TAG girl whose parents worried about keeping her challenged. But Fisher and the other fifth-grade teacher have agreed to work as a team. For the first time in his school career, he'll have a colleague with whom he can brainstorm and share resources.

Already, he has a zillion ideas percolating. He's making a mental list of things he'll do differently next year. But on this perfect summer morning, Fisher can imagine no better job than the one that takes place in the classroom. "I love how fast the day goes. I'm never bored. It's so different from the world of cubicles and clock watching. I can see myself doing this," he says, "for another 20 years—*at least.*" ■

FACING THE FUTURE

Continued from Page 9

portunity for veterans." Some of her fellow veterans, she admits, "were on the verge of leaving the profession. This allows them to continue to build their careers." One came out of retirement to work as an adviser, "and she said she's never felt more fulfilled as a teacher," says Villarreal-Carman. The collegial relationship between new teacher and veteran "opens the doors to reflective practice," she explains. "This is purely positive for our profession."

Once veteran teachers have mentored novices, their own classroom skills tend to expand in unexpected ways. "When they return to classroom teaching, it's almost like they've had a sabbatical in terms of their professional growth," Moir observes. Some advisers have gone into school administration, using their newly honed skills as instructional leaders. "This builds capacity within the profession," says Moir. "It's a critical role—being a teacher of other teachers."

Although programs such as the New Teacher Center can provide curriculum materials, research, and technical assistance to make induction more effective, Moir considers it essential for local districts to "own this work" of developing the skills of their new teachers.

By "growing their own" induction programs, districts can make adjustments to fit their specific population needs or unique geography. Montana, for example, uses e-mail to connect new science and math teachers with mentors and overcome the isolation of working far from subject-area colleagues. In urban Seattle, a teachers' association is playing an increasing role in professional development for new teachers. Anchorage taps the wisdom of retired teachers, recruiting them to mentor novices. In communities located near universities, new partnerships between researchers and classroom teachers are paving smoother pathways into teaching.

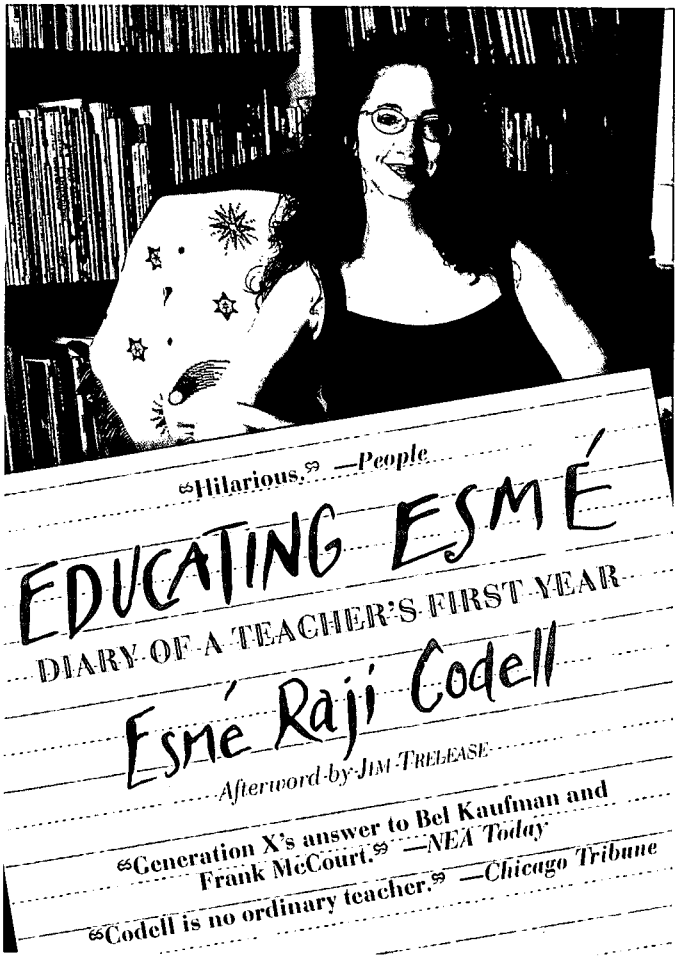
No matter what the setting, providing for the growth of new teachers "should be organic—right at the heart of the district," Moir argues. "It's really about building the profession. This is such hopeful work. And it's the cheapest money districts can spend to improve education. Ambitious teacher development goes right to supporting student learning." □

EDUCATING ESMÉ: DIARY OF A TEACHER'S FIRST YEAR
by Esmé Raji Codell (Algonquin Books of Chapel Hill, 2001)

Madame Esmé, as she asks to be called, greets her fifth-graders at the start of each school day holding a big green "trouble basket." She invites her 31 children to unburden themselves of their home worries so they can concentrate on learning. But as this first-year teacher quickly learns, real-life woes aren't so easily dismissed. Some children have parents who beat them on a predictable schedule. Others ache to have someone even notice them. One girl starts each day curled in a fetal position under her desk. A boy who has recently been homeless and hungry eats himself sick on cafeteria leftovers.

Into this harsh world comes Madame Esmé, the product of inner-city schools not unlike the one her students attend. She brings a 24-year-old's hope and a fierce determination that can be mistaken for pig-headedness. The diary of her rookie year reads like a daring adventure story. She must steer clear of the mean-spirited principal and sidestep bureaucratic red tape; maintain classroom decorum while nurturing joy and laughter; bring literature to life for children who struggle to read; teach kindness to those who seldom witness it. Throughout the chronicle, one question looms large: Will our heroine abandon her gifted, joyful, creative approach to teaching before the journey's end?

Codell pulls no punches in this fast-paced book that has proved popular with both novices and more experienced educators. Her frustrations and fears help explain why new teachers flee the field in such startling numbers. She notices bullet holes in her classroom window and begins to worry that



her tough-love discipline style might get her shot. She pours her soul into creative lesson plans only to have a curriculum specialist tell her, "You can't possibly teach all you say you can teach." She butts heads with the administration over an issue she considers important only to have her fellow teachers accuse her of being confrontational. In a mid-year entry she confesses: "I've been up in the middle of the night, wondering, *Why do I care? Am I crazy?* A little, maybe."

But her classroom victories keep her passion burning bright. Readers will feel like celebrating with Esmé when her students get excited about the cardboard "time machine," in which history comes alive. Or when she teaches the cha-cha to make sense of multiplication. Or on the January day when she watches her students concentrate on their reading "so intently, I could hear my own breathing." She writes: "I've worked so hard to get them to this place, harder than I've ever worked in my life, and now it seems they have arrived. ... It's that I try and they're trying, that's the bottom line."

SURVIVAL GUIDE FOR NEW TEACHERS and **WHAT TO EXPECT YOUR FIRST YEAR OF TEACHING,** both by Amy DePaul for the U.S. Department of Education, Office of Educational Research and Improvement

These two popular books bring new teachers advice from those who have walked in their shoes—and recently, too. Both books feature comments from award-winning rookie teachers, winners of the Sallie Mae First Class Teacher Award recognizing the nation's outstanding new educators. As author Amy DePaul explains, she lets "teachers speak for themselves" because "no one can match the clarity and veracity of their voices."

Survival Guide for New Teachers, published in 2000, acknowledges that many first-year teachers continue to draw the most challenging assignments. Many new teachers launch into their careers with little more than a quick orientation on school policies and procedures, which DePaul calls a "sink-or-swim approach to induction."

Survival Guide highlights promising initiatives, such as online discussion groups for new teachers facilitated by education professors from the University of North Carolina; school district programs that include mentoring, peer assistance, and other forms of support; and regular staff meetings—for newcomers as well as veterans—with discussions focused on best teaching practices. DePaul organizes new teachers' observations to help other novices gain ideas for working with veterans, parents, principals, and college and university professors.

What to Expect Your First Year of Teaching (1998) is loaded with more tips and strategies for novices. Among the suggestions DePaul has gathered:

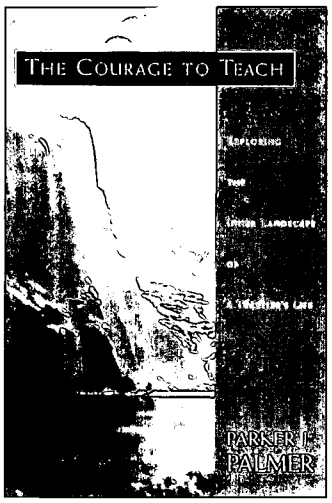
- Be consistent—do what you say you are going to do
- Model a love for learning
- Maintain a sense of humor
- Keep an open door to parents
- Maintain respect
- Plan relentlessly
- Set high expectations
- Be flexible and ready for

surprises
- Take care of yourself physically and spiritually
- Use innovations in teaching, technology, and rewards

Principals and other administrators can help new teachers overcome the isolation that can break even an enthusiastic rookie's spirit. Among the strategies for administrators: assigning new teachers mentors; making sure they have regular opportunities to talk with other first-year teachers; encouraging first-year teachers to team teach with veterans, or at least work together on planning teams; fostering a collaborative atmosphere within the building.

Both books are available online and can be downloaded at no cost. For a copy of *What to Expect Your First Year of Teaching,* go to www.ed.gov/pubs/FirstYear.

For *Survival Guide for New Teachers,* go to www.ed.gov/pubs/survivalguide.



THE COURAGE TO TEACH: EXPLORING THE INNER LANDSCAPE OF A TEACHER'S LIFE by Parker J. Palmer (Jossey-Bass, 1998)

When Parker Palmer conducts workshops on teaching and learning, he often invites participants to examine their classroom practice through what he calls "the lens of paradox." As he explains in *The Courage to Teach:* "I ask each teacher to write brief descriptions of two recent moments in teaching: a moment when things were going so well that you knew you were born to teach, and a moment when things were going so poorly that you wished you had never been born."

Novice teachers as well as classroom veterans can gain insights from the exercise. As Palmer points out, "Remembering such moments is the first step in exploring one of the true paradoxes of teaching: The same person who teaches brilliantly one day can be an utter flop the next!"

The Courage to Teach encourages an ongoing examination of the inner life of the teacher. It's a valuable activity, Palmer argues, because "knowing myself is as crucial to good teaching as knowing my students and my subject."

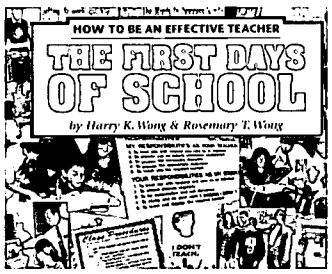
Teaching, he asserts, is about making connections. Good teachers "are able to weave a complex web of connections among themselves, their subjects, and their students so that students can learn to weave a world for themselves."

Parker offers no quick answers for improving teaching—only deep thinking. The author doesn't hesitate to put himself through the self-examination he asks of his readers. For example, he explores why he gets uneasy if a classroom discussion happens to stall:

"As the seconds tick by and the silence deepens, my belief in the value of silence goes on trial. ... Like most people I am conditioned to interpret silence as a symptom of something gone wrong ... I am duty-bound to supply conversational CPR." But then Parker examines other possibilities. He writes: "Suppose my students are neither dumbfounded nor dismissive, but digging deep; suppose that they are not ignorant or cynical but wise enough to know that this moment calls for thought; suppose that they are not wasting time but doing a more reflective form of learning."

Teachers will improve their craft, Parker suggests, when they have opportunities to engage in honest dialogue about the moments that puzzle or challenge them—what he calls "good talk about good teaching."

For teachers prepared to enter into such dialogues, Parker suggests three elements essential to informed, productive conversations:
- Topics that take us beyond technique and into the fundamental issues of teaching
- Ground rules that keep us from defeating ourselves before the talk can go very deep
- Leaders who expect and invite us to join the conversation



THE FIRST DAYS OF SCHOOL: HOW TO BE AN EFFECTIVE TEACHER by Harry K. Wong and Rosemary T. Wong (Harry K. Wong Publishers, 1998)

This practical guide to classroom management weaves research with practical wisdom to guide new teachers through the first days of school. It's a critical period that "can make or break you" for the rest of the year, the authors assert. Yet most teachers enter the profession with "no training and no experience in what to do on the first day of school."

Written in the style of an owner's manual, this popular paperback aims to troubleshoot the problems that plague rookies and help struggling teachers regain their footing. *The First Days of School* offers the kind of common-sense help teachers need to enhance their performance and devote more of their school day to enhancing student learning. The authors cover everything from arranging the desks to introducing a discipline plan to structuring assignments in order to "teach for accomplishment."

Wong and Wong, both experienced teachers, are strong advocates of formal training programs for new teachers—so much so that they discourage teachers from joining districts that do not offer induction programs. They also encourage the more informal learning that happens when teachers work in a collegial manner; learn from positive mentors; join professional organizations; and continue to learn through workshops, classes, inservice training sessions, reading, and other forms of research.

If there's an agenda that goes deeper than these important basics, it's to develop a new generation of effective teachers who have positive expectations for student success, are good classroom managers, and know how to design lessons for student mastery. Anticipated turnover in the ranks of today's teachers offers an opportunity, the authors suggest, "to change the culture of a new generation of teachers."

—Suzie Boss

FREEDOM, FRIENDSHIPS TOP TEACHER'S WISH LIST

By Kendall Beaudry

The first day of school is just as nerve wracking for the teacher as for the students. I was reminded of that fact last summer when I, a white young doe from the woodsy Northwest, prepared to enter an inner-city classroom of gifted seventh-graders in Louisville, Kentucky.

As soon as I received the job offer from Summerbridge, a national nonprofit service learning organization, I hung up the phone and rushed to my atlas to locate the lost state of Kentucky. My assignment was to instruct writing to middle schoolers—students at the most awkward stage of puberty.

Three days before departure, my fellow Oregonians and I entertained all the tactless stereotypes of my new destination. Humidity and whiskey came to mind. However, my friends couldn't muster up any actual ideas of Derbyland because they were preoccupied with the thought of me *teaching*. I ignored their taunts to calm my nerves. But seventh grade kept flashing across my reverie—haunting me with memories of training bras, scoliosis testing, slow dances, and sex ed.

Then the first day arrived, and there was no more time for reverie.

"Is it true that in Orygun, they can't even pump their own gas?" That was the first question fired at my perspiring back. So much for classroom introductions. I was different, and it stood out.

"Didn't it hurt, getting yo' nose pierced?"

Day one: Prepare for humiliation.

"How many of you enjoy writing?" I asked, trying to sound hopeful.

"I hate writing," said Telicia, one who later grew fond of the pen-on-paper ritual. The rest groaned in chorus.

Despite my fresh degrees in journalism and political science, despite the nerve-wracking rituals of the first day of school, I find myself drawn to education. If I were to blindly pick a country on a spinning globe, I could envision teaching there. It is an intrinsic pull because teaching is an exchange of knowledge. Within this altruistic exchange, learning is reciprocated between two genres, crossing classes and ethnicities and cultures as different as those found in Oregon and Kentucky.

I have had the pleasure of teaching and learning from 70 inspiring children from the Louisville area. These students were chosen out of a teacher-recommended pool of 400. They are academically motivated but economically set back.

Since 1978, Summerbridge has coordinated summer workshops at sites all over the country. It is intended to enhance learning creatively with the guidance of young mentors. At the same time, it gives college students a taste of the teaching profession. Summerbridge selects young college students for these challenging classroom assignments because of a belief in their vitality and freshness for the job. No fancy technology is used, and the agenda is impromptu.

My training was not confined to concerns over tests, techniques, and courses, because this thinking is considered too linear. Instead, we fellow teachers shared ideas on how to captivate the imagination.

In the English department, my advisor helped us prepare by making up outlines and formatting them into weekly and monthly planners. I would have an objective to follow each week, such as fiction writing with lessons on indirect and direct objects. The approach to delivering the objective then was in each teacher's hands.

Although the middle of the week could pose challenges to keep integrating all learning abilities, the freedom given me was central to my growth in the classroom. Even during my failing moments, my self-esteem rarely waned because I felt comfortable asking for tips from my fellow staff members. Equally as important, I listened to the suggestions of my respectfully honest students who had the wherewithal to fold their arms tightly across their chest and blurt out, "I still don't get it!"

When I talk with my peers about what they will look for in a permanent teaching job, the biggest appeal is freedom. Summerbridge allowed me to use my own themes and approaches to teaching rather than insisting on harboring anyone else's methodology. My English teachers and advisor would meet frequently during the school week to bounce off ideas and problem solve repeated frustrations. The support I received from staff and students served as the motivation central to maintaining health and charisma. And charisma may be the most important attribute to exude because it will ensure a supply of teachers for subsequent generations.

Statistics tell us that many of today's children do not aspire to teach because of the obvious setbacks of salary, abating budgets, and burnout. These visible burdens are often voiced or whispered among staff members. Admonition can scarcely get by any perceptive student. But a teacher's pessimism resonates doubt within all students' purpose to attend class.

I can still name almost every teacher I learned from. Although I cannot even hope to remember a lesson, I can distinctly recall who these mentors, pedagogues, parents, and role models were and what made their blood pulse. They

remain my sources of inspiration.

We are all aware of teacher shortages across the country. As a young adult preparing for my next career move, I know how to play the poker game of counter-offers. I can feel the desperation in a handshake from an administration that is just looking for warm bodies. The typical indices to measure a school's performance based on class size, salary, and test results contribute only a paucity to my final decision.

More important to me is the staff's familiarity with each other. Friendships, humility, and perseverance to stretch the elasticity of perfunctory standards cannot be packaged for a P.R. visit. I know I will need a mentor beyond the initial two months of laying out a secure foundation. I want to work in a setting where teachers can interact and share differences on a philosophical and practical standpoint in order to grow. This collaboration is what empowers teachers, by pushing the intellect above standards and setbacks.

After graduating from the University of Montana in May, Kendall Beaudry spent the summer teaching emotionally disturbed children and developmentally disabled adults in Homer, Alaska. Next: an editorial internship at Mother Jones *magazine in San Francisco. But she adds, "I don't doubt that I will soon be teaching and learning again."*

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Project-Based Learning: Putting It All Together

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The Great Divide: How Can Schools Close the Achievement Gap?

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LIVING LESSONS

HOW PROJECTS ENGAGE KIDS AND DEEPEN UNDERSTANDING

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VOLUME 7 NUMBER 3
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Living Lessons

How Projects Engage Kids and Deepen Understanding

ON THE COVER:
"Cooped up" with the chickens, Krystal Nicolai's learning soars as she and her seventh-grade classmates in Kwethluk, Alaska, use math, science, carpentry, and entrepreneurship to make a success of their chicken and egg enterprise.
PHOTOGRAPH BY DENISE JARRETT WEEKS.

ARTICLES

2 **Explore, Question, Ponder, and Imagine**
By setting students loose on well-designed projects, teachers allow them to construct their own knowledge and find their own meaning.

12 **A Journey of Surprises**
In the watery state of Idaho, students are doing sophisticated projects involving scientific inquiry about local rivers and other real-world concerns.

22 **A River Runs Through It**
A Washington high school on the Columbia River Estuary is taking full advantage of the teaching opportunities that abound in an area brimming with life and history.

30 **Starting at the End**
An Alaska educator helps teachers to design meaningful projects that keep clear learning targets always in sight.

36 **Taking Learning Outdoors**
Students from an alternative Portland high school got some powerful first-hand lessons last summer when they studied a Klamath Basin dispute over water rights.

42 **Fin and Feather**
In a remote Alaskan village, students on the verge of dropping out have found a surprising new reason to come to school: the chicken and the egg.

DEPARTMENTS
47 Resources
48 Letters

Last year, I was helping my seventh-grade stepson study for a test on European history. I was calling off names from a list of historical notables Zack was supposed to identify when I came to a name that stopped me short: "John, the Pustule? Hmm, never heard of him." I figured this king with the unfortunate nickname had somehow slipped past me in Western Civ. I was curious. So I cruised the Web and, when nothing turned up, called the county library to get more information about the monarch with the foul moniker. As it turned out, the name is so obscure that even the reference librarians in the history section of the big library downtown could find only a few hints. (Their best guess came from a couple of lines in the historical play *The Lion in Winter,* in which Richard the Lionhearted refers to his younger brother John as a "walking pustule.")

So I had to wonder, why is Zack being asked to absorb this peculiar fact in the first place? Although Zack attends a school that's high in district rankings, a few of the teachers there still cling steadfastly to the questions at the back of the textbook. Whatever important historical concepts Zack might have taken away from the unit got lost in a maze of trivial tidbits that he forgot as soon as the test was taken—or before.

"Students need a familiarity with key historical figures and events, but understanding causes, effects, and historical context are of equal value, as is the development of critical thinking skills," argues NWREL's Jean Spraker, who holds a master's in American folk culture and history museum administration. "Discrete facts, detached from their historical context and from the child's world, are insufficient for understanding people in times past. Missing are the meanings and implications of those figures for our lives today—a core reason we study history."

What if Zack had instead been assigned to do a research paper on the British monarchy, in which he would describe the monarchy's changing role over time—and then give a persuasive speech on whether England should hang onto one of the world's few remaining monarchies? Or what if he wrote a paper on female monarchs, assessing their importance and impact on history—and then made a PowerPoint presentation on Japan's newborn princess and her prospects for the crown? Or how about a paper on the genetic diseases and disorders that plagued the hereditary British monarchy, accompanied by an illustrated royal family tree and a discussion of the relevant science? Zack and his classmates could have read and studied *The Lion in Winter* and performed it for parents. They could have created a Web site on the British monarchy for tourists or held online discussions with a classroom of British students studying the American presidency. Each student could have chosen a king to portray in an oil painting and in an epic poem that would be posted on the Web.

The possibilities to extend and deepen learning are limited only by a teacher's imagination. All over the Northwest, teachers are designing projects that breathe life into learning by breaking loose from the customary subject areas, teaming with other teachers, and launching kids into the world beyond the school's walls. They're finding creative ways to link national, state, and local standards to challenging tasks that cause kids to dig deeply into issues that matter in the real world.

This quarter, *Northwest Education* shares a small sampling of the creative projects afoot in the region. We take you to schools where kids are retracing the footsteps of Lewis and Clark, raising chickens, and creating forest products. Elsewhere, students are learning physics and ecology through projects on roller-coaster design and water quality. They're collecting oral histories that conjure up colorful images of local lore. And lots more! We hope you enjoy the journey.

—Lee Sherman
shermanl@nwrel.org

EXPLORE, QUESTION, PONDER, AND IMAGINE

PROJECTS GIVE KIDS THE CHANCE TO DELVE DEEPLY AND FIND THEIR OWN WAY THROUGH CHALLENGING INTELLECTUAL TERRAIN

By LEE SHERMAN

Illustration by ANTONIA MANDA

With his little boy cradled in one arm, a young father hurriedly locks the front door and strides toward the family Volkswagen. He's running late for work, and he still has to drop 18-month-old Benjamin at the day-care center. He doesn't notice the trio of crows that is just then flapping over his northeast Portland home. But Ben's brown eyes turn to the beating wings at once. "Bird!" he exclaims, pointing toward the sky. His dad pauses in the walkway to look up. "Yes, Ben, look at those birds," he responds, smiling with pride at his son's growing vocabulary. Just for a moment, the harried dad shares his child's fascination with this plainest of creatures, this most ordinary of events to touch their urban neighborhood.

For little Ben, Tuesdays aren't days for routine stresses and rigid schedules—Tuesdays are days for mysteries and discoveries. Safe within his parents' ever-watchful love, he crawls over every inch of his world. He sops up sights and sounds like an insatiable sponge and delights in every new find.

In a few years, he'll take that roiling curiosity to school. If he's lucky, his teachers will work to nurture his innate longing for learning.

WIDE-EYED WONDER

It's children's natural bent for discovery that fuels the project approach. Arguing that a slavish devotion to textbooks and lectures too often leaves kids' intellects pinched and withered, project proponents point to the wide-eyed wonder with which toddlers like Benjamin meet life each morning. The challenge for schools, they say, is to keep that thirst for understanding unquenched—not only for the duration of formal education, but for the span of a lifetime.

A rich and full education encourages kids to "pose questions, pursue puzzles, and increase their awareness of significant phenomena around them," assert Lilian Katz of the University of Illinois and Sylvia Chard of

England's College of St. Paul & St. Mary. "An overall aim" of the project approach, they write in their 1999 book *Engaging Children's Minds: The Project Approach,* "is to cultivate the life of the child's mind. In its fullest sense, the term *mind* includes not only knowledge and skills, but also emotional, moral, and aesthetic sensibilities."

In *Understanding by Design,* Grant Wiggins and Jay McTighe argue this same point with passion and eloquence. "Students need to know what scholars know if they are to understand their work: how key facts and principles are the revealing and powerful fruit of pondering, testing, shaping, and rethinking of experience," the researchers write in the 1998 publication from the Association for Supervision and Curriculum Development. "When the student does get underneath or inside knowledge production, he learns something shocking. Much of what we call knowledge is the result of trial and error, inquiry, and arguments among experts." Knowledge, they say, is "pondered, imagined, analogized, tested, argued, and hammered out"—not, as some students may imagine, plucked whole from a metaphorical tree or lifted from a library book. Rather, to be fully understood, ideas need to be "explored, questioned, played with, used in realistic contexts, rephrased, and verified."

Wiggins and McTighe don't toss around all those active verbs just to liven up their writing. Rather, those strong images nail the mental athleticism of project learning: You could call it minds in motion. Or, like William Heard Kilpatrick, you could call it "more or less of an adventure." Kilpatrick's words, gleaned from a series of articles on the "project method" in the *Teachers College Record,* sound as if they could have come from the keyboard of any current proponent of active learning. So the publication date on the series—1921—appears improbable. But Professor George Douglas Hofe, writing in the *Record* in 1966, traces project-based teaching to another professor from [illegible]achers College, John Francis Woodhull. This trailblazer is on record for advocating projects for teaching science way back in the early 1900s, coinciding with writings by philosopher and educator John Dewey, who advocated learning by doing rather than learning by drilling.

Over the intervening years, other theories and trends have added weight to the project approach. Among them are Jean Piaget's theories of child development—which argue for concrete tasks and active learning over abstractions and passive learning—and the related but more recent notions of "constructivist," "experiential," and "discovery" learning. Influential also have been the "multiple intelligences" and "learning styles" ideas of Howard Gardner and others. Woodhull's notions—which he probably scrawled in longhand or banged out on one of the original manual typewriters—might seem prophetic now. Yet, on second look, it's clear that although kids have different toys and tools today, the essence of childhood is timeless and universal. The project approach was a good practice then and remains a good practice today because of the way kids take in and process concepts and information.

Some of the best ways of engaging kids are set out in a list by Wiggins and McTighe. They say kids respond to "hands-on tasks, mysteries, a combination of cooperation and competition, real-world challenges, role-play, provocative case studies or mock trials, audiences for products and performances, choices in process and product, and the ability to personalize work." This list captures the essence of project-based learning, though it's not all-inclusive simply because the possibilities for projects are infinite. In an effort to give shape to the endless project variants, Katz and Chard group them into three broad categories: investigations, constructions, and dramatic play. Rebecca Novick of the Northwest Laboratory echoes these notions in her 2000 report, *The Unity Project.* "Not only reading and writing, but play, visual art, music, dance, drama, observation, and investigation" allow kids to "get to the heart of a subject," she notes.

Veteran Oregon teacher Jane Krauss has long incorporated projects into her work with elementary school students. Her interest in science and the natural environment has led to several years of salmon-rearing projects in her fourth- and fifth-grade classroom at Harris Elementary School in Eugene. She shares her hard-won wisdom here and on the Web site of NWREL's Technology in Education Center, www.netc.org/classrooms@work/classrooms/jane/orientation/jane.html.

WHERE THE MEANING IS

For maximum student engagement, a project should be bigger than the classroom, broader than the schoolhouse. It should reach into the community, into the world, maybe into the solar system—casting out into the farthest reaches of the starry universe, if that's where the child wants to take it. Researchers agree that projects should be linked, first, to things that matter in the real world. And second, they should have a connection to the child's personal history and particular place on the planet—her ancestors, her neighborhood, her village or city, her natural environment.

Researcher Fred Newmann says that applications and importance beyond the schoolhouse are what make schoolwork "authentic," and, therefore, laden with meaning for students. In *Authentic Achievement: Restructuring Schools for Intellectual Quality,* published by Jossey-Bass in 1996, Newmann defines authentic achievement in its broad sense as "intellectual accomplishments that are worthwhile, significant, and meaningful, such as those undertaken by successful adults: scientists, musicians, business entrepreneurs, politicians, craftspeople, attorneys, novelists, designers, and so on." Applied to academic achievement, authenticity can be discerned through three criteria, which Newmann judges to be critical to "significant intellectual accomplishment." They are:

- **Construction of knowledge**—Building on a foundation of prior knowledge, students "hone their skills and knowledge through guided practice in producing original conversation and writing, repairing and building of physical objects, or performing artistically"
- **Disciplined inquiry**—To meet this test, student work must draw upon an existing knowledge base, strive for "indepth understanding rather than superficial awareness," and express ideas and findings through "elaborated communication" (verbal, symbolic, or visual)
- **Value beyond school**—Student accomplishments should not be indicators of success in school alone

Newmann and his associates at the Center on Organization and Restructuring of Schools at the University of Wisconsin recently contributed significant findings to the field. A five-year study in the 1990s funded by the U.S. Department of Education looked at student engagement in about 130 classrooms in 24 restructured elementary, middle, and high schools. After controlling for students' gender, race, ethnicity, socioeconomic status, and academic background, the researchers found that academic performance of students in both math and social studies skyrocketed after their teachers switched to "authentic pedagogy" (instructional practices rooted in the real world). If translated into rankings, the average student would have jumped from the 30th percentile to about the 60th percentile as a result of high versus low authentic pedagogy, Newmann reports.

Testing and rankings bring up one big worry of parents and teachers—that kids will miss basic skills and fundamental knowledge in the free-wheeling project environment. How will these kids fare on standardized tests for college admission, or even high school graduation? This worry is related to a common misconception about project-based learning, the experts say. Project critics often assume that project-based instruction *replaces* systematic instruction in key content and skill areas. Project proponents are quick to reassure these doubters that projects are meant to complement and supplement—not shove out—basic instruction.

"Bear in mind the underlying principle of the project approach: Skills applied to meaningful activities are more likely to be mastered," Katz and Chard insist. "Systematic instruction is formal, and project work is informal."

Newmann expands upon this point. "Repetitive practice, retrieving information, and memorization of facts or rules may be necessary to build knowledge and skills as foundations for authentic performance," he writes. "The point is not to abandon all forms of unauthentic work in school, but to keep authentic achievement clearly in view as the ideal valued end."

Projects help anchor the discrete bits of information that might otherwise float around amorphously in a student's brain. The student in a sense makes that information her own as she examines it from every angle. As she tests its validity and worth. And, finally, as she finds where it fits inside her very own store case of knowledge and experience.

"Our research suggests that students who think carefully about subjects, study them in depth, and connect them to their personal experiences are more likely to remember the facts and definitions called for on conventional tests," Newmann reports.

And, as Newmann notes, even high-stakes tests are beginning to reflect the project philosophy. "Support for authentic achievement also can be found in the changing content of conventional tests themselves, which increasingly include more items requiring higher-order thinking, depth of understanding, and elaborated written communication."

DESIGNING FOR STANDARDS

A related worry on the minds of project critics is the value of the work for larger learning goals. Although they agree that projects are enjoyable for kids, they counter that schools can't afford the luxury of lively learning when virtually every state in the union is riveted on reaching challenging new standards for learning—and the public is watching for results. Schools, they say, need to pound away at facts and skills, hammer away at reading and math, teach the textbook cover to cover, and practice, practice, practice. Otherwise, students will face a handicap when it comes time to take those all-important standardized tests.

Newmann argues against this viewpoint unequivocally: "A significant body of evidence contradicts this concern." He cites a study of alternatives to conventional practice by Michael Knapp, Patrick Shields, and Brenda Turnbull. In 1992, the research team examined the ıaching of math, reading, and writing in 140 classrooms in 15 elementary schools serving disadvantaged students in six school districts. The researchers found, Newmann reports, "that when teachers taught for understanding and meaning rather than memorization, and when they connected the materials to students' experiences, their students consistently outperformed students in more conventional classrooms on advanced skills and did as well as or better on traditional tests."

Still, the danger of careening away from learning targets is a real one for teachers when they're working in the loosely structured project environment. Elaine Wrisley Reed, writing in the winter 1997–98 issue of *American Educator,* cautions that project-based learning has, for some practitioners, become "an educational fad gone awry." She charges that "projects frequently wind up keeping youngsters busy without really teaching them anything of importance."

Conceding that activity and inquiry alone do not guarantee educational value, project proponents affirm that standards ought to beat at the heart of the classroom, feeding and sustaining every activity. "The challenge," Wiggins and McTighe say, "is to point toward what is essential, not merely provide work that is entertaining. The design must blend what is engaging with what is effective."

Here's where the teacher's role becomes critical. Hands-on for kids doesn't mean hands-off for teachers. Fully eight decades ago, Kilpatrick was counseling teachers to plan projects strategically and guide students artfully to make sure important learning goals weren't lost or overlooked. "The teacher," he cautioned, "must set the stage and control the situation so that valuable purposes are likely to be proffered."

Nearly 80 years later, Novick reiterates the critical part a teacher plays as the project unfolds. "In the inquiry model of learning," she says, "the teacher's role moves from interrogator to a collaboration in joint inquiry. The ability to ask meaningful questions and formulate alternative solutions is critical to higher-order literacy demanded by today's society."

Striking a Balance:
"With projects, a teacher has general aims, but the students set the course through their original work. Scoring guides and work outlines help students plan their course. A balance must be struck between giving enough structure to the project and at the same time allowing freedom so students can complete creative efforts. If a project is too structured or teacher driven, it becomes nothing more than a set of steps students follow to predictable results. None of the higher aims of project work (thoughtful decisionmaking, creativity, and collaboration) are met. On the other hand, if a project has too little structure, students may toil aimlessly and produce questionable work that is difficult to evaluate. Striking a balance between too much and too little structure is a big challenge. I address it by starting with a teacher-directed project that teaches a lot of the skills and work attitudes that are repeated in the student-directed project."

The Teacher's Role:
In project learning, the teacher has a lot of "up-front" planning and preparation to do. Here are some of the activities the teacher engages in before presenting a project:

- Choosing a broad theme
- Deciding the parameters of the project (length, products, assessment)
- Writing curriculum
- Addressing content benchmarks and developing scoring systems (scoring guides, self-evaluations)
- Writing lesson plans
- Outlining a schedule of the project on a calendar
- Planning discrete lessons (example: how to take notes from a print source, or how to use an electronic library browser)
- Collecting or preparing materials such as library books and films
- Selecting groups for teamwork
- Scheduling groups for work in the library, computer lab, or in the community
- Enlisting help from parents and the community
- Collaborating with specialists who may work with gifted or special education students
- Preparing calendars, outlines, and other materials that help students structure time and products
- Preparing culminating activities, or "celebrations of learning"

The trick for teachers, the experts agree, is finding the balance point between too much and too little involvement. The project must provide enough latitude for student initiative, creativity, and exploration. At the same time, it must (gently) funnel students toward mastery of challenging standards. It's a tightrope for sure.

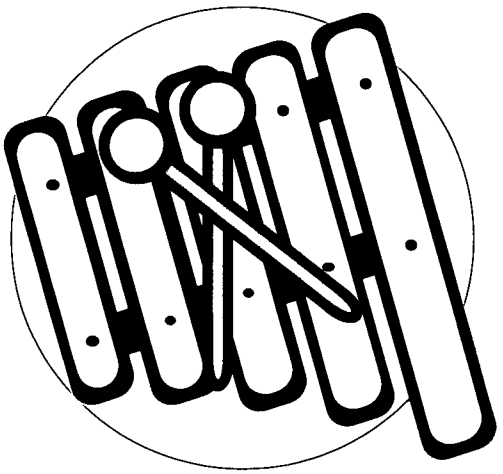
A "BIG IDEA"

When 18-month-old Benjamin sees a flock of birds go by, he's not yet ready to ponder the mystery and complexity of what he has seen. But as he grows, he'll begin to ask questions, and the answers to those questions will lead to new questions in a never-ending spiral of inquiry. Starting with the simple observation of a crow in flight, a child may take an intellectual journey through the vast landscape of natural and human history. If a teacher provides the avenue, that journey will trample the boundaries between academic disciplines and range naturally from physics to American history. From biology to ancient Greek literature. From paleontology to Egyptian art. From ecology to world geography.

This cross-disciplinary approach to instruction turns around what Wiggins and McTighe call a "big idea." To make a big idea understood, they say, educators should design activities not for "coverage" but for "uncoverage."

They write: "Beyond learning *about* a subject, students will need lessons that enable them to experience directly the inquiries, arguments, applications, and points of view underneath the facts and opinions they learn if they are to understand them. Students have to *do* the subject, not just learn its results." □

Marimba Magic



An African music tradition fills after-school hours with rhythm—and learning—at a Willamette Valley school

BY BRACKEN REED

SALEM, Oregon—Crystal, a fifth-grader at Bush Elementary School, stands over the bass marimba, all of her energy focused on executing a complicated new part. Two, three, four times she makes a mistake and starts over.

"That's OK," says the director, Martin Sobelman. "That's what rehearsal is all about."

The 13 other students in the band sit patiently, focused on Crystal's playing, nodding their heads or tapping their feet in time with her rhythm. No one laughs when she makes a mistake; no one squirms with impatience.

"There you go," says Sobelman, as Crystal begins to lock into the part. "All right now!" He turns to face the rest of the band. "Are you ready to join her?" he asks with enthusiasm, as Crystal continues to lay down the complicated pattern behind him, brow still furrowed but a smile showing at the corners of her mouth. Crystal stops playing, and her bandmates give her a quick round of applause. Then Sobelman counts out the time and the full band begins. The room is suddenly alive with rich, full chords and a fabulously syncopated rhythm. Pure marimba magic.

A few bars later the sound collapses in a train wreck of missed parts and embarrassed laughter from the whole group. But it doesn't matter—the moment was wonderful and they can feel it. A little more practice and they'll have it.

The Bush Elementary Marimba Band is part of an after-school learning program run by the Salem-Keizer School District. Partly funded by a federal 21st Century Community Learning Center (CCLC) grant, it has been a runaway success. Two groups, one for fourth-graders and one for fifth-graders, meet weekly after school and during one lunch break.

"To build a successful project," says Gaelen McAllister, a parent volunteer at the school and the co-writer of the grant, "you have to start with someone's passion."

Teri Urban, who directs 21st CCLC projects for Salem-Keizer, agrees. "You have to have someone who goes out in the community and finds volunteers or teachers with specific interests. You find out what they're good at and design a project around that, rather than telling them what to do."

Sobelman, the school's music teacher, was the genesis of the marimba project. "The main elements of marimba music are found in every culture," says Sobelman, "It's something that appeals to people from many different backgrounds."

It seemed like a perfect fit for Bush Elementary, a high-needs, bilingual school where nearly half the students come from Spanish-speaking homes. While marimba music originated in Africa, it spread to the Caribbean and from there to Latin America and beyond.

> "WE WANTED TO TIE THE MARIMBA PROJECT TO ACADEMICS IN A VERY CONCRETE WAY."

A major program goal is to connect it with the larger curriculum. "We wanted to tie it to academics in a very concrete way," says McAllister. A rigorous, "no excuses" policy requires band members to maintain a high level of attendance and academic achievement. And instruction is cross-curricular, tied explicitly to an array of subjects. Practices are spiced with details about the cultural background of each composition, the mathematical patterns underlying the music, the social-historical context, the technology and craft involved in instrument design, and the similarities with other art forms and styles of music.

"Kids who hear a lot of music are better at math," says Sobelman, pointing out that marimba, with its complex rhythms and interweaving of patterns, is particularly easy to relate to the larger math curriculum. The program includes an afternoon snack and buses to take students home. "When you eliminate barriers—food, driving—your chances for success are much greater," says Rita Glass, the school's outreach coordinator. "Just providing transportation has increased the program by half."

The band has given parents a greater identification with the school, helping to reduce mobility. "Parents are saying, 'It's worth keeping my kids at this school,' " says Urban.

And it has also increased community outreach. The band has performed at the state capitol, the local World Beat Festival, the Oregon fiesta, among other events, to great acclaim. "People see these kids performing really complex music at a very high level—they get a different view of what Bush Elementary is," says McAllister.

Probably the greatest result of the project, however, has been its effect on the kids. The beaming smiles and obvious pride they take in the band are testament to it.

"We all have fun," says Whitney, a fifth-grade band member. "It's fun to play an instrument and to know you can do things, accomplish things."

Her bandmate, Ana, puts the success of the project in succinct, fifth-grade terms: "It makes everybody jealous that we're in the band," she says with a huge smile. □

Rediscovering Coyote and Raven

The ancient art of spirit masks moves into the digital age

BY JOYCE RIHA LINIK

HEALY, Alaska—Around campfires, generations of masked dancers have reenacted legends of a long-ago world. They've told stories of Coyote the trickster and of clever Raven, fabled to have stolen the sun and brought light to the skies.

Today, one small-town school in the Alaskan wilderness is bridging these tales of the ancients with modern technology as students take the study of spirit masks high-tech.

At Tri-Valley School near the northeast edge of Denali National Park, middle school students are researching animal symbolism on the Web, designing three-dimensional masks with computer graphics programs, and making and editing digital movies of their mask-making endeavors. Along the way, they learn about differences in world cultures, practice their writing skills, and gain exposure to the fine arts.

This 10-week interdisciplinary project is the brainchild of Tri-Valley technology teacher Sheila Craig. She came up with the idea after participating in an intensive professional development program called ARCTIC (Alaska Reform in the Classroom through Technology Integration and Collaboration) two years ago. This effort, funded by the U.S. Department of Education, helps teachers learn to weave technology into instruction in relevant and useful ways and to design effective learning environments that incorporate technology.

"ARCTIC introduced me to project-based teaching and made me think about using technology tools in a different way," Craig says. "I used to teach computer applications courses," where technology skills were separated from other academic disciplines. "Now," she says, "I teach academic content using technology as a tool" to support learning.

The difference for students is clear. Craig reports that lessons are "more meaningful and more relevant" to them—"things make a lot more sense." In short, she says, "It's a more holistic way of learning."

During the ARCTIC training, Craig spent a semester team-teaching in Columbus, Ohio, with another Alaska participant, Marilyn McKinley, a fine arts specialist. Because Craig's school had no art teacher, McKinley helped her develop the spirit mask unit and figure out how to integrate art with technology.

The state's ethnic diversity—which includes people of Inupiaq, Yup'ik, Alutiiq, Athabaskan, Tlinkit, and Tsimshian heritage—motivated Craig, as well. She hoped to give her mostly Caucasian students a deeper appreciation for these rich and varied cultures. "It's important," she says, "that kids have tolerance for people whose ideas are different than their own."

During the project, Craig's students study animal symbolism in indigenous cultures around the world. They examine values and beliefs regarding issues such as the passage of time, the treatment of the elderly, and child-rearing practices. The exploration eventually brings students to the study of Northwest Coast and Yup'ik spirit masks, used for telling stories about daily life, such as the hunt. They were also employed for teaching lessons through cautionary tales, not unlike such European American classics as "The Tortoise and the Hare" and "The Ant and the Grasshopper." Finally, students choose an animal that intrigues them—their "spirit animal"—one whose characteristics and qualities they admire, feel they possess, or hope to develop. They design their mask on the computer first, and then build a three-dimensional plaster version.

"IT'S A MORE HOLISTIC WAY OF LEARNING."

Sam, an eighth-grader, is moved by native legends of Raven. In his journal, he writes that he has chosen the raven because it is intelligent and sometimes tricky, and also because it is "a leader," a trait he hopes to attain. His mask, painted black with highlights of blue, features a prominent orange beak. At each temple, he incorporates a traditional Native American element by attaching a feather on a beaded leather string.

Another student, Jessie, selects the clever and discrete fox as her inspiration. To mimic the texture of fur on her mask, she attaches red and white feathers.

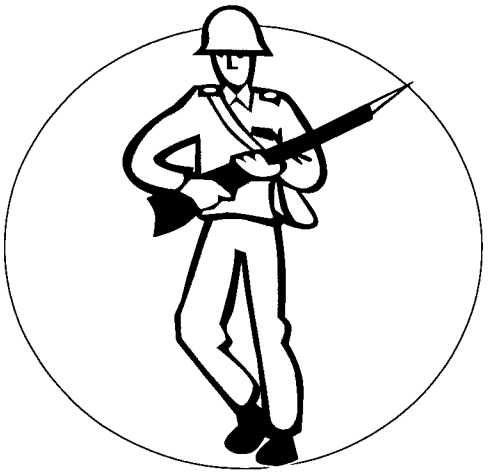
Throughout the mask-making process, students work collaboratively, documenting the experience with digital photographs and videos, and helping each other with technical challenges. They then create their own iMovies and multimedia HyperStudio stacks. The students keep an online journal throughout the project and write a variety of essays. Finally, they present their work to their classmates.

A number of state standards are braided into project goals. For example, students:

- Gain an understanding of the historical and contemporary role of the arts both inside and outside Alaska
- Use technology to explore ideas, solve problems, and derive meaning
- Organize and use information to create a product
- Apply elements of effective writing and speaking
- Learn to create and perform in the arts

This project reaches students who might otherwise be left behind. It has been especially effective with troubled and learning-disabled students. "Adults sometimes have misconceptions that these students won't be successful at technology," Craig says, "but that isn't the case." Often, in fact, "they pick it up and blow people away. Technology is one area where kids who don't experience success in other areas can experience success." □

New Life for an Old War



Even the graffiti suggests history has taken on new meaning for Flathead students

BY MAYA MUIR

RONAN, Montana—When English teacher Christa Umphrey began a unit on World War II with her high school freshmen, her initial thought was how very long the next months would be. When she asked for questions about Pearl Harbor, the students came up with such insightful queries as, "Why did we bomb them?" and "What country is it in?" Many of her students couldn't figure out why they should care about the war at all. To these kids growing up on the Flathead Indian Reservation at the turn of a new century, the war seemed awfully long ago and far away.

But by the time those freshmen had completed a semester-long project involving history, earth science, math, drama, band, and choir in addition to English, Umphrey found the perspective of those same kids transformed.

"When one of the four schools in our district was found a 'School in Need of Improvement,' the superintendent mandated that all schools adopt a comprehensive whole-school reform model," says Ronan Principal Sandy Welch. "We chose a project-based model because the staff said that we'd get the same results if the teaching didn't change. Project-based teaching was a real change."

Umphrey broke the ice by having her students look through a number of books on the war, followed by brainstorming questions. Then she took them to see the movie "Saving Private Ryan." Immediately, she sensed a breakthrough. Students were caught, curious. Umphrey followed with readings such as Elie Wiesel's *Night* and John Hersey's *Hiroshima.* The class examined war memorabilia at a museum and heard a woman talk about having been in the Resistance in Holland.

Then students interviewed local WWII veterans, bringing the war home in a new way. "My favorite project was my interview," says student Stacy Harris. "I got to know my grandma better and find out about World War II from someone who lived through it." Students wrote up these biographies. In art class, they drew portraits of their subjects from photographs.

In math, students studied the invention and use of radar. They researched the physical activity and caloric intake of a European soldier, a U.S. soldier, a Holocaust survivor, and a French farmer, then graphed their findings using Microsoft Excel. In earth sciences, the kids mapped Germany and Japan and studied their natural resources.

Midsemester, a drill instructor arrived in Ronan to put students through a simulated "boot camp." He taught drills and rudimentary first aid, and gave them a small dose of military history along with some MREs (Meals Ready to Eat). Even initially skeptical students enjoyed the experience.

At Christmas, the drama and choir classes collaborated in a wartime musical, *I'll Be Home for Christmas.* The choir sang 1940s songs while the drama classes designed sets and costumes and took on the roles of a family from that era.

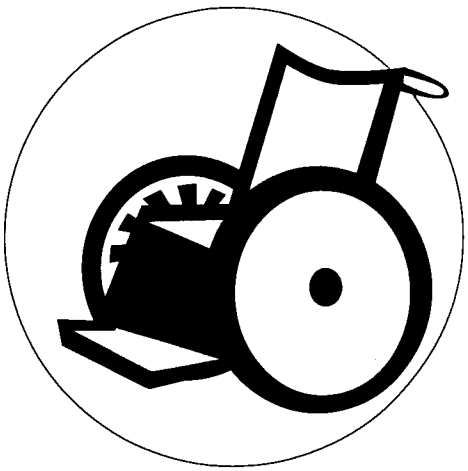
"I GOT TO KNOW MY GRANDMA BETTER AND FIND OUT ABOUT WORLD WAR II FROM SOMEONE WHO LIVED THROUGH IT."

The culmination of the semester came in January with the presentation of a World War II open house in the high school gym. The room was filled with exhibits, computer-generated images of the war projected on the walls, and proud students ready to explain their particular project to anyone interested. "It was so nice to see all the elders' faces when they saw everything we'd been working on," says freshman Krystle Slover. "They looked so happy." In one corner, Cathy Gillhouse's choir put on a USO-style show, singing "Boogie Woogie Bugle Boy" and other 1940s hits in front of the red, white, and blue.

Another high point of the open house was the band's recital of "Dresden in Memoriam," a commemoration of the firebombing by Montana composer Dan Bukvich. A difficult piece under any conditions, it was a challenge for the Ronan band, starting with the piece's non-traditional notation. But it intrigued students from the first time bandleader Jeff Long played them a recording of it. One student said, "Mr. Long, if we play this, the audience will cry." Long replied, "That's the point of music." The kids rose to the occasion, perhaps inspired by a visit by the composer who came to work with them on the piece.

The unit was deemed such a success that it is being repeated this year with only minimal changes. Sandy Welch notes that through the project, teachers were able to engage many students who weren't normally high achievers. For example, a perennially disgusted and uninvolved student of Umphrey's arrived one day with a backpack full of material on the war gathered from family members, along with already-underlined Internet printouts. And Umphrey found herself laughing one day at some new graffiti on one of her already battered desks. A previously existing hole in the desk had been labeled "Hiroshima." "Maybe that student could even tell me where Hiroshima was," Umphrey observes, "or what country bombed it." □

Good Health, Good Heart



A school's partnership with a neighboring hospital shows kids real-life applications of science and caring

BY MAYA MUIR

PORTLAND, Oregon—Inside the Providence Child Center, six students from Laurelhurst Elementary School cluster around the wheelchairs of Darren, Mary, and Marielle, three severely disabled and medically fragile children. The Laurelhurst kids chatter as they color pictures of flowers, often touching the arms of the three much-older kids, all developmentally only several months old. The benefits to both sets of children are obvious: the Providence kids have the stimulation provided by contact with normally functioning children, and the Laurelhurst kids learn an early lesson in accepting difference.

These elementary-schoolers started visiting the hospital in first grade and will continue until fifth. The difference in their comfort level as they progress is obvious, but already by second grade they've lost their initial fear. They interrupt their coloring to describe what they are doing, watching knowledgeably for subtle responses from these kids who can't talk, noticeably pleased when they detect them. And without even knowing it, they are achieving several of their second-grade learning goals: learning about communication and about their neighborhood and community.

This program is one piece of a six-year-old, project-based partnership between Providence Hospital and the nearby elementary school that was designed from the beginning to benefit both partners equally, says Don Brown, director of the Providence Academy. He cites a walking map of the immediate neighborhood that the Laurelhurst students created. Hospital visitors use the map to find their way around.

Similarly, when a second-grade class was studying balance and motion as part of the science curriculum, teacher Karrie Locke connected with a physical therapist at Providence who demonstrated traction pulleys by setting them up on a dummy child (actually, a life-size doll) at the elementary school. "It was a great real-life application," says Locke.

Last year, teacher Ron Norman directed his fifth-graders to choose various hospital professions as subjects for a research project. Kids asked themselves what they knew about various jobs and what they wanted to know and then interviewed Providence professionals to find out about their work. Among those questioned were a pharmacist, a respiratory therapist, a microbiologist, a hematologist, and the director of human resources. "The kids loved doing the interviews and, in fact, they reported later that they liked this focused research project best of all they did. And it met my objectives: It made them curious, helped them ask good questions, and made their learning meaningful."

In another popular project, a third-grade class collected data on newborns in the maternity ward. Students charted and graphed the number of babies born, their weights, the number of boys compared to the number of girls, and the birth weights of babies with smoking mothers versus nonsmoking mothers. "The exercise had math, science, and health tie-ins, and it was fun for the moms," says Laurelhurst Principal Teri Geist.

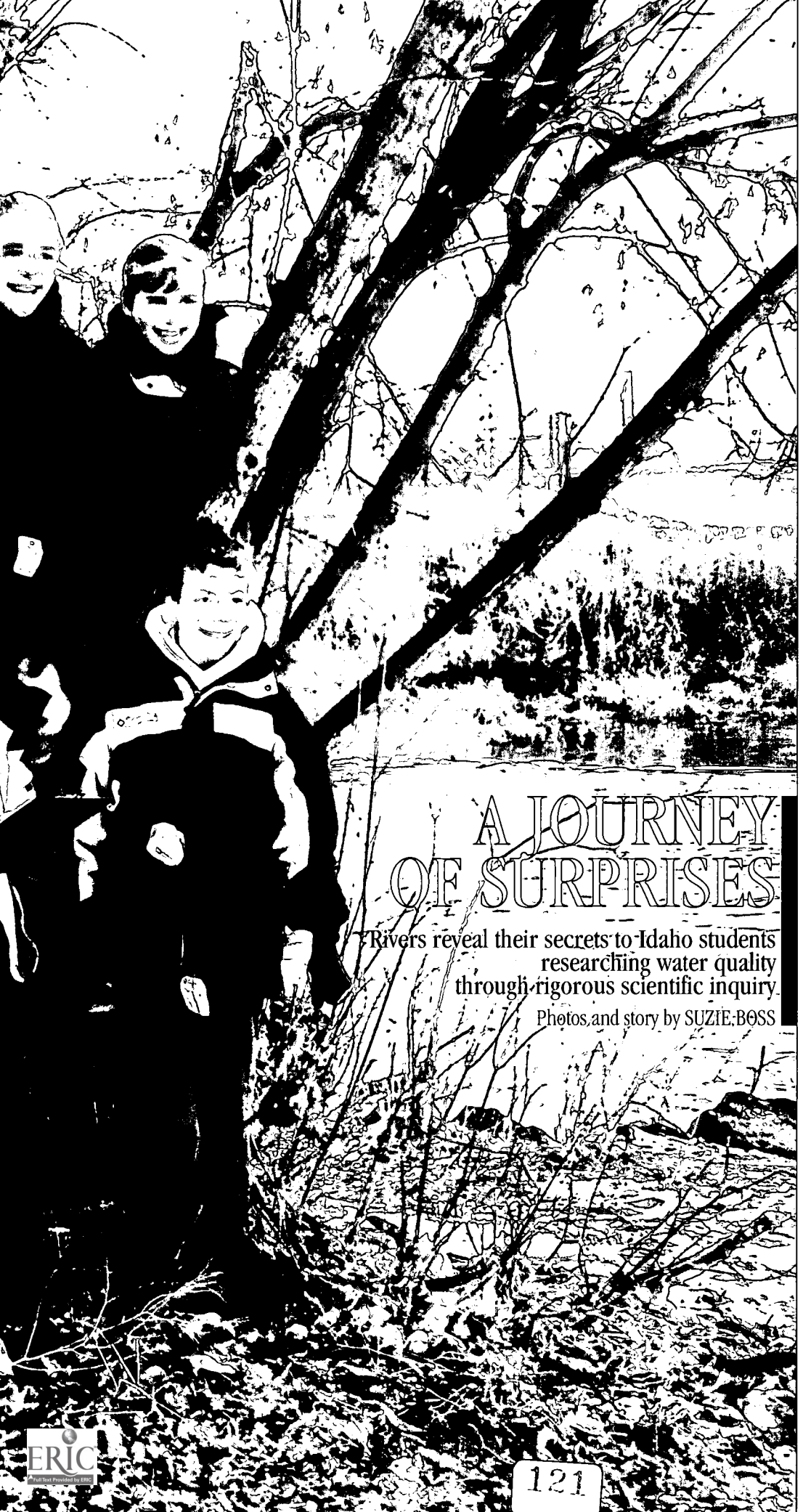
"THE PROJECT MADE STUDENTS CURIOUS, HELPED THEM ASK GOOD QUESTIONS, AND MADE THEIR LEARNING MEANINGFUL."

"Initially, we thought this partnership would be an opportunity to promote good health," Brown comments, "but it has turned into far more. We are fully integrated into the curriculum at the school in all kinds of ways I don't even know about. When I was over there last, I found the director of engineering talking to a class about how the hospital handles its energy supply." The success of Laurelhurst's project-based learning has led to plans for expansion. Next year, the local middle school (Fernwood) and high school (Grant) will participate with Laurelhurst in the production of a video on hand washing that Providence will use to train employees and inform children.

Back in the child center, Bud Manley, a teacher with Portland Public Schools, quietly oversees the activities. "Look, you've colored red clover, the Vermont state flower," Manley says to a Laurelhurst second-grader. Darren, who's been watching and listening from his wheelchair, shifts his head to the right and then to the left. "Huh," he says. Manley translates. "Darren thinks that's funny," he says gently.

The goal of the typical partnership between business and education is for children to learn the skills to be successful at any job. In this partnership, however, something even more basic is also happening, at least among the children who've walked the three blocks to the child center. "As a former special ed teacher," says Debbie Vigna, "my thing is that kids should be accepted for what they are. And it's happening. Last year when we had a special ed kid with us in the afternoons, my second-graders were far more accepting of him than they would have been otherwise. And from this, they begin to learn about accepting other kinds of differences."

Back in the clutter of colored paper and Magic Markers at the child center, wheelchair-bound Marielle suddenly looks up at the corner of the ceiling of the brightly lit room. Sarah, a blond second-grader in glasses, drops her head next to Marielle's to peer upward at the same angle. She wants to see just what it was that drew her friend's gaze. Empathy, it seems, is not the least of the lessons contained in this project-based partnership. □



A JOURNEY OF SURPRISES

Rivers reveal their secrets to Idaho students researching water quality through rigorous scientific inquiry

Photos and story by SUZIE BOSS

EAGLE, Idaho—Squiggly blue lines cover the map of Idaho, a state with more than 2,000 lakes and hundreds of miles of rivers. From the perspective of veteran science teacher Bob Beckwith, all that water means that nearly every Idaho student has easy access to a creek, a stream, or a lake. "Probably 95 percent of the state's population lives along a watershed," he estimates. And where there's water, Beckwith can promise you, there's a science project worth pursuing.

On an early winter morning, for example, Beckwith and fellow Eagle High School biology teacher Steve DeMers loaded three classes of warmly dressed sophomores and armloads of scientific gear onto a school bus and headed off on an all-day investigation of water quality along the Boise River. By the day's end, students had made four stops to gather data between the mouth of the river and headwaters in the mountains west of Boise. They waded midstream to collect invertebrates and dipped their hands into icy currents to test pH and oxygen levels. They checked and rechecked their measurements, keeping careful track of resulting numbers for future analysis.

Despite the frosty weather and the high spirits that come with escaping the classroom, students resisted the urge to hurl snowballs. And all day

During a winter day spent collecting data along the Boise River, students in hip waders used a kick screen to gather specimens from the river bottom (at left); examined the screen for macro invertebrates (bottom right); tested water quality (middle right); and, finally, reported their numbers to teacher Bob Beckwith (top right, with clipboard).

long, there was no whining. Every student participating in the trip was there by choice, doing what Beckwith calls "real science."

Since he began teaching in 1972, Beckwith has been using projects to introduce his students to the scientific method. There's no shortage of evidence that it's an effective strategy. Beckwith himself is a past recipient of the Presidential Award for Excellence in teaching secondary science. Several of his students have won regional and national honors in elite science competitions, and many have gone on to launch careers in engineering, biology, medicine, and other fields that require a deep understanding of science. Even students who aren't destined for technical careers, Beckwith points out, gain the benefit of "learning to ask a question and figure out the answer. That's how I define science literacy."

On the banks of the Boise River, three girls from Eagle High interrupted their fieldwork to explain the appeal of project-based learning. "We learn so much more this way compared to reading a book," said one. "You get to experience it yourself, so you really understand what something like turbidity means," added another. "This applies to me," explained the third girl. "This is a river where I might want to swim or go fishing. The quality of this water matters. It's important. And I have the tools right here to find out whether or not it's clean," she said, holding up a vial of river water she was evaluating for the presence of nitrates. Although she knew there would be more analysis to be done later, back in the classroom, she had already gained one insight from taking snapshots along different parts of the river: "Upstream, away from the city, the water gets cleaner."

SHARING SKILLS

Through an ambitious effort he launched several years ago, Beckwith also helps other Idaho teachers acquire the skills, equipment, and confidence they need to incorporate project-based learning into their classes. Project SITE—which stands for Students Investigating Today's Environment—engages students and teachers across the state in projects involving scientific inquiry into water quality, noxious weeds, and other real-world concerns.

Beckwith co-directs SITE with David Redfield, dean of health and science at Northwest Nazarene University in Nampa. Support for the project has come from a variety of sources, including several Idaho colleges, school-to-work partnerships, the state department of education, Idaho Rangeland Commission, and private funders such

as the J.A. and Kathryn Albertson Foundation.

More than 200 teachers have gone through SITE training, which immerses them in the same kind of project-based learning they will later orchestrate with their own students. The core of training is an intensive, five-day summer workshop that reminds teachers why science is best understood through active learning. Little time is spent listening to lectures or reading texts. Instead, teachers do real fieldwork, rafting the Salmon River to collect data that relate to water quality or surveying plant life to assess the spread of noxious weeds.

"It's not lecture/read/do a canned experiment," Beckwith says. "We might talk for short periods about things they don't understand very well, then provide them with an experience where they can pose questions and do research to figure out the answers. So it's a steep learning curve. We model how science works. Science is not a textbook—that's a history book of facts that scientists have already learned by asking questions. Those facts are an important foundation," he acknowledges, "but real science involves going out and answering new questions."

Between Monday and Friday of a typical training week, "teachers learn everything they need to be classroom ready," Beckwith says. Participants also come away with armloads of gear provided by SITE. "We don't just train them and then expect them to find a way to buy their own equipment," he says. "We give them all the stuff they need," he says, such as test kits, digital cameras, and a manual he wrote in accessible language to guide students through nine scientifically valid field tests designed to measure water quality.

In return, teachers agree to take their students out on data-gathering projects at least three times during the school year. They also bring SITE students together to present their projects during an annual Idaho Student Showcase Day in the spring. By fulfilling their end of the bargain, teachers can earn a stipend.

Providing teachers with such extensive support means that the SITE organizers have had to devote considerable energy to writing grants and reaching out to potential funders. The program invests about $1,500 per teacher on training and supplies, Beckwith estimates. But the investment pays off, he says, by "freeing teachers to focus on teaching." Water quality —which integrates biology, chemistry, and physics—continues to be a prime focus of fieldwork, but funding for research on weeds has led to new SITE projects in the area of life sciences. "As long as we can collect data, work as a team, and ask questions, then it's a valid project," Beckwith says.

To be sure, project-based learning puts high demands on the instructor. "This takes energy," Beckwith admits at the end of a cold day spent outdoors with a busload of teenagers. But for teachers who enjoy being learners themselves, this style of teaching "helps prevent burnout," he adds. "It lets teachers engage in questions, too. They have to know enough to help students figure out the answers. As a teacher, you have to allow students to go places even if you don't know the answers."

Some teachers need a little "nurturing," Beckwith admits, to gain the confidence to launch students on challenging projects outside the confines of the classroom. "For others, this way of learning fits so well with their teaching style—it's natural. They pick it right up." When Beckwith explains SITE methods to teachers who already believe in active learning, "you just have to put the idea on the table and then run to get out of their way!"

PLEASANT SURPRISES

Shannon Laughlin was in her first year of teaching middle school science when she saw a flyer about Project SITE. She signed up for two weeks of workshops last summer, including a five-day raft trip along the Salmon River.

"You work your tail off," she recalls, laughing. "You're on the river nine hours a day, then talk more about science at night. It's wonderful!" Although Laughlin holds degrees in both plant science and entomology, she had never done fieldwork. "This kind of hands-on training gives you a chance to prepare," she says, "so you're ready when it's time to take your kids out."

Last fall, Laughlin began introducing her students at Marsing Middle School to project-based learning. For students and teacher alike, Project SITE has been a journey of surprises. "My kids started by asking me, 'What are we going to find out?'" Laughlin would tell them: "I don't know. *You're* the scientists." Project SITE is worlds removed from what Laughlin calls "canned labs, where you can guess what the results should be. What's neat about this is, you don't know ahead of time what you're going to learn. I like to do things where I don't know the answers in advance."

Laughlin's students have been using SITE protocols to test water quality along the Snake River, which runs right through their community and is only a five-

WHAT'S IN **SITE?**

Teachers currently involved in Project SITE recently came together for an all-day workshop to share information about their classroom activities. Their experiences show that project-based teaching methods can work in a variety of settings and appeal to a wide range of learners. Among the examples:

At Kuna High School, students can start participating in SITE activities as freshmen, in Ken Lewis's ninth-grade biology class. "We focus on ecology, and use SITE to explore biotic indicators like macro invertebrates. Working in groups, they come up with some great hypotheses," he says. Later, when students take chemistry and physics, they use SITE inquiry methods again. "I see a bump in their understanding," says teacher Mike Weidenfeld. "They have better techniques, deeper understanding." In chemistry, for example, he uses SITE "as a springboard." Collecting water samples "gets kids to ask questions like, Why is pH important?"

Roy Gasparotti teaches a yearlong projects class for seventh-graders at New Plymouth Middle School and says SITE "fits right in. Interdisciplinary projects are part of our curriculum." He asks students to assess whether water samples "are good or bad. Then they develop PowerPoint presentations with their data. It's more fun for kids to work with their own numbers, to graph data they have collected. It's more meaningful to them." Fellow teacher Craig Mefford works with the same students on writing their hypotheses and making carefully worded observations.

Will Zollman, who teaches agricultural science at Midvale Junior-Senior High, took a SITE training session on weeds last summer, along with his superintendent and a school board member. So district support for project-based learning is a given. "This has added to my teaching," he says. "It's made me look at weeds in a different way—how do they affect rangeland? What can we do about them?" Those are questions he hopes to have his students exploring through fieldwork this spring.

Steve DeMers, who teaches at Eagle High School, has been involved with SITE for three years. "I want to take it a step further," he says, to get students to consider deeper questions after they have gathered data. He has students use their test results to create graphs with Excel software. "Then I ask them to look for trends. What should a graph look like? Can they explain what's happening, and why? I'm trying to get them to recognize patterns."

John Pedersen, a middle school teacher in Nampa, took a SITE workshop early in his teaching career and has been using project-based methods ever since. This year, students are doing water and weather studies. "One student trains the next to enter data," he explains.

Chad Anzen at Fruitland High School is starting to see students who have had the benefit of project-based learning as early as middle school. "We have a middle school teacher who does SITE, and I'm getting those kids now in high school. They take off so much faster. They act like teachers themselves," he says, "helping their classmates understand how to do field tests." By the time the same students take advanced biology, he adds, "they're ready to go to the step of analyzing. It's exciting."

Students use scientific equipment to measure water quality indicators—not once, but three times. Later, back in the classroom, their numbers will be added to a statewide database. Their first field lesson: accuracy counts.

minute bus ride from the school. "They fish in this river and swim in it. The river is a part of their life. So they have a personal stake in asking: Is it clean?" That question has led them to others, such as: What affects water quality—agriculture? pollutants? animals?

Although Laughlin says SITE has opened the door to powerful learning opportunities that build science literacy, that's not the only benefit she's witnessed. Using field-tested SITE methods, she asked her students to break into teams and choose their own captains. "The ones they chose as captains are not necessarily the usual leaders. But these kids blew me out of the water," Laughlin admits. "Natural leadership does not always show up in the classroom. These kids did a great job, and it gave them a chance they might not have had otherwise to demonstrate their leadership, their competence." She enjoyed sharing that observation with her principal, who came along on the first field trip and has become an enthusiastic supporter of the project.

POWER OF TEAMWORK

Beckwith knows from experience that teamwork is a valuable component of SITE projects. "The tasks are such that one person can't do it alone," he explains. "Students have to work in teams, and team mem-

bers have to depend on each other." Back in the classroom, teams share test results as part of their quality assurance. "If the teams get similar results," he explains, "they know they're on target." Because data are entered into a SITE database that students all over the state can access for research, accuracy is critical.

What's more, the team approach to research allows all learners to contribute, no matter how diverse their skill levels or how different their learning styles. "Out in the field, they all can be active participants," Beckwith says. "Nobody's sitting on the bench. When they come back into the classroom, they can share their data. Every number offers some valuable information."

David Redfield, a professor of chemistry at Northwest Nazarene University in addition to being co-director of SITE, is convinced that such projects "are not just for the elite students. It's amazing to see kids who are not particularly strong in traditional classroom settings step up and take on a leadership role on a team. They all can use their strengths."

At the university, teamwork skills are valued, Redfield notes. The depth of science literacy that SITE fosters should help prepare students for the rigor of college-level work. "By the time they reach the university, we should be seeing students who are further along as scientists," he predicts.

SITE not only introduces students to the process of scientific inquiry, Redfield says, but also gives them enough practice in fieldwork so they can start to become confident researchers. "It's important for them to go out at least three times during the school year to gather data," he explains. "The first time they do the tests, it feels like a lab exercise. They're just learning how to use the equipment, take the measurements. But by going into the real world to gather data, then returning to the classroom to analyze results, they can start to look for patterns. They ask questions to figure out why they got the results they did. It becomes a real experience—the numbers have relevance."

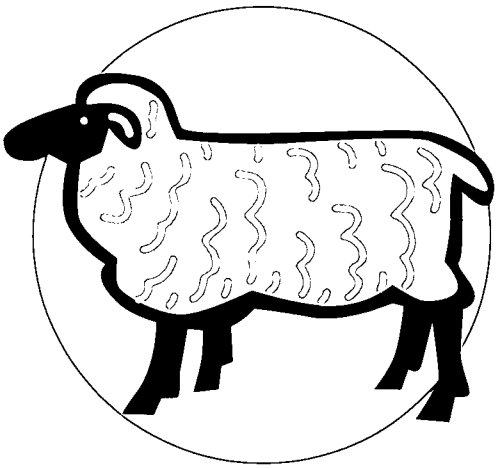
As students repeat the data-gathering process, "the repetition builds their skills," Redfield says. "If the data seem off, they can take a close look at how they're collecting samples. That's a problem-solving exercise right there—to figure out how to correct their methods in the field. They start to know enough to question results if the numbers seem flawed or wrong. That takes confidence." As students repeat the cycle of posing a hypothesis, gathering data, and analyzing results, "it takes them deeper and deeper into understanding what's happening, and why," Redfield says. "When they're confident about their numbers, then they can move on to ask: What are these numbers telling us? Why did the oxygen go down? What else changed? Is there a relationship, a pattern?"

Beckwith also takes a long-term view of where Project SITE might lead. "Once they learn to use this model, students should be able to apply scientific inquiry to questions of their own. There should be some students in every class who get really excited, really curious. They can take off on their own investigations," he says.

He's seen it happen. One of his former students became curious about Mars, and went on to design an experiment that won a national competition sponsored by NASA. Another girl had to miss some class time because her family was traveling to India. She packed along a water quality kit and tested samples of the Ganges and other rivers, which she compared to the water quality of Idaho rivers.

Recently, Beckwith received an e-mail from a student, now a junior in college, asking for a letter of reference for graduate school applications. It was in his biology class, doing Project SITE, that she did her first fieldwork and became inspired to become a scientist. Beckwith will know when project-based learning really takes off in Idaho and transforms the culture of the classroom, "because we'll be flooded with letters like that one. It's far better than any test score," he says, "for measuring success." □

Winds of Change



Through the Montana Heritage Project, students preserve the past and prepare for the future

BY JOYCE RIHA LINIK

HARLOWTON, Montana—The wind races down from the Crazies and rushes through the Musselshell Valley like a wild stallion trampling everything in its path. It's amazing that the Moore family's old sheep shed is still standing. The tempest shrieks through the gaps in the structure and rattles the loose, weather-whittled boards. Inside, a small group of students hopes the noise won't obscure the voices of the two men who have brought them here; one pupil tests a tape recorder to be sure their storytelling will be preserved.

The Moores settled this homestead and started ranching here, at the base of the Crazy Mountains, near the end of the Civil War. Today, the fourth and fifth generations of the Montana clan, P.J. "Jim" Moore III and his son, Steve, are sharing their family's story with four Harlowton High School students and their English teacher, Nancy Widdicombe.

To bring the history to life, the Moores have brought the group—equipped with paper, pens, lists of prepared questions, cameras, audio and video recorders—to the site of the original homestead, to the cavernous sheep shed where their ancestors cared for their flock more than a century ago.

Widdicombe explains that this ranch is one of only a handful left in the area, "the last bastion of old family-owned ranches around the state." Her students know that if these stories aren't recorded now, they will be lost forever, marked only by the ruins of a few wooden structures. So the students are heading out into the community to discover the stories of the area's historic ranches and record them for future generations.

This educational endeavor is just one of many around the state that are part of the Montana Heritage Project, a seven-year-old effort focused on community-centered teaching. Instead of relying on textbooks, students take part in academic learning in their local environment.

"Getting kids excited about the adventure of scholarship is what it's all about," says Heritage Director Michael Umphrey. "Classes without real-world application are much like football teams that have practices, but never play games." Here, "kids get to be participants instead of spectators, and that generates the kind of energy one sees at athletic events," he says.

When schools and communities collaborate to "gather, preserve, and present local knowledge," a Heritage document reports, several things happen:

- Students' educational experience is enhanced
- The school gains high-quality teaching materials
- Students are engaged with their families, neighborhoods, and communities
- The curriculum is infused with a service ethic
- Students and teachers find sound educational uses for powerful technologies

Related academic materials take on new significance for kids. In Harlowton, for instance, to prepare for the historic ranch study, students devoured nonfiction books about the history of the region. Titles included Steven Ambrose's *Undaunted Courage,* an account of the Lewis and Clark expedition; Mari Sandoz's *The Buffalo Hunters,* a history of the Indian tribes and living legends of the Old West; and Mary Clearman Blew's *All But the Waltz,* a collection of essays about life on the Montana plains in the late 19th and early 20th centuries. Students also learned to operate audio and video equipment, and used computers to create PowerPoint and Web presentations of their work.

Numerous educational goals were addressed as students learned to seek out information, assess and evaluate data, draw conclusions, and record their findings. And, Widdicombe says, the interview process taught students the skill of "listening—*really* listening," which encouraged the ranchers to "share *amazingly* truthful bits" of their history.

"The families realized how much the students already knew, which showed true interest and dedication," says Widdicombe. At the same time, "the students were impressed" with the ranchers' devotion to the land, commitment to hard work, and flexibility in times of challenge. The material the students gathered was so rich that they decided to publish it in a book titled *Images of the Upper Musselshell Valley.*

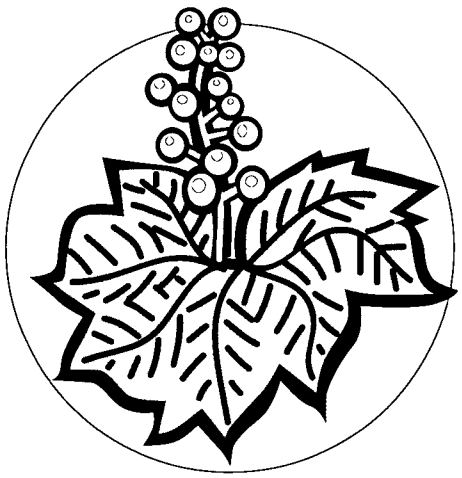
"CLASSES WITHOUT REAL-WORLD APPLICATION ARE MUCH LIKE FOOTBALL TEAMS THAT HAVE PRACTICES, BUT NEVER PLAY GAMES."

Throughout Montana, Heritage students have helped libraries and museums build oral history collections and add to historic photo archives. They have performed data collection for Montana Fish, Wildlife, and Parks and engaged in field archaeology for the Bureau of Land Management. They have compiled histories of local organizations and helped nominate significant buildings for the National Registry of Historic Places.

Public presentation of the work, reports Umphrey, is a key component of the projects. Students in Harlowton, for example, unveiled their project first to the community and then to the Library of Congress in Washington, D.C. When students see that adults take the work seriously and believe it should be preserved in archives, they take the work seriously, too.

"It's a conversion experience," says Umphrey. "They see their families, classrooms, and neighborhoods not just as an environment in which they pursue their individual desires, but as communities of which they are members." □

What the Forest Gives



Students scour the Tongass National Forest for products and remedies both ancient and modern

BY JOYCE RIHA LINIK

JUNEAU, Alaska—Beneath a towering canopy of hemlock and spruce, a group of 11- to 14-year-olds bushwhacks through thick undergrowth in the Tongass National Forest. Their objective: to reach assigned 10- by 10-meter-square sections of forest where they will identify, measure, and catalog plant life. They will also determine which stage of forest succession—old growth, mature, or secondary regrowth—these patches of wilderness exhibit.

As they explore, the students look for such signs as diameter of tree trunks, fallen trees, and snags. The young trees can be as slender as a woodpecker's beak, the old ones as wide as a grizzly is long. In the older sections, students also find indicators of natural decay and seasonal storms. Over time, such natural events have created gaps in the canopy, allowing sunlight to filter down to the forest floor where it inspires ground cover plants such as fern-leaf goldthread, five-leaf bramble, and blueberry to flourish. So a patchy canopy, burgeoning undergrowth, and—with luck—the sighting of the Sitka black-tailed deer that feed on the understory provide evidence of an older forest. In contrast, newer growth areas are characterized by denser stands of evergreens, a nearly solid canopy, a scant understory, and fewer signs of natural decay.

Students know this because this trek through the forest is part of an interdisciplinary project for sixth-, seventh-, and eighth-graders at Dzantik'i Heeni Middle School's Alder House. Here, in this school within a school, science teachers Paula Savikko, Callauna Dick, and Tom Thompson have teamed up with social studies teachers Amy Lloyd, Julie Leary, and Woodland Hood to teach their 180 students about the 16 million–acre forest that is, literally, in their backyard. The project encompasses the study of forest characteristics and forest succession, the science of logging, the sustainability of natural resources, the history of Alaska, the culture of native populations, and the use of native plants.

As students make their way through the forest, they keep their eyes peeled for plants they've studied in school and may return for later. This includes species that Alaska Natives have used for generations for both practical and medicinal purposes—plants like fireweed and geum root, and an exotic-looking plant called devil's club.

Danielle, a young Tlingit girl, points to a plant with tall, wandlike stems leading up to huge leaves around a cluster of white flowers and red berries. Her classmates are rapt as she explains how her mother removes the spiny outer bark of this ginseng relative and harvests the inner bark to steep for tea, and how she boils the roots of the plant to create an air freshener. Danielle adds that the plant can also be used to create a soothing balm for cuts.

This is useful information for Danielle's classmates because the culmination of the Tongass project involves harvesting sustainable plant life to create and market products from the forest. "We teach students to show respect for the forest and take only what they need," Savikko explains. "A lot of this is really a more native way of looking at the forest." About a quarter of Alder House's students are Alaska Natives, mostly Tlingit, whose ancestors have lived in harmony with the forest for generations. Savikko tells students, "When you come across geum root, don't take the strongest, healthiest root, and don't take it all from one place." This way, plants can better weather the trauma and survive to provide again.

"STUDENTS LEARN TO USE SCIENTIFIC KNOWLEDGE TO MAKE INFORMED DECISIONS."

The students show great respect as they gather samples. Dick says: "They even say 'Thank you' to the plants, out loud."

Students create a variety of products, including:

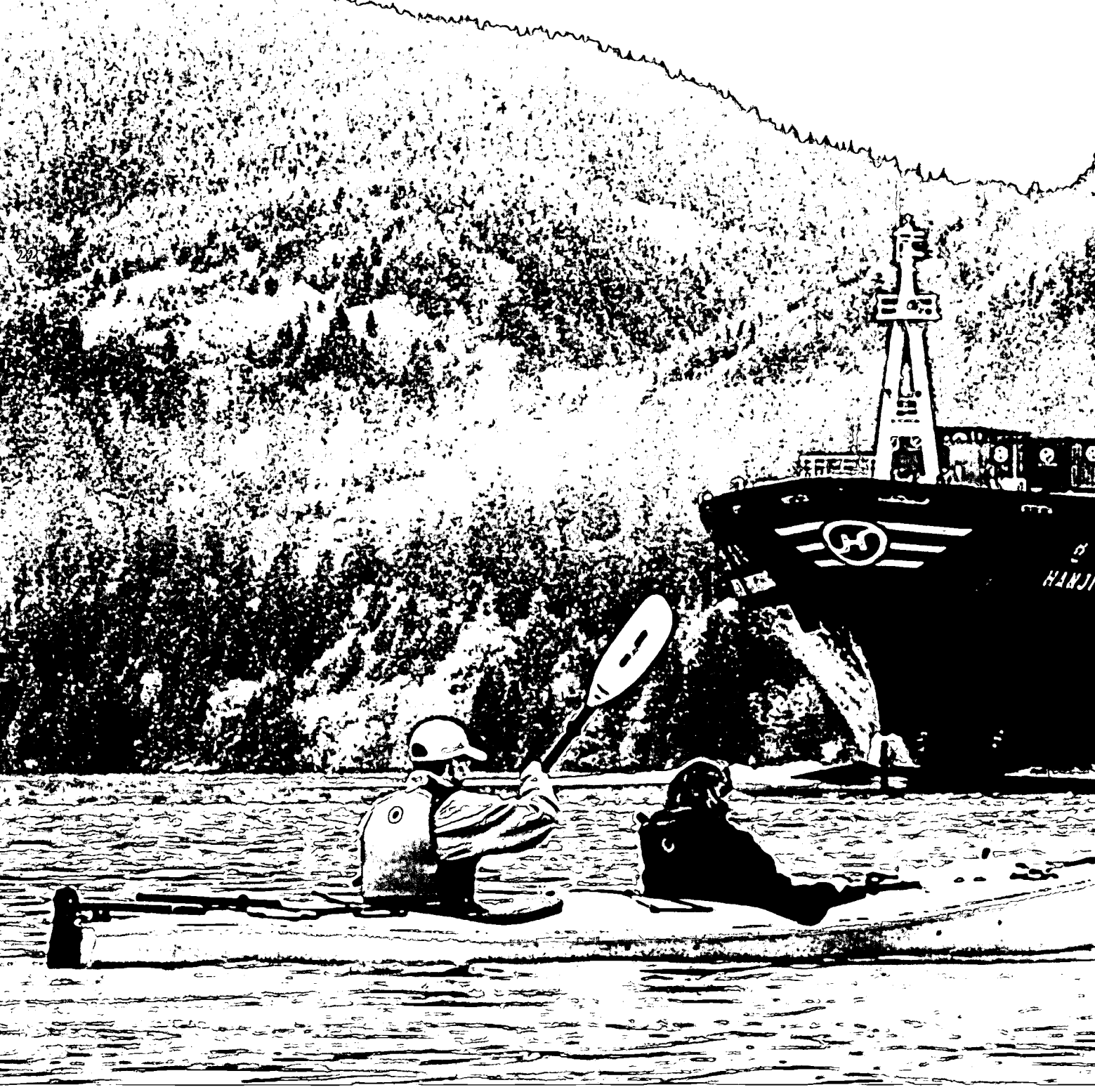
- Stationery made with leaves and flowers
- Bath products made with such ingredients as spruce tips
- Lip balm made with cottonwood buds, fireweed roots, and spruce sap
- Salves and ointments made from willow bark, alder bark, devil's club, and other plants
- Facial scrubs made from glacial silt
- Survival packs containing spruce sap, a highly flammable material

Once the products are finished, students market and sell their wares on a special community market day. Each product's packaging, labeling, and advertising must inform the public about some aspect of the Tongass, such as forest facts, location, or management issues.

To help students acquire the skills to create and market their products, instructors teach "toolbox classes"—workshops on marketing and advertising; design and layout; using technologies such as scanners and digital cameras; research and interviewing; and cooperation.

The Tongass project provides "a place for students to work on desired school outcomes" and state standards, according to Savikko. Students, she says, can become self-directed learners; quality producers and performers; complex, creative thinkers; global and community contributors; and good communicators. "Students learn to use scientific knowledge to make informed decisions," she reports, "and they gain an understanding of the complexity of the ecosystem in relation to managing resources."

This message of sustainability is a key lesson students will take away from the Tongass and share with the next generation, as naturally as a Tlingit woman shares a recipe for devil's club with her daughter. □



Wahkiakum High School students use kayaks in the Columbia River to retrace part of Lewis and Clark's Trail.

A RIVER RUNS THROUGH IT

A school on the edge of the Columbia River Estuary combines science and stewardship right in its own backyard

Story by LEE SHERMAN, Photos by Roger Werth, Longview Daily News

CATHLAMET, Washington— The abundant waters, woodlands, and wildlife of Wahkiakum County are as much a part of the local high school as they are of the local landscape. Like the many ice-cold creeks and streams that run into the Columbia River estuary here, a rich current of human and natural history feeds the minds of kids curious about the world and their place in it. Wahkiakum High School's deeply embedded philosophy of hands-on learning links the past with the present, the earth with the economy, and the classroom with the wider world.

THE BIRDS AND THE BEES

For 11th-grader Brian Taylor, those links matter a lot. Before he got hooked on a biology project to save endangered ducks, Brian spent lunch hours standing at his locker with his head in a book, reports Principal Bob Anacker. He didn't have a niche in the school community. But now this quiet boy who wants to become a veterinarian is known around campus as the "duck man" for his vast knowledge and deep concern for the wood duck—a species whose numbers have plunged as habitat has shrunk.

Brian can tell you pretty much everything there is to know about wood duck habits and habitat. That's because he helped build 10 boxes of rough-cut cedar—chosen because it "weathers well," he says—in his natural resources class. The boxes were designed to the specifications of the Department of Fish and Wildlife with the guidance of local ecologist and outdoorsman Andrew Emlen, who runs the Skamokawa Estuary Program and Paddle Center.

With his biology class, Brian helped scout the nearby Julia Butler Hansen National Wildlife Refuge for just the right riparian zone—an "area around a stream or a pond that has a lot of vegetation," Brian explains. Through his research on the Web and in the library, Brian learned that wood ducks—the magnificent, hooded birds that were hunted for their iridescent plumage back when feathered hats were the fashion—need slow-moving water unaffected by tides. They also need a complete menu of macroinvertebrates (mostly bugs) and freedom from predators, such as ospreys, that threaten ducklings. Evidence of other animals, however, such as beaver and other species of waterfowl, is a good thing—a reliable indicator of a healthy ecosystem.

Under a steel-gray sky in late February, the students loaded their bird boxes into a bus and traveled to the 5,000-acre refuge, which is home to a population of endangered Columbian white-tailed deer as well as a wintering area for migratory birds such as tundra swans and Canada geese. Brian and his fellow science students took turns climbing a 10-foot ladder to secure the boxes to the trunks of redwood, alder, and Sitka spruce trees.

Then they waited. Every other week, they checked the boxes for disturbances in the bedding of cedar shavings, which the ducks

supplement with mosses, grasses, and feathers. When the students found hens in four of the boxes by month's end, the seriousness of the habitat shortage hit home. Lacking enough suitable, natural hollows for nesting in the shrinking wetlands, these hens may not have reproduced without human intervention.

By early March, eight of the boxes housed hens sitting on clutches of 10 to 12 eggs. While the eggs incubated, the students monitored embryonic development by floating them in water to test buoyancy. As the weeks went by, the young scientists discovered that the eggs' buoyancy decreased because of the changing ratio of gases to solids. In about a month, the eggs were sinking—a signal for the imminent arrival of new life on Planet Earth. When the hatchlings were ready to leave the nest, they climbed a wire screen tacked on the inside wall of each box, just beneath the entry hole. Then the tiny puffballs took a free-fall that would make Disneyland's Splash Mountain look like a kiddy ride.

"They're almost nothing but down," says biology teacher Jeff Rooklidge, who oversees the wood duck project. "They weigh less than an ounce. They can't fly—they just sort of splat on the ground and follow mom to water."

Andrew Emlen, manager of the Skamokawa Paddle Center in Skamokawa, explains to Wahkiakum High School student Asheley Riley and her fellow students how Lewis and Clark might have identified various plants during their expedition.

The project gives kids lots of "authentic" learning—work that has real value to the community and that mirrors the kinds of activities carried out in actual workplaces.

Rather than limiting their learning to classroom labs and paper-and-pencil exams that end up in the trash bin, Brian and his classmates are contributing to the knowledge base on wood ducks. Using cutting-edge technologies such as Global Positioning System (GPS) devices to map the nesting sites and painstakingly collecting data on nesting patterns and hatch rates, the students are producing information that merits entry into the database of the California Waterfowl Organization. They've also made presentations to community groups, including gatherings of state-level politicians and other dignitaries.

Besides learning about ecosystems, wildlife habitat, and the importance of wetlands, Rooklidge says, kids have grappled with some tough ethical questions. For example, what happens if another species invades a box? Last year, one box was taken over by starlings, and two others by wild bees. The students discovered through their research that bees are good for ecosystems because they pollinate plants. So the bees stayed. The starlings, however, got the boot for being a nonnative species. The duck that had been displaced by the starlings moved right back in.

Ultimately, the project is helping to bring these stunningly beautiful birds back from the brink of extinction, an accomplishment whose enormity isn't lost on the students.

"When you actually go out and do stuff, you feel like you're making a difference," says Brian, who recently won the Columbia River Stewardship Award from the Lower Columbia River Partnership. "You're helping the wood ducks—plus you're having a lot of fun trompin' through the woods with your buddies."

PADDLING INTO THE PAST

The historic town of Cathlamet, home of Wahkiakum High School, perches picturesquely on a riverside bluff, witness to the Columbia's last, lazy leg before it empties into the sea. It's this rich mixing of saltwater and fresh, with the bountiful life forms that thrive in an estuarial environment, that makes Wahkiakum County a natural laboratory for all kinds of hands-on projects.

The most noteworthy of these is the Corps of Estuary Discovery. First funded in 1998 by a grant from the Lower Columbia Estuary Partnership, the interdisciplinary project was an easy fit for a school whose long tradition of hands-on learning

includes a salmon hatchery, an 80-acre farm forest, restoration of local streams, and tree-planting on the wildlife refuge. Major goals of the project, according to Rooklidge, are three:

(1) Forging community partnerships

(2) Providing stewardship of local resources through hands-on activities

(3) Showing how science intersects with students' world

"Our community is so rich with natural resources," the biology teacher observes. "A lot of our kids are from second-, third-, and fourth-generation families that came here for the fishing, the timber, the farming. This project relates biology in a meaningful way to students' lives."

But it's not only biology: Literature, writing, history, art, drama, and technology are among the other subjects that enrich and supplement the science. With the estuary as the hub around which the project is organized, teachers across the curriculum bring their expertise to the task of creating a detailed portrait of the place these kids call home.

The small, anvil-shaped county of Wahkiakum, tucked away in Washington's sparsely populated southwest corner, brims with ready-made lessons. This was where explorers Meriwether Lewis and William Clark first caught the scent of the Pacific Ocean after their two-year mission to map and describe the unsettled American West.

It is at this juncture in history that Rooklidge and English teacher Jessica Fletcher draw students into a richly experiential series of activities. Based on the explorers' journals, students take on the roles of characters from Lewis and Clark's Corps of Discovery and act out some of their experiences. Rooklidge says the students are riveted by the stories of true-life adventure; the harrowing accounts of several narrow escapes from charging grizzlies, especially, get students' imaginations going.

Last winter, after instruction in kayak handling and safety, the 10th-graders paddled their way through a day in the life of the intrepid explorers. Mid-river, Rooklidge signaled students to rest their paddles while he read an excerpt from the journals dated November 7, 1805:

A cloudy, foggy morning, light rain .... We set out early and proceeded by canoe on the Columbia River site under a high, rugged hill with steep ascent, the shore bold and rocky, the fog so thick we could not see across the river. At this point, Andrew Emlen of the Paddle Center, who wrote the original proposal that won the estuary project grant, paddled into view. He played the role of a Native river dweller, leader of a party that encountered the explorers that wet Thursday nearly 200 years ago on this very spot. Rooklidge read on as the students floated quietly in their kayaks: *Two canoes of Indians met and returned with us to their village. They gave us to eat some fish and sold us wapato roots, three dogs, and two otter skins, for which we gave them fishhooks, principally, of which they were very fond. These people call themselves the Wahkiakum ....*

The students learned that when Lewis and Clark hit The Dalles in the Columbia Gorge, they slogged through rain every day westward thereafter. Their deerskin clothes were rotting off their backs, but the Natives they met were dry under their weatherproof cedar capes and caps. The students then followed their make-believe Indian guide to the actual site where historians believe the tribal village stood. The students walked around the gargantuan trunks of ancient Sitka spruce trees, the silent sentinels that witnessed the historic meeting of the Wahkiakum and the explorers. They talked about how those virgin lands had changed in the ensuing years.

The students took on the roles of both Clark and Lewis that day. Using the pre-GPS technologies of compasses and declination to take bearings, they drew maps of the area in the same way Clark had done in the 19th century. They scoured the woods for plant specimens and wrote field notes in their journals, using botanical terms. They sketched the various flora in the same way that Lewis, the naturalist, once did. Meanwhile, drama students recorded the students' explorations and discoveries with a digital camera to document the activities for community presentations.

In all, the students visited eight sites mentioned in the Lewis and Clark journals, from Cathlamet to Skamokawa. "We get them thinking about how these men went

through here 200 years ago and saw some of the same things that we're looking at right now," Principal Anacker says. "And then we get them to think about how things have changed since then—have they changed for the better or worse? There's some reflection going on, too."

Students record those reflections in their personal journals back in Fletcher's English classroom. In fact, Fletcher intends to take her sophomores on a field trip to gather wild goose feathers at the refuge. The quill pens they make from the feathers will, she hopes, inspire students to write more authentically about their Lewis and Clark experience.

And to bring all this local history back home to these 21st-century teenagers, Fletcher asked them to interview family members to learn which ancestor or relative was the first to arrive in Wahkiakum County and what drew him here. She holds up a fat binder stuffed with the resulting family stories—now part of the permanent record of the community.

"The project is really a blessing for me," says Fletcher, "because English and science aren't generally two disciplines that get together a whole lot."

BEETLES, WEEVILS, AND BATS

The estuary project has other facets, as well. They include:

Weed inventory and removal. Several species of nonnative weeds —English ivy, purple loosestrife, and Japanese knotwood—had invaded the wildlife refuge and were choking off local plant species. Students mapped the current levels of infestation, removed small infestations by hand, and (with guidance from a state entomologist) released weed-eating beetles and weevils into the larger infestations. In a greenhouse, students are raising native plants for stream rehabilitation and wetlands restoration. Partners in the project include the U.S. Department of Fish and Wildlife; Skamokawa Estuary Program; and the county weed control office and conservation district.

Water-quality monitoring. The environmental science, biology, and natural resource students are surveying and mapping several local streams and sloughs. Students are also testing the water for dissolved oxygen, nitrates, phosphates, chloroform, pH, turbidity, temperature, and sedimentation. They will analyze causes of variation in water quality and write a plan for stream rehabilitation.

Bat habitat enhancement. Bats, which help keep populations of mosquitoes and other bugs in check, play an important role in wetlands. To lure bats back to the refuge, students are researching their needs and developing experimental designs for boxes to compensate for the loss of bat habitat. Because bats need warmth, the students are testing such solutions as insulation and Plexiglas® for solar heating. "The big trick," says Rooklidge, "is to get it warm enough in the box that they can roost and survive the winter."

In this tight-knit community where everyone has a connection to everyone else, projects like these are more easily pulled off than in urban areas, says Anacker. "Small schools and small communities can get things done easier," he says, noting that there are only five landowners on Nelson Creek, where a watershed restoration project is just getting underway. A similar project in a community the size of Portland might involve hundreds of landowners. Observes Anacker, "We don't have to jump through a lot of hoops."

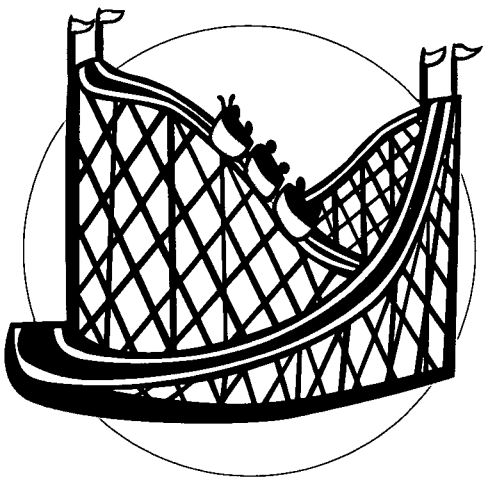
Agriculture and natural resources teacher John Doumit is one of those five landowners along Nelson Creek. He still farms the land that's been in his family since his pioneer grandfather, an itinerant peddler, settled down in these fertile hills to open a general store and raise a family. "That was in the days when the only way into this place was steamboat or horseback," Doumit reports.

Finding and connecting those links on an unbreakable chain from the past into the future is what project-based learning is about, he says.

"By being part of these things, students start to make the connections that are going to be valuable for them in the future—connections that will help to shape their attitudes and their actions down the road," says Doumit. "We're encouraging them to weave those threads: How does what happened in the past affect us today? How is what's happening today different from what's happened in the past?"

Adds Doumit: "We're encouraging our kids to think and to act. A lot of times, those are the two things that are missing." □

Lessons in the Loop



Idaho kids learn physics, math, and PR when they design and market a roller coaster

BY JOYCE RIHA LINIK

TWIN FALLS, Idaho—"The Regurgitator" seems an appropriate name for a roller coaster that sends one's stomach lurching, spiraling, and somersaulting through maneuvers known as bat wings, corkscrews, and loops. At least, that's what some 14-year-olds at Twin Falls' Vera C. O'Leary Junior High School think. Childhood visits to amusement parks taught these kids that the bigger the gastrointestinal challenge, the better the ride. So when they were asked to design a roller coaster as part of their eighth-grade curriculum, they were more than happy to oblige, devising detailed plans for a super hurler that could outdive, outspin, and outloop the best coasters on the planet.

This unusual course of study is part of a technology-supported, interdisciplinary project called "It's a Wild Ride." The eight-week unit, led by teachers Theresa Maves, Meile Harris, and Jill Whitesell, integrates science, math, and language arts. And it brings some complex concepts into clearer focus for kids.

When students first discover they'll be studying roller coasters, "They're amazed that something like a roller coaster could be academic instead of just recreational," says Maves. Students quickly learn that there's more to a roller coaster than churns the stomach. They grapple firsthand with the laws of motion, linear and nonlinear equations, and technical reporting. But instead of just reading about Newton's laws of motion in a dry textbook, students get to see how these principles determine the movement of a car (or, for classroom purposes, a marble) on a roller coaster track. Instead of just practicing mathematical equations through classroom drills, students get to see how these equations can predict whether the moving object will stay on track through a 360-degree vertical loop. In short, kids get to see real-world applications for the material they're covering in school.

"Kids are always asking, 'Are we ever going to use this?'" Harris says. They often see math as "boring number-crunching" unrelated to the real world. "But there's so much more to it," the teacher asserts. Math is, in fact, *best* taught in interdisciplinary projects where students can see the connections, she says. "Projects like this show kids that math is everywhere, behind everything, including a roller coaster."

Students discover that the real world isn't divided by subject matter. "We really want students to see that outside our school world, science does not stand alone," Maves reports. Nor does language arts, adds Whitesell, noting that the project allows her to "weave" reading and writing into science and math curriculum. Kids find out that literacy skills are necessary for most real-world jobs, even if you don't plan to be the next great American novelist.

"ANYTIME STUDENTS PERSONALIZE LEARNING, THEY TAKE AWAY MORE MEANING."

The concepts and skills covered in the project are tied closely to district learning goals and state standards. "When we design learning activities," Maves says, "we start with standards and benchmarks and let those be our guide." Additionally, technology is used in a variety of ways, including access to computers for help with calculations and design, as well as access to the Web for research. Students also use graphics programs for their group projects.

Phases of the project include:

- Accessing prior knowledge about roller coasters
- Investigating content-specific skills and knowledge with experiments in math and science that build understanding about force and the laws of motion
- Expanding knowledge of roller coaster design with research and further experimenting related to roller coasters
- Applying new knowledge to the design and construction of a roller coaster model
- Contributing knowledge to a group roller coaster design in one of four careers: engineering, architecture, research, or public relations

In the application stage, students design and build their own scaled-down roller coaster, using such materials as old garden hoses, foam pipe-insulation tubing, and anything that can be stacked or connected into a kind of scaffold. Students then cut the hose or foam tubing to create a track that is draped, twirled, and secured to a frame. The coaster must include a drop, a loop, and an inversion. Different-sized marbles serve as vehicles for a series of experiments on how mass, weight, speed, and acceleration interact when the marbles hit the track.

Students learn from these experiments that "the marble must have enough velocity to make it through the inversion," says Maves. This means the inversion needs to be near the beginning of the track where force and velocity are greatest, and before too much friction has come into play.

After individual projects, groups of students work together to design a real-world coaster, taking on job assignments as engineers, architects, researchers, and public relations specialists. This work requires multiple calculations and laborious research, as well as the development of marketing and advertising plans.

Says Harris: "Anytime students personalize learning, they take away more meaning. Things make sense."

For more details on this and other projects that integrate technology into the curriculum, check out Intel's Innovating in Education Web site at www.intel.com/education/. □

A Talking Book

An endangered language flourishes again at a Puget Sound school

BY AMY FISHER

MARYSVILLE, Washington— After the rumblings of the earthquake subside, teachers and students evacuate Tulalip Elementary School in Marysville, Washington, while administrators check to see that there is no damage to the building. Everyone is safe, and students, excited by this extra "recess," begin chatting, wiggling, jumping, and playing clap-and-rhyme games while trying to remain in their classroom lines.

Surrounded by this commotion, one class of fourth- and fifth-graders stands out. Instead of giggling and gyrating, these kids are concentrating intently on their teacher, who is calling out words and phrases in the ancient language of Lushootseed. *"Ey,s-YAH-yah,"* he prompts. Kids' hands shoot up. "Hello, friend!" a student responds. *"us-CHAL chuwh,"* the teacher says. "How are you!" a student answers.

Eagerly, the youngsters volunteer English translations for words that were spoken for countless generations by the Tulalip Tribes that inhabited the evergreen forests and rocky beaches of east Puget Sound. The teacher even sneaks in a math problem, asking the students to estimate how long their arms and legs are in *hweetl* (a traditional Tulalip unit of measurement that is the distance from the middle finger to the thumb). Once again, nearly every hand shoots up to answer the question.

What is the reason for this high level of focus and engagement among 10- and 11-year-olds? What motivates these students to participate while their peers play? The students' interest is particularly surprising at this school, whose student population is two-thirds American Indian, a group that typically struggles for academic success.

The reason for the children's enthusiasm is clear to teacher David Cort. At Tulalip Elementary School in the Marysville School District, he says, culture and curriculum are being thoughtfully integrated, with the lyrical Lushootseed language at its center.

"Students learn about our rich local culture, which enhances the self-esteem and investment of Native students," says Cort, the Lushootseed teacher and technology coordinator for the district. "The program also increases the self-esteem and sense of place of non-Native students, as they develop a deep familiarity with the culture and first language of their home."

Located about 40 miles north of Seattle, the 22,000-acre Tulalip Reservation sits on the shores of Puget Sound. Tulalip Elementary School overlooks Whidbey Island, with the Olympic Mountains rising in the distance to the west. There are approximately 3,000 enrolled members of the Tulalip Tribes, which are made up of a number of smaller Puget Sound tribes, including the Snohomish, Stillaguamish, Skagit, and Skykomish. In 1992, there were only 17 elders of the Tulalip Tribes who spoke Lushootseed. About that time, the tribe established a Tribal Cultural Resources Department (TCRD) to preserve the tribe's language and culture. The tribes and the school district began a multifaceted approach that provides culture and language learning opportunities at school and in the community. It includes classes taught by TCRD teachers in preschool and the early grades; high school Lushootseed classes; elementary school classes that incorporate technology and Tulalip language and culture; before- and after-school language classes; language camps; and language classes for community members.

A Tulalip-Based Classroom (TBC) in the fourth grade has been an option for Tulalip Elementary students in recent years when the school is able to hire needed staff. The classroom curriculum uses Tulalip language, literature, and culture along with project-based learning to connect children with their culture and to satisfy all state benchmarks.

"STUDENTS LEARN ABOUT OUR RICH LOCAL CULTURE, WHICH ENHANCES THE SELF-ESTEEM AND INVESTMENT OF NATIVE STUDENTS. THE PROGRAM ALSO INCREASES THE SELF-ESTEEM AND SENSE OF PLACE OF NON-NATIVE STUDENTS, AS THEY DEVELOP A DEEP FAMILIARITY WITH THE CULTURE AND FIRST LANGUAGE OF THEIR HOME."

One example of a real-world project is the creation of a CD-ROM "talking book" featuring a traditional Tulalip story, "Owl and His Wife Frog." It was created by TBC students for inclusion in a take-home packet for prekindergartners attending kindergarten registration. Because the Tulalip Tribes have given each family in the tribe a computer, the CD-ROM is a software resource that provides young children at home with unique literacy and technology experiences. The project develops and applies students' skills in literacy, technology, art, language, and culture. Students learn to use Macromedia Flash 4, a widely used Web page design tool. The students' enthusiasm is apparent as they show visitors the witty animation and sounds they created for the book's illustrations—a baby frog catching a buzzing fly, a group of ants marching across the screen, a spider spinning a web around the little frog.

The talking book, narrated in Lushootseed by Tulalip storyteller Martha Lamont was recorded in 1964 by Thom Hess, a linguistics graduate student at the University of Washington. Cort translated the tape into English, and students provided the expressive voices for the English version.

Using common Lushootseed story features, the story describes how the owl and frog acquired their distinctive traits. The CD-ROM tells the story in both English and Lushootseed, with the languages appearing side-by-side on the screen. When the user clicks on a phrase, the narrator recites the words. There is also an option to hear the Lushootseed version uninterrupted. Illustrated by the photo of Lamont, this option captures the authenticity of an elder telling an ancient story. The project has worked so well that it is being replicated in all of the elementary technology classes. To learn more, visit the school's Web site at www.msvl.wednet.edu/elementary/tulalip_site/. □

STARTING

ALASKA PROJECT-BASED LEARNING EXPERT **HELENA FAGAN** INSISTS THAT GOOD PROJECTS ARE DESIGNED "BACKWARD"— THAT IS, WHAT DO WE WANT KIDS TO KNOW WHEN THEY'RE DONE?

AT THE END

Adjunct instructor and education consultant Helena Fagan of the University of Alaska Southeast brings three decades of wide-ranging experience to her job as a statewide trainer in project-based learning. Since her first position as a middle school teacher in Ketchikan nearly 30 years ago, she has taught in the rural Oregon community of Farmington View; the village hub of Bethel on the Kuskokwim River Delta; and in Southeast Alaska's Juneau Borough schools, where her expertise in the project approach crystallized. She has drawn on her endorsements in reading, special education, and gifted education throughout a career that has included work with the educational nonprofit South East Regional Resource Center and the Massachusetts-based school reform organization Co-nect.

Fagan recently talked with *Northwest Education* Editor Lee Sherman about the possibilities and pitfalls of project-based learning. The following is an edited version of that conversation.

Q: The interest in project-based learning is really high right now. What is it about project-based learning that makes it a valuable contribution to what teachers are doing?

Fagan: I think the reason teachers get excited about it is that kids tend to engage on a much higher level. And, because they're so engaged, the level of their work is incredible. I find kids producing work that I never saw when I was teaching in a more traditional manner. They amaze me with what they can do when they really care about and engage in authentic work.

Q: You're relying on kids to find the information, to discover learning for themselves. Is there a danger that they might not get what you need them to get?

Fagan: That's a misconception about project-based learning, especially by people who jump in and do it without understanding how to build those skills. Part of the project design is making sure you've scaffolded the skills they need. I use the "backward design" work of Grant Wiggins (as presented in the book *Understanding by Design,*

HELENA FAGAN

which he coauthored with Jay McTighe). You start at the end with your standards and assessments: What is it they need to know? What is it going to look like when they have that knowledge and understanding? What skills and knowledge do they need before they can do the final assessment? Then you build those targets into your plan and your curriculum. If you don't, you're not going to get good project work or reach your goals with the majority of kids. You've got to lead them. You've got to facilitate. You don't give up your role as teacher.

Q: In other words, the teacher's not going to be sitting at her desk grading papers while the students stumble along without her.

Fagan: Right. It's hard work. The teacher constantly interacts with students, guiding and checking progress. Also, direct instruction remains an important piece of classroom work.

Q: How does a project-based unit look different from a traditional unit?

Fagan: Essentially, in a project where kids are doing authentic work, you're working toward understanding more than you're working toward knowledge.

Q: What's the difference between knowledge and understanding? I think we tend to use them interchangeably and to think they're the same thing.

Fagan: Often, our exams and our assessments call for a lot of the "spit-back" kind of knowing—"I taught this, and now you tell me what you've learned." Understanding is taking what they're learning and doing something new with it or applying that knowledge and actually using it—and, I think, getting it on a deeper level.

Q: So they take knowledge and make it their own.

Fagan: Right. They can make connections to their own prior experiences, to their own emotional context, whatever it is, and just get it on a different level. They're using it, so it does become their own.

Q: What would a bad project look like?

Fagan: I think a bad project tends not to have enough depth for kids or enough choice. It's really just a traditional curriculum that somebody's calling a project. It's one where you walk into a classroom and there's not a lot of excitement, there's not a lot of variation in what people are doing, there's not a lot of digging. It's not as active.

Q: Some educators are still hanging onto the idea that the classroom should be orderly and quiet, that it shouldn't be noisy. They would be alarmed if they walked into a classroom and all the kids were up and talking and moving around.

Fagan: In fact, really quiet classrooms with students in rows all day long make me nervous. I like noise, productive noise. We've often taught our kids to sit still and do their work, yet if you go into an arena where adults are working on something together, they're not sitting in rows being quiet. They're moving as they work. They're going to a computer to find something they need; they're talking to someone else who has information they need. Kids can do that, too, really well.

Q: But when kids collaborate, a strong student who catches on quickly may end up taking over. The other kids don't get a chance to be deeply involved.

Fagan: That is an issue, and I've dealt with it in a lot of different ways. You want to make sure students have particular roles—that each student in the group has a role they're required to carry out. We put groups together in lots of different ways. Sometimes at the beginning of the year, even with

high school students, I'll put new students with returning students so that they're mentoring, helping to nurture those skills. I've done the traditional mixed grouping—some high kids, some medium kids, maybe a low kid—and have them help each other. Depending on the culture of the community, sometimes that works well. Kids need to understand their role as community members. You always have a few kids who don't produce very much no matter what your program is. Sometimes, I let those kids choose to work together. What I find is that if they don't succeed, they weren't succeeding before anyhow—someone else was doing their work. But what I've seen happen quite often is that when those kids are together, they'll tend to produce. What I've discovered—not always, but often—is that they are intimidated by the higher functioning kids and they're afraid to put anything out there, that it won't be good enough. So they just don't do anything. But when they're with students they're more comfortable with, they actually do produce good work.

Q: Many researchers recommend using different kinds of groupings throughout the year. So sometimes you have mixed groupings, and sometimes you have groupings of the same kinds of kids, because there are advantages and disadvantages to both kinds of groups.

Fagan: We switch groups all the time. That way, if there is a high-level student who feels she's dragging somebody along, you sometimes want to group her with other high-level students so together they can fly as high as they want. It's a balancing act.

Q: Are there other pitfalls that you've warned teachers about in terms of project-based learning—things they should think about, things they should avoid?

Fagan: One thing is trying to do too much. We do standards-based units, and a lot of times I'll see teachers writing down 10 or 15 standards this unit is going to teach to, and you can't do that. You need to narrow your focus. With project-based teaching, it's the old mile-long, inch-deep thing vs. going deeper. So we talk a lot about narrowing the focus and choosing the standards to which you really want to teach. What are the main concepts you want students to understand? Then, you can have another list of standards you're touching on but not assessing. Trying to do too much at once is a big problem.

Q: A lot of the huge standards documents out there seem kind of intimidating. Teachers are being expected to do a million things. How do you overcome the feeling that if we narrow it down too much, then there's all this other content or all these other skills that students are not learning—the fear that we're not going to cover everything by the end of year?

Fagan: You need to do some curriculum mapping. That's often what I do if I'm working with a small group of teachers. With a curriculum map, especially if you're integrating subject areas, you look at your standards, look at your curriculum, and decide what you really need to teach this year, what the important pieces are. Then you map out where those will fit in during each quarter. Finally, you look across the year and make sure you've included everything.

Q: Are the best projects interdisciplinary ?

Fagan: Often they are the best because authentic work always crosses into many content areas. I've also seen wonderful projects designed for one content area.

Q: What about teachers collaborating across the traditional boundaries and barriers? That's not something teachers jump into easily, is it?

Fagan: It depends on the teachers and the culture of the school. Often teachers love collaborating because teaching's such an isolated profession. I love it. I like it so much that I don't think I could go back today and just shut my door. It's so expansive to get somebody else's ideas. It's more powerful for the kids, and for you as a professional. It's more exciting. Some personalities resist that and it just doesn't work. Hopefully, teachers who are integrating are doing so because they want to. It's difficult when you go into a district that's demanding that teachers work together. It might take a long time for anything remarkable to happen. Natural companion subjects, such as social studies and English, are where you often see teachers working together even without a district mandate. When I first worked with teachers in the Yup'ik village of St. Marys on the

HELENA FAGAN

Drawing upon the "backward design" concept presented by Grant Wiggins and Jay McTighe in their 1998 book *Understanding by Design,* Alaska project-based learning expert Helena Fagan uses a template to guide teachers as they plan projects for their students. Here's what she recommends that teachers address in their plan:

Identifying Desired Results:

- What will the students understand as a result of this unit (standards/curriculum goals)?
- What are the main concepts you want students to understand as a result of this unit?
- What are the overarching essential questions that will frame this unit?
- What are the essential "unit" questions that will focus this project?

Determining Acceptable Evidence

- Describe the "culminating performance" task that will show that students understand the concepts you targeted; which types of understanding does this performance emphasize (explanation, interpretation; application, perspective, empathy, self-knowledge).
- What will you use along the way ("dipstick" assessments) to check student understanding (quizzes, tests, reflections, observations, work samples, dialogues, academic prompts).
- List or describe how students will participate in their assessment (student self-assessment).

Planning Learning Experiences and Instruction

- What knowledge and skills will students need in order to reach unit goals and complete the culminating task successfully (include "habits of mind")?
- List the teacher resources and student resources you will need.
- Plan a sequence of teaching and learning experiences along a timeline.

Yukon Delta, they had not done any project work, nor had they worked together. It was small, pre-K through 12 in one building. During the project institute, we built a schoolwide project because they were timid about designing individually. We targeted standards for the whole school based on test scores and where they knew their weaknesses were. It was quite amazing. It drew the staff together. They hadn't opened their doors to each other before. It made a tremendous difference in the school culture.

Q: What was the project they decided on?

Fagan: Their biggest problem, they felt, was kids' attitudes toward school. Kids were dropping out and fighting at school. Besides the attitude issues, the language arts scores were quite low. So they targeted one of the state's "healthy life" standards that has to do with understanding how attitude affects learning and then targeted a writing standard for each grade level. Their projects looked different at each level, but the final piece was a Yup'ik values fair. It was an open house night and the whole community attended. They started with a potluck, and then the students showed their understanding of these values in different ways. The older students did a project around a community hunt. They wrote a

new song and dance about hunting for the community and they translated it into Yup'ik and created the dance movements. Some of the younger kids were examining Yup'ik values through poetry and writing their own verse. Others interviewed the elders and recorded their stories and looked for the values. Then they wrote their own stories to express their understanding of the values. It was very powerful.

Q: Do you have guidelines for helping schools or teachers pick their topics, what to zero in on?

Fagan: Actually, I don't have a real set of guidelines that I hand them, but we talk about how you have to pay attention to your community, your culture—and not just the culture of the larger community, but also of your school and of your class. For example, you need to know whether you have students who are hams and are going to want to do something dramatic. If you're in a Yup'ik school, that might not be where you'll want to start. Look for real needs in the community so kids can actually get involved. Look for ways you can bring the community in.

Q: Is there another project that really stands out in your mind as having been really successful or interesting?

Fagan: I start usually by sharing successful projects so teachers can see what kids can do. One project that one of my MAT (Master of Arts in Teaching) students wrote last year and implemented was quite successful. He was working with what they call a "core math" class. It was a group of kids who were not meeting the standards in math in the middle school. It was mostly Native children with a high percentage of males. They were turned off to school generally. His project revolved around building traditional bentwood boxes, and he taught the math through that. He had Tlinkit artists come in and show them the designs and what they meant. They studied the geometry of the designs. He did a wonderful job of integrating skills and the kids were fascinated. They were right there with him the whole way.

Q: How did you develop the "Project Design Template" you use in your training? (See sidebar.)

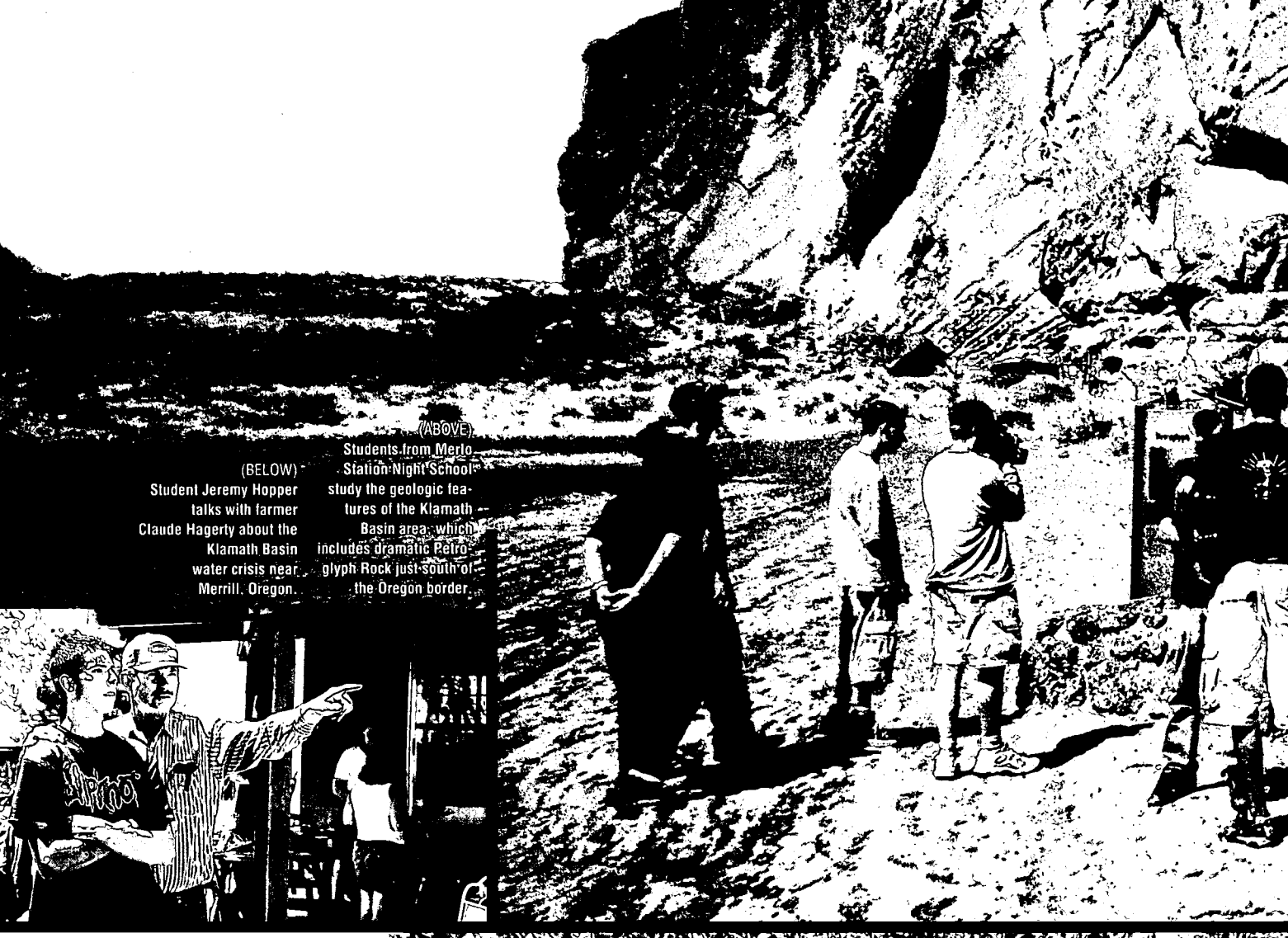
Fagan: That's really based on Wiggins' work. I don't want to take any credit for his work. I've just kind of borrowed it and modified it. If you use the template, you'll have a solid unit designed.

Q: What are the important assessment issues for teachers doing projects?

Fagan: You have to make sure that the culminating tasks really do measure the standards. That's another problem area for teachers. They'll come up with a fun activity, and if I ask, "Well, what are you measuring that they've learned from this?" they often can't tell me. You have to align that very carefully and make sure the standards you're pinpointing are being assessed and that your scoring guide, in turn, actually measures those standards. People often have all these different factors they're assessing, but it's not truly the meat of it. They'll tend to put too much emphasis on scoring, say, the aesthetics of the project—does it look pretty? Or is it creative? That can be a tricky part, making sure that you actually assess understanding.

Q: It seems as if assessment can be the trickiest part of teaching.

Fagan: It can be and that's why I like this model so much. It's front-load heavy, but once you've targeted your standards and designed your assessment, you know exactly where you're going. It's so clean. □



(ABOVE) Students from Merlo Station Night School study the geologic features of the Klamath Basin area, which includes dramatic Petroglyph Rock just south of the Oregon border.

(BELOW) Student Jeremy Hopper talks with farmer Claude Hagerty about the Klamath Basin water crisis near Merrill, Oregon.

(RIGHT) Meghan O'Daniel hikes Eagle Creek in the Columbia River Gorge to learn about the area's geologic and Native American history.

(LEFT)
Jeremy Hopper and Craig Robinson contemplate the natural world through the contrasting lenses of modern science and ancient wisdom at Eagle Creek for a summer project.

Taking Learning Outdoors

A bitter dispute over water in Southern Oregon becomes a firsthand lesson in history, ecology, and local culture

Story by CATHERINE PAGLIN / Photos by BRUCE CAMPBELL

BEAVERTON, Oregon— With his back to the camera, a boy launches himself off a craggy rock. The shutter catches him midair, arms spread up and out, before his cold plunge into Crater Lake's blue

Water: its history in the Klamath Basin, who has it, who doesn't, who controls it. Thirteen students at Merlo Station Night School dove deep into these issues last summer in one of the alternative school's six-week, year-round sessions designed for kids who need to make up missing credits. Led by instructor Bruce Campbell, students camped, hiked, and toured through Southern Oregon's Diamond and Crater Lake areas; along the Wood, Williamson, and Lower Klamath rivers; and into the Tule Basin. Their journey took them over the California border to the Lava Beds National Monument and Captain Jack's stronghold, site of the U.S. Army's 1873 siege against the Modoc chief.

Along the way, the students interviewed ranchers, farmers, wildlife biologists, park rangers, and members of the Klamath and Modoc tribes about the area's geology, ecology, and history. A farm family welcomed them with open arms and fed them hamburgers from homegrown beef. A member of the Klamath tribe showed them how to weave baskets from dried nettles and throw the *atlatl,* a type of spear. Gathered around a nightly campfire, they discussed the beauty and mystery of the earth with a local archaeologist. They talked to these people and others about what a *New York Times* editorial called the Klamath Basin's "overstressed ecosystem." They immersed themselves in the water crisis that is pitting sucker fish and coho salmon against crops of hay, alfalfa, and potatoes; Native Americans' water rights and the Endangered Species Act against the local farming economy.

Despite its name and its official hours from 3 p.m. to 9 p.m., the Night School program (one of many housed at Merlo Station) often spills over into other hours where its regularly offered project-based classes are concerned. Campbell uses summers in particular to take learning outdoors 24 hours a day to places such as the Tillamook Burn, Newberry Crater, the John Day Fossil Beds, the Columbia Gorge, and the Wallowa Mountains. In the summer of 1999, Campbell and 10 students trekked through five states, following the tragic trail of the Nez Perce tribe's flight from the Army in 1877.

The five-day trip to Crater Lake and Klamath Falls to learn firsthand about the area's ongoing water controversy was the longest of many field trips under the six-week session's overarching theme of Oregon Walkabout.

"For me, there's no greater authenticity than the outdoors," says Campbell. In the outdoors, he finds, students start thinking and feeling things they haven't thought or felt before.

KEEN FOR RELEVANCE

But being outdoors is not enough for a successful project. "It has to be *about* something. It has to tell a story," says Campbell. "The students are really keen about what's relevant and what's not. Particularly if it's about people in a struggle, they can relate to that. And then I can sneak in all the other things I really love about the geology and geography."

To prepare for the Klamath Basin trip, students read and discussed Campbell's collection of newspaper and magazine articles about the water crisis. They watched videos about the Klamath area. They did some map work. "They give you enough information so you can learn, but not so much that it overwhelms you," says Jeremy Hopper, a senior at Beaverton's Southridge High School who attended Night School last summer.

Students stretched their minds around different perspectives as well as new information. "On every field trip that I can, I contrast the Native American world view with the scientific world view," says Campbell. "On the Klamath Basin trip, we would read scientific materials about the water, the fish, the plants. And then we would read a Native American story from the Klamath, the Modoc, or the Shasta about a similar topic. Then we'd say, 'How do we know which one's right and does it even matter?' or, 'Are there some connections between the two? Is it possible to believe both things at the same time?'"

To ensure a smooth and productive trip Campbell—as he always does—went over the route ahead of time in person. He talked to the people the students would meet and visited the campsites. At school, he and the students talked about the field journals they would keep on the trip, the photographs they would take, the video footage they would shoot, and the clothing and equipment they would bring.

On the Zigzag Trail in the Cascade Mountains, student Christy Geddes pauses to take in Mount Hood at sunset during a weeklong backpack trip focusing on the ecology and literature of the area.

Essential Questions About Love

In winter, Merlo Station Night School can't offer the expeditions that are so popular when the sun shines. Nevertheless, every term—no matter what the weather—the staff from Night School and its partner program, Evening Jump Start, offer students a project-based, thematic class that takes them on some kind of adventure. During the last six-week session of 2001, "The Anthropology of Love & Relationships" led students individually or in small groups to fieldwork in the mall, transit station, recreation center, grocery store, and library. In these public gathering places, students pursued answers to an "essential question" about love. With instructor Bruce Campbell and his colleagues John Stapleton and Janine Heath providing guidance, the students devised their own research questions. Questions included:

- What do men look for in women?
- How do the media affect the self-image of Latina women?
- What effect does men's cologne have on women?
- What is the perfect man?
- Does true love really exist?
- How do Disney films shape children's attitudes about romantic love?

At the end-of-session presentation night, with every seat in the house taken by parents, teachers, administrators, and other visitors, students presented their findings through videos and through graphs, pictures, and essays laid out on three-panel display boards.

Shauna Obermiller wanted to know, "Does true love really exist?" She looked at disparate Hollywood versions of "true love" in films ranging from *Romeo and Juliet* to *The Other Sister* to Disney's *Beauty and the Beast*. At the mall, she interviewed 30 adults and 30 teenagers, either married or in long-term relationships, asking questions such as how they met, when they fell in love, were they truly in love, and whether they believed in true love. She decorated her presentation board with hearts and graphed her data in red and pink.

As part of her project, Tina Escalera examined advertisements from magazines directed at teenage Latinas. Her display board showed examples of the magazines' numerous ads for products such as girdles and contact lenses that alter eye color. Graphs showed results from her interviews with 30 women. Which physical characteristic would they change if they could? Top choices were weight (50 percent), hair (20 percent), and eye color (10 percent).

Inspired by information on pheromones and how they affect the brain, David Fernando and Chad Jansen subjected 50 female shoppers at Thriftway (Chad's place of work) to "smell tests" of two brands of cologne. Half the women were older than 25 and half were 25 or younger. "We asked them if they liked cologne, and if so which one, and if they didn't like cologne, why?" says Chad.

Afterward, Campbell reflected on the evening. He has yet to go over the work products in detail. But he knows already that one of the videos will have to be redone before it is deserving of an A or B, the only grades possible at Night School/Evening Jump Start. The work was unacceptable, the instructor explains, because the soundtrack was inappropriate, and the required references to depictions of love in movies, TV shows, and songs were missing. Such disappointments, says Heath, "are a good opportunity to reflect on what we might have done differently."

"It was a good turnout," says Campbell. "Most of the food was eaten. I was really proud of the students who got up there and talked, because they were all scared to death."

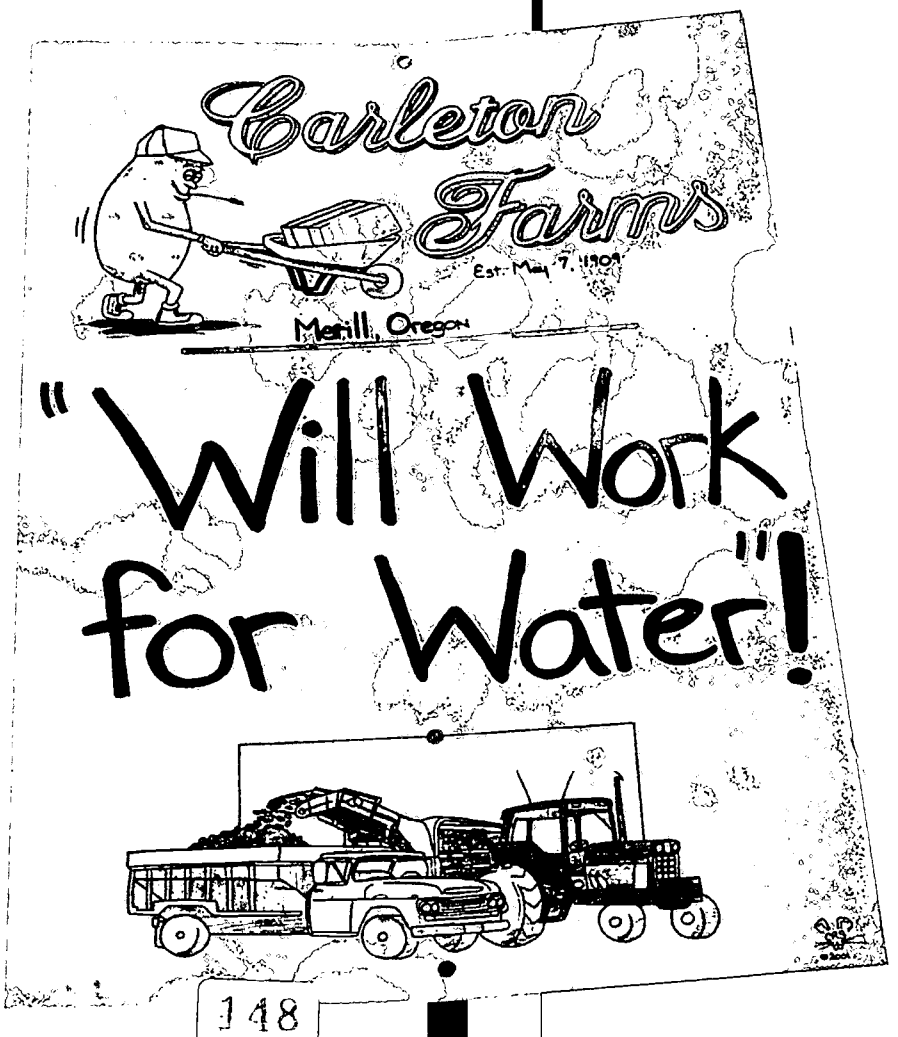
A LARGER VIEW OF LIFE

Along the trail, students became engaged in a way that would have been unlikely back in the classroom. In a desert basin that once brimmed with water, rushes, and migratory birds, they asked Campbell, "Where did that water go?" They talked about how the Army Corps of Engineers drained Tule Lake at the turn of the last century so that the fertile bottomland could become farmland. Only a small remnant of the lake remains.

The students asked a lot of questions: "If it's farmland, how come it's so dry now and there's nothing but sagebrush and dirt?" They talked about how Egypt's fertile crescent became a desert through environmental abuse.

"We get the kids to a point where they'll say around the campfire, 'I never realized . . .' or 'I'm really thinking about . . .,'" Campbell reports. "Those kinds of statements show they're relating their experience to a larger view of life."

"Before I went, I figured, that's kind of stupid, why don't we give water to the farmers?" says Chad Jansen, who recently graduated from Night School. "When I got there, I realized Native American people need fish, and the sucker fish are going to die. And it's a long drawn-out process that doesn't have



Placards like the one below, hoisted by farmers at the U.S. Fish and Wildlife unit near Tule Lake, California, were more abundant than water last summer in the Klamath Basin during a heated controversy over competing claims on limited resources.

a good answer."

"The whole hands-on experience was a new concept to me. We got to imagine it and then go see it how it really is," says Jeremy. "The day I learned the most and got the biggest emotional hit was with the farmers —hearing how they were losing their whole life due to no water."

These students' moments of understanding are documented in the pages of their daily journals:

- Ross Owen wrote: "The most emotional day for me was visiting the Lower Klamath Basin and seeing all the water gone. I saw pelicans and other birds dying .... Seeing all that suffering made me realize what loss of habitat really means."
- Sara Hardman: "Looking across the desert floor of what used to be Tule Lake made me understand that a whole culture once lived here, fishing in the lake and raising children."
- Jimmy Alexander: "Crater Lake was so beautiful and pure. I'd do anything to protect that water so I could swim in it again. I think the Indians and farmers feel the same about their own water issues."
- Jeremy Hopper: "Captain Jack was fighting against the Americans so he could protect his land and family. There was this memorial to him at the Stronghold where people had tied all sorts of stuff onto a wooden pole. Seeing that memorial made me think that maybe our own culture might be here for an even shorter time than the Modocs were. The Indians knew how to conserve their resources—we don't."

When Jeremy returned to a regular high school in the fall, his science class included a unit on the Klamath Basin water crisis. He was struck by the difference between his firsthand experience and the detached attitude of his new peers. "To hear and see people blowing it off after all I went through was really surprising," he says. "They just sat there and obviously didn't care. Except for the straight-A students, most kids sat in the back and didn't talk or raise their hand."

A BALANCED VIEWPOINT

The firsthand experiences students had in the Klamath Basin didn't end when the field trip was over. The Night School instructors don't give tests. But they do require "a creative synthesis" that conveys what the student learned. "We emphasize that you had this great experience; you loved it. Now you have to share it with a wider audience," says Campbell.

Requirements for the Klamath Basin project included completing an evaluation paper and a photo essay consisting of 15 to 20 photographs mounted on a three-panel display board accompanied by a title, appropriate journal excerpts, and illustrations. Students could earn additional course credit by helping to edit a documentary video from footage they shot on the trip. At the end of the term, as at the end of every term, students summarized their work orally in a Night School tradition known as presentation night (see sidebar).

"The presentations that we do, it's a really scary thing," says Campbell. "You invite the community, you invite parents, school administrators, anybody. Sometimes we have 100 people in the room."

At the presentation night for the summer session, Principal Janice Adams was impressed with the students' balanced viewpoint. "No one was raving and ranting about a particular side of the issue," she says. "Students were aware that what they read in the paper or see on TV is not necessarily the whole story. They got a glimpse of different people's perspectives."

"When you see things on the news it's easy just to judge something and you think, that's easy, I could solve that," says Chad. "When you actually get into it there's so many different viewpoints and it affects so many different people. It's just crazy."

Adams believes that having the "higher-stakes audience" of presentation night can make the work more real to students and enhance the quality of their efforts. "Kids don't always do their best work just for the teacher," she says.

But with high school students nothing is predictable, and project-based learning comes with risks. "Sometimes the presentations are brilliant and you're all swelled up with pride. And sometimes they're just embarrassing, even though the kids have worked really hard and you've coached them," says Campbell.

Campbell recalls one student who worked and worked on his presentation and then bolted on presentation night. "Even his mom couldn't keep him, he was so terrified," he recalls. "That's the kind of thing you leave yourself open to when you do the things that we do." □

FIN AND Feather

Lessons both old and new are found in the familiar splash of the salmon and the novel cluck of the chicken

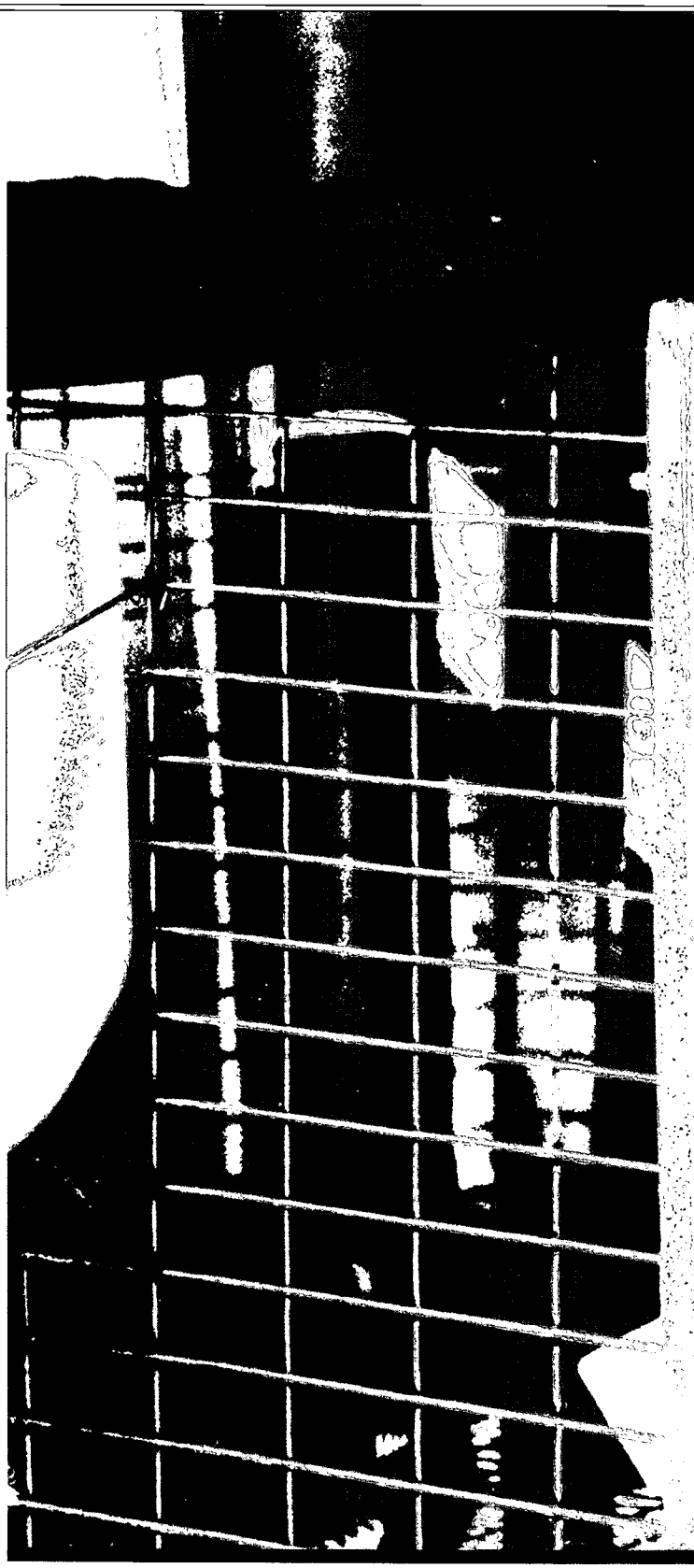
No bird soars too high if he soars with his own wings.
—William Blake

Story and photos by **Denise Jarrett Weeks**

KWETHLUK, Alaska—The chickens dart out of their pen with their wings cocked, indignation bordering on hysteria. The children rush the stragglers, wanting desperately to hold them, but, one-by-one, seeing the gate ajar, the birds abandon their little domain for the wildness of the schoolyard. Soon, it's a free-for-all, except for an older boy who stands unmoved in the melee, either perplexed by these funny-looking birds, so out of place here on the tundra, or from a teen sense of dignity.

In a moment, James Hautala, seventh-grade science teacher, intervenes and the children follow his lead in shepherding the flock of Wyandottes, Brown Leghorns, and Rhode Island Reds back to the chicken coop. The wire mesh and wood posts of the pen are still new and clean, and the birds step superciliously up a wooden ramp to the sanctuary of their hen house—as if crossing a royal carpet to straw-and-feather luxury.

This is Hautala's students' project, one they will work on throughout the school year. It's September, and they're just finishing construction on the coop, putting in insula-



(ABOVE) The chicken coop project is a community affair, and parents and younger siblings often stop by to lend a helping hand.

(BELOW) Finishing the foundation of the chicken coop, teacher and students also built a strong foundation of trust and cooperation.

tion and heat lamps, preparing it to withstand the sub-Arctic winter. They're learning to care for the chickens and to market the eggs and the occasional roasting bird to Kwethluk's skeptical consumers. It's not that residents of this Yup'ik village in Western Alaska haven't eaten chicken before, it's just that most prefer the meat they hunt and catch for themselves: salmon, caribou, moose, and, sometimes, seal shared by coastal relatives. So, eggs and drumsticks may be a tough sell, but the novelty of it all excites the students, even those who are struggling, on the verge of dropping out.

LESSONS IN NOVELTY

"I use the project as a tease" to hook the kids into learning math —measurement, geometry, ratio —life science, as well as carpentry and marketing, says Hautala. During the schoolday, he says, "We'll do some book work, then go work with the chickens. I think it's a good thing to do. I traditionally haven't done a lot of projects, because I don't like the way they usually go. Students need the ability to focus and maintain some degree of self-discipline before you can do it."

But this project seems to have earned the students' full attention, and, in a school where a third of the students might drop out in a single year, that's something to pay attention to.

"A couple of kids who don't come to school (regularly), they started to really shine when we started building this chicken coop. There's one kid who's not as socially accepted as the other kids, but he's my right hand out there, and the kids see that. He started talking, I mean, he never talked before. When I see kids getting involved, getting excited about something, then I figure I'm on the right track."

Already this year, a couple of high school boys are on the verge of dropping out. Hautala and Principal Dave Keller arranged a work-study for them, paying them $5.90 an hour to build the chicken coop and pen. In return, the boys are expected to "come to at least one class a day," Hautala says. Sometimes, it can feel like this is the most you can demand of a youth who has almost entirely disengaged from school. Anything to keep him coming back.

THE PERSONAL IS POLITICAL

Kwethluk, with 760 residents, lies near the junction of the Kwethluk and Kuskokwim Rivers. Settled since ancient times, the village is still largely governed by a subsistence lifestyle. Many of the villagers travel up the Kwethluk River every summer to their fish camps and, in the autumn, men and boys spend days on the trail of migrating caribou. Every season is full of purposeful activity that competes for students' attention. Sometimes, students feel the politics of adults pulling on their allegiances, too.

When teacher Beverly Chmielarczyk wanted to teach her eighth-graders about aquatic science and the life cycle of salmon—exploring why local salmon runs were dwindling—she bumped up against their suspicion of Western views about how the land and its resources should be managed. They'd heard adults in their community talk about the Katie John case, in which an Ahtna elder from the Copper River delta had successfully sued the federal government 10 years earlier to extend rural subsistence priority to 60 percent of Alaska's rivers and streams. This ruling would have given many people in the village priority over the outdoor sports enthusiasts—from cities, mostly—who descend on the rivers and delta muskeg every summer for fly fishing.

But the state of Alaska fought the decision in the courts, losing five times until, just weeks ago, Alaska Governor Tony Knowles changed course. He urged an amendment to the state constitution to agree with the federal ruling, saying he wished to mend the "bitter urban-rural divide" over this issue. But bitterness lingers for some of Chmielarczyk's students, who point to continuing interference by outsiders—state fisheries managers—who had just that summer imposed restrictions on fishing in the rivers, and were counting fish populations from the weir at Three Step Mountain on the Kwethluk River.

Chmielarczyk decided to embrace the debate in the classroom. She designed a class project around the state's fish recovery activities on the Kuskokwim and Kwethluk rivers. During the next few months, students will investigate what Native knowledge and Western science reveal about salmon and the wisest use of this valuable resource.

"I want to do a formal investigation," she said. "I want them to really learn how to get both perspectives, to get all the facts before they form their opinions about such questions as, How do the choices we make about the environment affect the salmon? What are the environmental concerns of Yup'ik and non-Native people? Who should make the rules about salmon harvesting?"

The project will integrate social science, environmental science, math, and language arts. Students will study the scientific method, the water cycle and oceanography, and the interdependence of habitat and salmon. "To me, that's what project-based learning is. You're taking a theme and incorporating it into your everyday classroom learning."

For several years now, Chmielarczyk has taught her students about the life cycle of the salmon by raising fry in a tank in the classroom, adjusting the thermal units in the tank to control the development of the eggs. The students have learned how to monitor water temperatures, and oxygen, ammonia, and pH levels during the incubation period. They will use these same skills on the banks of the Kwethluk River to gather data about the habitat and health of the wild salmon.

Then, they'll examine the interdependence of humans with these natural resources.

"We'll look at the news coverage of salmon issues in *The Delta Discovery* and *Tundra Drums* newspapers. The kids have done artwork and expository writing about salmon and what happens at fish camp in the summer," she says.

LEARNING TOGETHER

Last summer, Kwethluk's Principal Dave Keller and some of its teachers traveled across the river to Bethel to attend a class on standards-based education presented by the Lower Kuskokwim School District. One of the speakers, Bob Crumley, assistant superintendent and director of instruction for the Chugach School District—recently recognized by President George W. Bush for its excellence in standards-based teaching—described his district's project-based learning activities.

"Bob presented a video showing students completing a marine science experiment while doing their traditional subsistence fishing," recalls Keller. "Many of us from Kwethluk were impressed with this project because our own village community relies on subsistence activities as part of essential daily life."

But they weren't sure how to design projects that integrate multiple subjects and involve students over an extended period of time. Keller called the state department of education and was directed to Helena Fagan, an adjunct instructor at University of Alaska Southeast in Juneau and expert in project-based learning. She flew out to Kwethluk to lead a four-day workshop.

"Helena Fagan did an exemplary job of demonstrating how secondary teachers could weave meaningful projects into their class offerings," says Keller. "Helena made it clear that the foundation for project-based learning was the state standards."

Fagan says she showed the teachers how to align their projects with a target standard, or learning goal, which would allow them to feel more confident that, every day, they were taking their students a step closer to meeting that standard.

She also met with students, showing them videos of young people from other villages as they worked on projects and presented their findings—images of young people taking responsibility for their own learning.

"One of the beauties is if teachers include authentic tasks in their projects. If they get the kids and the community involved in something that has real value to the community, project-based learning can be especially effective," says Fagan.

Keller agrees: "I think the community wants students to have acquired skills they can apply in the real world, and you can't always get that kind of knowledge out of a book. Sometimes you have to do that by putting your knowledge and skills to work in a project."

Keller also thinks it's important that students see their teachers as learners, too. Projects create circumstances in which teachers and students can learn together.

"As educators, we need to model an excitement for learning," he says. "If there was ever a time when teachers were supposed to act as if they had the final word and authority on their subject area, that time has, hopefully, crumbled and died."

SUCCESS IN WHAT MATTERS

By February, the chicken enterprise is a going operation. Hautala and his seventh-graders are selling eggs in the village store for $3 a dozen, a tin can for cash sitting beside the carefully arranged brown eggs. The money goes back into the project, which Hautala intends to keep going for next year's seventh-graders. He harbors few doubts, now, about the value of project-based learning—while nurturing the chickens, teacher and students have forged a friendship based on mutual respect.

"These kids have been a success" in all ways that matter, says Hautala. They've not only gained practical skills they can put to use in their community, he says, their self-esteem has blossomed, and they show greater respect for their classmates and others—which some students have difficulty demonstrating in an academic setting. "There's been a bonding between us, and they feel included and important," he says. Even the boys who nearly dropped out at the beginning of the year have become valued members of the class community, and that, says Hautala, is sometimes the most important contribution a teacher can make.

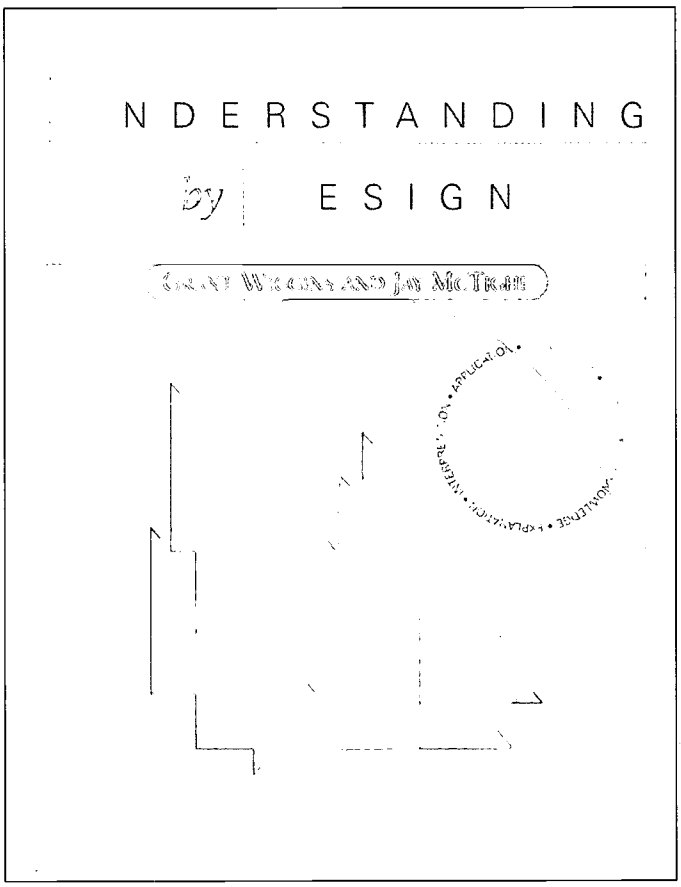
"My experience is that if you don't somehow include them, you lose them," he says. "The truth is, these kids are very excited, each day, to go get the eggs. The first eggs that were laid was a big deal, we were screaming, it was like Easter morning. It gives us one more exciting thing to come to each day." □

"THIS BOOK IS A MUCH NEEDED REMINDER that workbooks, patterns, and cutting and tracing lines is largely a waste of children's time," writes Mary Lane, professor emerita at San Francisco State University, in the foreword to the book *Engaging Children's Minds: The Project Approach.* "Such activities are teaching the five-year-old that school is a dull place, having little in common with real life."

In their 1999 book from Ablex Publishing Corporation, authors Lillian Katz and Sylvia Chard argue for uniting the excitement and novelty of real life with the activities young children do in school. The way to do that, they say, is through projects. The project approach, they write, "emphasizes the teacher's role in encouraging children to interact with people, objects, and the environment in ways that have personal meaning to them. As a way of learning, it emphasizes children's active participation in their own studies."

When searching for an appropriate topic for a project, teachers don't need to look far. The best projects, Katz and Chard assert, are drawn from the world that is familiar to the children. "Thus one might expect projects in a rural school to focus on animals and crops cultivated on the nearby land," they counsel. "Children in a fishing village might be engaged in projects about boats, fishing, and fisheries. In an urban area, children can undertake projects about types of buildings, construction sites, factories, traffic patterns, vehicles, and the workers involved."

The book offers practical ideas on designing projects for young children along with detailed suggestions for carrying them out. It walks the reader through the project process, from start to finish, and offers ideas on all kinds of possibilities, from dramatic play to investigation to group discussions. For ordering information, contact Greenwood Publishing Group at 1-800-225-5800 or on the Web at www.greenwood.com



IN ELOQUENT LANGUAGE that conveys their excitement for the learning process, Grant Wiggins and Jay McTighe lay out their vision of effective educational practice. In *Understanding by Design,* published in 1998 by the Association for Supervision and Curriculum Development (ASCD), the researchers tackle some of the most critical questions in education today—What is *understanding* and how does it differ from *knowing?* What do we want students to understand and be able to do? What enduring knowledge is worth knowing? How will we know that students truly understand and can apply knowledge in a meaningful way? How can we design our courses and units to emphasize understanding?

"Wiggins and McTighe offer us a framework for teacher planning quite different from the one we know all too well," writes Ron Brandt in the foreword. "Designing lessons for understanding begins with what we want students to be able to do."

Six "facets" of understanding—explanation, interpretation, application, perspective, empathy, and self-knowledge—should underpin and inform lesson design, the authors say, noting that "teaching for understanding is not the same thing as teaching for skill or recall of facts."

For ordering information, contact ASCD at 1-800-933-2723 or on the Web at www.ascd.org.

THE FINDINGS OF A FIVE-YEAR STUDY funded by the U.S. Department of Education are detailed in a 1996 book from Jossey-Bass Publishers. In *Authentic Achievement: Restructuring Schools for Intellectual Quality,* Fred Newmann of the University of Wisconsin at Madison presents data that suggest students' academic achievement benefits greatly from lessons grounded in real-world applications—what he calls "authentic pedagogy."

Writes Newmann: "The kind of achievement required for students to earn school credits, grades, and high scores on tests is often considered trivial, contrived, and meaningless by both students and adults. The absence of meaning breeds low student engagement in schoolwork."

Using examples of actual projects and instructional strategies, the author presents a picture of a successful school—one that encourages kids to delve for true understanding rather than merely skim over the surface, one where kids construct their own knowledge through disciplined inquiry into issues that matter outside the classroom.

For ordering information, contact Jossey-Bass Publishers at 1-800-225-5945 or on the Web at www.josseybass.com.

—Lee Sherman

LETTERS

Sharing in Success

I read the wonderful article ("Birth of a Standard," Fall 2001) about Idaho, Caldwell Schools, and Sacajawea in particular. Kudos go to the staff and in particular to their visionary superintendent and the hard work and dedication of Margo Healy. This superintendent began implementing scientifically based reading research practices even before the Idaho Reading Indicator or the Comprehensive Literacy Course. I only wish my company had been mentioned, since the work in Caldwell did not happen in isolation.

We began working with Caldwell three years ago—before the Idaho initiative. CORE (Consortium on Reading Excellence) consultants provided training to K–3 and 4–8 staff and provided training to Margo Healy as a leader. CORE consultants initiated the use of Open Court with this client and supported its implementation. CORE continues to support Idaho through the Comprehensive Literacy course and through certifying and supporting outstanding local leaders.

CORE is a professional development organization providing technical assistance to schools to implement reading best practices. Our advisory panel includes Edward Kame'enui, Doug Carnine, Barbara Foorman, Shane Templeton, and Louisa Moats. Our book, the *CORE Teaching Reading Sourcebook K–8,* is used by many of the providers of the Comprehensive Literacy Course. We recognize that the work of reform and reading improvement is done by the local staff, but our trained and skilled consultants work hard also, as they did in Caldwell, to provide the knowledge, impetus, follow-through, and support to initiate and sustain the change. We helped Caldwell in the bad old days when resistance was high and into their success.

Linda Diamond
Executive Vice President
Consortium on
Reading Excellence (CORE)
Emeryville, California

More Than a Container

I am currently designing a school as my thesis project. I strongly feel that schools can and should be designed to supplement and enhance education (Designs for Learning, Summer 2001). They should be more than just containers where book learning is doled out to children. I intend to design such a school keeping the Asian context in mind.

Ailya Jafri
Architecture student
Indus Valley School of
Art and Architecture
Pakistan, Karachi

Free Info on Facilities

I have just come across this issue (Designs for Learning, Summer 2001) and I would like to congratulate you on your presentation of many of the important issues regarding school facilities today. Perhaps you would like to alert your readers to the following information: The National Clearinghouse for Educational Facilities (NCEF) is a free public service sponsored by the U.S. Department of Education that provides information on planning, designing, funding, and maintaining schools. The NCEF Web site (www.edfacilities.org) links to thousands of publications and includes information on school facility news and events, award-winning school designs, and school construction data.

Judy Marks
Associate Director
National Clearinghouse for
Educational Facilities
Washington, D.C.

A Sense of Family

Your article ("Making It Personal," Winter 2000) was of great interest to me. I went to school in Germany, where after elementary school, students through 10th grade are in the same classroom, with the same 30 or so students all day (with a few exceptions). Teachers vary throughout the day, but you stay in your homeroom, in the true sense of the word! My high school probably had close to 1,000 students in it, but it never felt big because of the close sense of family that developed within our classroom. Particularly in the turbulent adolescent years, having a place where you really belong is so important.

Karma Clarke-Jung
Special education teacher
Riverside Center
Winston, Oregon

Haunted by Dodge Ball

I am 31 years old, and dodge ball still haunts me ("The Death of Dodge Ball," Fall 2000)! We used to have to line up against a cement wall, or stand in a circle of peers waiting to be pelted with balls bigger than our heads! I was small and the balls hurt, and at times, knocked me off my feet. I was very popular and a tomboy, but I could not compete with the stronger, larger boys so I was no less a victim. The tough kids tried to get hit because that meant they got to throw the balls at the other kids. They dominated, tormented, intimidated, bullied, and physically attacked their classmates—while a teacher stood by encouraging their behavior. This was not my idea of fun. What lesson is this game supposed to teach children: how to be an aggressor? how to be a victim? I don't want my children to be taught or forced to perform well at either of those tasks! This is a cruel lesson we should spare all children.

Tiffany Murdock
Norwich, Connecticut

Applause for the Arts

I found the article "Picasso in the Wilderness" (Summer 1999) thrilling and inspiring! As an art teacher for middle school, I always feel limited to the amount of art I can include during the semester (I teach half the student population each semester). It would be wonderful to include the arts in *all* of the curriculum so that students have an even larger exposure to art. This article is a guideline to how to do that! I applaud a small rural community for emphasizing the importance of art.

Genie Holt
Art teacher
Vulture Peak Middle School
Wickenburg, Arizona

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Summer issue
Beyond the Bell: Extending Opportunities for Learning

Fall issue
The Great Divide: How Can Schools Close the Achievement Gap?

Winter issue
Focus on Writing: With a Special Report on the Six-Trait Model

Spring issue
Back From the Brink: Saving Kids With Learning Disabilities From Failure

You are invited to send us article ideas,
identify places where good things are happening,
provide descriptions of effective techniques being used,
suggest useful resources, and submit letters to the editor.

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BEYOND THE BELL: Extending Opportunities for Learning

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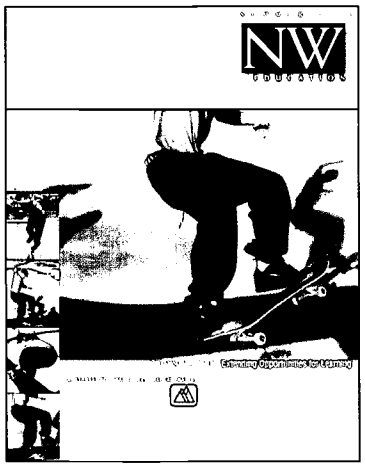


ON THE COVER:
Bozeman skateboarder Mike Clark gives the city's skate park a workout. Youth devoted hours of out-of-school time and raised $80,000 to get the park built. In the process, they forged a new connection with 4-H, "wrote the book" on skateboarding lingo, and earned respect from civic leaders. Story begins on Page 8.
PHOTOGRAPHS BY DOUG LONEMAN.

Beyond the Bell

Extending Opportunities for Learning

ARTICLES

2 **The Barefoot Hours**
Programs designed to engage students during out-of-school time gain widespread support, drawing attention from schools, parents, researchers—and kids.

8 **From Threshers to Thrashers**
In Bozeman, Montana, skateboarders find an ally in 4-H, an organization that's been serving the needs of young people for a century.

14 **'A Better Place To Be'**
Community learning centers are sprouting in both rural and urban areas, connecting kids with school even when it's not in session.

20 **Take-Home Lessons**
Is homework the key to raising achievement or a drag on family time? Researchers give the time-honored tradition a fresh look.

24 **Stretching Mental Muscles**
For academic competitors in a small Portland high school, the final bell means it's time to shift into high gear in the science lab.

30 **After-School Needs Come Into Spotlight**
Coordinator of Seattle MOST shares highlights of a seven-year effort to improve access to quality out-of-school care.

DEPARTMENTS
29 Online Resources
36 Letters

What's that skateboarder doing on the cover of *Northwest Education?* Catching some air. Practicing a backside grab. Wiping out. And—through it all—*learning.*

Our focus this summer on extended learning opportunities gives us a timely chance to consider the lessons that take place outside the traditional school day. That skateboarder, for instance, belongs to a remarkable cadre of young people in Bozeman, Montana, who pooled their energy to design a skate park for their city. The venerable 4-H program, with a century of experience promoting healthy youth development, supported their effort, building in lessons on everything from civics to publishing to engineering. The kids also taught local adults some powerful lessons about the dangers of stereotyping and the power of positive attention.

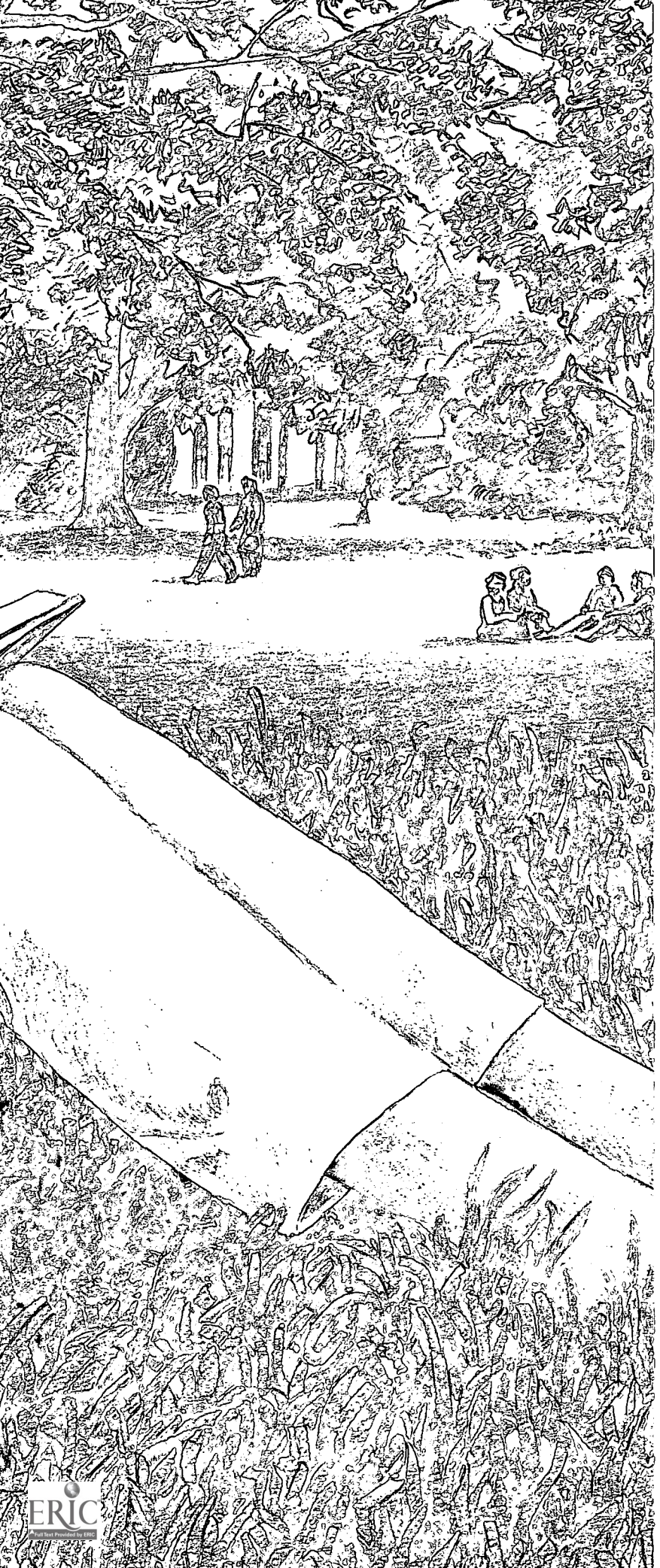
Elsewhere in this issue, we explore all kinds of places and opportunities for extended learning—from organized after-school programs to homework. Community learning centers, for example, are sprouting in rural and urban neighborhoods and expanding out-of-school activities. Support for such programs is at an all-time high, but so are expectations. We examine what researchers are learning about the benefits well-designed programs can offer, and hear from organizers about the challenges of building and sustaining quality programs. As one coordinator points out, good programs involve much more than after-school care. They connect kids with learning, all day long. We also talk with some of the young people who call these programs "a better place to be."

For many students, unscheduled time offers a chance to follow their passions—whether they run to basketball or baseball, dancing or drawing. "Stretching Mental Muscles" zeroes in on a few teens whose hero is more likely to be Einstein than Michael Jordan. These academic competitors invest their free time dreaming up science projects that may change their own lives, and may one day change the world. On the sidelines—providing support, encouragement, and carpooling—are the teachers and parents who make such dreams possible.

Out-of-school time is a relatively new focus for researchers, but it's a field that deserves a closer look. As any kid will tell you, learning doesn't stop just because the bell rings. "But unless you give a kid positive alternatives," one expert told us, "it's only luck" if he chooses to use his free time in ways that will be good for him, or risky.

—*Suzie Boss*
bosss@nwrel.org


DICTIONARY



The Barefoot Hours

Out-of-school programs offer to make the most of kids' free time, turning potentially risky afternoons into golden hours of opportunity.

Story by SUZIE BOSS, Illustration by JERRY KRUGER

It started with a bus.

A few years back, kids in the small Central Oregon community of Prineville who were looking for something to do in the afternoon had no way to get from their school to the local recreation center. If their parents worked, as most parents do, carpooling wasn't an option. Public transportation wasn't available. Many young teens spent their late afternoons doing what comes naturally—hanging out with their buddies. "These aren't bad kids," stresses Dennis Kostelecky, curriculum coordinator for Crook County Schools, "but when some of our older residents see kids roaming downtown in a pack, they can seem threatening."

The district's first foray into after-school programming was as simple as providing a bus to the rec center. "And for this community," says Kostelecky, "that was a big step."

Around the same time, the county became involved in the School of the 21st Century initiative developed by Yale University Professor Edward Zigler. From this network, Crook County stakeholders learned that families in rural Oregon were facing stresses not unlike those felt in America's inner cities: unemployment or low wages in the service economy, alcohol use, lack of access to needed services, and not much emphasis on education within the local culture. Crook County decided to go after a federal grant to strengthen the connection between kids and school.

Three years later, Crook County's 21st Century Community Learning Center program has expanded to include a long menu of offerings for preschoolers through high school students. Vandalism is down; teachers report young children are developing readiness skills earlier in life; and students are forging stronger bonds with school. But participation didn't skyrocket overnight. It's taken time to win support from parents—not because they disapprove of the activities, but because they weren't accustomed to having such options available. "What you see in a community like this is rugged individualism," says Kostelecky. "People tend not to ask for help." At the same time, it's a small enough, tight enough place "that families get to know each other. It's a place where people do want to put their arms around kids."

BUILDING A SYSTEM OF CARE

Communities across the country are discovering the value of programs for out-of-school time, especially for children who are facing challenges. Many students, to be sure, spend their after-school time running a circuit of activities that would leave a marathoner winded. Their parents log endless miles driving from music lessons to soccer practices to private tutoring sessions, and roll up their sleeves to pitch in on complicated homework assignments. But many other children—especially those growing up in poverty—don't enjoy the same advantages. An estimated 7 million American children go home alone after school. The David and Lucille Packard Foundation reports that 30 million children—at least 12 percent of children ages five through 12—spend some time each week in "self-care," with no adult supervision. Among 12-year-olds, 35 percent are regularly left unsupervised while parents are working. For the working poor, TV is often the most affordable babysitter.

In *After-School Programs: Good for Kids, Good for Communities,* authors Jed Schwendiman and Jennifer Fager from the Northwest Regional Educational Laboratory caution that "after-school hours are becoming an increasingly dangerous time for many of our students." Research shows the hours from 3 to 8 p.m. as the most risky—when juveniles are most likely to engage in risk-taking or delinquent behaviors, or to be victimized by crime. Citing statistics from the U.S. Department of Education and Department of Justice, the authors caution that unsupervised teens are "far more likely to use alcohol, drugs, and tobacco, engage in criminal and other high-risk behaviors, receive poor grades, and drop out of school" than peers who have a chance to take part in constructive activities supervised by adults.

Transforming those risky hours into opportunities for learning and enrichment is a powerful idea, according to researchers who focus on youth development. Within the past decade, experts from fields including education, delinquency prevention, sociology, and mental health have been turning their attention to creating a system of care that responds to the needs of children—needs that don't stop when the final school bell rings.

The National Institute on Out-of-School Time (NIOST) has brought national attention to this area. Since its founding 20 years ago at Wellesley College, NIOST has helped to define out-of-school time as a field worthy of study and raised the professional standing of those who make their careers working with youth when school is not in session.

Researchers in the field of youth development have sharpened their focus on what children need to develop into competent adults. The Search Institute, 4-H, Boys and Girls Clubs, and other organizations have documented the importance of building on assets in the lives of children and teens. Research on resiliency underscores the importance of providing young people with positive attention from caring adults. As Dale Blyth, director of the University of Minnesota Extension Service's Center for 4-H Youth Development, explains in *The Center* (published by Minnesota Extension, fall 2000): "Healthy positive development is more likely to occur when young people experience a developmentally nutritious 'diet'

TIPS FOR PARENTS

What should a parent look for in a program designed for out-of-school time? The National PTA suggests parents consider the following questions:

- Does the program offer a variety of academic, recreational, cultural, and community activities?
- Is the programming tailored to the ages and needs of children who are served?
- Does it use fun, hands-on approaches to learning?
- Does the program offer activities that expand and enrich the curriculum that children receive during the school day?
- Is help with homework provided, as well as time and space for quiet study?
- Is staff-parent interaction encouraged?
- What type of flexibility is offered to accommodate parents' schedules?
- Are there resources such as a library and sports equipment?

Source: Our Children, *September 2001. Online at www.pta.org.*

of people, places, and opportunities over time. ... Research is helping us understand what these essential developmental nutrients are and how they operate."

And educators, pressed to close the achievement gap and to help all children succeed, are looking for new ways to help kids who are struggling academically keep learning after the regular school day ends. Free of grades or other performance standards, the after-school hours can open up more relaxed learning opportunities that build on kids' natural interests. Creative strategies and one-to-one tutoring can feel like fresh air to a student who's suffocating in the traditional classroom.

This attention from diverse viewpoints is translating into major investment in programs for out-of-school time. Federal funding for the 21st Century Community Learning Centers program swelled from $40 million in 1998 to $1 billion this year, expanding access to school-based extended-day programs to families in low-income urban and rural areas (see related story, Page 14). Private sources also are focusing on the need for quality care after hours.

But while funding has never been greater for after-school programming, money alone won't provide all the answers for how best to engage and nurture kids when they aren't in class. Says Kostelecky of Crook County: "It's the sense you create in a community that will solve these problems over time."

RANGE OF BENEFITS

Vocabulary Olympics. Folk dancing. Photography. Model rocketry. Improvisational acting. Jewelry making. When the regular school day ends at a Seattle middle school, kids can stick around to participate in any of these activities—or a laundry list of others—at no charge. Or they can head outside to a neighborhood stretch along MLK Jr. Way where poverty is high and most parents are more concerned with putting food on the table than lining up enrichment opportunities. No wonder nearly 85 percent of families sign up for after-school programs.

Although it's the promise of fun that lures kids to such programs—and the assurance of safety and supervision that appeals to parents—the benefits continue to accrue long after the end of the extended day. Beth Miller, senior research adviser at the National Institute on Out-of-School time, tallies some of these gains in a recent issue of *Educational Leadership* (April 2001): "Growing evidence suggests that after-school program participation is associated with higher grades and test scores, especially for low-income children." She cites studies linking after-school participation with "improved attitudes toward school, higher expectations of school achievement, better work habits, and higher attendance rates."

Impressive enough, but that's not all. Kids also stand to gain in areas that go beyond academics. As Miller suggests, "The most impressive research ... links participation to significantly lower involvement in risky behaviors, including lower incidence of drinking, smoking, using drugs, having sex, and becoming involved in violence, as well as increased positive behaviors—better social and behavioral adjustment, better relations with peers, more effective conflict resolution strategies, and increased parent involvement."

According to *Safe and Smart: Making After-School Hours Work for Kids,* a 1998 report from the U.S. Department of Education and Department of Justice, "children, families, and communities benefit in measurable ways from high-quality after-school and extended learning programs." Those measurable results include reductions in juvenile crime and risky behavior by participating youth, increased confidence and academic performance, and better social skills, including the ability to handle conflicts. The report describes such programs as "safe havens where children can learn, take part in supervised recreation, and build strong, positive relationships with responsible, caring adults and peers."

Afterschool Alliance, a nonprofit coalition, suggests that existing research supports three key arguments in favor of after-school programs: helping kids achieve in

school, keeping kids safe, and helping parents balance work and family responsibilities.

One of the most significant studies in the after-school field examined 10 years of data from a program called LA's BEST (for Los Angeles's Better Educated Students for Tomorrow). Launched in 1988 as a partnership between the Los Angeles Unified School District, the city of Los Angeles, and the private sector, the program serves some 14,000 children ages five through 12 at more than 70 sites across sprawling Los Angeles. Poverty is pervasive in most children's lives, with 90 percent qualifying for free or reduced-priced lunch. Most are children of color.

The large-scale longitudinal study of LA's BEST, published in 2000 by the UCLA Center for the Study of Evaluation, found that, compared to nonparticipants, students who took part in the program regularly and for at least a year had fewer school absences; improved academic achievement on standardized tests of math, reading, and language arts; and better English proficiency (among students learning English as a second language). Afterschool Alliance calls these results "powerful evidence of the value of afterschool programming."

Paul Heckman, director of the Center for Educational Renewal and Research at the University of Washington and Carla Sanger, president of LA's BEST, writing in *Educational Leadership* (April 2001), note that participating students showed improvements that went beyond attendance, grades, and achievement test scores. LA's BEST students also participated more actively in school life, demonstrated positive changes in behavior, saw a future for themselves that included higher education, and reported liking school more since their involvement with the program, report Heckman and Sanger.

Reaching these results didn't happen because kids spent their afternoons doing drills and "filling blank spaces on handouts," the authors argue. Kids performed better on measurements such as standardized tests "because they had gained confidence in using what they already knew, in being mindful of their thoughts and ideas, and in pursuing their own interests," assert Heckman and Sanger. They also note that while specific activities vary from site to site, three fundamental strategies guide all LA's BEST programs: building on what students already know (rather than using a preset curriculum), helping students value their own ideas and experiences, and following students' interests when planning activities.

BUILDING QUALITY PROGRAMS

With extended-day programs cropping up in communities of all shapes and sizes, are there design principles that make sense in all settings? Both program staff and researchers will be looking for answers in a comprehensive evaluation of the 21st Century Community Learning Centers, due to be released later this year. Funded as a partnership by the federal government and the Charles Stewart Mott Foundation, the study "is expected to provide definitive data that will shape programmatic and policy decisions for years to come," predicts the Afterschool Alliance in its publication, *Afterschool Advocate.*

But much is already known from both scientifically designed studies and years of anecdotal evidence about after-school programs. *Safe and Smart,* drawing on research by NIOST, highlights four desired outcomes for these programs: relationships with caring, competent, and consistent adults; access to enriching learning activities; access to safe and healthy environments; and partnerships with families, schools, and communities.

Drawing on a foundation in youth development, Blyth suggests that programs consider seven standards of quality *(The Center,* fall 2000). Programs should:

- Provide challenging opportunities where youth feel physically and emotionally safe to explore learning directly and with a likelihood of experiencing success
- Help youth develop quality caring relationships with people who care about and connect with youth in authentic ways
- Be inclusive and serve youth of many types and help them to understand and value differences

BY THE NUMBERS

- 75 percent of women with school-age children work outside the home at least part time
- 12 percent of children ages five through 12 spend some time each week in "self-care," with no adult supervision
- Students who spend one to four hours per week in extracurricular activities are 49 percent less likely to use drugs and 37 percent less likely to become teen parents than peers who do not participate in such activities
- Current number of out-of-school time programs for school-age children will meet only 25 percent of the demand in urban areas this year
- Children devote an average of 100 minutes to watching television after school, compared with 74 minutes playing, 60 minutes studying, 60 minutes in sports, and 20 minutes in conversation

Sources: National Institute on Out-of-School Time, University of Michigan's Institute for Social Research

- Provide age-appropriate youth leadership opportunities
- Offer a balance of opportunities for youth to excel individually as well as cooperate successfully
- View youth as resources
- Be based on research, theory, and best practices

Safe and Smart also acknowledges that after-school programs will naturally differ from one neighborhood to the next. That's appropriate, the report acknowledges, because "successful programs respond to community needs." However, certain characteristics "are indicative of successful programs," reports *Safe and Smart,* including clear goals, strong leadership and effective managers, skilled and qualified staff who receive ongoing professional development, low adult-to-child ratios, varied activities, outreach to parents, and partnerships with the community.

If a program priority is to enhance students' academic skills, the report adds, "Coordinating what's learned during the regular school day with after-school activities and establishing linkages between school-day teachers and after-school personnel can go a long way toward helping students learn."

In addition, after-school programs offer an opportunity to strengthen connections between students' school and home lives. Miller, in *Educational Leadership* (April 2001), cites evidence that "after-school programs can link the values, attitudes, and norms of students' cultural communities with those of the school culture. In the more informal setting of an after-school program, students can connect with teachers and other adults as they explore an interest in hip-hop music, Mexican folk dancing, community service, or astronomy."

KIDS' TIME

Even as support grows to historic levels for out-of-school programs, questions and concerns are emerging from some quarters about best use of kids' free time. Robert Halpern, of the Erickson Institute for Graduate Study in Child Development in Chicago, told *Education Week* ("After the Bell Rings," February 2, 2000): "Programs that drive too hard to accomplish more concrete goals could deprive youngsters of the 'chance to be a kid.' There needs to be a debate about this time in kids' lives and what we want it to be like. After-school programs should be kids' time and should not be used for some adult set of purposes."

Michelle Seligson, founder of NIOST and one of the earliest proponents of extended-day programs, argues in the same article for a "balanced approach" to programming. As she told *Education Week,* "After-school programs need to be environments for the expression of more than just academic skills." In an interview with the Harvard Family Research Project, Seligson made a case for looking at "the whole ecology of the program ... not just the educational outcomes. The definition of desired outcomes should be broad so that one does not look only at test scores, but also the social and emotional development of the child, which is tantamount to doing well in school and in life." (Full text of the interview is available in the project's online newsletter, *The Evaluation Exchange,* http://gseweb.harvard.edu/~hfrp).

Indeed, discussion about "appropriate programming choices" and "accountability measures" makes some adults yearn for what we might call the barefoot hours—unscheduled time for children to "dawdle and daydream," as Halpern puts it. But nostalgia doesn't offer answers to the complex issues facing today's young people. "Many kids are not having the same childhoods we may remember," acknowledges a longtime educator in a rural Oregon school district.

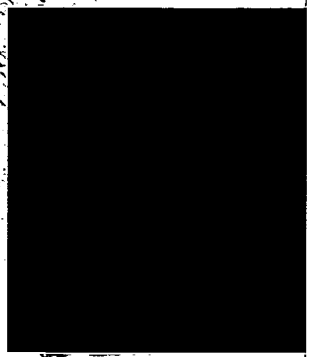
How will today's kids remember their childhood? With any luck, they'll reminisce about spending delightful afternoons painting or learning yoga, making music or making friends, cracking the books or cracking jokes—all under the watchful gaze of adults who cared about them. "Good programs," suggests one experienced after-school coordinator, "just know how to make a place for a kid." □

At Bozeman's skate park, the action takes place in and around "the bowl" (large photo, right). Adam Epp watches Kent Rising drop into the bowl (above). Rising gets airborne (above, right). Mike Clark climbs out of a trick (below).

From Threshers to Thrashers

In Montana, 4-H takes a modern spin to engage "blue-ribbon kids"

STORY BY JOYCE RIHA LINIK, PHOTOS BY DOUG LONEMAN



BOZEMAN, Montana—When the local newspaper ran a story about a group of kids who had nowhere to practice their sport, few local residents sympathized. Some were downright relieved to see the issue aired. After all, hadn't they seen these kids careening through the local supermarket parking lot, narrowly averting disaster as they dodged shopping carts and cars? Hadn't they seen them grinding down the walkway at the courthouse, bouncing off the marble benches and endangering the safety of innocent passersby? And hadn't these kids done so in defiance of posted signs outlawing skateboarding in public areas? No doubt about it, skateboarders were a bad lot.

But where some saw trouble, Kirk Astroth saw opportunity. Astroth saw kids who needed a safe place to go after school, a place where they could get positive messages and support, a place where they could belong. Astroth, Montana State University's Extension 4-H specialist, had spent years working with and researching youth programs, and was confident that a positive after-school environment could have a positive effect on these children. He had a great deal of anecdotal evidence to support this belief, and it was evidence that would soon be backed up quantitatively through an extensive study on the effects of after-school programs, specifically 4-H, on Montana youngsters.

The study, conducted by Astroth and his colleagues during the last two years, involved surveying more than 3,000 students in fifth, seventh, and ninth grades. The results were clear: Kids who participated in after-school programs for at least a year were more likely to succeed in school and less likely to engage in risky behaviors than those who did not participate in such programs. 4-H kids, in particular, were more likely than nonparticipants to get better grades, become leaders in their schools and communities, and get involved in service projects. 4-H participants were also less likely than other kids to shoplift or steal, use illegal drugs, ride in a car with a drunk driver, damage property just for the fun of it, skip school without permission, or smoke cigarettes.

When Astroth saw the newspaper story about the young skateboarders without a place to skate, he came up with a plan. If these kids would join 4-H, he could offer them one of the empty exhibit halls at the county fairgrounds once a week so they could come in and skate to their hearts' content. But the project couldn't be just a whirring, grinding free-for-all. To carry the 4-H label, the project would have to provide a safe environment with positive adult role models and offer educational opportunities for participants. And the kids would have to help "rent" the space from the county by engaging in community service—helping keep the grounds clean and free from trash, for example.

When the kids heard the 4-H proposal, Gallatin County 4-H Extension Agent Todd Kesner says they weren't daunted by the educational and service requirements of the program. They did have one concern. Kesner reports: "Their number-one question was: Do we have to raise pigs?"

Dropping In: Rolling onto a ramp, pool, or street course to begin skating

For many people, 4-H evokes images of wholesome farm kids raising plump pigs and beefy cows, growing huge tomatoes and gigantic pumpkins, baking homemade apple pies and competing for blue ribbons at the county fair. It's an apt association considering the organization's rural roots. Sponsored by the U.S. Department of Agriculture and land-grant universities across the country, the program was developed around the turn of the 20th century to teach kids practical agricultural life skills. Since its inception, the program has employed an experiential learning approach—that is, teaching youngsters through hands-on projects, thus helping them "learn by doing." The four "H's" come from the club's motto: "I pledge my Head to clearer thinking, my Heart to greater loyalty, my Hands to larger service, and my Health to better living for my club, my community, my country, and my world."

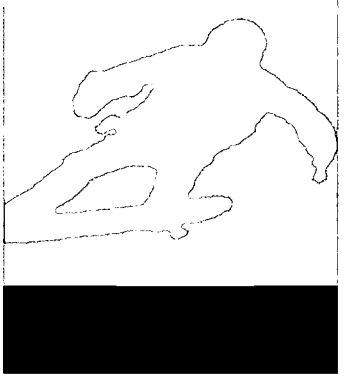
This year, as 4-H celebrates its centennial anniversary, the club has a stronger presence than ever, not just in small towns out on the range, but in urban centers as well. In 2000, the program reached more than 6.8 million youngsters across the United States and had a presence in 82 countries worldwide, engaging youth from all ethnic, racial, and socioeconomic backgrounds. And while agricultural production and food preservation are still popular subjects of study in 4-H clubs, the program's focus has shifted to a loftier goal: helping youngsters to develop the knowledge, skills, and attitudes that will enable them to become productive and contributing members of society.

Through 4-H projects, participating youth not only gain knowledge of subjects of interest to them, but also build self-esteem and acquire life skills in such areas as communication, decisionmaking, citizenship, and leadership. Further, projects give them the opportunity to investigate future career options and discover the joy of lifelong learning. "We're more interested in the kid than in the project," Kesner says. "We'd rather have a blue-ribbon child than a blue-ribbon project."

But the project is the hook that draws in the child. For this reason, 4-H offers what Astroth refers to as a "smorgasbord of projects" for kids to choose from—including, of course, the ever-popular animal projects. In Big Sky country and other rural regions of the Northwest, it's no surprise that horse projects are among the most frequently chosen. After all, Astroth and Kesner joke, people who move to Montana and get a couple of acres seem to think that getting a horse—or four—is something of an initiation. But a large number of kids still choose cattle, sheep, and swine projects, raising the young, preparing them for market, and maybe even raking in some profit when they reach the sale barn at the fair. Dog and cat projects are perennial favorites among kids who want to learn how to care for and train pets. But some make more exotic choices. Young Montanans have elected to raise buffalo, ostriches, or lizards.

Aside from animals, projects run the gamut from traditional 4-H activities like cooking and sewing to courses in photography and computer technology. And if a child's interests lie outside existing projects, 4-H makes accommodations for any new project that has educational potential. In Montana, this has included students mounting stream reclamation projects, keeping track of cutworm populations as part of ecosystem studies, and forming a club for young entrepreneurs.

"All of our programs must be educationally sound," says Astroth, who decided that Bozeman's skateboarding club would require a curriculum. If kids could be taught how to play football or how to ski, he argued, why couldn't they be taught the rudiments of skateboarding—things such as how to turn, how to stop, and how to fall safely? Astroth took the first stab at writing curriculum guidelines, referring to recent issues of skateboarding magazines for help with the lingo. When he shared his draft with skateboarders Travis Bos and Jeremy Adamich, two college-student volunteers who were helping set up the program, they got involved in writing the curriculum as well, partly because they needed to set Astroth straight on some things.



After all, they told him, every "thrasher" (skateboarder) knew you couldn't do a "fakie" (a move where one rolls or lands backward) before a "goofy" (riding with the right foot forward).

So with the help of Bos and Adamich, as well as local skateboard shop owner Jay Moore and some of the older members of the club, a skateboarding curriculum —perhaps the first ever—was written. The result is an impressive 36-page guide to skateboarding, including guidelines for four levels of ramp and street skills; descriptions of equipment and safety gear; histories of the sport and the evolution of the skateboard; profiles of leaders in the sport during the last 25 years; tips on starting a skateboarding club; suggested designs for ramps, trailers, and skate parks; tips for skateboard club leaders; and a glossary of skateboarding terms. The guide, published in 1998 with help from the Turner Foundation (a philanthropic organization founded by Ted Turner, the media magnate, who owns a ranch in the area), is available for sale from Gallatin County 4-H. To date, copies have been sold in 35 states.

Frontside: Spinning toward heels while performing a rotation or trick on an obstacle in front

When Anna Epp brought her then-eight-year-old son, Adam, to the new 4-H Skateboarding Club, it was because she didn't want him skating in the park where she'd seen "thuggy-looking older kids" skateboarding. They wore baggy clothes, she noticed, and some had piercings and tattoos—not the kind of role models she envisioned for her son.

Epp says she was shocked to find that a couple of those "thugs" were college volunteers at the 4-H club—the very guys, in fact, who had helped Astroth write the skateboarding curriculum and who were devoting their time and energy to teaching little kids to skate. In retrospect, she says, "my first impression was wrong. These were really good kids. They've been great mentors, great teachers, great role models." Epp should know. She quickly signed on as one of the club's adult volunteers and has become known as "Skate Mom" to the kids.

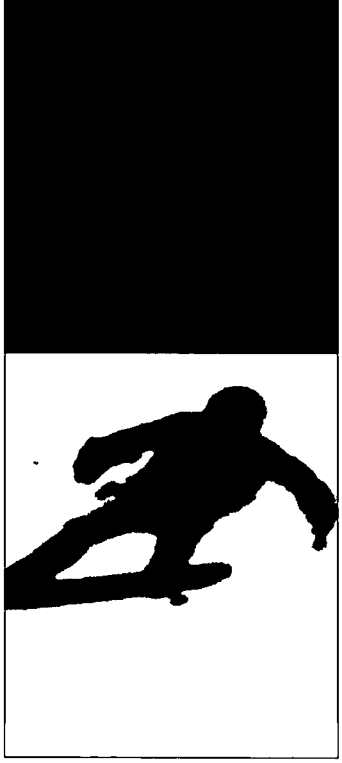
Epp and co-leader Lorel McChesney have been there every Tuesday night, through deafening noise and seeming chaos, as anywhere from 40 to 120 kids on wheels have raced around the hall, barreling up ramps, catching air, and hitting the concrete with a grinding crunch. Through all the frenzy, Epp says she watched Bos, Adamich, Kent Rising, and others show up week after week to patiently instruct younger kids and offer positive encouragement—from comments like "right on" and "good try" to suggestions on how to approach a "trick" more successfully. They helped kids fix their boards when maintenance was required. They designed and built skateboarding ramps for the club and then a trailer to carry the ramps when some of the boys wanted to create a traveling team to help other 4-H groups around the state start skateboarding clubs of their own. A couple of these college volunteers, Epp reports, recently graduated from MSU with engineering degrees.

Research supports the importance of connecting kids with such principled and caring adults. In Bozeman, Kesner oversees the skateboard project, but is supported by an entire team of volunteers, including Epp and McChesney, as well as a handful of college students, all committed to helping kids learn not just how to skate but how to be successful in life. Kesner compares the model to days of old when kids grew up in small communities where extended family and neighbors had a vested interest in keeping kids on track, even if a parent or teacher wasn't around.

And just like yesteryear's one-room schoolhouse, the program uses a multiage approach to learning. Kids in Montana can be anywhere from nine to 19 to participate in the skateboard club. This cross-age grouping mirrors real life, Astroth explains, where people often learn from someone with more life experience.

The experience has been positive for both older and younger participants. Rising says he's found teaching rewarding, particularly when he sees "the happiness and elation" the little kids get "when they learn a new trick and they're excited they can show it off to all their friends." He adds, "I get a heartfelt feeling when I see that, because I know that I can help them do that."

Adam Epp, now 14, says he looks up to older guys like Rising who have become role models for kids like him. Adam, who plans to go to college someday, is considering becoming a PE teacher. If that's the case, he's already getting experience. As kids in the club gain experience and master skills, the older ones become "Junior Leaders," qualifying them to teach younger children in the group. Since Adam has passed the first three levels of skating proficiency, he is now in a position to pass on what he has learned. "I feel proud to be able to help the little kids," he says. "It gives me a good feeling."



Catching Air: Any move in which the rider and board take flight

The skateboarding club succeeded in getting kids off the street—some literally—when the doors to that county fair exhibit hall opened to skaters in 1997. As the club expanded and developed its extensive course in the sport of skateboarding, it has attracted a diverse group—some former 4-H'ers who had raised rabbits or participated in archery, some who belonged to other after-school groups like Boy Scouts or intramural sports, and some who were not "joiners" at all.

McChesney notes that skateboarding "allows for more personal expression" and, therefore, "appeals to kids who may not do as well in structured sports like baseball or soccer, or who may not have the funds to participate in more expensive sports like skiing." But it also appeals to the "haves" with snowboards and lift tickets, since skateboarding provides a great off-the-slopes workout.

Epp adds that the club has been an oasis of sorts for kids with troubles. "More of the kids' parents seem to have hardship these days," she says, citing "illness and divorce" as examples. "This is one place these kids can come where cancer—or whatever—is not part of their daily routine." They can leave that "baggage" at the door and skate away. Epp says a lot of these kids had nowhere to go before the club opened.

The only problem was, the skateboard club was only open on Tuesdays. One night a week. Not nearly enough.

That's when the group came up with the idea for a city skate park—a place where they could go outside of club night and practice their sport. The adults involved in 4-H gave the kids the guidance and support to go after their dream. Together, they came up with a proposal for a city skate park and took it to the city council.

To garner support for the project, they made presentations around town—to the city commissioners and to the county, to the Turner Foundation and to local adult groups like the Lions. The kids also made their plea to the public.

And here's where that nasty image of skateboarders-as-troublemakers reared its ugly head once again. Though there were many who supported the idea of a city skate park, there were vociferous opponents and an outbreak of NIMBY ("Not In My Back Yard").

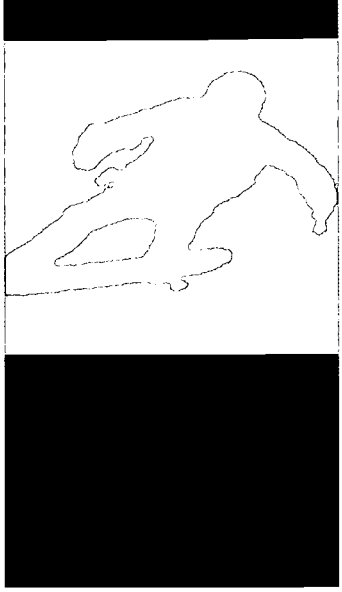
But as McChesney points out, "Just because you own a skateboard doesn't make you a punk." The group decided to show just what they were made of. When they arrived to make presentations to the city council and to local groups, the kids came dressed in their Boy Scout, baseball, and soccer uniforms. If they played an instrument in band, they carried it with them. They showed the public that they were just a group of normal kids, "good kids" who merely wanted a place to skate. Then they changed into their skateboarding attire—baggy pants for flexibility, athletic

shoes to grip their boards, safety helmets, and T-shirts, many with the slogan "Skateboarding is not a crime"—and gave a demonstration of the kind of maneuvers they were working to learn, much as a gymnast might show spectators how he does a handspring.

And they changed some minds.

They got city approval to move forward with plans to build a 150-by-50-foot concrete skate park in Kirk Park, a 12-acre green space off Main Street. And over the next two years, they raised enough money and material donations to build an $80,000 city skate park. The park opened in the fall of 1999.

Along the way, members of the 4-H club learned much more than how to skate. They engaged in public speaking and performance. They took part in fundraising and enlisted the help of adults in applying for grants. They studied the mechanisms of city planning and development. They became part of the civic process and succeeded in bettering their community. In fact, the kids' involvement in city government through this project was a key reason that Bozeman received an All-American City Award last year in Atlanta, where a small group of skaters traveled to tell their story and perform.



Backside Grab: Gripping the heel edge of board with front hand around foot

"If it weren't for the skateboarding club, there were quite a few of these kids who would have gotten in trouble," Epp surmises. "Parents have said that they never used to know where their kids were. Now, parents know they're at the skate park."

Clearly, the skateboarding club has turned out to be far more than just a place to go, far more than just an after-school PE class.

Epp and McChesney report that they saw several skate club members experience a boost in self-esteem. McChesney says, "It was very positive" for her son, Ben, "to get up in front of community leaders and give presentations." She also mentions, in particular, one at-risk youngster from Aware House, a local home for kids with behavioral and anger management issues: "In fundraising, he was just awesome. He raised a lot of money door-to-door, and we watched his self-esteem just shoot up because he was part of the effort. He was very enthusiastic and positive—got everybody fired up, and became a role model for others."

Additionally, the skateboarding club has introduced participants to concepts in just about every academic subject area. Language arts were addressed in the development of the curriculum guide and the delivery of public presentations and speeches. Math and physics were addressed in the design and building of ramps, a trailer, and the city skate park. Social studies were addressed through the kids' participation in the civic process. And there is no doubt that these lessons had more meaning because the kids had practical, hands-on experiences.

The fact that academic performance is improved by participation in such projects is now documented in the MSU study. As a result, Astroth says that, just as after-school programs support what's going on in the classroom, "schools need to support after-school programs. They need to cultivate and nurture them," since it's in the best interest of the kids. It's a win-win situation.

To create more support for well-designed and effective after-school programs, Astroth has been instrumental in developing the Montana Collaboration for Youth, composed of 10 statewide youth organizations: 4-H, Boy Scouts, Girl Scouts, Big Brothers/Big Sisters, Boys and Girls Clubs, YMCA, YWCA, the Montana Council for Families (the state affiliate of Prevent Child Abuse America), Healthy Communications/Healthy Youth, and the Montana Recreation and Parks Association. These organizations are not in competition as some might think, Astroth notes, but instead have common interests and goals. By banding together, they hope to create a single, unified voice to attract more resources for youth programs.

When prevention funds become available from government grants, Astroth observes, they often go to "groups that have been formed just to chase the big green grants and then disband a couple of years later."

In contrast, groups such as 4-H and other members of the Montana Collaborative for Youth are already longstanding, effective prevention programs. Astroth says, "We already have the access to kids, the access to adults, the sustainability, the facilities."

What's more, 4-H has a century of success on its side. And if that isn't enough to convince the grantors, there are a few "thuggy-looking" kids in town who can be pretty persuasive. □

In Seattle, YMCA's Sprout Hochberg connects with middle-schoolers throughout the day.

'A BETTER PLACE TO BE'

When the school day ends, community learning centers shift into high gear, keeping kids engaged in positive activities.

Story and photos by SUZIE BOSS

When students walk through the front doors at Seattle's Aki Kurose Middle School, they hear a familiar voice calling out greetings. "I'm like the town crier," admits Sprout Hochberg, who still looks the part of the outgoing, energetic camp director she used to be. The personalized morning ritual has value, says Hochberg, "if it helps kids feel connected. If they feel welcome when they get here, that's a great start. If we can connect kids to school, there's a better chance they'll show up. If they're here and also behaving in a positive way, there's a better chance they'll learn something."

Hochberg—employed by the YMCA rather than the school district—oversees the community learning centers at Aki Kurose and Meany Middle School, both located in Seattle neighborhoods where most children are growing up amid poverty. But while her official duties include organizing a full slate of out-of-school activities many families could not otherwise afford, she keeps her focus squarely on the classroom. "Our role is to be educators," she says, speaking also for her colleagues in similar programs springing up across the region. "Our goal is to impact, in a positive way, what we call the three A's: attitude, attendance, and academic achievement."

Since she launched the program at Aki Kurose three years ago, Hochberg has made sure her work is fully integrated with the life of the school. "We don't just do an after-school program," she explains. "We partner fully. We know these kids all day long." Throughout the day, students and teachers are apt to encounter Hochberg's smiling face and benefit from her solid grounding in youth development. She pops into the school cafeteria to help with lunch duty. Helps chaperone field trips. Cheers the basketball teams to victory. Brainstorms with a committee about writing a grant. Listens to a girl read aloud. Encourages a boy with behavior issues to make it through the whole day without landing on the principal's doorstep.

And every step of the way, she's demonstrating what these programs do best: build the strong relationships necessary so that young people can thrive.

LEFT TO RIGHT:
1. Terrebonne youth sharpen their pool shots while building social skills.
2. In Crook County, a young reader shares his favorite book.
3. Students in Sisters pair up to use computers.
4. In Prineville, programs for early years forge stronger school connections.
5. Terrebonne staffer offers tips on beading.

BOOMING TREND

Across the Northwest region, community learning centers are exploding in number. The 21st Century Community Learning Center (CLC) federal grants—totaling $1 billion nationwide for school-based programs this year—have helped fuel the expansion in both urban and rural communities where poverty rates are high. Some communities are stretching federal dollars with help from private sources. In Seattle, for example, The Boeing Company backed the start-up of the program at Aki Kurose, and the Gates Foundation recently agreed to fund three middle school programs in Seattle for the next five years, based on the model developed at Aki Kurose. Drawing on a variety of resources, Seattle is opening community learning centers in 15 elementary and middle schools.

The pace of expansion has not gone unnoticed. Researchers have turned a keen eye on extended-day programs, evaluating everything from their impact on delinquency prevention to whether they help to raise standardized test scores. Early studies have proclaimed a slew of benefits (see related story, Page 2), and heightened expectations in communities just taking their first baby steps to build new programs.

The U.S. Department of Education considers the 21st Century CLC program a key component of the No Child Left Behind Act, signed by President Bush in January. According to the program Web site (www.ed.gov/21stcclc), the goal of the school-based CLCs funded under the reauthorized act is "to provide expanded academic enrichment opportunities for children attending low-performing schools. Tutorial services and academic enrichment activities are designed to help students meet local and state academic standards in subjects such as reading and math." In addition, 21st Century CLC programs may "provide youth development activities; drug and violence prevention programs; technology education programs; art, music, and recreation programs; counseling and career education to enhance the academic component of the program."

Hearing this extensive list of options, some communities may be tempted to think that starting an after-school program will be a cure-all. When a rural Central Oregon county landed a 21st Century CLC grant a few years ago, "We thought this would be *it*," admits Dennis Kostelecky, curriculum coordinator for the Crook County School District where socioeconomic factors put many students at risk of school failure. After three years of persistent effort but high staff turnover, the Crook County community learning center is just now starting to gel. Offerings appeal to a wide age range: preschool programs to enhance children's school readiness, after-school recreational offerings to keep young teens off the streets and cut vandalism rates, and summer classes to boost academic achievement. Still, the program hasn't been the silver bullet Crook County was hoping for. "We haven't reached our full potential as a lighted schoolhouse," Kostelecky says, "but the community is now starting to depend on us."

In both cities and rural places, communities are learning that there's no one model for a successful program. And although great hopes are being pinned on community learning centers, there's no guarantee that they will turn around struggling schools in poor neighborhoods. Growing pains are inevitable. "Progress is slow as molasses," admits even the perennially upbeat Hochberg. "Our test scores are still ridiculously low. Our truancy rate is ridiculously high. We have a long ways to go—but everything is improving. We have seen success with kids who have not been successful before. We have changed some lives."

Seasoned staff in both rural and urban programs recently agreed to share some of their success stories, along with insights into overcoming start-up challenges and tailoring programs to meet diverse community needs.

SAGEBRUSH SUCCESSES

Call him Jesse. Not long ago, he was a middle-schooler who regularly got into fights. When the dismissal bell rang, he would hang around the school grounds rather than go home. Other kids steered clear of him. When his school opened a community learning center with after-school offerings, Jesse wasn't interested. "But the [after-school] staff saw him out there on the playground, and they started recruiting him," relates Lolly Tweed of Crook/Deschutes Education Service District, which coordinates the community learning centers grants in Deschutes County. "They kept after him, and he wasn't the kind of kid who usually gets invited to join in." What finally snagged his interest? A roller hockey club. The coach happened to be a police volunteer who insisted his players keep up with their school work if they wanted to play hockey. Once Jesse found out he had a talent for roller hockey, the rest of his school life improved. Says Tweed:

"His attendance has improved. He's not getting into fights. He's pulling a B average. He's doing a better job with his peers, and as a student. He's found out he can be successful."

Although Central Oregon's Deschutes County includes the booming city of Bend (population 50,000), much of it remains a rural place with small towns and ranches scattered across the sagebrush landscape. There's plenty of awesome scenery, but not much public transportation. That can be tough on a teenager too young to drive but hungry for something to do, somewhere to go, after the school day ends.

"We all know the research," says Lolly Tweed of Crook/Deschutes ESD.

"The hours from 3 to 7 p.m. may not be spent in the most prosocial way. In every kind of community, problems come up when kids have too much time and not enough positive ways to spend it. These are good communities," she says, flashing the pride of a native Oregonian, "but unless you give a kid positive alternatives, it's only luck," if he chooses to use his free time in ways that are going to be good for him, or risky.

As soon as the federal grants became available, Deschutes County jumped in, eager as a swimmer on a hot day. Community learning centers now operate in a dozen locations across the county, serving some 1,500 students annually in both elementary and middle schools. After four years of helping to launch centers everywhere from Terrebonne to Tumalo, Tweed knows one thing for sure: "You can't overlay a program on a community. An outsider won't know what the community needs."

Each of the Deschutes County centers looks different, Tweed explains, "and that's a good thing. It's got to be flexible to meet local needs." Partnerships with local agencies—staffed by people who know their community—have been at the heart of the county's success. It helps that the region has a long history of collaboration between agencies. Every school in the county has a person on staff dedicated to being a family advocate. The Family Advocate Network (FAN) partners with about 15 agencies to link families to needed services. The FAN steering committee does double duty as the committee overseeing the community learning centers. The committee has created a menu of program and service providers, ranging from local parks and recreation programs to national youth-serving organizations. In developing community learning centers, communities can pick and choose from the menu, selecting partners that best match local needs. What's more, regular networking sessions allow program staff from different communities to share ideas about what's working. "No one person holds all the magic," explains Tweed.

Terrebonne, for example, might look like little more than a wide spot in the road to an out-of-towner. A flashing yellow highway light shows where to turn to find the only school in town, enrolling 404 elementary students. By the time they reach middle school, kids have to travel five miles south to Redmond, the nearest "big" city with a population of about 13,000.

When Melissa Riggleman took on the job of launching a Boys and Girls Club in Terrebonne, she wasn't sure the program would succeed. "Did the community need us?" she wondered. But word got out in a hurry. "Interest exploded," she says, "and has become bigger than anyone could have imagined."

By mid-afternoon on a typical weekday, the clubhouse—a portable building tucked behind Terrebonne Elementary—overflows with as many as 85 kids. Some are doing homework in a quiet back room; others are shooting pool; several are gathered around Riggleman at a crafts table. Another couple of dozen are making use of the school building—shooting hoops in the gym or working on beading projects in the cafeteria. What's surprising is not only the sheer number of youth engaged here, but also the range of ages—from kindergartners to teenagers.

"We never planned on attracting high schoolers," Riggleman admits. "It was kind of a shock when they started dropping in here—but we were excited. Our teens tell us there's nothing else for them to do." Many are just looking for a place to hang out, and that's fine by Riggleman. "But we make sure to hang out *with* them," she says, referring to her staff members who are trained in youth development. Even when they're shooting pool or vegging on the couch, teenagers are apt to be talking, and Riggleman and her colleagues make sure to listen and join the dialogue. "We're like a second parent to some of these kids," she says. Sometimes, a young person needs more than an open ear. As the school's partner in the CLC grant, the Boys and Girls Club provides trained staff and a research-based curriculum, including classes on topics such as preventing inappropriate touching or drug-and-alcohol abuse.

An outgoing 10th-grader named Rainey attests to the power

PLANNING FOR SUCCESS

Although researchers are still evaluating the long-term effects of community learning centers, they've reached one conclusion already: Successful after-school programs don't happen by accident. It takes thoughtful planning, school-community partnerships, and also ongoing evaluation to make sure programs meet local community needs and support the learning that takes place during the traditional school day.

North Central Regional Educational Laboratory has identified 16 areas or characteristics to consider in comprehensive planning of after-school programs. *Resources for After-School Programming: Strengthening Connections,* an online guide, explains each characteristic in detail and also suggests samples of effective policies and strategies. As NCREL authors Judy Caplan and Carol Calfee explain: "The lines between after-school program, the regular school day, and partnerships within the community become blurred—the term after-school no longer really applies. We are now looking at a comprehensive program in a community school." Guiding a program to maturity takes "stable leadership and strong vision."

The 16 characteristics for comprehensive program planning include:

- Coordination with the regular school day learning program and community partners
- Community partnerships
- Recreational programming
- Focus on at-risk students
- Climate for inclusion
- Culturally sensitive climate
- Facilities management
- Funding
- Safe and healthy environment
- Leadership and governance
- Engaging the public
- Parent involvement
- Evaluation design
- Linkages between after-school, regular school, and community partner personnel
- Volunteers
- Staffing, staff qualifications, and training

The full document is available online (www.ncrel.org/21stcclc/connect/). NCREL also has produced a toolkit to assist in program planning. Information on ordering *Beyond the Bell: A Toolkit for Creating Effective After-School Programs* is available from the NCREL Web site, www.ncrel.org/after/.

of positive activities: "If this place wasn't here, I'd probably still be getting in trouble. This is a better place to be," she says. In fact, her leadership skills have blossomed since she started coming to the club and participating in after-school classes. Now she's a junior staff member, thinking about a career in the field of youth development. For a 14-year-old named Jessica, the appeal is similar: "You get attached to people here. There's a bond."

Call them the Smiths. They're a family of two school-aged children being raised by a single mom. She recently left behind a husband with a violent temper and moved with her kids to the small town of Sisters, Oregon, in search of a fresh start. The kids are slowly finding their way, nudged along by Tom Coffield and a community recreation program he founded called SOAR (Sisters Organization for Activities and Recreation), a partner in the 21st Century Community Learning Center at Sisters Middle School. Here's the transformation he has seen in the Smith kids: "After school, the girl used to sit in a corner with a book and wouldn't talk to anyone. Then we got her signed up for a horse riding class. She discovered she loves horses, and she's also made two or three close girlfriends. The son showed up here with a lot of anger, most of it directed at his mom. He couldn't seem to participate in anything without getting mad. Now he's starting to play basketball and finding out how to feel part of a group. Some families move to a small town like this because they want to save their families. But a move alone doesn't change the dynamics. A program like this can have a positive effect on the whole family."

Indeed, entire communities stand to gain when informal learning opportunities are extended beyond the regular school day. The SOAR program in Sisters, for example, had started before the 21st Century CLC grants were available. It's been able to expand with the infusion of federal funds. SOAR now offers not only sports and recreation to appeal to a wide range of interests and ages, but also after-school tutoring for students who need one-to-one help with academics. The tutors are regular classroom teachers hired for extra duty after school, so they know the kids and the curriculum. Young adults—often local college students—are hired to act as mentors. Even kids who have gotten into trouble are finding an open door and a fresh start. A teen court diversion program allows delinquent youth to work off

See BETTER, Page 32

Take-Home Lessons

Is homework the key to raising student achievement or a drag on family time? It all depends, say researchers, who are investigating new questions about an old topic.

By HELEN SILVIS

Marcia Coodley says her son's fifth-grade homework turned into a family nightmare. For two hours every night, she says, he would struggle through worksheets and labor at memorizing information.

A physician from Portland, Oregon, Coodley was one of dozens of parents who raised concerns about the workload at the school. She is critical of the content as well as the volume of the assignments. It was mostly "busy work," she says.

"We were ruled by those math and science worksheets—all of it just rote learning. I didn't think there was any benefit other than making our family crazy, and making us enforce policies we didn't agree with.

"The weekend before a big project was due would be torturous. We'd have crying. We fought. I had to tell him he couldn't see his friends. The whole experience was very punitive."

An isolated incident? Or an increasingly common example of how teachers, under pressure to meet standards and boost test scores, are piling on excessive amounts of homework?

Guidelines from the National Education Association and the Parent Teacher Association suggest students should study four nights a week, for 10 to 20 minutes in first grade and increasing by 10 minutes a year to two hours in high school. But if a 1997 University of Michigan study is accurate, students are spending almost twice as much time on homework as their counterparts did in 1981. And many first- through third-graders are doing three times the recommended amount.

With new questions raised by concerned parents and curious researchers, the subject of homework is getting a fresh look. Researchers are exploring whether homework can help boost achievement—or whether it may be a factor in widening the achievement gap. In an increasing number of schools, including many in the Northwest, teachers and principals are developing alternatives to having kids hit the books at home.

MODERATION THE RULE

Harris Cooper, chairman of the psychology department at the University of Missouri, Columbia, and author of the 1989 classic *Homework,* counsels moderation.

"There is a law of diminishing returns, so that for a second-grader the last 15 minutes clearly don't have the same impact as the first 15," he says.

A specialist in research synthesis, Cooper began studying the literature on homework 20 years ago, and has just received a grant from the federal Office of Educational Research and Improvement to undertake a new review of the subject. Well-designed homework programs can boost academic achievement, he says. They involve parents in their children's schoolwork and encourage students to learn to study independently. For these reasons, teachers should assign homework to all students.

As evidence, he points to studies that compared students who were assigned homework with students who received no homework. Researchers found no difference between the two groups of elementary students, but in middle school and high school the homework group significantly outperformed the no-homework group on academic measures.

Other studies correlated achievement with the amount of time students said they spent on homework. Again the results showed that from as early as fifth grade, students who spent more time on homework scored higher in achievement tests than those who spent less. Even studies that compared homework with in-class study suggested that older students gained more from homework.

"We can tell that homework has substantial positive effects on achievement," Cooper says. "What we can't prove is that homework is causing the higher achievement. What's really needed are more experimental studies where students are randomly assigned to different homework conditions and then tracked to see what happens."

At the elementary stage, Cooper believes that homework develops valuable study skills that later translate to academic success.

"Homework can foster independent learning and responsible character traits," he says. "Homework can give parents an opportunity to see what's going on in school and express positive attitudes toward achievement. It can help children recognize that learning can occur at home as well as at school."

As an example of a well-designed approach, he cites a program called TIPS (Teachers Including Parents in Schoolwork), developed by Joyce Epstein, a researcher at Johns Hopkins University. Welcomed by many parents, the program asks students to explain and demonstrate something they are learning in class to someone at home.

DISSENTING VOICES

Cooper's conclusions mirror the accepted wisdom about education, but in recent years dissenting voices have begun to demand a rethink of the entire research framework. These provocative critics argue that homework is archaic, unscientific, and may even inhibit children's learning.

"It's not at all self-evident that it's the homework that makes students perform better and not the other way around," says Etta Kralovec, coauthor of *The End of Homework: How Homework Disrupts Families, Overburdens Children and Limits Learning.* "Those students may also brush their teeth more often than other kids, but we wouldn't say that improved their academic performance.

"We all assume that it's one of those God-given things," she says. "But when you start to take it apart and really look at it, homework loses its power as a way to improve

What Teachers Need To Know

Although researchers have found positive effects resulting from homework, they caution against assigning "homework for homework's sake." Teachers should have a clear objective in mind when making take-home assignments—such as time to practice new skills, or the opportunity to connect classroom learning with the real world.

Researcher Harris Cooper offers these tips to teachers to help them make the most of homework assignments:

- **Give the right amount of homework.** Research suggests students should get about 10 minutes of homework each night for each grade (10 minutes for first grade, 20 for second, and so on). Adjust upward a bit if assignments are mostly reading or your students come from families with strong educational orientations. Don't overload kids with homework. It can ruin motivation.
- **Keep parents informed.** Let parents know the purpose of homework and what your class rules are. If communication is clear, homework is an important bridge between schools and families. If communication is lacking, homework creates tensions that are hard to resolve.
- **Vary the kinds of homework.** Homework is a great way for kids to practice things that are learned by rote (spelling, math facts, second language). It is also a great way to show kids that the things they learn in school apply to things they enjoy at home (calculating batting averages, reading the back of a cereal box). Mix it up.
- **Be careful about parent involvement.** Consider the time and skill resources of parents when requiring their involvement. Working parents may have little time for a direct homework role. Parents with limited education may have trouble being good tutors. Students who are doing well in school may benefit most from homework they do all by themselves.
- **Never give homework as punishment.** It implies you think schoolwork is aversive. Kids will pick up this message.

academic achievement or to link parents to schools. It has a very questionable effect on all those things it claims to advance."

Currently vice president for learning at Training and Development Corporation in Maine, Kralovec taught school for 12 years before earning a doctorate in education at Columbia University. For 11 years she was professor of education and director of teacher education at the College of the Atlantic.

As a teacher she routinely handed out homework, but later began to question its value while studying high school dropouts in Maine. When asked about the moment they realized they wouldn't be able to make it through high school, student after student mentioned the inability to complete homework as a key factor in dropping out of school.

The trouble with the existing homework research is that it focuses too narrowly on academic achievement, Kralovec says, ignoring the context of students' home lives and family relationships. Precious family time must be balanced with parents' work demands, which have increased as more mothers have entered the workforce. Clamoring for attention are cell phones, faxes, and students' extracurricular pursuits. Some kids spend their out-of-school time in structured activities, such as music lessons or sports teams, while others relish the time to "dawdle and dream," as one researcher puts it. Although some homes are as wired as any high-tech office, others lack even a quiet place for a student to read a book. And some youngsters are expected to care for siblings at home, or work to contribute to the family income. Moreover, any parent who has ever battled the homework wars can offer plenty of anecdotal evidence that homework increases family conflict.

"We know that when homework goes home, the teacher loses control of learning," Kralovec says. "Did a parent or grandparent do the work, or did a student download a paper from the Internet?" A survey for *Who's Who Among American High School Students* found that 80 percent of these high-achieving students admitting to cheating. Copying, downloading material from the Internet, and having parents do the work are all central to the problems with homework, Kralovec points out. "If we're going to hold schools and kids to higher academic standards, then why would we take a piece of that and throw it" into the family's lap?

Money allocated to programs to support students' homework time could be better spent, Kralovec maintains. She points to a RAND study that concluded the three factors that make the most impact on student achievement are smaller class sizes, making more resources available to teachers, and giving teachers time for professional development.

As for the theory that homework develops study skills and independent learning, she remains unconvinced. "There's no research about the development of self-discipline,"

she says. "We don't know how it's developed. I actually think homework limits independent learning. Kids can't do independent learning because they're too busy doing work assigned by someone else."

Cooper agrees that homework has its pitfalls. Children will turn off if they are asked to spend too much time on the same subject. They may lose opportunities to take part in valuable activities like team sports or scouting. They may become confused if a parent's instructional technique differs from the teacher's.

CLOSING THE HOMEWORK GAP

Perhaps the most serious criticism of homework is that it widens the achievement gap. Students with the fewest resources at home tend to gain less from home study than students from more privileged backgrounds. Parents who are not fluent in English or whose educational backgrounds are limited may not be able provide their students with much help when it comes to homework . When teachers rely on homework to consolidate important blocks of learning, children facing challenges at home stand to fall farther behind their more privileged peers.

Well-intentioned initiatives, such Internet homework centers, telephone hot lines and, in West Virginia, a public television show that answers student questions on air, are also more likely to reach relatively advantaged students.

To address the problem, some schools serving a high percentage of less-advantaged students have decided that "homework" may be most valuable when it's done in a classroom setting.

This year, Woodlawn Elementary in Portland has opened a homework club for students whose first language is not English. An education assistant specializing in English as a Second Language helps three teacher volunteers run the club one afternoon a week. With space for 45 students, the club has rapidly filled up.

Woodlawn Principal Marion Young says many more students could benefit—especially those who don't have reference books or computers at home. The biggest hurdle to expansion is finding staff, she says.

"We felt that if English is not spoken at home, it would be very difficult for English language learners to receive assistance with homework at home. In a perfect world, I'd want to staff an extended-day program for every child who needs assistance."

Also in Portland, the Oregon Parent Center has organized a Saturday school staffed by volunteer tutors, many of them from the city's African American community. Targeting students in elementary and middle schools with large numbers of underperforming students, the program initially will enroll 125 students.

"Part of what we want to do is to help parents help their children by informing and empowering families," explains Avel Gordly, a state senator and the program's coordinator. "Historically, we've done this before in this community. During the 1980s, we ran a volunteer school for several years."

At Roosevelt High School in Seattle, a volunteer-run homework center was so successful in helping struggling students that teachers unanimously decided to use school funds to staff it.

"Originally we were concerned about the large percentage of kids who had no access to technology," explains Roosevelt's head of special education, Hal Johnson, who founded the center 10 years ago. "And we wanted to foster a culture where kids are OK with asking for help when they have problems."

The center includes a quiet, comfortable place to study, the use of a library, and a computer center. Sessions run for an hour after school four days a week and attract between 25 and 50 students daily, although that number has been as high as 70. Attendance is completely voluntary.

"If you don't have a home life that supports getting help from parents, then it's a great place to get help," says math and theater teacher Beth Madsen, one of the two coordinators.

"We have teachers, instructional assistants, and volunteer tutors from the University of Washington and the community, so students can really get that one-to-one help." □

Online Resources

Families with Internet access may find these online resources helpful at homework time.

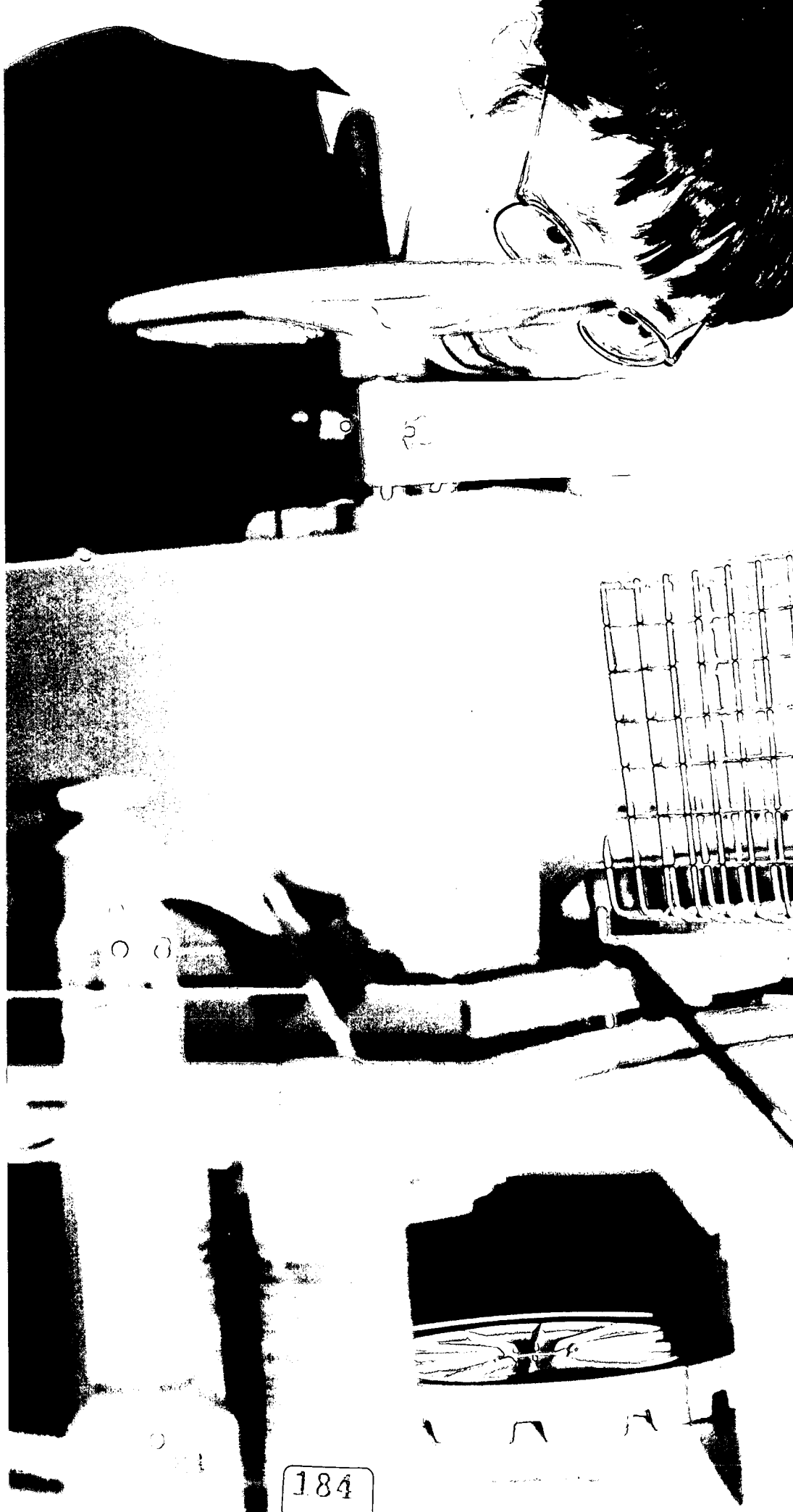
In addition, many school Web sites include links to homework resources. Teachers are increasingly apt to post homework online—keeping parents as well as students informed about upcoming assignments.

- **www.ipl.org/youth/**
  The Internet Public Library site includes facts about states, a science fair project guide, foreign language links and html training.
- **www.wcls.org/youth/homework_sites.htm**
  Whatcom County Library site includes links to NASA and other government sites, and a wide range of reference tools.
- **www.bigchalk.com**
  This free site contains activities and reference information for K–12 students.
- **http://kids.purplemountain.com/children/**
  An online newspaper for children.
- **www.multnomah.lib.or.us/lib/homework/**
  Multnomah County library site includes reference tools to help answer any homework question.
- **www.rose-hulman.edu/hh/email.htm**
  Web site of the Rose-Hulman Institute of Technology in Indiana. Students can e-mail questions to tutors, find links to informational Web sites, calculators, and other online tools.

STRETCHING MENTAL MUSCLES

For students willing to put forth exceptional effort and invest their "free" time in rigorous study, preparing for an academic competition offers the opportunity to challenge themselves—and maybe even change the world.

Story and photos by
DENISE JARRETT WEEKS



Michael Li's investigation involves rigorous work, focusing on sustainable fusion in a vacuum chamber. ▷

PORTLAND, Oregon—Try passing off some casual observation to 17-year-old Michael Li—some remark, say, comparing computer science to physics, with the one seeming to involve more abstract thinking and the other, more concrete—and he's likely to give you a reply that's more thoughtful than your bromide deserves:

"I never thought of anything as abstract. When I think of something it seems to flow freely for me. I always think of it as a trick of language, whether something is 'abstract' or not. I suppose you could define 'concrete' as anything that's tangible, but I suppose we create tangible models, like for the atom, that are apocryphal. Electrons don't orbit around a nucleus. We just make them look like they're orbiting around the nucleus because that reminds us of the planets orbiting around the sun. We all know it's incorrect, but ... it's the easy way to visualize it."

He elaborates: "What really happens is those are electron clouds, but electron clouds are not very nice to think about. Electrons don't exist at any particular point at any particular time for absolute certainty, they're just probability functions. I try to think about things as accurately as I can, so I try not to think about atoms as a model. I start synthesizing it into this mathematical idea that there is a probability that an electron exists somewhere here."

Ah. Something one of Li's teachers has said comes to mind.

"We need to take kids seriously. If we don't, they won't take themselves seriously. Kids rise to the level of expectations," said Bill Lamb, whose expectations are legendary among students and alumni of Portland's Oregon Episcopal School.

For 20 years, Lamb, who has a doctorate in science education from The University of Texas at Austin, has taught chemistry, physics, and jazz band at this private preparatory school, situated on a wooded and lushly planted hill southwest of the city. Each year, he helps students choose science projects that will not only be worthy of state and national science competitions, but will involve them in investigations that have the potential to contribute new findings to the field of science.

These investigations tend to involve more time and more rigorous work than can be squeezed into the regular school day. The students who pursue such projects display the dedication and drive seen in champion athletes and award-winning musicians. For them, the final school bell of the day isn't a signal to relax; it's time to shift into high gear.

BUILDING A FOUNDATION

When Lamb first filled the Norman Winningstad chair in physical sciences at OES in 1982, he began working to change the curriculum, rearranging the courses into an unorthodox sequence—physics, chemistry, then biology. "To understand 21st century biology, kids have to understand chemistry. To teach modern chemistry, the kids need a background in energy, electrostatics, and motion of particles," he explains. He also made independent research projects a requirement. Today, science projects account for 25 percent of students' final grades, and they must present their findings publicly at the school's annual science fair or, as many do, at state and national science competitions.

In fact, when Lamb arrived in Oregon only to discover that the state didn't have a science competition affiliated with the prestigious International Science and Engineering Fair (now funded by Intel), he helped found the Northwest Science Exposition. This is an ISEF-affiliated fair for Oregon and Southwest Washington students who want to vie for national honors and hefty college scholarships.

The science projects and competitions require a sometimes staggering commitment from students, parents, and teachers like Lamb who volunteer much free time to shepherd students through their investigations and public presentations. For hyper-bright students like Li, the greatest reward for spending after-school hours in further study is simply the chance to stretch their already considerable abilities, to give their intellect free rein. And those parents and teachers who race to keep them challenged do so because they know the stakes are high.

EXPECTING A DIFFERENCE

To Lamb, taking kids seriously means instilling in them a confidence that they can make a difference in the world, by *expecting* them to. Because enrollment at OES is by competitive application, all of the students here are high achieving, but even for them, Lamb can be intimidating. His sharp intellect and wit—and, sometimes, tongue—are softened by a roly-poly physique and a gentle Southern accent exposing his Mississippi roots. While he can make a student who's lapsed into sloppy thinking or study habits quake, he also can win students' gratitude and affection.

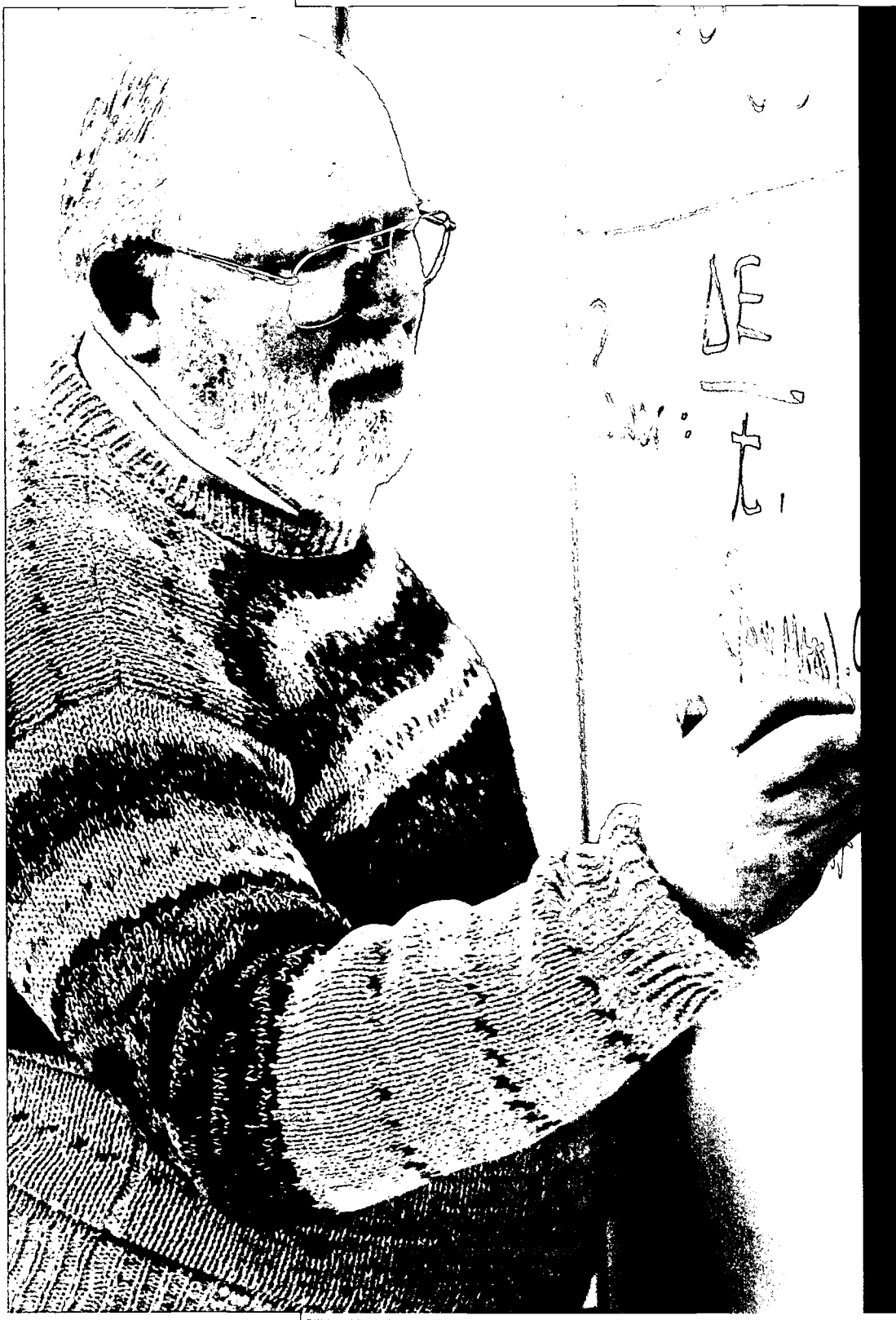
"He does have a unique personality," says Li. "He works really hard for all the students. My freshman year, I noticed after school he would literally stay here until five o'clock, and even then you couldn't talk to him because the line of peo-

ple waiting to see him stretched out the science office door, so you would just have to wait in the line. He would take printer paper, and he would just write out huge explanations of everything. And, of course, he did that for me with my science project. He's great."

NO TIME TO WAIT

Lamb is the first to say that the small class sizes at OES—he has just 16 students in his physics class—enable him to spend more time with individual students than he could at a public school where class sizes are typically twice as large. This is a privileged and high-achieving learning environment, no doubt. Yet, not all students at OES enjoy every advantage. Until high school, Li went to public school. He lives with only one parent, his mom, who works full time in commercial lending. Each day after school, while others slip into a waiting SUV, Lexus, or Jaguar, Li walks past the long line of gleaming cars to catch a public bus home.

Li's mom, Trina Chen, is also earnest about her son's intellectual life. In middle school, he spent his free time checking out books from the library on Einstein's theory of relativity and asking to go to a school where he would be more challenged. She helped him research college preparatory schools



Bill Lamb's students are frequent contenders in some of the nation's top science fairs.

in Oregon and California, and they wound up choosing OES. On her off-hours, she drives her son to piano lessons (another passion for which he's won awards, including the honor of performing with the Oregon Symphony), meetings 30 miles away with his science mentor who loans him the use of specialized technology, to science competitions, internships, and on it goes.

"It's a lot of work. You have to be there for that. You have to do the driving, the financial end of it. Sometimes, you really don't have a life. But you make your priorities. Kids only have a few years to grow up. You can't say, 'Wait a couple of years, OK? Let me enjoy my life.'"

CHANGING THE WORLD

Ninth-grader Neil Lakin came to OES in the sixth grade. This is his first year studying with Lamb.

"He's a very, very smart guy," says Lakin. "He expects so much from freshmen, but ... he knows they can do what he expects. He is probably one of my favorite teachers. He does take you seriously, and when he takes you seriously you kind of realize you're not doing physics for the sake of doing OK in class; you're doing physics for the sake of practical application. Dr. Lamb expects you to make a difference, to do a project that might make a difference in the world."

In fact, Lakin's science project involves investigating the effectiveness of mixing a polymer, normally used for making dental impressions, with metal powders to create a new kind of radiation shield for treating patients with cancerous skin tumors. He e-mailed Frederick Eichmiller, a leading dental researcher and director of the American Dental Association Health Foundation's Paffenbarger Research Center. The scientist has kept in touch, advising Lakin on the design of his investigation. Lakin has used the linear accelerator at Oregon Health & Science University to conduct tests, and his findings already suggest that his shields may focus radiation more narrowly at a tumor, protecting healthy skin.

This spring, Lakin was a dark-horse contestant in the Oregon Junior Science and Humanities Symposium at Western Oregon University in Monmouth—the only freshman competing. As he stepped to the front of the lecture hall, before a panel of judges and 60 observers, a bird flew in the window. As Lakin presented his findings, being careful to make eye contact with judges, gesture appropriately, and make use of his multimedia visual aids, the bird flailed about the room. Lakin tried to stay focused. When he reached his conclusion and asked for questions, nothing could be heard but the flapping of the bird's wings. No questions from the judges, none from the audience. Lakin gathered his materials and sat down.

"I thought that was not a good sign," he says. "I didn't think I did very well."

But he had. He placed in the top five, winning a trip to the 40th National Junior Science and Humanities Symposium in San Diego. He was the only freshman in the country to win the honor.

NOT AFRAID TO FALL

It's through such trying experiences, says Lamb, that students learn skills they'll carry with them into the adult world. "They need to learn how to interact with the public no matter what career they go into," he says. As they do their research and present their ideas to others, "they learn to be questioned, to receive feedback, to interact with similarly motivated kids. Working independently is hard. It involves a whole lot of skills. The first time you do that, you fall on your face. One of my jobs is to help them get through that."

The meaningfulness of their projects may soften the disappointment of not winning. Since his freshman year, Michael Li has been testing a high-energy device that he says has produced sustainable nuclear fusion using the simple vacuum tube technology of the television. This mechanism is being hotly investigated by just a few scientists. Li believes some of his own work is original, and he expects this research to occupy him well into college. But he's still sometimes overlooked by judges at science competitions despite the advanced nature of his work, or, because of it.

"This is one of the smartest kids I've ever taught," says Lamb after a recent competition in which Li was passed over. "He's working at such a high level, but he didn't do a good job of communicating his ideas. People are accustomed to not taking kids seriously. There's the assumption that if they are doing high-level work, the kids couldn't have done the work on their own."

So, even while Li continues to sharpen his presentation skills—in fact, just this spring he won first place in physics and alternate in best of fair at the Northwest Science Expo, qualifying him to attend the Intel International Science and Engineering Fair in Louisville—he's most content to grapple with his experiments.

"I guess winning isn't everything. I like working on my project anyway, and it's fun to talk about it even if you don't win, because

Freshman Neil Lakin (top) took top honors at a spring science symposium for his work on radiation shields. Freshman Abe Scherzer (below) had his first taste of science competition this year.

there's a certain amount of satisfaction to share with people the work you've done so far."

The more protracted the experiment, the greater the satisfaction in getting it done, says Lakin. "You really don't want to back out. You want to get it done, and done well. When you're working on it, it does cause a lot of stress. It's really tough, especially if you're also playing sports. It always feels really good to get it done. It's also really interesting to see the results of what you've been working on for several months."

Those months are often filled with solitary hours working in the school's lab or in family basements and garages, and conferring with teachers, parents, mentors, and professionals in the field. It calls for being self-directed and persistent.

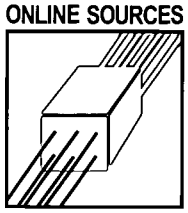
"OES gives you a lot of independence," says Lakin, "but for all the independence they give you, they give you quite a bit of responsibility."

While that responsibility can weigh on young shoulders, it also can stir achievers to go even farther, to think more deeply, persevere, and regard themselves as doers in the world. A wise teacher will know when to spur them on and when all that's needed is to let go of the reins.

"Sometimes, the best work I do for students is not to be with them," says Lamb. "Think about that."

POSTSCRIPT: At the Northwest Science Expo held in Portland in March, students from Oregon Episcopal School captured 18 first-place awards, including best of fair in both the individual and team competitions. Individual winner was junior Korri Thiessen who studied how deficient DNA repair can lead to premature nerve cell death. Team competition was won by Julia Baldwin and Chelsea Gokay, both juniors, who devised a study showing top students commonly perceive themselves to be doing worse than their teachers' assessment. Nearly 600 students from Oregon and Washington competed. □

ONLINE SOURCES



AFTERSCHOOL ALLIANCE (www.afterschoolalliance.org): A coalition of public, private, and nonprofit organizations, the alliance was founded in 1999 to advocate for quality, affordable after-school programs for all children. Web site provides links to alliance activities, including researching, collecting, and disseminating key data and lessons learned; educating the public through ongoing awareness efforts; engaging local practitioners and community residents in outreach and advocacy; and promoting investment in after-school initiatives at the national, state, and local levels.

AFTERSCHOOL.GOV (www.afterschool.gov): This clearinghouse provides links to federal resources that support programs for children and youth during out-of-school hours. Parents as well as program staff will find information to help with launching and sustaining quality programs.

CENTER FOR 4-H YOUTH OEVELOPMENT (www.fourh.umn.edu/educators/publications.htm): Part of the University of Minnesota Extension Service, the center provides resources and research relating to youth development. Online publications include *The Center,* a journal for professionals working in the field of youth development, and *Keys to Quality Youth Development,* a planning guide that helps programs plan to include eight critical elements essential to the healthy development of young people.

CHARLES STEWART MOTT FOUNOATION (www.mott.org/21.asp): The Mott Foundation partners with the U.S. Department of Education to support the 21st Century Community Learning Centers through research and evaluation, identification and dissemination of best practices, policy development, and public awareness and advocacy.

CONNECT FOR KIDS (www.connectforkids.org): A project of the Benton Foundation, Connect for Kids provides resources and links on out-of-school time to better inform parents, grandparents, educators, policymakers, and others.

FINANCE PROJECT (www.financeproject.org): A nonprofit policy research, technical assistance, and information organization, the Finance Project aims to improve outcomes for children, families, and communities. Out-of-school time is a current project focus. Web site includes resources on financing and sustaining out-of-school programs. Online publications include *Financing After-School Programs* (May 2000) by Robert Halpern, professor at the Erickson Institute for Advanced Study in Child Development at the University of Chicago, and Sharon Deich and Carol Cohen of the Finance Project.

HARVARO FAMILY RESEARCH PROJECT (www.gse.harvard.edu/~hfrp/): After School @ HFRP is an initiative that works to identify areas of challenge and opportunity in the emerging after-school field. The project, based at the Harvard Graduate School of Education, focuses especially on issues related to after-school evaluation, research, and accountability, and maintains a database of information about previous evaluations of out-of-school programs.

NATIONAL CENTER FOR COMMUNITY EOUCATION (www.ncce.org): Now 40 years old, NCCE provides leadership training and technical assistance to those developing community education programs, including 21st Century Community Learning Centers. Web site includes calendar of upcoming training sessions.

NATIONAL INSTITUTE ON OUT-OF-SCHOOL TIME (www.niost.org): Based at the Center for Research on Women at Wellesley College, NIOST has been working for 20 years to bring national attention to the importance of children's out-of-school time. Current initiatives involve research, evaluation, and consultation; policy development and public awareness; and training and curriculum development. Web site includes links to publications such as *Working Together for Children and Families: A Community's Guide to Making the Most of Out-of-School Time,* a report on the MOST Initiative in Seattle, Boston, and Chicago.

NATIONAL PTA (www.pta.org/aboutpta/store/ocfree/21_afterschool.asp): The National PTA supports federal and state incentives for high-quality child care and preschool programs that are affordable and accessible, and works to bring parents into the planning, implementation, and evaluation of programs. Online resources on out-of-school time include questions parents should ask to help them find good programs for their children.

NATIONAL SCHOOL-AGE CHILO CARE ALLIANCE (www.nsaca.org): A membership organization, NSACA represents public, private, and community-based providers of after-school programs and promotes national standards of quality care for school-aged children. Web site includes ordering information for publications, including *NSACA Standards for Quality School-Age Care.*

NORTHWEST REGIONAL EOUCATIONAL LABORATORY (www.nwrel.org/request/): The By Request series includes two booklets that relate to after-school time. *Increasing Student Engagement and Motivation: From Time-on-Task to Homework* (October 2000) and *After-School Programs: Good for Kids, Good for Communities* (January 1999) are available to download.

SCHOOL OF THE 21ST CENTURY (www.yale.edu/bushcenter/21C): Based at the Yale University Bush Center in Child Development and Social Policy, the School of the 21st Century network includes more than 1,000 schools providing school-linked family resource centers to support children's healthy development beginning at birth. Participating schools receive technical assistance, and ties to research and evaluation.

21ST CENTURY COMMUNITY LEARNING CENTERS (www.ed.gov/offices/OESE/21stcclc/): The federal 21st Century CLC initiative, reauthorized under the No Child Left Behind Act, is the fastest-growing provider of after-school programs in the country. Web site includes database of existing grantees, program updates, and links to research and publications on out-of-school time.

AFTER-SCHOOL NEEDS COME INTO SPOTLIGHT

Seattle MOST initiative takes long-term, grassroots approach to building quality programs

By SUZIE BOSS

SEATTLE, Washington—Back in 1995, when Adrienne Bloom gave presentations about quality outcomes for out-of-school care, "people would get a glazed look," she admits. Fast-forward seven years. "The norm has shifted," says Bloom, who has played a key role in a groundbreaking initiative to raise public awareness that the needs of the city's children don't stop when the school day ends. "Now people say, 'Sure! Of course quality matters—of course after-school programs are important.' Attitudes have changed, and that may be our greatest legacy."

For the past seven years, Bloom has coordinated a $2.2 million initiative known as Seattle MOST (for Making the Most of Out-of-School Time). Underwritten by the Wallace-Readers Digest Fund and designed in partnership with the National Institute on Out-of-School Time, the MOST Initiative has challenged three cities to pursue collaborative, long-term strategies to support the quality and availability of after-school programs for children ages five to 14. Seattle, Boston, and Chicago were selected largely because each city had a history of engaging diverse stakeholders. They were ready to take on the complex challenge of *building a system* for out-of-school care.

In Seattle, the MOST initiative engages several organizations. School's Out Washington, a statewide organization hosted by the YWCA of Seattle-King-Snohomish County, has been the lead agency. Strong participation has come from Child Care Resources, Seattle Central Community College, and the City of Seattle.

In March, just as she was stepping down from her post, Bloom paused to share with *Northwest Education* some of the lessons learned along the way and to talk about how the universe of out-of-school time continues to evolve.

What was your biggest surprise, going into Seattle MOST?

One of our first steps was to do a community assessment. Many of us involved in this collaboration came from mainstream groups, and we had a certain way of looking at the world. We wanted to know more about the needs of low-income families of color. Who was providing care for their children? This was one of the first times an effort was made to hear their needs. About 700 individuals participated, including youth, and what they told us opened our eyes. A lot of families couldn't afford to pay for licensed programs, or they didn't find them culturally relevant, or they couldn't access them because of transportation issues. We realized there's a whole universe of care providers outside the mainstream.

How did that understanding shape the initiative?

Parents will use programs whether they're licensed or not. How can we help families know if programs are of high quality? How can we improve quality and access while maintaining the variety and choices families want? We established a Community Oversight Group reflective of the diverse range of providers in Seattle. It's very grassroots, reflecting the whole gamut of those involved in providing care at the elementary and middle school level. These are the people with a passion for this work. Each organization brought expertise, and all of us needed to be willing to examine our understanding of quality care. We met weekly for the first two years—a huge investment of time—but we would not have accomplished what we have unless so many people had been willing to take part. Priorities for action came from the community.

What did you learn about the general state of out-of-school care?

The field of programs is fragmented. The state of the care provided is often of uncertain quality, unaffordable, and unavailable to many families who want it. There are a diversity of programs and a number of funding streams. We have a database of 800 out-of-school programs. They have philosophical differences. Because it's not a cohesive field, it's hard to share best practices and effective strategies. We know that out-of-school time is a local issue, and that it also involves systemic issues that are huge—bigger than any one program can tackle alone. The core issues that get in the way of quality require a systemwide strategy including state-level public policy development to increase financing for programs and community supports for these programs.

How have you tackled some of the day-to-day challenges facing programs, such as staff turnover?

MOST understood from the beginning that turnover is a problem, and we chose an indirect strategy—creating new professional roles, new mechanisms to act as incentives for people to stay in the field. For instance, we created a mentor project where experienced program staff work one-to-one with newer staff.

They role-model effective practices. They encourage and coach. This helps the newer person—in the same way that a new teacher is inducted—and also creates a new professional role that acknowledges the talents of that more experienced person.

What other staff training has proved effective?

For years, School's Out Washington has maintained a pool of trainers and provided technical assistance to out-of-school programs. We expanded that cadre and added a new role: trainer apprenticeship. It's a year-long process of becoming a trainer. Apprentices receive a small stipend. It's a way to encourage staff to see their work as important and provides an incentive for them to stick around and eventually give back to the field. We acknowledge their talents, and that doesn't happen much in this field.

So you're creating more opportunities for career growth?

We're building a career ladder in the out-of-school field. Before, it was either program director or line staff. Now there's an expanded range of roles. This promotes the idea that this is a profession. There are skills you need to have. You can advance and grow in the field. There are acknowledged competencies. (See sidebar.) The community college (Seattle Central Community College, a partner in Seattle MOST) provides coursework on out-of-school care. You can earn a certificate. It's a whole mindset. We

tworking meetings of providers, bring in guest speakers, share resources, provide onsite training. It's the way you treat staff —a set of expectations that this is valuable and important work.

The catch is, the policies are not there yet to reward people who pursue this field as a profession. Afterschool staffing is unique. It's often part time, with inadequate compensation. We need to either create full-time opportunities, or look at it as a paraprofessional field. These are policy issues. After the first three years of MOST—when we had a pretty good idea of what a system needs to look like—we took what we have learned to the state level and began doing advocacy work. It's important that our funder stuck with us for seven years. That has enabled us to make some lasting changes.

What happens now that the grant is ending?

We knew it was important to create a long-term home for the values and approach of MOST, and School's Out Washington is taking on that role on a statewide level. We have focused on leadership development, so we know there will be a core set of champions for this issue. A $650,000 grant from the Stuart Foundation is supporting the next phase of this work through the BOOST Learning Initiative.

Better Outcomes for Out-of-School Time Learning is a three-year collaborative effort to support young people's learning—broadly defined—during the hours they are not in school. It will serve families in South Seattle and North Highline, communities with significant numbers of children from low-income families and children of color. It comes at a time of increasing focus on academic performance. Schools are looking for ways to reinforce academics in out-of-school time and partner with after-school programs. School's Out Washington is the lead agency.

Are you surprised by the attention out-of-school time is earning on the national level?

There's a surge of interest—the 21st Century Community Learning Centers, Afterschool Alliance, the Mott Foundation, many other initiatives. In Seattle, Project Lift-Off was Mayor Paul Schell's and the City Council's vision to do something big and bold for youth through early learning and out-of-school opportunities. I have been a community representative in the planning process. At one meeting, I looked around the room and saw the heads of the chamber of commerce, United Way, the community college. The mayor and superintendent of schools were there. To me, it was like a fantasy come true! Institutional leaders have galvanized around this issue. Out-of-school time has been propelled into the spotlight. □

DEFINING QUALITY CARE

What does high-quality afterschool programming look like? The National School-Age Care Alliance has established standards to guide in program development and staffing. According to NSACA standards, quality programs enhance these characteristics:

- **Human relationships:** Staff members understand that their primary role is relating to young people and their parents.
- **Environment:** Indoor and outdoor spaces allow children to explore a variety of intellectual and physical interests at different skills levels, and work individually or in groups
- **Activities:** Flexible daily schedule provides a variety of stimulating choices so kids can pursue hobbies, learn new skills, do homework, or read quietly
- **Safety, health, and nutrition:** A safe, secure environment provides a place for kids to participate in supervised, age-appropriate activities; staff are trained to handle first-aid emergencies and provide nutritious snacks
- **Administration:** Ongoing training and professional development opportunities help staff members manage all aspects of programs and build links to the community

More information on the standards of quality care is available on the NSACA Web site, www.nsaca.org.

BETTER

Continued from Page 19

their community service time at SOAR. One girl served her court-ordered time by helping with after-school programming, then asked to return as a volunteer when her mandatory duty was up. "She's discovered she's good at working with younger kids," says Coffield, and that discovery is helping her appreciate her own strengths.

"Our emphasis is to build on the 40 assets," Coffield explains, referring to research on resiliency. The Search Institute has identified 40 specific assets as the building blocks of positive youth development. The more assets young people acknowledge having in their lives—such as receiving love and support from their families, feeling safe, and feeling optimistic about the future—the healthier the whole community.

For some kids, a dose of what Coffield calls "positive self-image" might come from an art or music class where they discover a creative way to express their emotions. For others, it might be serving on a leadership team that serves as the eyes and ears for SOAR, gathering suggestions for activities their peers want most in their community.

Whatever the activity, the most important benefit may be the opportunity it provides for making connections. Research shows that all kids benefit by connecting with an adult who cares about them. For youth at risk, that dose of positive adult attention can change their lives. Community learning centers set up the informal opportunities where such transformations can happen. "Kids come in here by choice," Coffield explains. "That's the advantage for a coach or an art teacher. Kids are drawn here because something sounds like fun. It makes it easier for an adult to build that rapport."

In rural areas where youth programs and recreational offerings tend to be scarce, a program like SOAR "is often the only game in town" for providing such support, points out Tweed. "These kids are not having the same childhoods we had," she adds, recalling her own idyllic-sounding girlhood on a farm in Southern Oregon. "After school, I had chores to do, then I could ride my horse. TV was a very small part of my life." Today, that farmhouse is more apt to be empty after school, with more and more parents working outside jobs to help make ends meet. The average school-aged youth spends three hours a day in front of the television. "Family demographics have changed," Tweed says, "and culturally, childhood is very different today." But more than ever, kids benefit from activities that allow them to feel competent and cared for. The community learning centers, she says, "are about giving a future to these kids."

GAINING RESPECT IN THE CITY

Call him Raul. He lives in a Seattle neighborhood where boys start getting recruited to join a gang by their early teens. By eighth grade, he and his buddies are dressing to look the part of an Hispanic gang that hangs out near their neighborhood. Sprout Hochberg admits her bias. "I adore these boys," she says. She sees right through the gang wardrobes and the risky behavior to their potential to become competent, caring young men. She has taken the time to get to know them. In the process, they have learned to trust her. Recently, Raul asked if they could start a break dancing club as part of the community learning center's after-school program. Hochberg first asked the group, "What would you need to make that happen?" Then she laid out her expectations: "What I need is for you to behave appropriately. I need you to make good choices, because what you do here at school is my business. There will be no second chances," she said, and no tolerance for drugs or alcohol. Raul gave her his word, adding, "I tell you the truth, Miss Sprout." They launched the club on a Monday. To attend, each boy had to show up for school and steer clear of discipline problems for the entire day—not a small feat for some of them. Hochberg says: "This got them behaving on Mondays so they can attend the class. Now I'm asking them, what can we do to get you behaving on Tuesdays, too?"

When Hochberg set out to launch what has become a model middle school program in South Seattle, "teachers greeted me and the program with healthy skepticism," she admits. "Their attitude was: This sounds fine, but will you stay?" Unlike rural places, the inner cities have seen lots of youth programs over the years—but also an ebb and flow of interest and funding.

A few blocks away at Brighton Elementary, Lisa Fabatz met with similar resistance when she was hired by the Boys and Girls Club to establish a community learning center. "Teachers have seen a lot of programs like this come and go," she admits. "They see us as that little day-care room out back." Indeed, Fabatz and her staff work out of a portable building behind the

RESOURCES

Evaluation is one of the key areas identified by North Central Regional Educational Laboratory for program success, and it's also an expectation of programs receiving 21st Century Community Learning Center grants. The Northwest Regional Educational Laboratory is working with community learning centers across the region to design and carry out evaluations. For more information about obtaining assistance with program evaluation, contact NWREL's Education, Career, and Community Program at (503) 275-9500.

The Harvard Family Research Project is focusing on strategies for evaluating child and family services. Project Director Heather Weiss, writing in a recent issue of *The Evaluation Exchange,* noted: "A substantial challenge that confronts many programs ... relates to how to respond to the demand for outcomes measurement in the current era of accountability. After-school programs increasingly must show results at the national, state, and community levels, creating an atmosphere that has changed how stakeholders need to think about the evaluation of their programs."

The Evaluation Exchange provides information on promising practices in evaluation and ongoing research on programs such as community learning centers. In addition, the Harvard Family Research Project has created a database of evaluations for out-of-school time programs. More information is available on the project Web site, http:// gseweb.harvard.edu/~hfrp.

main school building. But what they offer is much more than child care to about 100 children—more than a third of the school's enrollment. "It's been a big challenge to integrate our program with the community, with the school district, and with the Boys and Girls Club," Fabatz admits. "But as teachers see our kids doing better in class," as a result of after-school attention, "they're getting more supportive."

With more than a dozen CLCs scattered across the city, Seattle has gone far toward the goal of making the lighted schoolhouse a focal point in every neighborhood. By design, each center is unique so that it can reflect the needs of the community it serves. A coordinating provider—typically the YMCA, Boys and Girls Club, or other partner—is selected through a process that involves the whole community. Families retain a strong voice in program offerings.

At Brighton Elementary, for example, Fabatz at first resisted devoting after-school program time to homework. She was eager to enrich the lives of her diverse mix of students by offering "things they would not otherwise have a chance to do." Parents, however, had other ideas. Fabatz explains: "We serve a lot of immigrant families. Many of our parents do not speak enough English to help their kids with homework. This is causing stress in families. Our parents were asking us, 'Please help.'" So homework time, silent reading, and journal writing were added to the after-school schedule—although Fabatz makes sure there's still time in the after-school hours for African drumming, yoga, and other enrichment activities. "It's important that this time is not more school after school," she says, acknowledging that it's equally vital for programs to be responsive to family needs.

This holistic approach to programming is being echoed across the city. Program staff agree that providing a safe place for kids to spend their out-of-school time is an essential first step for building a program. Enrichment opportunities have value, especially in schools where funding has suffered for arts or sports programs. Academic support makes sense in schools where a high percentage of students lag behind grade level. "We simply won't be successful," Hochberg says, "if our job is limited to after-school time." She makes it a point to connect with kids and school staff all day, every day.

As schools feel the push for accountability, community learning centers are also apt to feel more pressure to provide direct academic support. But that doesn't mean kids need to sit in traditional classrooms all afternoon to boost academic achievement. The middle school program at Aki Kurose, for example, offers students homework help as one choice for after-school time, but also slips academic skills into a variety of recreational offerings. Chess club teaches critical-thinking skills. Cooking incorporates math and reading instruction. Media lab teaches kids to use video editing equipment but also enhances the language skills of diverse learners whose first language might be Spanish, Tagalog, Cambodian, or Somali. "We try to incorporate academics into everything," Hochberg says, as well as reinforce positive behavior. Her refrain to students intent on acting up: "You are all intelligent, but you may not become educated if you can't behave so that you can learn."

Hochberg has even managed to improve students' access to health care by enlisting a volunteer physician to provide free physicals for kids who want to participate on school sports teams. She's also determined to increase parent involvement with the school. "The majority of our parents only get involved with school around discipline issues. We want parents to feel comfortable coming here for more positive reasons." In coming months, she hopes to plan outreach

events to engage parents of diverse cultures.

"It's all about connecting resources," says Hochberg, to support the whole child. In urban areas, a variety of resources are likely to be available—but may not be easy for families to find or access on their own. The CLC model brings needed services right into the schoolhouse—and into students' lives. "For us," says Hochberg, "the holistic approach is how we'll succeed and sustain this program."

MOVING TOWARD GREATNESS

Although community learning centers are still works in progress, Hochberg harbors no doubts about the long-term value of the model. "This school has so many exciting things happening," she says about Aki Kurose Middle School, "and the community learning center is just one of them. We're on the verge of greatness."

The goals Seattle has set forth for its CLCs echo Hochberg's high hopes. Sara Tenney-Espinosa, CLC coordinator for Seattle Public Schools, outlines these intended benefits:

- Increased academic performance and achievement
- Decreased performance gaps among ethnic and socioeconomic categories
- Decreased discipline rates
- Decreased number of student engaged in risky, unstructured activities during after-school hours
- Increased access to quality and affordable out-of-school time care for working families
- Increased opportunities for parent and family involvement in education
- Expanded community access to learning resources

For community learning centers to reach their full potential, however, they must confront a variety of challenges. Experienced program administrators cite funding, staffing, and building solid relationships with the school community as three of their biggest day-to-day challenges. No community has found all the answers, but CLC staff members are eager to share the lessons learned so far.

Funding: Will community learning centers be able to continue after the initial period of grant funding? How to sustain programs for the long run is a concern in many communities. Partnerships with youth-serving agencies and additional support from foundations and other private sources are providing funding for some communities. Others charge fees on a sliding-fee scale. Seattle voters have passed a citywide levy to support youth programs for the long term.

Staffing: Recruiting qualified

CHANGES AHEAD

In the first days after President Bush signed the No Child Left Behind Act, national attention focused on how the regular school day may change as a result of the sweeping legislation. Yet advocates of programs that take place outside the 9 a.m. to 3 p.m. timeframe also consider the reauthorized Elementary and Secondary Education Act (ESEA) "an important landmark for after-school programs in America," reports Judy Y. Samelson, executive director of Afterschool Alliance, a national coalition promoting affordable programs for out-of-school time.

The 2002 appropriation of $1 billion in federal funds for the 21st Century Community Learning Centers program is an indication, Samelson adds, "that federal support for after-school programming is here to stay, and will only grow in the months and years ahead." Indeed, funding for CLCs has grown steadily since the programs were introduced four years ago with an initial budget of $40 million. ESEA, Samelson adds, "lays out a road map to increase federal support to $2.5 billion by 2007."

While that's reassuring news to communities that have developed after-school programs—and to the families who have come to rely on their services—the new law suggests changes ahead in the way after-school programs are funded and where they may be located.

The biggest change, reports Afterschool Alliance, is that the U.S. Department of Education will not administer future grants. Instead, state education agencies—typically, state departments of education—will receive an allotment based on current Title I funding. Although current grantees will not be affected, new applicants will be competing for funds within their own state rather than from a national pool.

In another change, programs are no longer limited to school sites. Programs housed away from school grounds must be readily accessible to students, however. Grants may be awarded to local education agencies (such as school districts), and community-based organizations, including faith-based organizations.

The new legislation identifies three primary purposes for CLC programs:

- Provide opportunities for academic enrichment, including help for students from low-performing schools to meet state academic standards in core subjects
- Offer students a broad array of activities (including drug and violence prevention, art and music, technology education, and character education) to complement the regular academic program
- Offer families opportunities for literacy and related educational development

adults for after-school jobs can be a tall order, especially with many programs offering only part-time employment, low wages, and benefits that range from slim to none —and this in return for working with students whose struggles at home or school may translate to challenging behavior after school. "We're not looking for entry-level skills," admits one program administrator, "but we can only afford to pay entry-level wages." Staff turnover is a concern in many communities. "You can't build long-term relationships if the faces are always changing," says one program director. SOAR's Coffield finds it helpful to hire regular classroom teachers "who know the kids and the curriculum" for after-school tutoring. In Deschutes County, Tweed organizes cross-program training for CLC participants, bringing in guest experts to provide guidance on topics such as connecting with hard-to-engage youth. Seattle has taken a citywide approach to training staff and providing technical assistance (see related story, Page 30). The YMCA, which funds salaries for Hochberg and her co-worker, recruits staff members "who have years of youth development experience," she says, "so we don't have the high turnover. Our positions are full time and include benefits. Perhaps we are the exception," she admits, "but we feel hiring the right people is how we will be successful and sustainable."

Partnering: Integrating a community learning center with the culture of the host school is an essential step for a program to succeed. Administrative support is "imperative. That has to happen," says Hochberg. A supportive principal can provide the after-school program with access to facilities such as the school gym or a computer lab, and can also build ties with classroom teachers. Without support from the top, after-school staff may find themselves "confined to a table in the cafeteria, trying to keep kids busy with a box of crayons," says one CLC administrator. Equally important is "not having a huge agenda," advises Hochberg. "Let the program evolve so it fits with the school culture. Don't try to use a cookie-cutter model. And don't step on any toes." Seattle CLCs involve the local community in selecting a lead partner for each site; a center advisory board engages stakeholders in ongoing decisionmaking.

Although these logistics demand attention, the heart of community learning centers is not complicated. Says Tweed: "It all comes down to relationships—whether it's on the personal level, with families, or among agencies. We all want the same thing," she adds, "good things for families and for kids." □

LETTERS

SUPPORTING NEW TEACHERS

I wanted to congratulate you on the current issue of *Northwest Education,* with the focus on new teachers (New Teachers, Winter 2001). I found the articles to be informative as well as challenging the readers to consider programs or resources that would support our novices as they enter the field of teaching.

Of particular interest to me was the article about Sam Fisher, written by Suzie Boss ("Mr. Fisher Finds His Calling"). Suzie had contacted me last August, requesting the names of several students who recently graduated from Lewis & Clark College and were beginning their first year of teaching. Sam agreed to work with Suzie on her project. This article highlighted the reality of the ups and downs of the first year of teaching, yet honored Sam's unique style of interacting with his students as well as sharing his emerging philosophy of teaching. Suzie did not gloss over the "tough times," but described the situation and Sam's responses to the students. Her writing invited readers into Sam's classroom and his struggles and successes in his first year of teaching.

Again, congratulations on a fine journal and the contributions you and the writers are making to the field of education.

Nancy G. Nagel
Associate Professor of Education
Graduate School of Education
Lewis & Clark College
Portland, Oregon

IRRITATING DESIGN

After teaching for 40 years in 40 different classrooms, I've come to realize that design elements have an enormous impact on my teaching success (Designs for Learning, Summer 2001). My building is touted as one of the finest newly remodeled schools in the nation, yet it is very irritating.

1. I have no acoustic tile, no carpeting, and no acoustic wall fabric. The acoustics are terrible. I can't understand the janitor when he talks to me after school when the room is quiet. I need to ask students to repeat questions. When a student shuffles a chair on the hard floor, it adds to the noise level. When I have a guest speaker, I can't stand to listen to him for more than 15 minutes because of the acoustics. My students probably get stressed when I talk for 15 minutes. I can't show videos in the room. The audio is "blurred." My room will make teachers and students miserable for the next 100 years. No one in the district wants to find the money to fix this problem. I spent 20 hours and $100 hanging wall fabric, but it looked ugly and it was difficult to maintain sprinkler function. I didn't appreciate acoustic tile and carpeting until I got a room without it. I hear that my circumstances are becoming more common. It's a big mistake.
2. Arena work spaces may be fine if the workers are adults, but not if they are high school students. Not all students are willing to cooperate, and even students who are willing to cooperate are much louder than adults. It's natural. Classrooms need walls. Those administrators who advocate arena workplaces for students should be required to put their office in the middle of one.
3. The classroom next to mine is for students planning health-care careers. One day their teacher played a video involving careers in the field of emergency medical services. My students had to listen to ambulance sirens while they were trying to take their final exam. I was reluctant to complain to this teacher because our relations were strained. Walls need to provide acoustic isolation, and movable walls should be avoided. Movable walls do not work properly and cause extra problems.
4. Teachers have very little authority in the classroom. We are supposed to move a student to a new seat to reduce disruption. Because classrooms have no surplus space, we can't move one student without disturbing many others. Our hands are tied. Classrooms need to have 25 percent more area, and some surplus furniture.
5. The one good thing my new room has is lots of storage space. It was supposed to be an art room, but because we have so many other electives, art enrollment has declined, and I'm in the art room teaching science. I have many wonderful posters that enrich my program. I can store them by category in the art drawers. I love those drawers.
6. Teachers provide a better education for their students if they can keep all their resources in their classroom. Remote teacher offices are unsatisfactory. I'll say it again. Teachers provide a better education for their students if they can keep all their resources in their classroom.

Don Steinke
Veteran teacher
Fort Vancouver High School
Vancouver, Washington

NOT JUST FOR JOCKS

I am currently enrolled in a course at California State University, Fullerton, that teaches us future teachers how to teach physical education to children and what a good elementary physical education program should have. I agree with Bud Turner ("Gym Class Renaissance," Fall 2000) in that he mentioned that we don't have to be great athletes to be good PE teachers. All we need is more effort on finding good activities for children to engage in that are fun and that teach them skills that are appropriate to their levels.

Child and Adolescent
Studies major
Cal State Fullerton
Fullerton, California

TO OUR READERS

The "Letters" column is your corner of *Northwest Education.* We invite readers to share opinions and ideas about articles that appear in these pages. We also welcome your suggestions for topics you would like to read about in future issues. Write to us at *Northwest Education,* Northwest Regional Educational Laboratory, 101 S.W. Main Street, Suite 500, Portland, Oregon 97204. Or submit your feedback electronically: nwedufeedback@nwrel.org. Back issues of the magazine are published online: www.nwrel.org/nwedu/.

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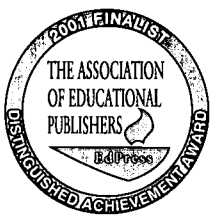

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You are invited to send us article ideas,
identify places where good things are happening,
provide descriptions of effective techniques being used,
suggest useful resources, and submit letters to the editor.

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