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ABSTRACT

This document contains the four issues of Northwest Education published from fall 2000 through summer 2001. Issue themes are: (1) "New Moves: PE Reinvents Itself" (Fall 2000); (2) "Think Small: Making Education More Personal" (Winter 2000); (3) "The Wild Blue Yonder: Charter Schools Fly into the Unknown" (Spring 2001); and (4) "Designs for Learning: School Architecture" (Summer 2001). Each issue contains a lead article summarizing current research and issues related to the theme, followed by articles describing theme-related practices and outstanding schools and educators in the Northwest. Issues also include information on related resources, book reviews, commentary by practitioners, and letters from readers. (SV)

Northwest Education, 2000-2001.

Lee Sherman, Editor

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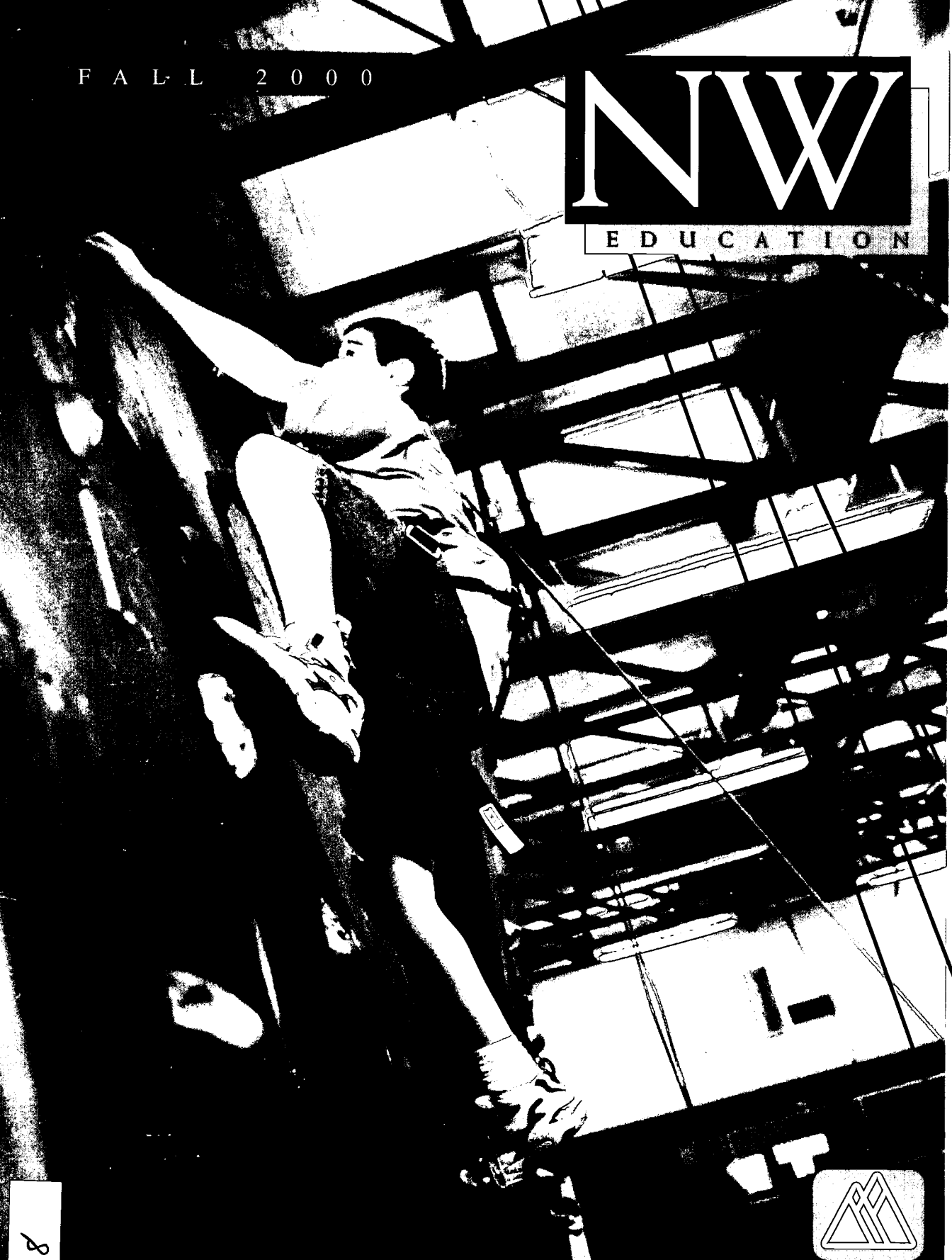

NORTHWEST REGIONAL
EDUCATIONAL LABORATORY

NEW MOVES
PE Reinvents Itself

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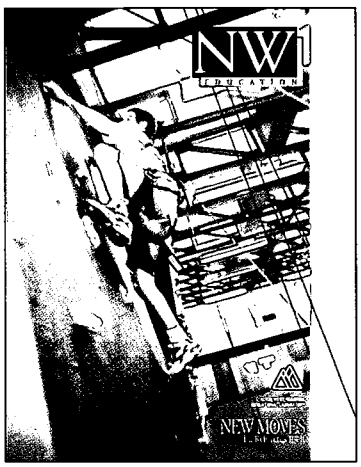
New Moves

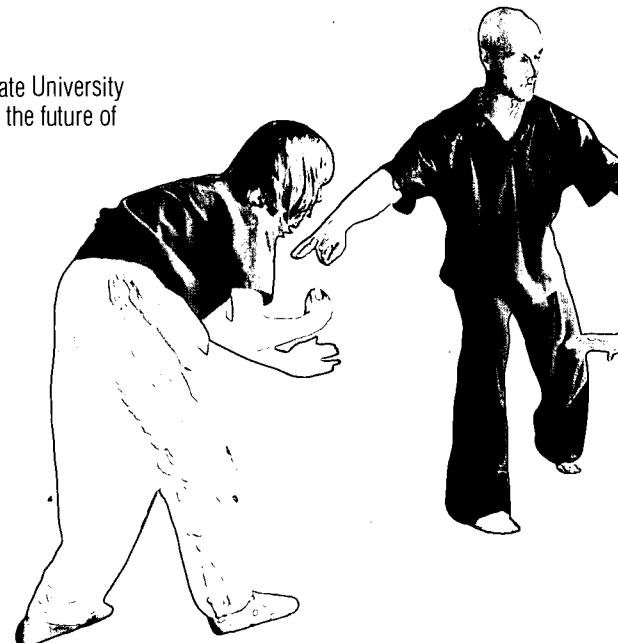
PE Reinvents Itself



ON THE COVER:
A climbing wall at Mountain View Middle School in Beaverton, Oregon, challenges students on both the physical and cognitive levels.
PHOTOGRAPH BY RICK RAPPAPORT

OPENING SPREAD:
Students at Seattle's Roosevelt High get pumped for the day in a morning class that includes cardio kick-boxing.
PHOTOGRAPH BY SUZIE BOSS

ARTICLES



DEPARTMENTS

Mention dodge ball and most people grimace or groan.

In the Northwest suburb where I grew up, we called it "prison ball." Different name, same object: to smack your opponent mercilessly with a hard rubber ball. Before each PE class, I would say a silent prayer: "Anything but prison ball, please, please, anything but that." When my prayer went unanswered and the team captains started choosing up sides, my prayer changed as my insides churned: "Please don't let me be the last one chosen. And don't let it hurt too much."

Kids who got hit (the slow, the fat, the unathletic, the apathetic) had to go to "prison" and stand around while more kids got walloped. Always a scrawny child, I didn't have a chance against the brawny players. I would cringe and cower behind some other hapless student when the powerful throwers were winding up, murder in their eyes.

Compared to this, dissecting pig fetuses was kind of fun.

It's been 30 years since I took my last painful *whap!* in that dreaded game. Yet I can still feel the sting—to my skin and to my pride. Just about everyone else, it seems, despised dodge ball, too. A few months ago when I proposed doing a magazine on PE, my colleagues all made sour faces. "Yuck, I hated PE!" was a pretty standard response.

Dodge ball has not died. But there are signs that the mainstay of the old phys ed is ailing. Sure, you can still find this relic in gyms from Nome to Yellowstone. But lots of schools are replacing the pummeling with activities that kids of the 1950s and 1960s never imagined. Students are scaling rock walls. Juggling colorful scarves. Balancing—or teetering—on unicycles. In Salmon, Idaho, they're skiing down an artificial mountain behind the school. In Corvallis, Oregon, they're toning up on rowing machines and treadmills. In Seattle, they're playing games of cooperation instead of competition—focused on beating their personal best instead of creaming their peers. Who could have predicted back in dodge ball's glory days that the new millennium would bring Frisbee golf, inline skating, and interpretive dance to the schoolhouse?

PE's renaissance, however, is threatened by money woes and back-to-basics trends across the nation. Lumped in with other so-called "frills" such as art and music, PE is a handy target when the public calls for higher academic standards and lower costs. Ironically, trimming this layer of "fat" out of school programs can add flab to young bodies. The impact of inactivity on human health is well-known. Around the Northwest, phys ed teachers and health advocates are fighting hard to keep PE—the "new" PE with its emphasis on lifelong fitness—in the curriculum. To get an inside look at some of the Northwest's best efforts to save PE—and to leave dodge ball in the past with white lipstick and big hairdos—read on.

—Lee Sherman
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THE DEATH OF DODGE BALL

A GENERATION OF HIGH-TECH COUCH POTATOES MEETS A NEW KIND OF PE

By LEE SHERMAN

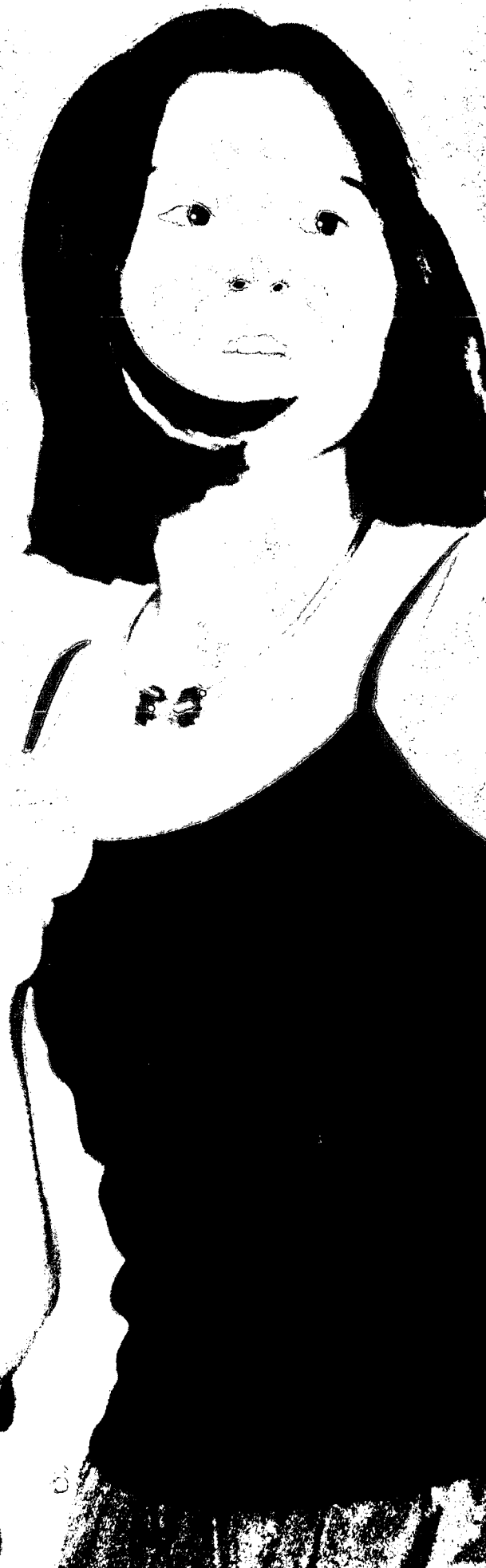


PHOTO BY SUZIE BOSS

A sixth-grade boy zaps digital monsters left and right without breaking a sweat. But climbing a flight of stairs makes him huff and puff. A 15-year-old girl tapes every episode of *Friends* and watches them over and over. One lap around the track, however, leaves her gasping. A mom drives her kids to Blockbuster to rent *Air Bud.* Across the street, the neighborhood hoop casts a lonely shadow in the afternoon sun. There's not a basketball—or a player—in sight.

Fingertip technologies have largely relegated swimming holes, tree forts, and sandlot ball games to history. In the vernacular of Generation Y, "surfing" has nothing to do with hanging 10 on a fiberglass board. Many of today's kids are deft with a computer mouse, and they smoke with a remote. But as they increasingly play and learn in the blue glow of cathode-ray tubes, their health and fitness have declined alarmingly. While their fingers may be nimble, their arms and abs are too often fat and flabby. For a lot of kids, their endurance for lolling on the living room sofa beats their stamina in the gym by miles. In the couch potato Olympics, today's kids would bring home the gold.

Schools must step up to fill the fitness void, health experts nationwide insist. Government agencies and advocacy groups such as the Centers for Disease Control and Prevention (CDC), the U.S. Department of Health and Human Services, and the American Heart Association are clamoring for daily physical education at every grade level. The surgeon general recommends that communities provide "quality, preferably daily, K-12 physical education." Even the president recently called for a "renewal of physical education in our schools."

But other factors are conspiring to undermine these recommendations. Just when kids are logging more seat time at home, school reformers and budget cutters are lopping nonacademic classes off the school roster. The convergence of dwindling dollars and higher standards has squeezed out PE in many states and districts. Together, these trends have created what some are call-

NORTHWEST STATES AT A GLANCE

Here's an updated look at PE in the Northwest as first reported in *Shape of the Nation,* a survey on state physical education requirements conducted in 1997 by the National Association for Sport and Physical Education:

ALASKA—
Who Teaches PE: At the elementary level most large schools employ physical education specialists, which means that most elementary students in the state receive some PE instruction each week from a certified teacher with a PE endorsement. Many of the smallest schools, however, do not employ specialists. The same is true of the middle and high school levels, where the larger schools have one or more certified teachers with PE endorsements, while the smaller schools do not. Teachers must complete six semester hours every five years to meet continuing education requirements, but there is no requirement that these credits be from their area of endorsement/specialization.
Student Requirements: The state has no requirements for elementary PE. At all levels, time allocation for PE is a district decision. Most districts give grades and include them in the GPA. One credit of health/PE is needed for graduation. Substitutions are accepted, but this is a local decision.

IDAHO—The state has developed a comprehensive PE curriculum.
Who Teaches PE: At the elementary and middle levels PE is taught by certified health and PE specialists. In high school PE is taught by certified PE specialists. Six hours every five years are required to meet continuing education certification.
Student Requirements: PE is mandated by the state in grades 1-8. Credit is given for courses taken as electives in high school, and grades are included in the GPA. One credit of health is required for graduation. No substitutions are allowed.

MONTANA—The state is moving toward a more health-oriented approach, termed Health Enhancement.
Who Teaches PE: PE is built into this component. At the elementary, middle, or junior high levels, classroom teachers or certified health and PE teachers teach PE. At the high school level, only certified PE specialists teach PE. Teachers must earn six university credits or 60 in-service credits every five years at meet continuing education requirements.
Student Requirements: PE is mandated through Health Enhancement at the state level. Credit is given; seventh- and eighth-graders receive one-half unit each year, and ninth through 12th receive one unit over a two-year period. At the middle and high school levels, 112 minutes are required; at the elementary level, there is no time requirement. Grades are given, and are included in the GPA at most districts. One unit is required for graduation. No substitutions are allowed.

OREGON—All programs K-12 must provide instruction in physical education through common curriculum goals. The 1999 Oregon Legislature passed a bill to include physical education in the Certificate of Initial Mastery standards. The standards and benchmarks currently being developed will be implemented in the 2001-2002 school year.
Who Teaches PE: At the elementary level, more than half of the schools have physical education specialists. Classroom teachers are responsible for teaching PE in other schools. In middle schools, classroom teachers and certified health and PE specialists teach PE. In high schools, certified health and PE specialists are required to teach PE. However, there are rare instances when schools "misassign" other teachers to teach physical education.

Student Requirements: PE is mandated by the state. In elementary and middle school PE is taught each year, with no time requirements. In high school, one year is required. Credit is given, and grades are included in the GPA. One credit is required for graduation. To waive any part of the graduation credit, a district must make a request of the State Board of Education.

WASHINGTON—As part of statewide educational reform efforts, health and PE are considered essential parts of learning.
Who Teaches PE: At the elementary level, PE is taught by classroom teachers. At the middle and high school levels, certified PE specialists and classroom teachers teach PE. Teachers (except those with master's degrees) must complete 15 hours of continuing education credits a year.
Student Requirements: PE is mandated by the state. Grades 1-8 average 20 minutes a day. High schools require two years of PE. Credits are given, and most districts include them in the GPA. Two credits are required for graduation. Substitutions are allowed.

ing a crisis in children's health.

"Recent studies have shown that the vast majority of America's children and youth are not physically fit," the U.S. Department of Defense notes on its Web site. "And more tragically, they are not getting enough physical education to understand how and why to keep themselves fit for life."

To address this growing concern for the long-term health and well-being of Americans, PE is undergoing a radical transformation. In schools where PE has managed to hang on, enlightened teachers are introducing kids to activities they can take with them through the years. Instead of dodging a hard rubber ball, kids are mastering cool moves on inline skates and cross-country skis. Instead of doing a million jumping jacks, they're learning to maneuver mountain bikes, balance unicycles, bounce on pogo sticks, juggle plastic bowling pins—even manipulate wheelchairs with ease. They're paddling white-water kayaks. Dancing to Latin music. Fishing for rainbow trout. Climbing vertical rock walls. Doing stuff you might see on the cover of *Outdoor* magazine or in the pages of Sunday's lifestyle section.

"We need to find ways to attract students to the joys of movement," Professor R. Scott Kretchmar of Pennsylvania State University recently told *Education Week*. "We need to make it as powerful as the draw of computers and television."

OBESITY CRISIS

Advocacy for physical education is hardly new. Way back in the mid-1700s, no less an American icon than Benjamin Franklin was calling for schools to "have provisions for running, leaping, wrestling, and swimming," writer Jack McCallum reports in *Sports Illustrated*. But it wasn't until the next century that officials began linking physical education with public health concerns. And yet another hundred years rolled by before physical education became a national priority. That's when President Eisenhower created what is now called the Presidential Council on Physical Fitness and Sports in response to a study showing poor muscle strength among U.S. students.

But, like so many initiatives in education, the PE pendulum has swung back again. Despite continuing calls from Congress and others for keeping and/or beefing up PE, physical education programs have dwindled or died over the last 10 to 15 years. Today, not one state mandates daily PE. Only one-fourth of high school students take gym every day, according to the landmark 1996 report of the Office of the Surgeon General, *Physical Activity and Health*. Between 1991 and 1995 alone, the number of kids taking daily PE plunged steeply, from 42 percent to 25 percent. Fewer than half of U.S. middle schools and just over a quarter of high schools require at least three years of PE. In fact, most high school students take only one year of PE between ninth and 12th grades, the National Association for Sport and Physical Education (NASPE) found in a 1997 state-by-state survey.

"I think we're paying a tremendous price for the rollback in physical education," Surgeon General David Satcher told the convention of the American Alliance for Health, Physical Education, Recreation, and Dance in March. "One of the greatest contributions you can make to an adult's health is to get them started as a child on a lifetime of physical activity."

There is a loud lament among journalists, policymakers, health advocates, and physical educators over what Professor Charles Kuntzelman of the University of Michigan calls the "substantial erosion" of PE programs. McCallum drives the point home in his April *Sports Illustrated* article, "Gym Class Struggle."

"The saddest thing about the decline in physical education," he writes, "is that we now know so much about the benefits of physical fitness and the perils of a sedentary lifestyle. Principals and school-board members who themselves may be in fitness programs are often the ones who slash budgets and resources for

gym class; they do so even as they are inundated with reports about the obesity crisis in our Twinkie-eating, TV-watching, video-game-playing younger generation."

Among the troubling findings reported by the surgeon general, the CDC, the journal *Pediatrics,* and other sources are these:

- As many as 25 percent of children and adolescents are overweight or obese
- The percentage of youths who are overweight has more than doubled in the past 30 years
- Nearly 40 percent of kids ages five to eight have conditions that significantly increase their risk of early heart disease
- Some 70 percent of girls and 40 percent of boys ages six to 12 do not have enough muscle strength to do more than one pull-up

Using facts like these to get people's attention, health advocates are fighting to keep or reinstate physical education in places where PE dollars are drying up and the three Rs are crowding out other subjects. There's even a Web site where teachers can get ideas for defending PE in their own schools and communities (http://pecentral.org/websites/defendingpe.html).

In Oregon, advocates recently won a big victory when they convinced lawmakers to include phys ed in the newly developed statewide standards for a Certificate of Initial Mastery (for details, see "Saving PE: The Oregon Story" on Page 36). In Washington, D.C., Alaska's Senator Ted Stevens has won wide co-sponsorship for his Physical Education for Progress (PEP) bill. Currently making its way through the labyrinth of congressional decisionmaking, the bill would authorize grants of $400 million over five years to schools and districts for equipment, curriculum development, and teacher training in PE. "It's not just to keep the next generation from becoming obese," Stevens told Andrew Mollison, a reporter for Cox Newspapers, in April. "The kids who are causing all this violence and bullying are not getting the organized physical activity where you let off steam

ON YOUR MARK, GET SET, GO!

Preparing to Teach PE

By Barbara Cusimano

Across the nation, schools of education are fighting to survive. Education as a discipline is just not as highly valued as programs in engineering or computer technology, for instance. And since teaching is not a highly respected profession in the community, schools of education have had to fight to promote their programs within their own universities and at the same time try to draw in prospective students.

Physical educators are looking at a double whammy: Not only is *education* fighting for respect, so is *physical* education. Here in Oregon, physical education teachers have watched their programs shrink or disappear under the pressure of falling budgets and rising academic standards driven by education reform. The standards movement coincided with the 1990 passage of Measure 5, a citizen's initiative limiting property taxes. These two events dovetailed to hurt Oregon schools. The impact was felt in OSU's physical education teacher preparation program, as well. Some of our best mentor teachers —those who work with aspiring teachers in the field —lost their jobs. One of our mentor teachers received an award for outstanding teaching one week and a pink slip the next. Even though she moved to another district further away from the university, we continue to send our students to her because she models exactly what we're trying to teach.

But there is a basis for optimism. About the time Measure 5 passed, the university moved to a fifth-year professional teacher preparation model. Prior to that we had an undergraduate program in which students earned a bachelor's degree while earning certification to teach K-12. Under the new program, students first complete their bachelor's degree and then apply to a one-year, graduate-level program. At the end of the year, they are certified to teach across all levels—from pre-primary through high school—and they hold a master's degree in teaching.

It's quite different from other education programs around the country. Most teacher preparation programs have students complete their coursework *before* placing them in a full-time student teaching experience. For our students, coursework and practice are braided together. They learn about teaching in their on-campus methodology classes each afternoon and practice those new skills in their student-teaching classrooms each morning. This allows them to fully integrate theory with actual practice. Our program also puts student teachers into three school settings (elementary, middle, and high school) across the entire school year from September to June, beginning with the opening of school. Another unique aspect of our program includes the use of a cohort model within physical education content. Students enter the program together and progress through courses and experiences together. They provide invaluable support to one another as they develop new skills.

About 20 students typically apply to our program each year. We admit anywhere from half to three-fourths of those applicants. Our acceptance numbers are based on how well we feel we can mentor the students and on the number of quality mentor teachers available in the area surrounding Corvallis.

We have been very successful with our fifth-year program. Ninety to 95 percent of our graduates are hired each year, mostly in Oregon but also in Idaho, Washington, Arizona, Nevada, Colorado, and California. We get calls from administrators every year, especially from elementary schools, asking for applicants. We often have no one to send to them.

Because ours is a graduate program, we have attracted some older students who have been out in the world. Although they've had successful careers doing something else, they realize they missed the boat. They chose to go into business or some other high-paying field, but their dream has always been to work with kids in a physical education setting.

I think one strength of our program—and the reason folks want to hire our graduates—is that our courses are content-based. Of the 57 required credits, 54 are within physical education. Students learn the usual things about planning lessons, teaching skills, and assessment—but all within the context of physical education. They immediately take what they learn and transfer it to the classroom, rather than having to make those connections themselves from more generic content.

I would like to be optimistic about the future. I'm hopeful that as we spread the word and start educating folks about the new PE standards and benchmarks for the state, and the importance of developing a physically active lifestyle at a young age, there will be a turnaround in physical education programs in Oregon and beyond.

Barbara Cusimano is an Associate Professor of Exercise and Sport Science at Oregon State University. This year she received the Excellence in Teaching award from the College of Health and Human Performance. Professor Cusimano is widely published in her specialty, effective methods for teaching PE.

and learn about things like waiting your turn and not winning all the time." 7

HALL OF SHAME

One hurdle advocates need to leap is the widespread dislike—even hatred—of PE among parents, policymakers, and the general public. Many baby boomers vividly remember the hurt and mortification they endured in punishing games like dodge ball and team sports that pitted athletic kids against clumsy ones, aggressive against timid. And then there was the cruel practice of choosing up sides. Countless children were deeply wounded when team captains passed them over again and again in favor of their more agile peers. "For most of us, the ghost of PE past looms large," writes A. Virshup in *Women's Sports and Fitness*. "Ask any group of 10 adults for their memories of gym class and seven of them will launch into litanies of frustration and humiliation: the groans when they came up at bat, the failure to do a single pull-up on the annual fitness test, the gruesome uniforms." In her 1999 article, "Why Janey Can't Run," Virshup concludes that "PE seemed less a class than some tribal ritual for jocks to enjoy and the rest of us to endure."

McCallum echoes this view when he writes: "We remember gym class so vividly because it brought out emotions and existential crises that are central to our development. Fear. Intimidation. Humiliation. Nausea. Abject failure. Angst. Neurosis. All that—and showers, too!"

Several years ago, a physical educator in Vinton, Iowa, championed dignity for kids when she convinced the school board to build individual dressing and shower stalls in the locker rooms. "When you ask kids whose bodies are changing to undress and shower in front of everyone, you've destroyed their self-esteem before they even get into the gym," the teacher, Beth Kirkpatrick, argued.

There are still plenty of teachers who adhere to the "old" PE. But defenders of the "new" PE are on the offensive. *The Journal of Physical Education, Recre-*

ation, & Dance ran a three-part series in the 1990s called "The Physical Education Hall of Shame" in which author and educator Neil Williams lambastes the worst practices. Not surprisingly, the Number 1 "charter inductee" is dodge ball, which the author calls "a litigation waiting to happen." In this brutal contest of the mighty against the meek, "at most, about half of the students really play—the rest hide in the farthest reaches of the gym." Another top pick is Duck, Duck, Goose, a circle chase game for primary kids in which "at least half of the students in the class will never be picked, friends usually pick friends, and generally, about five students do all of the playing," he reports. The author, a PE professor at Eastern Connecticut State University, is also scathing about elimination games like musical chairs. Such games, he argues, are "self-defeating, because the students who are in the greatest need of skill development are immediately banished, embarrassed, and punished, and then given no opportunity to improve."

For inclusion in the Hall of Shame, activities or games meet some or all of the following criteria:

- Absence of the purported objectives of the activity or game
- Potential to embarrass a student in front of the rest of the class
- Focus on eliminating students from participation
- Overemphasis on and concern about the students having "fun"
- Lack of emphasis on teaching motor skills and lifetime physical fitness skills
- Extremely low participation time factors
- Organizing into large groups where getting a "turn" is based on luck or individual aggressiveness or competitiveness
- Extremely high likelihood for danger, injury, and harm

The old PE emphasized competition, while the new PE stresses cooperation. The old PE taught mostly team sports, which have limited application after formal schooling. The new PE focuses on pursuits that students can use in the real world for fun and fitness. The old PE was geared for the physically gifted. The new PE is designed to let every kid succeed. Describing the gym-class renaissance in the *New York Times* several years ago, Melinda Henneberger describes "a growing curriculum overhaul in physical education, replacing competitive sports with activities that prepare children for lifetime health rather than for varsity teams. The goal," she writes, "is not so much to learn to score a basket as to develop body awareness, hand and motion skills, and the confidence to try new activities."

SIGNPOSTS FOR TEACHERS

To guide schools in designing high-quality physical education programs, NASPE recently developed a set of national standards to serve as "signposts" for teachers, in the words of Professor Terry Wood of Oregon State University. "The standards are not a national curriculum, but a set of criteria that provide a profile of the physically educated student at each grade level," says Wood, who served on the task force that developed the standards. "Each state or district must determine the appropriate curriculum to meet the standards, which serves as a planning document for states and districts."

The most surprising thing about the seven standards is the heavy emphasis on attitudes, social interaction, and thinking skills. PE teacher Tom Heath of Jefferson Elementary School in Corvallis, Oregon, explains that the standards fall into three broad areas: movement skills, lifetime fitness, and interpersonal skills, including self-management and respect for diversity. The National Standards for Physical Education indicate that a physically educated student:

1. Demonstrates competency in many movement forms and proficiency in a few movement forms
2. Applies movement concepts and principles to the learning and development of motor skills
3. Exhibits a physically active lifestyle

A QUALITY CHECKLIST

Carl Gabbard, Professor in the Department of Health and Kinesiology at Texas A&M University and past President of the National Association for Sport and Physical Education, lays out the following essentials of a quality PE program in an article titled "Physical Education: Should It Be in the Core Curriculum?" that ran in *Principal* magazine in January. A quality program:

- Is an integral part of, and consistent with, the total educational philosophy of the school
- Serves the diverse needs of all students
- Is based on an established written curriculum
- Is of sufficient breadth and depth to be challenging to all
- Is developmentally based and progressively sequenced from year to year
- Is regularly updated and revised
- Has well-defined objectives for progressive learning
- Is built around the development of efficient, effective, and expressive movement abilities
- Provides opportunities for the development of fundamental movement patterns and specific movement skills
- Provides experiences to enhance the development of physical fitness
- Provides opportunities for students to develop skills in games/sports, dance/rhythm, and gymnastics
- Provides opportunities for students to enhance their knowledge and understanding of human movement in a variety of physical activities
- Promotes safe behaviors by incorporating proper safety practices into physical education lessons
- Fosters creativity
- Promotes self-understanding and acceptance
- Promotes positive social interaction and self-control
- Recognizes and provides for learning enjoyment and fun
- Helps each student learn how to manage risk-taking and other challenges

4. Achieves and maintains a health-enhancing level of physical fitness
5. Demonstrates responsible personal and social behavior in physical activity settings
6. Demonstrates understanding and respect for differences among people in physical activity settings
7. Understands that physical activity provides opportunities for enjoyment, challenge, self-expression, and social interaction

In its 1995 publication *Moving into the Future: National Standards for Physical Education,* the NASPE task force provides sample benchmarks at every other grade level, K-12. For example, to meet Goal 2 ("applies movement concepts and principles to the learning and development of motor skills") a kindergartner should be able to walk, run, hop, and skip in forward and sideways directions, and to change direction quickly in response to a signal. She should identify and use a variety of relationships with objects (such as over, under, behind, alongside, and through). She should begin to use the "leg flexion" technique to soften the landing in jumping.

By sixth grade, a student should be able to detect, analyze, and correct errors in personal movement patterns. He ought to identify proper warm-up and cool-down techniques and the reasons for using them. And he should know basic practice and conditioning principles that enhance performance.

To meet the standard, a 12th-grader should, for example, be able to participate in a tennis match using all of the basic skills, rules, and strategies with some consistency. She should be able to pass the Red Cross intermediate swimming requirements; get nine out of 10 arrows on the target from 40 feet; navigate a kayak skillfully and safely through white water; use advanced offensive and defensive shots successfully in a racquetball game against an opponent of similar skill; and/or demonstrate the skills for a black belt in karate.

The first press run of 2,000 standards documents was snatched up quickly, Wood reports. But, he says, trans-

lating the words into practice is the critical next step. It could in fact spell life or death for physical education.

"There is little doubt that physical educators, pressured by the national reform movement with its emphasis on content standards, alternative assessment strategies, and higher-order learning objectives, were waiting for some direction," Wood asserts in a 1996 article in *Teaching Elementary Physical Education.* "Now that the dust has settled after the initial rush to obtain the standards, teachers, schools, and districts are faced with a fundamental challenge not addressed in the document—implementation. How this challenge is met will determine the long-term success of the standards, and to some degree the future of PE in the public school system."

Top-notch teachers, like Meg Greiner in the rural Oregon town of Independence, consciously build their programs around the concepts contained in the standards.

"Good teachers naturally do, because the standards are everything that physical education should be about," says Greiner, who teaches at Independence Elementary. "It's about diversity. It's about movement concepts and manipulative skills. It's about dance, rhythm, and coordination. It's about fitness for a lifetime. It's about self-management and social behavior. My classes are full of all those things."

Every morning before the first bell, you can find Greiner alone in the empty gym. Wearing her "PE Rulz" T-shirt and a colorful pair of Hawaiian shorts, the award-winning teacher is thumbing through an eclectic collection of CDs—everything from polkas to Irish dance tunes to mariachi, ragtime, country, and zydeco (Cajun music from southern Louisiana, featuring guitar, washboard, and accordion). Not least are the hot pop stars like Celine Dion, Backstreet Boys, and Sheryl Crow. "That's how you get the kids hooked in," Greiner explains.

At 8:30 sharp she flings open the gym door and stands back. A herd of 350 gyrating grade-schoolers—mixed with a few parents and teachers—gallops in for Team Time, the all-school exercise class that kicks off each and every school day. Chucking their backpacks on the perimeter, they quickly find spots on the floor while Greiner climbs onto a table up front. "All together now!" She leads them through a series of warm-ups and intricate dance moves. "Heel, heel, toe, toe, front, side, back, side!" she calls. Every foot is on cue, every eye is on Greiner, all children are quietly concentrating—except when they're singing along with the music. "Lookin' good! Don't forget that hop at the end!"

No couch potatoes here. □

snapSHOTS

FROM BOCCI TO BUKA BALL

ROOSEVELT HIGH SCHOOL

SEATTLE, Washington—

Although golf occupies a special place in his heart, Darrell Montzingo has never met a sport he didn't like. Now head of the department of physical education at Seattle's inner-city Roosevelt High School, Montzingo brings to his job a playful spirit and a fascination with games of all kinds. "My goal," he says, "is to introduce a new activity every year." He particularly enjoys bringing in games from other cultures. "I was in Spain last year, where everywhere you see old men playing bocci ball [similar to lawn bowling] in the dirt. Next year we'll start that. Buka Ball is an Asian game we use, too. It's like a cross between volleyball and Hacky Sack [footbag]. You use your feet, knees, or hands to kick a bamboo ball over a net, using volleyball rules. We like it because it equalizes males and females."

When Montzingo was hired at Roosevelt in 1992, the physical education program—consisting of team and individual sports and weight training—looked pretty traditional. Over the last eight years, however, the department has moved away from that approach to offer more choice and to focus more on lifetime leisure activities, including walking and individual sports.

To graduate at Roosevelt, students must take four PE classes for two full credits from a smorgasbord of choices. Tai chi has been available in the past; yoga, aerobics (including walking aerobics), handball, archery, and swimming are today. Lacrosse, more frequently played in private than public schools, has been offered since Montzingo observed a game of it. Students can chose inline skating or the circus arts of juggling and unicycling. Next fall, the department will initiate a body-toning class, which the faculty hopes will draw more women into weight training. New in February, a rock-climbing wall is a popular addition.

Individual sports offered include croquet, horseshoes, and what Montzingo calls create-a-sport. "I try to get kids to make up games," he says. For this assignment, students typically combine two games and change the rules accordingly. Students have tried blending basketball with soccer or basketball with golf. Or they've dreamed up new variations of the old classic, capture the flag. And, true to his real passion, Montzingo offers golf as well as coaching the school's golf teams. What he calls it his "inner-city golf project" is sponsored by the Professional Golfers Association. "Hey, you can play golf all the way until you're a senior citizen," Montzingo notes. "I tell the students that a lot of them will find themselves on a golf course for business reasons or with their families at some point in their future. It's a great life leisure sport."

Traditional team sports have not entirely gone by the wayside. But the old model of kids playing one sport all semester is no longer to be found. Instead, interested students rotate in the winter through two weeks each of Buka Ball, volleyball, basketball, and hockey. In warmer weather, students go outside to experience ultimate Frisbee, soccer, lacrosse, flag football, and softball.

The department at Roosevelt at times uses heart monitors in fitness classes, so students can see for themselves what it takes to reach their desired heart rate. "Less active kids reach their target just walking, while others have to work much harder," Montzingo says. "The monitors are great; kids can check it for themselves, which empowers them and frees up the instructor."

Parents have given the program thumbs up. Says Montzingo: "They say, 'We never had the opportunity to do that!' In fact, parents are often more articulate in appreciating the program than the kids are. Still, we have a lot of kids who come in from ninth grade saying, 'I hate PE. I'll be the worst again, and no one will pick me for their team.' Well, here that won't happen. Those kids take alternative sports and find out that they can be as good and as active as the others."

In all their eclectic offerings, one thing is clear: Roosevelt PE instructors are steering students toward forms of exercise they can enjoy for years to come. "I want them to develop routines they will follow for the rest of their lives," Montzingo says.

—"Snapshots" *by Maya Muir*

LIFETIME FITNESS

DIMOND HIGH SCHOOL

ANCHORAGE, Alaska—When students take soccer from PE teacher Dale Kephart at Anchorage's Dimond High School, they don't have the usual all-or-nothing experience of playing in a game or, alternatively, sitting on the sidelines for the whole class period. Instead Kephart, who has been teaching one form of fitness or another for 33 years, keeps all the kids busy all the time. They start with warm-ups then move into a series of exercises—five minutes each of push-ups or crunches, dribbling, playing two-on-two, and mini-games where everyone is active—before the cool-down period.

"It's just not enough anymore to throw the ball out there and have them play," says Kephart. "You get some cardiorespiratory exercise from that, but the other components of fitness aren't addressed. We really try to build for a lifetime of fitness here, in all our activities."

Kephart is a nationally recognized pioneer of this approach, and has been actively involved in promoting it since the early 1990s throughout Alaska in her work on the Anchorage School District Curriculum committee. Currently in that state, the most explicit introduction kids get to this approach is a Lifetime Personal Fitness Course, one of three semester-long PE courses required for graduation. Kephart identifies six components for all-around fitness: (1) cardiorespiratory fitness, or aerobics; (2) body composition; (3) muscular endurance (from repeated motions); (4) muscular strength (from weight lifting); (5) flexibility; and (6) stress management, taught by progressive muscle relaxation techniques and visualization.

"We also teach about nutrition, substance abuse, posture, and miscellaneous subjects like the effect of hot and cold weather on exercise, because here in Alaska that makes a big difference," Kephart says. "And we talk about how exercise helps prevent cardiovascular disease. We weave these concepts throughout so that classes actually teach wellness."

But, she's quick to add, the focus is still on activity. Despite all the concepts Kephart covers, she doesn't like her students sitting still in class for more than five minutes. "Sometimes I have them grab their notebooks and work for up to five minutes on a worksheet," Kephart says. "If they are doing circuits of activities around the gym, they pause before each one to work together figuring out questions on the sheet about that area. Or," she continues, "sometimes I deliver the concepts during cool-down periods. At the end of the week, I ask them to work in groups to remember the points covered. Every second week, I test them."

In developing curriculum for the district and her high school, Kephart and her colleagues relied on guidance from the National Association for Sport and Physical Education (NASPE), a member of the Alliance for Health, Physical Education, Recreation, and Dance. NASPE recognizes individual teachers for excellence in the field. In 1998, Kephart won the Alaska NASPE award for High School Physical Education Teacher of the Year, followed by the Northwest district award, and finally the national award.

The video Kephart submitted to the award committee features her Lifetime Personal Fitness class. In it, she has students begin with a warm-up of some basic dance steps, followed by a stretch. Then students divide into groups and move through a series of stations focusing on the difference between moderately intensive activity (such as aerobic dance) and high-intensity activity (such as jumping). At each station, students do a different activity: aerobic steps, hamstring curls, jump rope, modern dance movements, jumping over small plastic hurdles, and a shuttle run in which a basketball is passed back and forth. "They learned how their heart rate varied during different kinds of activity," says Kephart. "I finished with cool-down exercises, during which I reviewed the concepts."

Kephart also stresses that she teaches leadership and critical thinking by having students teach each other what they have learned, and devise exercises to illustrate concepts for the entire class. Usually these are done cooperatively.

"I've always taught PE with fitness in mind," says Kephart, "but now we have more information about how to do that, and we understand why it's important. Our goal is to have all kids be as active as possible and to understand why that matters."

COWBOY JITTERBUG
BIG SKY HIGH SCHOOL

MISSOULA, Montana—Cowboy jitterbug is hot in Montana right now. It's also hot at Big Sky High School, where kids kick up their heels for credit. "We actually require it," says veteran PE teacher Maureen Thomas, "but it's also very popular. We offer it because we want our students to recognize that dancing can be part of an active lifestyle." Jitterbugging—soon to be followed by swing if Thomas has her way—is part of a strong emphasis on introducing teenagers to activities that can keep them active and healthy their entire lives.

Some of those activities offered for credit at Big Sky, such as tennis and softball, can be found at other schools and in most parts of the country. Other choices draw more heavily on the assets of the Montana environment. "Montana Fish, Wildlife, and Parks works with us on a fishing unit," says Thomas, "and we have mountain biking on trails near the school. We're working with the University of Montana to introduce kayaking. When possible, cross-country skiing is available, and even downhill skiing. The response this year to the latter was tremendous. We actually took 450 kids out on four separate days of ski trips."

Another favorite is "folf"(also known as "disc golf"), a combination of Frisbee and golf. "You throw something like a Frisbee only heavier," says Thomas, "and you have to hit certain holes. We bus the kids to a recreation site for it, and they get a good workout hiking up and down those mountains."

Thomas and her colleagues are preparing about 100 students now to participate in a five-kilometer community run. "It's a walk/jog, and we care more about having kids take part than being front-runners," Thomas says. "We're offering practice in PE twice a week, and asking students to practice once a week on their own."

One key to the success of the Big Sky program is that, as much as possible, students choose and take ownership of their activities. At the beginning of the Lifetime Fitness class she teaches, Thomas lists all possibilities and students rank their preferences. The class rotates through the choices. "Last semester's class chose fly-fishing, tennis, golf, folf, and softball in the fall, and racquetball, badminton, the climbing wall, and downhill skiing in the winter," she says.

Thomas adds, "We have an elective every period of the day to make it easy for students to choose, and they are always full, with more kids wanting in."

Thomas also encourages students to take responsibility for their own health with heart-rate monitors during aerobic activities, so kids know what to aim for in their various sports. "Also, from the freshman year on, we require each student to keep an activity log," says Thomas. "Even moderate activity contributes to health, so we count it, too. This technique helps them be aware and take charge." The required Health Enhancement class reinforces the message for freshmen and sophomores. Subjects include nutrition; violence prevention; sexuality; communications; drugs, alcohol and tobacco prevention; and mental health issues like stress and time management. "We encourage students to set personal goals for themselves in relation to each topic," Thomas says.

Thomas says she took much of the inspiration for these new ideas from annual conventions of the Montana Association for Health, Physical Education, Recreation, and Dance. She attended her first convention in the mid-1980s, and came home brimming with ideas. Since then, she has served as president and is now executive director. "Our field is changing so fast," she says. "Ongoing professional development is very important."

Thomas was singled out this year for her contributions to PE when she was named one of four Montana winners of the Milken Family Foundation Awards, which come with a $25,000 prize.

When Thomas's name was submitted to the Foundation, someone voiced surprise that it would be given to someone who taught a subject that was not part of the core curriculum. State Superintendent of Public Instruction Nancy Keenan responded that in Montana, PE *is* core curriculum.

Gym Class Renaissance

In the "new PE," every kid can succeed, not just the jocks

Story by Suzie Boss

PHOTO BY RICK RAPPAPORT

SEATTLE, Washington— PE never used to look like this. At Meany Middle School in the Capitol Hill neighborhood, morning gym class gets underway with a blur of 80 bodies in motion, a whir of skate wheels across the wooden floor, and the throb of a golden oldies soundtrack.

On the north side of the city at Roosevelt High, two dozen teens start the day kick-boxing to a funkier rhythm, doing their best to keep pace with a high-energy instructor named Teri Galloway. When she calls "time," students pause to check their electronic heart-rate monitors and catch their breath. In an adjoining room, classmates line up to scale a plywood wall that's been implanted with plastic "rocks" to use as handholds. Getting across the horizontal span without dropping to the padded floor takes not only upper-arm strength, but also good thinking.

At Sanislo Elementary in south Seattle, youngsters run a warm-up loop around the schoolyard then pour into the gym, eager to ride unicycles, turn handsprings, and juggle sets of balls, pins, and even tennis racquets with the agility of circus performers.

Anyone old enough to remember when gym class involved choosing up teams for dodge ball will be amazed by the transformation.

And that's great news, according to Bud Turner, coordinator of K-12 physical education for Seattle Public Schools. At 54, Turner has spent three decades selling his community on the benefits of what he calls "success-oriented PE." It's an approach that's gathering momentum nationwide by teaching kids to work for their personal best rather than besting the opposing team, to elevate wellness above winning. "It's all about kids saying, 'Aha! I can do it!'" says Turner. "And then it becomes a personal thing, to see how far they can go." The gym offers an ideal venue for teaching cooperation, creativity, and critical thinking, he adds, right along with physical skills.

From his involvement on national advisory committees and years of leadership and writing in the field, Turner knows that his school district "is far ahead of much of the rest of the country" in reforming its physical education curriculum. "PE gets the attention it deserves," he says, in a district that has adopted content frameworks for physical education and employs a teaching staff of about 150 PE specialists. And Seattle kids are all the better for it: Test scores consistently show them to be some of the fittest young people in the nation. Last year, the district had 6,000 students earning the Presidential Physical Fitness Award by scoring at or above the 85th percentile on each of five fitness challenges. Two schools in the district are national demonstration sites for the President's Challenge, and others receive a steady stream of visitors.

While Seattle may be the largest district in the region to embrace the new PE trend, other districts and individual teachers are pedaling fast in the same direction. Classes in mountain biking, downhill skiing, and other thrill-packed adventure sports, along with more relaxing pursuits such as yoga and tai chi, are such a departure from gym classes of old that even *Sports Illustrated* has paused from covering pro sports to weigh in on their merits.

If these courses sound like the program listings from a private health club or outdoorsy resort, it's no accident. The idea is to make physical activity so appealing that it becomes a habit—especially for the 75 percent of high school students who are currently not enrolled in any PE classes, according to the U.S. Surgeon General. At a time when American youth are less fit and more fat than ever before, educators make no apologies for using fun to motivate kids to get up and get moving—not just for gym class, but for a lifetime.

NOBODY SITS OUT

Sue Turner, a Washington State PE Teacher of the Year, can remember what it was like to be a new teacher nearly 30 years ago. She based her curriculum on competitive team sports like basketball and softball, just as she'd been taught. But she couldn't help noticing that the gifted athletes—maybe 10 or 15 percent of her students—would dominate the action while the majority of kids seldom touched the ball. When class ended, half the students would swagger out as winners and the other half dragged out as losers. "Kids came out of gym class screaming at each other about who had won that day. I knew they needed something different," she explains, "where they could

compete against themselves instead of against each other. They needed alternatives."

That's when she started introducing individual activities like tumbling. Right away, the mood changed. Instead of jeering about gym-class victories or who got picked last for teams, students would cheer each other on as they learned to perform cartwheels or handsprings. Before long, Turner was adding unicycles and juggling. (Her husband, Bud Turner, convinced the district to invest in alternative PE equipment; the district now owns a fleet of 3,500 unicycles.)

Teaching at a school that enrolls many children from low-income families, Sue Turner knows that most of her students would never have been able to afford private gymnastics lessons. Yet over the years, hundreds of Sanislo students have performed with SCATS, a skilled, school-based acrobatic troupe that grew out of her PE classes. Their goal isn't perfection, but participation. "We could practice round-offs over and over until they were all doing them perfectly," she says, "but that isn't what we're about. These kids love to fly," she says, pointing across the gym to a girl who turns a series of handsprings so fast, her body seems to blur. "And they love to show off," she adds with a laugh, pointing to a small boy zipping past on a big unicycle. "I want to get them to experience the thrill of that, so that they'll learn to move for the rest of their lives."

Barbara McEwan, another award-winning Seattle PE specialist, shudders to remember games like Soak 'Em that were par for the course when she started teaching 28 years ago. "The object was basically for kids to beat each other up with balls," she says. Today, she's more inclined to plan activities that require cooperation and problem solving. "These games won't work if everybody tries to be the leader. They have to figure out ways to work together," she explains. McEwan has to talk loud to be heard over the din of a gym full of first-graders engaged in what looks like a mini-carnival. In teams of four or five, kids try to toss tennis balls into a tall cylinder, keep a giant ball in the air, or drop a ring onto a cone. Each activity requires teamwork along with physical skills.

Designing activities so that all kids can participate—and feel successful—is a hallmark of the new PE. That means no relay races where a dozen students stand and watch for every kid who runs. It means assigning open-ended tasks that allow kids to progress as far as they can individually. It means modifying traditional team sports so teams are much smaller and everyone gets more opportunities to practice skills. "You wouldn't teach a group of kids to read by having one book and passing it down a line of 10 kids," Bud Turner says, "but too often, that's how we try to teach sports skills." Instead, he promotes activities that teach all students "to learn to move and move to learn."

Success-oriented PE also means broadening the curriculum to appeal to all kinds of kids —the ones sporting tattoos and green hair as well as those with crew-cuts and washboard abs. "Some kids would never participate in team sports, but they thrive in individual activities," says Turner. Others love the competitive arena. "We need to offer something for all of them." Recently, for instance, a group of girls signed up for a Roosevelt High aerobics class because they wanted help managing their weight. By the end of the term, beams instructor Teri Galloway, "They were probably my fittest students." Not only had their cardiovascular fitness and endurance improved, but they had learned to warm up and cool down to prevent injuries—all habits that promote a healthier lifestyle.

Although the new gym activities can look pretty loose and freewheeling, there's a philosophy underlying the fun. "We provide a safe environment where kids can learn, no matter what their abilities, skills, or attitudes," explains PE specialist and diversity expert Mona Mendoza of Meany Middle School. "Our kids give respect and get respect." Her school teaches predominately low-income, minority youth, "and they know we have high expectation for them," Mendoza says. "We won't allow them not to be successful."

Lasting personal success—not a fleeting team victory—is the big goal. In a recent interview in *USA Today,* Virginia Tech health and PE professor George Graham stressed the power of positive experiences to get kids hooked on fitness. "If you can design a program where kids are successful 80 percent of the time," he said, "you have a good program."

TRY ONE NEW THING

If Seattle's experience is typical, it takes time, energy, and creative fundraising to expand PE offerings beyond the old-fashioned basics. To stretch its budget, Seattle has built partnerships with a host of community sponsors, from the U.S. Tennis Association to golfers on the pro circuit to the Seattle Sonics basketball team. High school weight rooms—stocked with used, donated equipment—are functional but not fancy. Instead of leaving boxes of equipment to gather dust in school storage rooms, the district operates a PE lending library. Class sets of everything from heart-rate monitors to bicycles and helmets to yo-yos rotate from school to school, getting more use from more students. And the $4,000 rock walls that are springing up in school gyms all over town are built with wood donated by a local lumber company and other materials paid for through "buy-a-rock" fund-raising campaigns.

Equipment alone doesn't make for an innovative PE program, of course. Just as important is a willingness by teachers to work with kids in new ways. In Seattle, the average age of PE specialists is about 50, Turner estimates. Many teachers grew up on a diet of traditional team sports, and some traditions die hard. "A lot of them are used to teaching baseball, basketball, and maybe a little volleyball for variety," Turner says. The best PE classes in the district, he says, didn't get that way because of fancy facilities or big budgets. "Staff is the key. The most important ingredient is good teaching."

In his crusade to remake the PE mold, Turner visits at least half a dozen schools a day (driving a car with "PE4KIDS" license plates). He makes a point to bring along something new. One day it's pedometers to remind teachers to increase their own activity levels so they aren't teaching from the bleachers; another day it's posters to brighten gym walls and spread the pro-PE message. Turner will conduct a one-on-one workshop any time a teacher requests instruction in teaching a specific activity. Once a year, he puts on a West's Best PE conference that attracts several hundred attendees and presenters from all over the country. "It's packed with ideas that teachers can try on the spot and incorporate into our classes tomorrow," says McEwan. Turner even produces

PHOTO BY SUZIE BOSS

SEATTLE MAINTAINS A FLEET OF 3,500 UNICYCLES TO HELP KIDS "LEARN TO MOVE AND MOVE TO LEARN."

Everybody Wins

Get a group of PE teachers together and the conversation naturally turns to jock talk. They compare win-loss records for adult softball leagues, share training tips for upcoming marathon races, talk about their golf scores and tennis matches.

"There's nothing wrong with competition," says Bud Turner, coordinator of K-12 physical education for Seattle Public Schools and a weekend warrior himself on the coed softball circuit. Indeed, many PE teachers are first attracted to the field because they've had positive experiences in sports.

But when it's time for PE class, competition's best left outside the gym. "Athletics involves only 10 to 15 percent of the student population," says Turner, but PE is for everyone.

Turning the school gym into a place where everybody wins doesn't mean that games have to be eliminated.

"We can modify games and manage competition," Turner explains. Instead of nine-person softball teams, for instance, students can break into three-player teams for "coneball," played on a scaled-down diamond where everybody gets more chances to hone fielding and hitting skills. Instead of training one or two students to be pitchers, everybody learns and practices the fundamentals of throwing and catching. Turner also suggests structuring games so that competition is added gradually, as students acquire new skills. They can progress from warm-up, to individual competition, to competition against a partner, to team games.

Although there are plenty of PE specialists who enjoy competing on their own time, "You don't have to be a great athlete to be a good PE teacher," stresses Turner, who trains future generations of PE teachers as an adjunct faculty member at four universities in Washington. "We want great teachers to go into this field—people who like kids and know how to be innovative." ■

videos to keep fresh ideas circulating—one of the reasons teachers call him "a man of a million ideas."

"Every year, I try to add one new thing to what I'm teaching," says Darrell Montzingo, PE specialist at Roosevelt High. In his 21 years of teaching gym classes, he's introduced everything from archery to racquet sports to rowing to golf. Montzingo appreciates sports that can be enjoyed by all students, whatever their physical abilities. And that's right in line with district policy promoting PE activities that motive students to succeed, "regardless of gender, size, age, and current level of ability or interest."

Once teachers get comfortable with nontraditional gym activities, they often discover that their own job satisfaction goes up. "It's so much more fun to teach this way," says Jerry Ronk, PE specialist at Meany Middle School for 19 years. "And it's rewarding to give kids a chance to better themselves. We encourage them to keep retesting, trying for better personal scores, right up to the end of the term. We want them to succeed. These activities build their confidence." Once his students master a fast turn on roller skates, learn a

basic three-ball cascade in juggling, or build up the arm strength to hold a handstand, he says, "they feel like they can learn anything. And we see that attitude carry over to their academic classrooms, too. Their teachers come back to us and say, what did you do to get these kids so excited about learning?"

Teaching Above the Shoulders

Without a doubt, the new PE requires more thinking—by students and teachers alike. "We don't just teach up to here," says Montzingo, gesturing to his shoulders. "We take it all the way up to here," he says, and taps his forehead.

Districts that can't afford PE specialists may still be treating gym classes as "glorified recess," admits Turner. Only seven states require PE specialists at the elementary level, according to a survey by the National Association for Sport and Physical Education. "There's so much pressure on classroom teachers now to make sure their kids meet high academic standards," laments Turner. "Most of them don't have time to plan a new PE curriculum, too."

With a little creativity, however, even a traditional class like weight training can be retooled to fit the new PE model. Instead of just hoisting barbells, students can learn the names of the muscles, reinforcing what they've studied in biology. They can learn which exercises are most likely to produce gains in strength or flexibility, and which ones will improve cardiovascular fitness. They can use math skills or computer programming to track changes in their body mass index (BMI) or calculate their target heart rate. They can learn to develop their own training program, tailored to their individual fitness goals. The girl who's interested in overall toning will find weight training just as valuable as the guy who wants to build his biceps.

Well-planned, purposeful PE offers opportunities to integrate not only academic lessons, but cultural and social ones, as well. Rock climbing walls, for instance, provide an ideal backdrop for teaching the body and the mind. At first, students are motivated by the sheer physical challenge: Can they get all the way across without touching the ground? The instructor can make the task more challenging by asking students to use only certain rocks, or connecting pairs of students with a "lifeline" and having them stage a rescue of another student. Seattle has developed a rock-wall curriculum that includes physical activity, problem solving, creativity, and cooperation.

Do students appreciate the variety and depth of today's PE? Probably not yet, admits Montzingo. "Not until they're adults and look back will they know just how much variety they were offered here," he suspects. By then, with any luck, they will consider fitness not just a goal from those gym classes they took as kids, but something to embrace in their daily lives. "Will I keep doing this?" asks a wiry 12-year-old who learned to ride a unicycle when she was a first-grader and has been getting better ever since. "You bet!" □

FIRST-GRADERS PARTICIPATE IN ACTIVITIES THAT REQUIRE MOVEMENT, TEAMWORK, AND PROBLEM SOLVING.

PHOTO BY SUZIE BOSS

snapSHOTS

ALL ACTIVE, ALL SUCCESSFUL

SCHMITZ PARK ELEMENTARY SCHOOL

SEATTLE, Washington—"When kids first come to me, they often have a frumpy kind of 'try to make me have fun' attitude," says PE teacher Barbara McEwan at Seattle's Schmitz Park Elementary School. "One of my goals is to have enough great equipment here that all the children find something they absolutely love to do." When kids are having fun, they're more likely to meet McEwan's even more important goal: to help her students raise their overall level of fitness. In this, she has been remarkably successful. "The kids get very motivated," she says. You can see their enthusiasm the minute you walk into the Schmitz Park gym. Some days, you'll see kids climbing vertical rock walls or hauling themselves across cargo nets. Or you might open the door onto 40 children zipping around on unicycles or balancing on stilts, large spools, and balls. Other days you can find them bouncing on pogo sticks or racing around in an intense game of wheelchair tag. "We don't have any kids who need to be in wheelchairs right now," says McEwan, "but we have had some in the past. When we did, we really wanted to find ways to give them a good exercise program, too, but the other kids were no match for them in a chair. So now we have many of our kids learn to steer and do wheelies, and they really enjoy it. When kids come along who do require chairs, they'll have other children to race."

Several years ago, after a lawsuit against the school prompted the removal of the monkey bars and rings from the playground, kids were losing arm strength. "I had to figure out what else to do," McEwan says. With the proceeds of an Eastertime chocolate-rabbit sale, the school bought a climbing wall. "It's really helped," McEwan says. "Some kids won't ever be able to do a pull-up, but everyone can learn to hold their body weight for a while." McEwan likes the unicycles for teaching balance to kids from kindergarten on up. She speaks with pride of her class of 10 advanced kids who can idle—that is, rock back and forth—for five seconds to 30 minutes at a time. And, although it has been a struggle, she's been able to find ways to get girls interested. "Girls are less willing to take falls," she says, "but if they do it with partners and take it slowly, they find they like it, too. We're about half girls, half boys now," she says. The result of this approach is verifiable success. Schmitz Park has been the Washington state champion for 10 of the 11 years it has been participating in the President's Challenge Physical Fitness Program. McEwan considers the program fairly demanding. Children are tested on five skills: pull-ups, reaching beyond their toes, running a mile, shuttle running (which tests quickness), and curl-ups. The standards are adjusted for sex and age. For example a 10-year-old boy is required to do six pull-ups, while a 10-year-old girl must do three to reach the "presidential" level. "Most children can do at least some of these fairly easily," says McEwan, "but at least one item on the test usually gives them some trouble." Kids who reach the 85th percentile or better on every fitness item qualify for the "presidential" (highest) award. At Schmitz Park, 60 percent of students are presidential winners. McEwan finds as a rule that enticing elementary students to run a mile is the hardest task. "Basically, we do it with games," she says. "We use games where they have to keep running, or if they are tagged 'out,' they go do five handstands, then come back in." Not only do McEwan's students test well, but their squeals and smiles during class clearly show their delight. "I love to see them get hooked on juggling or something like that," McEwan says. "And all the time I get kids who have gone on to middle school coming back to tell me how much they miss the PE we do here." □

MAKING A MOUNTAIN

SALMON HIGH SCHOOL

SALMON, Idaho—Outside Salmon High School, county trucks are dumping riprap and other materials from their spring clean-up in a huge pile. Soon 1,000 cubic yards of fill from the excavations for an apartment building will be dumped on top of that. Then a landscape architecture class at the school will install a sprinkler system and a rope tow. The aspen and pine trees they plant will be the finishing touch on Salmon High's very own 30-foot tall mountain.

The mountain is the brainchild of Zane Abbott and the PE department of which he has been a part for the last 21 years. It will be an all-purpose training hill, with a jogging course, used also for varsity sports conditioning, Nordic skiing, golf, and field archery. As a bonus, terracing will make one side into an amphitheater, providing the school with its first auditorium.

The mountain is an outgrowth of Abbott's longtime emphasis on lifetime sports. It's a calling that has taken him all over the county, sharing with students the many recreational opportunities Idaho provides.

PE was not always like this at Salmon High. Before Abbott arrived, gym class was pretty much the way he found it when he was a student himself. "The coach threw the ball out, and the kids played," is how he remembers it. Inspired by an article he'd read years earlier about programs that taught lifetime sports, Abbott began to initiate some changes when he was hired.

Now the school offers three PE classes. The first course, for sophomores, is Beginning Lifetime Sports. In autumn, students take snorkeling, skin diving, archery, and Pickle-Ball (a hybrid of table tennis, tennis, and badminton played with a wooden paddle). In winter, they try skating (ice, speed, and figure), hockey, badminton, alpine skiing, snowboarding, and, in their recreational skills segment, bowling, juggling, line dancing, Frisbee, and yo-yo. The course is completed in the spring with hiking, backpacking, orienteering, spin-and-bait casting, tennis, golf, and horseshoes. "With horseshoes, the state finals competition is held each year in one of our city parks, where we have a large facility," says Abbott. "We bus our kids there to have the old-timers give them tips."

Amid all the activity, Abbott also teaches his students about "wellness lifestyles," including nutrition, the effects of aging, and the specific benefits of exercise. Abbott writes a question on the blackboard every day, and gives out the answer the following day. Students are trained to figure out their heart rates and understand what their goal should be during exercise.

An elective class entitled Advanced Lifetime Sports follows. In the fall, this consists of white-water kayaking (in which students are sometimes bused to the area's rivers), bow-hunter education, and advanced field archery. In the winter, students learn Nordic skiing and snowboarding. The spring unit features climbing on a newly built rock wall (which, for a cost of $4,000, was paid for entirely by renting advertising space to local businesses). The unit also includes fly-fishing and rod building, along with knot- and fly-tying. "We have a nonconsumption permit with the state fish and wildlife department to catch and release fish," says Abbott. "We often get officials from the department to come talk to us about conservation at the same time." Mountain biking is also offered.

The final elective available is Coed Strength and Conditioning, taken by all kinds of students. This is broken down into three sections: hypertrophic lifting, in which students use light weights and many repetitions with many muscles; basic strength training, which involves heavier weights with fewer repetitions; and Olympics-style power lifting.

If popularity is any indication of success, Abbott's approach is a winner. The Strength and Conditioning Class is in such demand that students win a slot only through a randomized computer drawing. Although only one PE class is required, more than half of the student body is taking PE classes at any given point. Students clamor for more. When their mountain is finished this spring, students will have even more opportunities to get hooked for life on sports Idaho offers year-round. ❐

LEVELING THE PLAYING FIELD

Adapted PE brings together kids with and without disabilities

Story and photos by DENISE JARRETT

BEAVERTON, OREGON— "Oh crap!" the sixth-grader mutters. He's guarding third base on the kickball court, and a girl on the opposing team has just kicked the ball high and long. She runs hard and lands on third base. The baseman, Nathan, leans over the arm of his motorized wheelchair and hisses at the girl, who hisses back triumphantly.

The ball's kicked back into play, and Nathan shouts, "Throw it to me! Throw it to me!"

The girl on third runs home, but another is tagged. Three outs. The teams switch places, and Nathan (not his real name) takes his turn at the plate, the footrests of his wheelchair turned back and out of the way. Toes pointing down and leaning forward in his chair, he waits for the pitch. His teammates call from behind.

"Go Nathan!"

"Hey, you want someone to run for you?"

"Nathan, let him run for you."

"No!" Nathan punts the ball and motors to first base.

Any grownup watching from the sidelines might think, now there's a kid with a disability who's just one of the gang. And, of course, that's true. But every child is different, and Nathan's wheelchair makes his differences particularly apparent. Aware of this, everyone playing kickball on the court today is also engaged in a balancing act: treating Nathan like just another team member, yet extending some special treatment to level the playing ground.

At 12 years old, Nathan's a seasoned juggler of both these spheres of his life, say his teachers. Born with arthrogryposis, a condition that causes stiff joints and weak muscles, Nathan's learned to advocate for his independence when he yearns for it, and to accept help when he needs it. And, like any preteen, he might

Sarah Whitman and teacher assistants with students at Beaver Acres Elementary in an adapted physical education program for students with disabilities.

shirk a task now and then, or say a naughty word when the teacher's out of earshot. Mostly, he wants to succeed and to fit in with his peers.

These are also the goals of adapted physical education (APE). In an APE program, students with disabilities participate in a regular PE class, with some adjustments made to meet their needs and abilities. It's one of the latest approaches to providing students with disabilities services that address the needs of the whole child: his social, emotional, educational, and physical well-being.

Social awareness about the needs of people with disabilities emerged in the United States in the 1900s. The World Wars and polio epidemics impelled medical advances in orthopedic treatment. Services to individuals with disabilities grew steadily, and by the 1960s laws were being passed ensuring the education of students with disabilities. Today, the Individuals with Disabilities Education Act (IDEA), Public Law 101-476, mandates free, appropriate public education, including physical education, for students with disabilities. Schools are required to place students with disabilities in environments that are least restrictive to their growth. Sometimes this means placing students in special PE classes where they receive intensive, individualized attention and the use of specialized equipment. Many times, the most suitable placement is in the mainstream class, with some modifications.

Sarah Whitman is Nathan's adapted physical education teacher. On staff at the Beaverton School District in a suburb of Portland, she consults frequently with his regular PE teacher, Susan Fatland, at Mountain View Middle School. Whitman suggests ways that Nathan can stretch and exercise his range of motion while taking part in activities with his able-bodied classmates. Few adaptations are necessary to make the games and activities accessible to him. He does stretching exercises in his chair. In volleyball, he uses a larger beach ball, and, in kickball, he's permitted to "steal" bases. He can't run laps, but he joins the class in turns around the track,

motoring his chair and hooting at those he passes up. When he's parked, the other kids jostle for the handles of his wheelchair, a place of honor.

The physical, emotional, and social development of the child are key considerations of any adapted physical education program, says Whitman. Placing a child in a mainstream PE class can help foster positive self-esteem, social skills, and independence that will serve him into adulthood. Yet some children with severe cognitive or physical disabilities need the intensive and individualized treatment provided by a separate, special physical education class.

At nearby Beaver Acres Elementary, Whitman works with other members of the district's motor development team in an adapted PE class that includes the Movement Opportunity Via Education (MOVE) curriculum. The program uses specialized equipment to enable students to get out of their wheelchairs and into a prone position so that they can work on standing and participate in games. There are about eight children, each attended by a teacher assistant, APE teacher, or physical therapist. Holding the edges of a "parachute" in the gym on a recent day, the children, with the help of their teachers, toss and roll yellow balls on a brightly colored tarp. Several of the children are upright in their specialized equipment, such as mobile prone standers, gait trainers, and tricycles that support and exercise their muscles. Despite the children's restricted mobility, the bouncing balls and billowing tarp excite great fun.

Placing children with disabilities in an appropriate program is a critical aspect of special education, and it's an area most likely to cause parents concern, says Whitman.

"Occasionally, parents want their kids in the regular class with kids their own age," rather than in mixed-age special education classes, says Whitman. "They're afraid their child may regress or pick up bad habits from other kids due to the varying levels of disabilities in a self-contained class."

How can children with disabilities get the attention they need? In what environment will they be most successful? How will their placement affect them emotionally? These are central questions teachers and parents must consider, says Whitman.

For Nathan, being with his able-bodied classmates is right where he wants to be. While he sometimes gets tired of explaining to them why he's in a wheelchair, he enjoys it when they clamor for an illicit ride on the back.

Kids will be kids. □

Sarah Whitman teaches adapted physical education for the Beaverton School District in Oregon.

snapSHOTS

GETTING THE GIRLS TO GROWL

LEWIS AND CLARK MIDDLE SCHOOL

BILLINGS, Montana—Paul Mansingh's eighth-grade PE students fill the computer lab, searching Web sites for information on communicable diseases. Frowning with concentration and emitting oohs and ahs of discovery, they are cutting and pasting facts into reports. Mansingh's class will return several more times to the lab during the year to research health issues or work with educational software programs.

The way Mansingh blends computers with a varied selection of physical activities and an extensive health curriculum, while equalizing participation in the gym, sets his program apart from the garden-variety PE program.

For example, Mansingh noticed that when his classes played basketball, aggressive players would so dominate the game that nonaggressive children scarcely participated. He experimented to alter those dynamics and provide a quality experience for all. Now, he has the kids play two-on-two, three-on-three, or four-on-four, followed by separate boys' and girls' tournaments. "By then," says Mansingh, "we all have a good idea of who is and isn't aggressive. The kids split into two groups along those lines, and they choose. The kids like this. They're relieved, actually. Mostly it's boys who are aggressive and girls that aren't, but not entirely.

"But after awhile," Mansingh continues, "among the nonaggressive kids, leaders emerge. The whole group gets more assertive. When I separate girls and guys in football, I find the girls really get into their own game and start growling and going after the ball. It's great!"

Mansingh's program evenly balances health and physical education, and the curriculum for both halves is extensive. In health education, he starts with a review of body systems and functions, using computer software among other tools. Units on drug awareness; tobacco and alcohol; the mental, physical, and emotional aspects of health; and communicable and noncommunicable diseases follow.

In a mental health unit, the children discuss how to develop a positive self-concept and make decisions, and how to handle stress, verbal attacks, and emotional problems. Mansingh wasn't happy with the worksheets that came with the textbook. "They were too easy," he explains. "Now I ask questions and have students write whole-sentence answers, and they communicate so much more. They gripe, but the material covered is too important to skim over."

In the unit on illegal drug use, as for others, Mansingh works to get group discussion going. "I pass a football around, and only the person holding the football can talk," he says. "We have ground rules. No put-downs. All ideas are valuable. No personal questions. Everything is confidential. They have lots of questions, and they are really open. Sometimes I hear more than I want to, but that's OK. I'm open about myself, too. We've had great discussions."

The fitness of all 160 of Mansingh's eighth-graders is assessed according to the standards developed by the President's Challenge Physical Fitness Program. Students develop fitness goals for themselves and work toward them every day.

In the rest of the time, students move through paddleball, ultimate Frisbee, weight training, capture the flag, touch football, and weight training, in addition to team sports. In the latter half of the year, students bowl and walk, as well as play soccer, flag football, and softball.

The next step at Lewis and Clark will be for all the PE teachers to work together to create a more uniform program. "There are many teachers here with good ideas, doing similar things," Mansingh says, "but currently we each pick what we want to teach from 25 possible objectives, because if you did it all you'd rush through important information. We're working now on a process whereby we agree on which are the most important, and all work on the same 12."

Meanwhile, Mansingh, who has been teaching for only six years, continues to listen and watch his students for clues for how better to help them become healthier, more active people. "I demand a lot from them," he says. "I tell my kids, if you get an A in my class, you know you've done really excellent work." □

Dance Like a Caterpillar

Movement is a big part of learning for little kids

Christopher Robin goes hoppity, hoppity, hoppity, hoppity hop.
Whenever I tell him politely to stop it, he says he can't possibly stop.
—A.A. Milne

By CATHERINE PAGLIN

PORTLAND, Oregon— Amidst the general hubbub of a preschool classroom, a little boy sits on a child's rocking chair. While other kids dabble in sand, play concentration, or clip coupons for an imaginary store, the four-year-old boy rocks back and forth, slowly, deliberately. Then he lets go of the armrests in a brief "Look Ma, no hands!" gesture while the chair rocks full tilt. Finally, he grasps the armrests again, stands up, and marches in a small circle, holding the chair to his bottom.

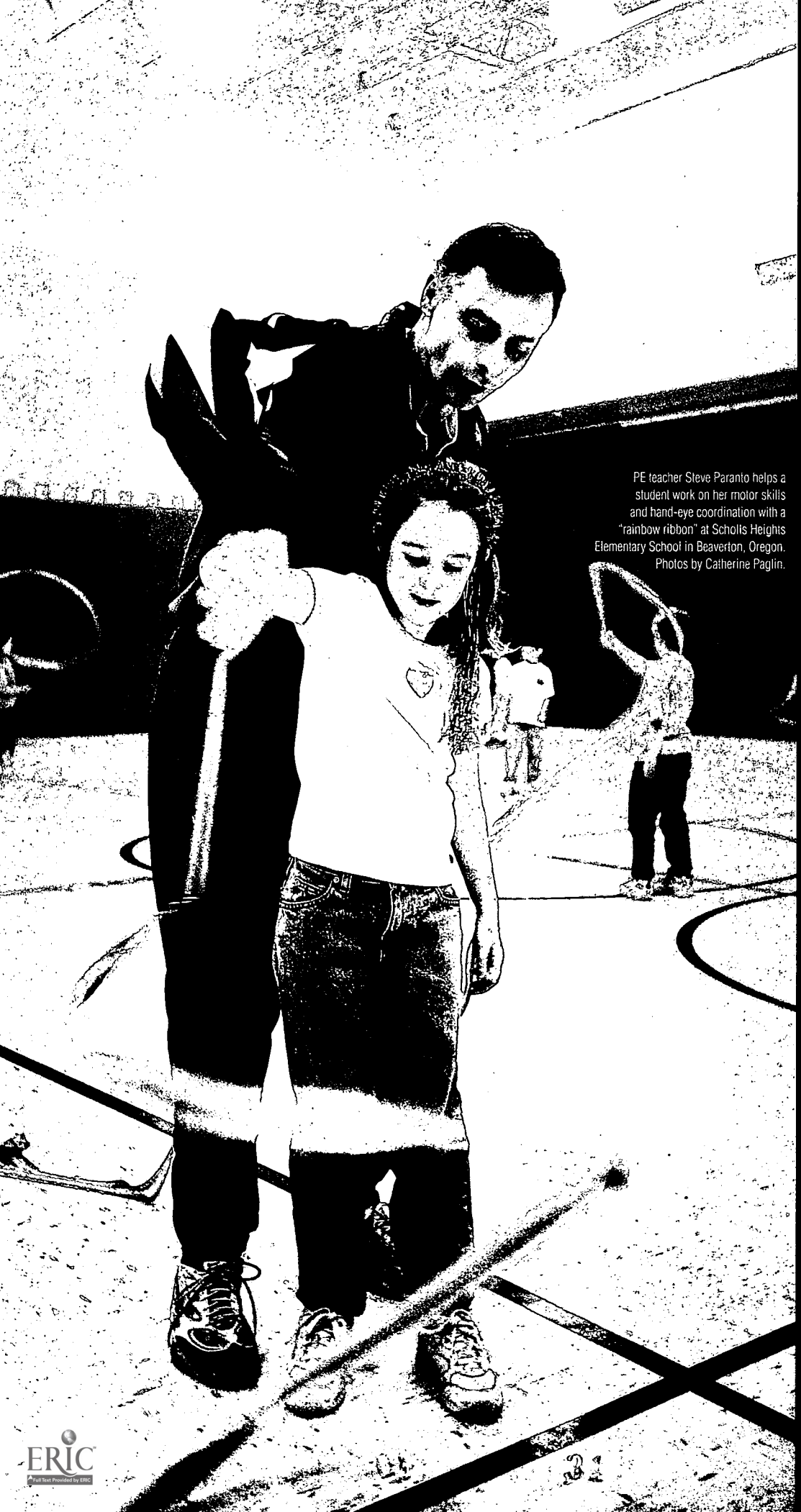
Whether it's free play outside, dance and exercise in the gym, or just times when kids can roam from activity to activity, a developmentally appropriate classroom gives young children many opportunities for movement. "At this age their bodies need to move," says Kelly Petrin, the teacher in this Portland Public Schools Head Start class. "It's normal and it's something they're supposed to do."

Movement is essential to the physical and cognitive development of preschoolers, says the American Academy of Pediatrics. It's the way they explore the world. In the years before kindergarten most children master basic motor skills such as jumping, hopping, and skipping, though there is much individual variation in development. Movement experiences—in addition to stories, songs, games, puzzles, blocks, dramatic play, finger-painting, and all manner of other stimulating activities and materials—are a critical part of early childhood education. Beyond preschool, young children can learn to play games with rules and master more difficult activities —such as bike riding, jumping rope, and hopscotch—that will give them enjoyment and boost their self-esteem.

Formerly, young children got much of their physical activity in unstructured ways: running around the neighborhood, climbing trees, playing informal games in the street. Ironically, while educators and health professionals tout the health benefits of fitness, and even the importance of movement in brain development (see the sidebar on Page 30), children today have less freedom of movement than ever. Sue Bredekamp, Director of Research at the Council for Professional Recognition, and a consultant to the federal Head Start Bureau, cites three contributing factors: heightened awareness of the need to protect children, heightened litigiousness, and heightened awareness of young children's intellectual capacities which makes it more likely that caregivers will place them in front of a computer.

These societal trends play out differently in different places. Petrin knows that some of her Head Start pupils are confined to small apartments and have no yard to play in. Ironically, others, lacking adequate adult supervision, may become more physically capable because they roam free. Steve Paranto, a PE teacher in the middle-class suburb of Beaverton, Oregon, sees something else: "I've noticed some kids are more active than kids were 20 years ago because their parents have them signed up for every little thing, but it's all organized. And then there's the other extreme of kids who do nothing because they're doing computers and video games and TV. So we have two extremes that we didn't have before."

Because of these social changes, it's all the more important for kids to move vigorously and learn motor skills at school or in child care. At a time when many babies and toddlers spend hours in car seats, strollers, and other restrictive devices, Oregon Migrant Head Start makes freedom of movement a cornerstone of its classroom design around the state. "In our infant classrooms, we don't allow any confining props—no motorized swings or infant seats that would restrain a child's movement," says Jeanne McNassar, education specialist with the Oregon Child Development Coalition which runs the program. Infants are placed on a blanket with stimulating materials, such as a mobile, within reach. If children are learning to crawl or creep, the teacher will place a toy a few feet in front of them so that they're encouraged to move forward. When children become mobile, they're supplied with equipment —such as ramps, slides, and bars in front of mirrors—to crawl up or for "cruising" (holding on to objects in order to walk). At every stage, teachers are encouraged



PE teacher Steve Paranto helps a student work on her motor skills and hand-eye coordination with a "rainbow ribbon" at Scholls Heights Elementary School in Beaverton, Oregon. Photos by Catherine Paglin.

to support children's current developmental challenges instead of, for instance, forcing them to attempt walking before they are ready.

Opportunities for movement are many and varied for the preschoolers in the Portland Public Schools Head Start program. The four- and five-year-olds in Petrin's class go outside as much as possible where they can play on ladders, slides, and swings, drive wheel toys and kick balls, or play follow the leader. They use balance boards, balance beams, and bean bags. In the gym they might move to music or rhythm. They might dance or do movements such as twirling and skipping, move like different kinds of animals, or practice stopping and starting on a signal. "Jingle, jingle, jingle jive, Walk while I count to five," chants Petrin. "One, two, three, four, five." Then she varies the chant, directing the kids to walk backward, run, jump, crawl, walk sideways, skip, hop on one foot, twirl, gallop, and move like

a tall giraffe, a low snake, a big elephant, and a small mouse. "We try to give them a lot of experiences with different music rhythms, music from different cultures, different ways of movement, and all the different equipment so that they're getting new experiences," says Petrin.

As Petrin chants, some children do the movements smoothly. Others are awkward and have difficulty walking backward and sideways. But Petrin doesn't correct them. "For me to go up and say, 'No, you're not doing it right,' would be inappropriate," she says. "What we really try to do is give them the opportunity and encourage them to move toward the goal, but not expect them to get it immediately."

Three times a year, in order to target instruction, she and the other teachers in the program assess each child's general coordination and whether they are "careful enough, careless, or overly cautious" in how they move. They're assessed on walking on three different sizes of balance beams, jumping over lines and off a chair, running, hopping, galloping, skipping, walking up and down stairs, and throwing and catching.

If Petrin finds that a child has difficulty with a particular skill, such as balance, she'll include more activities such as standing on one foot during the daily 20-minute gross motor period, or during group games such as Simon says. "In our program we try to allow children to leave here without those kinds of deficits," she says. She'll suggest to parents of kids who are lagging behind their agemates that they do more of certain activities with their child such as walking on curbs or skipping together.

Though most preschoolers will eventually learn the basic motor skills whether or not they have adult support and instruction, movement education has physical, social and academic benefits. "When you have skill-building along with physical development, the child gains increased competence and confidence," says Bredekamp. Later, with additional adult support, that child is more easily able to learn more complicated skills such as riding a bike or skiing, she says. Petrin notes that "when children get into elementary school, being a little more physically capable actually helps them socially, too. They're able to take part in the games and have fun and not be the one who's the outcast because they're just too clumsy to follow along." In the cognitive realm, movement activities can help preschoolers learn body parts and understand abstract, spatial concepts such as up and down, backward, forward, and sideways, and over and under. Psychologist Howard Gardner, author of *Multiple Intelligences,* even posits the existence of a "bodily kinesthetic intelligence"—the ability to solve problems and express ideas with the body, as do dancers and athletes.

The benefits of movement continue in the primary grades. "Children who are physically fit do better academically in general," says Carl Gabbard, professor of motor development at Texas A&M University. "They have the energy to concentrate and carry out work." And, he says, there's good evidence that when movement activities are used to reinforce academic concepts, "children are enthusiastic and tend to remember and retain the information."

That enthusiasm is readily apparent when first-graders at Scholls Heights Elementary School burst into the gym where Paranto is brandishing a "rainbow ribbon"—a multicolored streamer attached to a plastic stick. "What are these?" asks Paranto, pointing to drawings of a triangle, a square, and a circle, set up on cones. The kids call out the answers in chorus. He instructs them to trace all those shapes in the air with their ribbons, and then do the alphabet. "After you do the alphabet," he tells them, "you can do some fun things like figure eight, tornado, rattlesnake, windshield wiper." As he talks, he demonstrates these motions to the children's delight. "I bet you can make up some of your own."

"This is going to be *so* hard," a boy says gleefully. The kids rush into the activity, flourishing their ribbons, some of them consulting the drawings as they do so.

"Now they can really feel the shape," says Paranto. "In the classroom, sometimes little kids will write in sand. It's the same thing. It's kinesthetic, but in a different way."

"ABC . . . D!" says the boy, drawing his "D" in the air. Then he has to stop and retrace his steps mentally. "ABCD . . . E!"

When the kids have made their way through the alphabet Paranto steps up the pace. "Now we're going to move just to be moving," he says, flipping on a song with a strong beat. "When you turn music on kids start hopping around, using a lot more energy," he says as the rainbow ribbons wave and twirl against the mauve background of the gym walls.

Paranto's PE lessons touch on many "classroom" concepts—clockwise and counterclockwise, less than and more than, halving and doubling. "I listen at the staff meetings to find out what they're working on," Paranto explains. "They may be talking about how important it is for the kids to understand

Above, top: A "scooter board" exercise blends math concepts with motor and safety skills when teacher Paranto narrows the available scooter space from half the gym to a quarter of the gym, and so on.

Above, bottom: Kids learn some relationship and physics concepts when they experiment with making a parachute bigger and smaller by trapping air inside.

what a pattern is, and then I think, How can I incorporate that into my lessons? How can I at least get the word 'patterns' into my lessons?—because that's a step forward right there. Physical education is important enough to stand all on its own, but there are just some perfect places to make connections with the classroom. If the classrooms are studying a country you can do a dance from that country, you can do games from that country. It's so easy to get math involved in PE. And science, because you're propelling an object some of the time."

Paranto's colleague, Rick Knight at Hiteon Elementary in Beaverton, also incorporates literacy and math activities in his class. His young students bend their bodies into the shapes of the letters of the alphabet and apply math in games such as bingo bowling. In bingo bowling the students roll rubber bowling balls to knock down plastic pins, count the number of pins knocked down, and then mark off the number on a bingo sheet. Depending on their math skills, if the number is no longer available on the sheet, they can mark off two numbers that when added together or subtracted from each other equal the number of pins knocked down.

On a more basic level, Mike Barber, a Portland Public Schools special education teacher, uses

A CAUTIONARY NOTE ON BRAIN RESEARCH

In recent years, news about the brain has been all over the popular press and education journals. Brain fever has spread through the ranks of educators, early childhood advocates, and those with a sales pitch. We've heard a lot about brain plasticity, dendrites, neural connections, and "brain-based learning."

Some have asserted that brain research supports playing Mozart to babies, increasing funding for early childhood programs, using particular teaching strategies or curricula, or timing certain learning experiences around "windows of opportunity" when the brain is most receptive to them. Assertions like these are pinned on research findings such the following: the density of synapses (connections between neurons which create pathways in the brain) is highest around age three or four and begins to decline around age nine: the left and right hemispheres of the brain process different types of tasks; and "enriched" environments early in life stimulate the formation of synapses, improving the ability to do certain tasks.

But there's disagreement over what the research implies about teaching, learning, and public policy. Early movement experiences, for instance, help wire the brain for motor control. And, like other experiences they may stimulate the young brain to produce more synapses. Does this mean that children who have better body balance will learn math more easily? as the owner of a children's fitness center stated in *U.S. News & World Report*. Does this mean that there are specific exercises that at any age can "develop the brain's neural pathways," and "integrate the brain's deeper structures" and thereby "bring about rapid and often dramatic improvements in concentration, memory, reading, writing, organizing, listening, physical coordination, and more," as one trademarked training program claims.

"I see a lot of dramatic kinds of marketing because of brain research." says Carl Gabbard, Professor of Motor Development at Texas A& M University and past President of the National Association for Sport and Physical Education, who is skeptical of such extreme claims. Physical activity is indeed good for brain development but the effect is general rather than specific, he explains. General physical activity stimulates brain development because it supplies the brain with glucose, its main energy source. However, "[A]t this point it is still quite unclear as to the specific types and amounts of experience necessary to stimulate the formation of particular neural connections," he cautions in an article in the *Journal of Physical Education, Recreation & Dance.*

—Catherine Paglin

movement to unlock verbal abilities of his emotionally disturbed kindergartners. "This population has high energy," says Barber. "I like to give them experiences that are unique, and big, and match their energy. Dance offers the opportunity to experience things they can't in other ways."

In addition to other dance and movement activities, Barber, who is a member of the Portland-based aerial dance company, Aero Betty, introduces his students to the trapeze which is "full of metaphors of flight and escape and freedom. "We start with yoga class and do stretching on the floor and then we do a very safe and structured introduction to the trapeze where they learn about circles, swings, shapes. During trapeze there's lots of language: 'How does this feel? What are you doing? Can you describe the feeling of the circle or swinging?' Giving them a visceral experience like that and then asking them to describe it is just having them practice using language appropriately —language that describes and expresses."

POKER-CHIP DODGE BALL

Since young children's minds and bodies differ from those of bigger kids, their activities, rules, and equipment need to be modified accordingly. Complicated rules and competitive play don't work for preschoolers, says Petrin. "We just play and move bodies," she says. "Everybody plays together. But playing by a whole lot of rules—other than the rules to keep you safe—is really not appropriate for four-year-olds." Both Petrin and Paranto avoid elimination games and others in which too many students spend too much time doing nothing. "A favorite one at this age level for a lot of people is Duck, Duck, Goose," says Petrin, referring to a game in which kids sit in a circle and one—the duck—chooses another—the goose—to chase him around the circle until he reaches the goose's place, whereupon the goose becomes the new duck. "I don't like that game and I never play it in my classroom. Most of the kids are just sitting most of the time so I don't consider it physical activity."

Paranto has modified both the equipment and rules for dodge ball so that it's a far cry from the traditional, aggressive melee in which the object is to get one's opponents out by hitting them as hard as possible with a playground ball. "If this was done with the wrong ball, it would not be fun for a lot of kids," says Paranto. "I see schools doing that and then you see articles saying dodge ball's a bad thing. Yeah, you did it with the wrong equipment and it hurt." In his version—poker-chip dodge ball—the kids throw soft, squishy balls at each other and no one is ever out. If a child is hit by one of the soft balls and doesn't catch it, he just grabs a poker chip from a container and puts it in his team's bucket. The team with fewer poker chips wins.

When first-graders at Scholls Heights play dodge ball with the softer balls, they're laughing and concentrating on throwing and catching, instead of cowering in fear of the strongest players. After the game, it's time to count up the poker chips with the help of Paranto's ventriloquist's dummy, Kenny.

"We're going to count them up," says Paranto to Kenny, who's dressed in a white shirt, bright blue pants, and spectacles. "The team that has the most in this game is actually not the winning team."

"How come?" asks Kenny in a squeaky, nasal voice.

"Because they got hit more than the other team," Paranto explains to the dummy. "The team that has 'less than' wins."

"Oh, less than," squeaks Kenny, knowingly.

"Do you guys know the sign for that?" Paranto asks the kids, who draw the "less than" sign in the air with their fingers.

After Paranto, Kenny, and a student count up the chips (one batch by twos and one batch by fives) the kids shout and wave as the teacher returns Kenny to the back room. "Good-bye Kenny, good-bye Kenny!"

For the primary grades Paranto focuses on dance and rhythm, games with simplified rules, cooperative group activities, and skills such as juggling, jumping rope, and unicycling. Kids can be successful at activities like these, regardless of their skeletal size or physical maturation, which can vary by as much as six years among eight-year-olds, according to experts. "When you introduce an activity, there's so many levels that each child can perform that activity," says Paranto. "If we were jumping rope, at a very beginner level they're going to have the rope lying on the ground. They're just jumping over it. The next step is both handles are in one hand and they're turning the rope and jumping over it. They can't miss. The next level would be one turn at a time. The next level is continuous jumping. In one class of, say, third-graders, you're going to see all of those. You're going to have the low end jumping over the rope and you'll have the high end doing double unders."

When teaching fitness activities, Paranto stresses that fitness is about working out at your own level. Fitness activities are structured to allow for individual differences. "Back in the older days we had kids running the mile and being last and they felt

bad," he says. Today, with a second-grade class, Paranto turns on two tape machines, one with music, one with beeps that gradually get closer together. The kids run the width of the gym, then wait for the beep before running back. If they lag behind the beep three times, Paranto tells them, they are to walk clockwise around the gym's outer edge. "Remember, we're learning how to pace ourselves so we save our energy," he says.

"You got to make sure they know, hey, that's natural, everybody develops at a different rate. Kids learn skills at different rates too. Like Yuka's riding the unicycle. Other kids aren't doing that right now. Maybe she can learn in five hours. Maybe for me it's 18 hours."

WAVING THEIR WINGS

With each activity or technique Paranto introduces, he describes it, he demonstrates it, and then the children enact it. In this way, three different instructional techniques and learning styles—auditory, visual, and kinesthetic—reinforce each other. The emphasis, though, is on the kinesthetic.

This multifaceted approach is also evident in the preschool, not only in the gym, but in the class- when Petrin reads *The Very Hungry Caterpillar* by Eric Carle. Before she reads she hands out tiny, stuffed cloth versions of the insatiable caterpillar and all the things he ate—strawberries, apples, plums, and more. The children listen quietly, getting up when it's their turn to stick one of the Velcroed images to a felt board. When Petrin's finished reading, she says, "Let's make our bodies pretend they're the different parts," and guides the children once again through the transformation from egg to caterpillar to cocoon to butterfly.

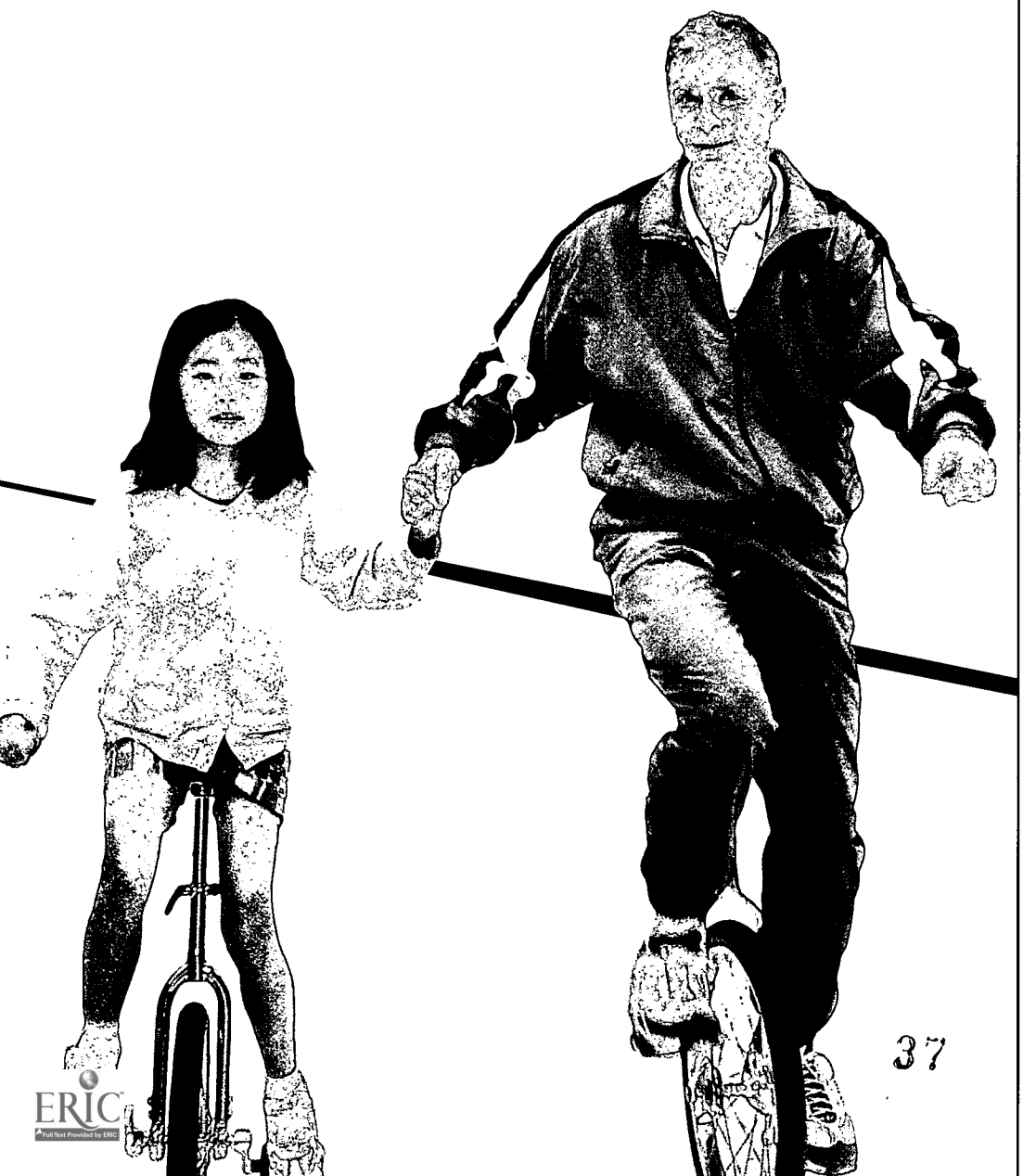
Clearly, her students understand the story with every ounce of their small bodies. "What was he doing while he was crawling around?" she asks the 13 four- and five-year-old caterpillars who are twisting and wriggling, either on their tummies or as they walk around.

"He was founding food!" cries a girl.

"Yes, he was finding food, so you can eat while you're crawling around," Petrin responds. The children open and shut their jaws as they pretend to eat all the foods they like until they're big and fat and turn into cocoons. Then, at Petrin's urging, they hold still, crouched and balled up, for a very long time. "We have to wait for more than two weeks," says

Steve Paranto's students work on fine and gross motor skills, balance, and hand-eye coordination with a wide range of activities such as juggling (opposite page, top) and unicycling (this page).
Teacher Kelly Petrin of the Portland Public Schools Head Start program leads her preschoolers through an interpretive dance exercise in which the students pretend to be caterpillars emerging as butterflies.
"Two students not only build motor skills, they also learn about patterns when they build pyramids with cup stackers."

Petrin. Then it's time to take a tiny bite of the cocoon and push out. "Ooo, ooo," the children coo quietly, as they step lightly and wave their big wings. □



snapSHOTS

BEING BACON

MCDONALD ELEMENTARY SCHOOL

MOSCOW, Idaho—"OK, class, let's dance like bacon in a frying pan," says Amy Thompson, movement specialist at McDonald Elementary School. "You're lying there, just getting warmer and it feels good."

Twenty-three first-graders sprawling on the gym floor wiggle meditatively, dreamy smiles playing on their lips.

"It's warmer now," says Thompson. "Ooh, you're getting hot! You're about to be crispy!"

As if they have springs in their legs, the children hop up, trying to keep off the imaginary skillet. They are dancing now, absorbed by the challenge of *being* bacon.

Thompson laughs. "When new kids arrive here, they just don't get it. They say, 'Tell me what to do.' But I stress creativity from the beginning, from kindergarten. What they come up with is amazing."

McDonald students have 45 minutes of PE or movement every day, and often Thompson has her fourth-, fifth- or sixth-graders spend a half-hour of that time choreographing a dance that they present to the class at the period's end. She finds that boys are often resistant at first, but not for long. "Then they thrive," she reports. "They want to choreograph as often as the girls, and they do some incredibly athletic moves."

In kindergarten, Thompson has children work on body control and traveling through space making, for example, curvy or zigzag lines. In first through third grades, they do more explorative, unregimented movement. "We do a lot with the weather," Thompson says. "I'll say, 'Make your body look like it's in a storm.' Or we do vegetables. I'll have them be a carrot growing, or a salad. There's no right or wrong, but they're engaged, moving. By fourth through sixth grade, I move into real dance steps, like line dancing, hip-hop, folk dance, maybe swing. The right music is crucial."

Thompson did not always have this approach. There was nothing like this at McDonald seven years ago when she arrived. But the school has a strong arts component, and Principal Laurie Austin, a former PE teacher herself, backed Thompson's approach to fitness. "I did a ton of reading and got to know the kids," Thompson says. "Over time this is what I've found that works."

"Amy develops the right side of the brain," Austin says. "It's so creative and dramatic—and innovative—that it really connects to the students."

The sports and fitness classes Dan Peterson teaches complement Thompson's movement work. He stresses cooperation rather than repetition of skills or drill practices. "I use sports as vehicles to understand teamwork, with fitness woven in," says Peterson. He makes sure that the pitfalls of sports instruction as offered in the past are avoided. "For example, when we start on skills that lead to tennis, I have two kids work together, but only one has a racquet. The other tosses the ball for the first to hit. Instead of two of them bashing the ball around competitively—and missing, they work together focused on improving their skills, developing self-esteem along the way."

The school has a climbing wall, and the approach there is also cooperative. "Many children don't have upper-body strength to support themselves on our wall, which has only handholds. But they can travel some distance if another child helps by holding their ankles." The wall has only handholds because Peterson is finding that many of today's children need to build upper-body strength.

At other times, Peterson's classes look similar to Amy Thompson's. Peterson sets up a maze of colorful six-inch markers and puts on a tape by legendary soul musician Wilson Pickett. Students gallop and skip through the maze to the music. Then Peterson connects the markers with wands, making them into hurdles, and the kids explode over the jumps with glee. "They're getting a good workout," says Peterson, "but they just think they're having fun."

Back in Thompson's room, a third-grade class is discussing what to represent next. Giraffe? Washing machine? They decide on a bulldozer, and with no help from Thompson they quickly assemble themselves into a hooked shape that will grind its gears and scoop vigorously. The student who has waited outside will come in and guess what her classmates have become. They, too, think they're just having fun. ❑

PRESCHOOL ISN'T TOO YOUNG TO START

WILLARD L. BOWMAN ELEMENTARY SCHOOL

ANCHORAGE, Alaska—Kim Rampmeyer's preschoolers at Willard Bowman Elementary School are playing a favorite game: Alaska Highway. On their little "cars" (scooters), they pull or push themselves around "road kill" (a rubber chicken) and through a "tunnel" (a nylon parachute). At a make-believe car wash, paper streamers hanging from a row of track hurdles tickle the kids as they scoot through, and a fan blows off the imaginary water.

Twenty-five percent of Rampmeyer's students have physical, mental, or sensory disabilities. That doesn't stop her from including them as fully as possible. "We have one little boy in a wheelchair, who has a tracheotomy and a feeding tube. He communicates by blinking and uses one hand to move his chair," Rampmeyer says. "But he always comes on Thursday because it's PE. He loves it. When we play Alaska Highway, we lift the parachute and the car wash streamers above him. When we do kicking, we help him move his foot to kick a 48-inch beach ball."

Physical education is hardly routine for preschoolers, let alone for those with disabilities. When Rampmeyer started at Bowman, she had no idea that she would be pioneering the development of curriculum for both. But when she was asked, she dove in. "I had no training in adapted PE, special education, or early childhood," Rampmeyer recalls. "I searched for curriculum that would promote large-muscle development and increase motor skills. Everything I found was based on imaginative play or one-to-one physical therapy situations. I observed the children in their classrooms and discussed specific disabilities with physical therapists. I learned. Now I make lessons for the more able kids and adapt them for the others."

The preschoolers work on gross motor skills by jogging or doing animal walks down a wide black line. By simulating tires, they do modified pushups. "We pump up as if we were a flat tire, then we have a blow out or a slow leak, and try again," Rampmeyer says. Preschoolers also do modified sit-ups, twirl hula hoops around their tummies, practice kicking and striking, and explore some basic climbing and balancing skills. Because many disabled kids have been carried by parents and isolated from nondisabled peers, they've had fewer chances to develop physical skills. For autistic or "globally delayed" kids, especially, the kinds of activities Rampmeyer provides are crucial to proper development.

Rampmeyer's older students engage in activities, albeit on a rudimentary level, more often associated with much older youth: orienteering, inline and ice skating, cross-country skiing, juggling, and snowshoeing. The district's goals include getting kids started on learning lifetime fitness skills. Rampmeyer's work shows that the elementary years are not too young to start. She is especially pleased to have encouraged snowshoeing. "We have so much winter here," she says. "People are stuck inside being inactive for so long. But with snowshoes you can get out." Rampmeyer handed out information about snowshoes before Christmas last year, and many parents bought them as presents for their kids.

To raise grant money to purchase skis for the third through sixth grade, Rampmeyer had to make a convincing case that skiing could be made to enhance coursework in math. She did. "We can measure how far we go, our stride lengths, etcetera, and combine skiing with orienteering and map work," she says.

Rampmeyer's students are extraordinarily well behaved, and this is no accident. Rampmeyer uses Don Hellison's Levels of Behavior to make explicit to kids what is expected of them, from unacceptable behaviors (hitting, pushing, leaving without permission) to generous (showing concern for others, giving genuine compliments). Kids assess their own behavior accordingly every day. This approach has been judged a success by parents and other teachers alike.

Independence is encouraged in Bowman students, too. Entering the gym, they read warm-up directions on the door and begin on their own. Each student has a choice of equipment for many activities, and their choices become "theirs" for the duration. And they frequently have opportunities to create their own games and dances, which they show to their classmates.

Rampmeyer's work has long been recognized by grateful parents, but last year she received wider acknowledgement. After a rigorous selection process, Rampmeyer was named by the Council on Physical Education for Children (COPEC), a division of NASPE, to the prestigious position of representing all elementary physical education teachers from Washington, Idaho, Montana, Oregon, and Alaska. □

Saving PE: The Oregon Story

THE PENDULUM OF SUPPORT FOR GYM CLASS HAS SWUNG FROM ONE EXTREME TO ANOTHER, AND IS SWINGING YET AGAIN

By JUDY BLANKENSHIP

PORTLAND, Oregon— On this sunny April afternoon, 16 kindergartners at Glencoe Elementary are running 400-yard laps around the grassy, tree-lined track behind the school. To keep the five-year-olds moving and "out of trouble," PE teacher Jim Anstine walks the track counterclockwise, greeting each child by name and holding up his hand for a high five as they run by.

"That's good, Lucy, keep going," he urges a dark-haired girl who's dawdling along. To an observer, he reminisces, "I taught her mother as a fifth-grader."

"Higher, Mr. A, higher!" a boy yells. Rushing right at Anstine, the boy executes a "hoop jump" as he sails by.

With wiry gray hair and lively eyes behind tinted glasses, Mr. A, as everyone calls Anstine, has taught for nearly two decades at Glencoe, a pretty, mission-style school of 500 kids on Portland's inner-southeast side. But there was a time 10 years ago when his job looked like anything but a sure bet.

"I was a full-time PE specialist at the time of Measure 5," Anstine says, referring to the property-tax limitation law Oregonians passed in 1990 that radically cut funding to the state's 246 school districts. "I felt stressed like all of our specialists did, and I started preparing for an elementary classroom teaching position by going back to school. "

Anstine was lucky. With strong support for PE at Glencoe, he kept his post. But many of his PE colleagues were not so fortunate. In the rural town of Mollala in Oregon's wet Willamette Valley, Susan Fatland —another longtime veteran of the field—tells a very different story. In 1995, when the district was forced by Measure 5 to lay off all but two K-8 PE teachers, Fatland was among those who lost their jobs. She settled into a sales position at Nordstrom.

But the following spring, her principal asked her to come back. Mollala had reconfigured the district to create an 800-student middle school, with positions for four PE teachers. "When I asked if it was a sure thing, he said, 'Oh yes, we're going to go forward.'"

So back to Mollala she went. Things were looking good—until spring rolled around again. "The principal called us in and said, 'I hate to do this, but budget cuts force us to lay off the entire department.'

"I was devastated."

She began a series of part-time PE jobs, moving from school to school around the region. Slowly, she worked her way back up to the 0.8 position she now holds at Mountain View Middle School in Beaverton. But for Fatland and hundreds of her PE colleagues in Oregon, the professional landscape had changed forever.

Ballot Measure 5, passed by Oregon voters in November 1990, is only the most visible assault to physical education in the state. Over the past 30 years, PE in Oregon has lost ground to a number of other factors, both fiscal and philosophical. The biggest hits have come from the back-to-basics movement of the 1970s and the standards movement of the 1990s. Both movements zeroed in on academic subjects. Other subjects—art, drama, music, PE—got stalled on the sidelines.

"I don't think it was just Measure 5," says Barbara Cusimano, Associate Professor of Exercise and Sports Science at Oregon State University. "Educational reform hit about the same time as the budget cuts. Schools were being asking to do more but with less funding, and school administrators had to face difficult choices." School administrators, stuck between growing demands and diminishing resources, reasoned that they should direct resources to those areas where the state is holding them accountable, Cusimano notes.

Finally, though, gym class is regaining lost ground in Oregon. New research on kids' abysmal fitness has in part fueled that reversal. The tenacious efforts of dedicated PE proponents have also helped sway opinion. The public and policymakers are once again seeing the need for kids to sweat at school.

SLASHING BUDGETS

While Measure 5 is not alone to blame for Oregon's PE woes, it is a major culprit. The infamous ballot measure dramatically changed how the state's schools are funded. The law capped local property taxes and required the state to make up the lost revenue. For the first couple of years, state coffers and local cash re-

A grant from the city of Portland helps support after-school activities such as kung fu and the Twirl Club at Glencoe Elementary.

serves were able to cushion the effect of the new law. But by school year 1992-93, massive teacher layoffs began. Shock waves were felt around the state as athletic and activities budgets were slashed, and PE was scaled back or cut altogether

The cuts hit a flash point in March 1996, when Portland, the state's largest district, announced it would be forced to eliminate about 500 jobs and cut 15 special programs. At the same time that Measure 5 went into effect, the state instituted a new formula to close the revenue gap between districts and equalize per-pupil spending statewide. While some rural, low-spending districts saw their funding increase by up to 25 percent, Portland's school budget shrunk by about $50 million in the six years after Measure 5. By 1996 the district was spending 21 percent less on each student. For every 1,000 students studying art, music, or drama, there were just two teachers. For those interested in fitness, sports, and physical education, there were sometimes no teachers at all.

"We've cut all the fat out," Parkrose Superintendent Jacki Bottingim told *The Oregonian* newspaper in March 1996. "Then we cut the meat to the bone. The only thing left is the heart."

Ironically, Oregon's economy was booming with an influx of high-tech

A dedicated jump roper polishes her skills at an after-school jump rope club. Photos by Rick Rappaport.

industries, and in June 1991 the state Legislature had overwhelmingly passed the most ambitious school-reform plan in the nation.

The Oregon Educational Reform Act for the 21st Century—with the ambitious goal of creating "the best educated and best prepared workforce in America by the year 2000 and equal to any in the world by 2010"—raised academic standards for high school students in English, math, science, and social studies. PE was not among the subjects required for the certificates of mastery high school students were expected to earn.

DECADES OF DECLINE

PE teacher Don Zehrung has been around long enough to remember when PE held a solid position in Oregon schools. "Fifteen years before the passage of Ballot Measure 5, the job situation was a lot better," he reports. "PE may not have been on a level playing field with core curriculum subjects, but it was still recognized as an integral part of the school day. Back then kids had PE every day, just as they had math and language arts," Zehrung says.

Another long-time Oregon teacher, Diana Boyte, recalls a richness of courses available to high school students 30 years ago that is almost unbelievable in today's bare-bones environment.

"Every high school student took two years of PE," says Boyte, who retired last spring after a long career

in the Portland-area suburb of Beaverton. "Beyond the required personal fitness class, a student could elect five other PE courses, which included summer fishing, winter fishing, archery, tennis, and golf, as well as all the traditional team sports."

Summer fishing? Golf? This dream world of PE courses available to some Oregon students, albeit those who lived in well-funded districts such as Beaverton, was too good to last. "Years before Measure 5 the state made the decision to cut back PE and add other academic requirements for graduation," recalls Boyte. "The PE requirement for high school students dropped to one year, though it was still offered as an elective."

Zehrung offers an additional explanation for the trend away from sports and fitness. "In 1969, back when I was a student at Portland State University, *Time* and *Newsweek* ran simultaneous cover stories on "Why Johnny Can't Read." The back-to-basics trend was already beginning, but I think those two stories gave it tremendous momentum. It marked the beginning of an emphasis on academics and the decline of 'extras' such as PE, music, and art."

In the next two decades the message became loud and clear: gym isn't important. Budgets were cut, facilities fell into disrepair, and teaching positions were lost, despite the 1987 recommendation from Congress that all schoolchildren have daily, high-quality, physical education from kindergarten through high school. By 1995 just 25 percent of the nation's students attended a daily phys ed class, down from 42 percent in 1991.

No one can say for sure when the pendulum began to swing back in favor of PE. But the 1996 *Surgeon General's Report on Physical Activity and Health,* which portrays a nation of kids out of shape and overweight, clearly jolted the nation into taking a second look at physical education.

SWEATING BULLETS

After two laps around the track, Anstine's kindergartners work their way through a playground obstacle course and then, without pausing, run into the gym to practice jump rope. As they dash from one end of the gym to the other, some five-year-olds can only flail the rope above their heads. Others expertly skip over the rope every time. "Very few kindergartners can jump in the beginning of the year," says Anstine, "but by the end of the year, 50 to 60 percent know how to jump rope. The girls seem to be better at this than the boys," he adds.

Some PE specialists, like Jim Anstine, survived by being innovative teachers and making themselves indispensable to their school communities. Described as the "heart of the school" when he won a teaching award last year from the Portland Public Schools Foundation, Anstine organizes an annual, schoolwide Run for the Arts event that this year raised more than $20,000 for "extras" such as arts performances and artists' residencies. In addition to teaching six PE classes a day, Anstine has taken on noontime duties on the playground, where he keeps kids working on their PE skills. He runs intramural sports for children who arrive early in morning, and he directs a popular after-school track and field program for the Portland Parks and Recreation Department.

"PE has always been a priority at Glencoe," says Bob Tongue, PTA president and the father of a third-grader, "and Mr. A is such an important part of the program that we've always found a way to fund his position. He's one full-time staff member but we probably get one-and-a-half to two times the work from him. That's a real bonus."

Other teachers took a different approach.

Emily Foster is just a few months into her new job as PE coordinator at Portland Public Schools—a position that fell under the Measure 5 axe, and was reinstated last spring. As if to caution that while PE may have a toehold but has not yet made a solid comeback, Foster's position is classified as half-time TOSA: teacher on special assignment for the district. A physical education specialist at Sabin Elementary School in Portland for 18 years, Foster, a tall, striking woman in her early 50s, was encouraged to take her new job by those who watched her proactive approach to the cutbacks of Measure 5, and her tireless efforts to professionalize and strengthen PE curriculum in Portland's schools.

"Around the time of Ballot Measure 5, I remember (former Portland Superintendent) Dr. Bierwirth and the school board saying they were going to cut all PE and music. For a few days I just cried. I could not imagine what I would do. After a week of not sleeping and going through a real bad time, I decided to do two things: I would go back to school to get my classroom endorsement, and I would start advocating."

Foster called every PE teacher she knew in the district. She asked them to urge parents and kids to write letters to the school board, the legislature, and the media. More than 90 parents and children sent letters. "We packed four different board meetings," Foster remembers. "We had doctors come and speak about the importance of physical activity. I called Bill Bowerman, the famous coach at University of Oregon, and

when he heard the situation he said 'I'll be right up.' In the end, the board was inundated."

Among the letters was one from Foster's mother, Toby McDonell. A retired professor of physical education at the University of Puget Sound, McDonnell reminded Bierwirth and the board that her daughter was Oregon's PE Teacher of the Year in 1993, and suggested that if they had ever attended one of her daughter's annual jelly-bean field days at Sabin Elementary—where 700 students win jelly beans as they participate in skill stations—they wouldn't dream of cutting PE out of the elementary curriculum.

The efforts of Foster, her colleagues, students, parents, and grandparents had an immediate pay-off. The Portland school board decided not to completely cut PE from the curriculum. But the inevitable staff and program reductions meant some teachers had to divide their time between two or more schools. Others took on classroom responsibilities. Still others, like Foster, went back to school for classroom certification as a hedge against future cuts.

"This whole thing has been rough on children," Foster says. "Every spring we would hear that we had to cut back. Music went to half-time, then we lost several instructional aides, an administrator, and a counselor." PE at Sabin was saved, thanks to vociferous input from children and parents, and strong support from the site-based council. But job insecurity became an annual headache as predictable as taxes. In the spring of 2000—10 years after Measure 5—the district was facing cuts yet again. Says Foster: "I was sweating bullets."

While PE is far from firm footing yet, the high-profile organizing has begun to have long-term impact. When, in 1996, the Pew Charitable Trusts funded a project to help urban school districts create content standards and benchmarks in several academic areas, physical education was included. Foster and her colleagues set to work to define exemplary physical education programs and common curriculum goals for

Programs like Glencoe Elementary's Twirl Club pull in kids not traditionally drawn to sports.

elementary, middle, and high schools. Two years later, the team produced an impressive 90-page booklet that outlines physical education content standards for a wide range of skills and topics: motor skills, active lifestyle outside the classroom, physical fitness, diversity, and personal and social skills. For each content standard, the team developed common curriculum goals, benchmarks, and assessment examples.

"Everyone tends to think of PE as a soft subject," says Foster. "I'd love to see it become core, and as important as everything else."

PERSISTENCE PAYS OFF

There are other signs that change is on its way. In July 1999 the Oregon Legislature passed House Bill 3307, a bipartisan effort to add PE to the subjects required for certification under the Educational Reform Act. It was a victory for a persistent group of health and PE activists that included Zehrung, who teaches at Conestoga Middle School, and Dr. Minot Cleveland, a Portland internist and chairman of the Oregon Coalition for Promoting Physical Activity. Other groups that joined the effort included the Governor's Council on Physical Fitness and Sports and the Oregon Heart Association.

"I think House Bill 3307 is a demonstration that the majority of our legislators have opened their eyes to the fact that we've got a health care crisis resulting from our sedentary lifestyles," says Zehrung. "The good news is that the Legislature passed the bill. The bad news is that they underfunded K-12 education, so that school districts are still faced with the tough choices of what to cut back."

School funding remains a gargantuan issue in Oregon. Even so, there are more promising omens on PE's horizon. The Oregon Department of Education has given PE a big boost by reinstating a state-level position that was obliterated by Measure 5.

"Physical education now has a place within the state education system," says Margaret Bates, who was recently hired to fill the post, Educational Program Specialist for Physical Education. "Our first task will be to propose, and have approved, a set of standards and benchmarks in physical education. Meanwhile, districts need to recognize the importance of the Physical Education Bill (HB3307) and what it means to them."

"People need to know what quality physical educators do and what a quality program looks like," Bates continues, referring to the public perception of PE. "The old sayings of 'give me 10' and 'take a lap' are out. That is not physical education; it is punishment. Physical education is teaching students how to enjoy moving and what it does for their bodies."

At the national level, the pending Physical Education for Progress Act, or PEP, sponsored by Republican Senator Ted Stevens of Alaska, would give $400 million to state school districts to improve PE programs—$5 million to Oregon alone (a figure roughly equivalent to the salaries and benefits of the 100 PE teachers the state has lost in the last decade).

"These are all positive indicators that there will be a turnaround," says Cusimano from Oregon State University, "but I think it's a little too early to say we're there. We're not."

As if to emphasize Cusimano's point, the outcome of a cliff-hanger state election in May at first looked bleak. A local-option levy for schools appeared to have failed in Portland for lack of the required 50 percent voter turnout. But a final tally revealed that a bare majority of eligible voters had sent in ballots. The levy passed. The $78 million tax increase over five years will restore 170 teachers, reduce class size, and help replace outdated textbooks. Some of the cuts to the arts and other special programs will be restored. At least for the moment, the hemorrhage in funds, personnel, and programs that has devastated Portland has been stanched.

"There is a new PE on the horizon," says Foster. "I see more standards-based teaching, adequate budgets so every kid can have equipment, and professional development inservice days for PE teachers, like any other discipline. I see more respect for physical education."

At Glencoe, Anstine keeps a watchful eye on a class of third-graders tossing neon-green tennis balls into the field. "Throw higher, girls, higher!" he encourages.

"I only see these children twice a week," Anstine says, "but at Glencoe we use recess and playground time at lunch to make sure that every child gets 30 minutes daily of vigorous physical activity."

He pauses and looks pensive. "In an ideal world," he says, "every kid would have 40 minutes of PE every day." □

Dear Editor:

I am writing with regard to the article, "The Principal Kids Love to Hug" (Spring 2000). I was both shocked that Principal David Nufer at Finger Lake Elementary chose to present the situation as he did and amazed that it was actually published. As an educator and a principal of many years, I have learned that it is quite easy to compare oneself to one's predecessor in a favorable light, as the predecessor is no longer there. I have also learned that a school culture and strong programs are built over many years, and that while a program might experience recognition and success during the oversight of one principal, the building blocks were usually in place years prior to that recognition.

I find it quite sad that Mr. Nufer chose to detract from the work of former Principal Nancy Carder and her staff at Finger Lake in the comments he was quoted as saying in the article. I believe that this "competitive" aspect to awards and recognition totally detracts from the collegiality we need to build between peers in order to improve education for all students.

A physical education teacher I once worked with had a saying posted on the gym wall that said, "You don't need to blow out another's candle to make your own flame brighter." Unfortunately, in your zest to make the most of Mr. Nufer's accomplishments, this is what happened, and it is a shame. Dr. Carder is a talented and dedicated professional, who in my opinion could easily be named "Distinguished Principal of the Year" because of her talents, dedication, and hard work for children.

Patricia McRae
Executive Director
Elementary Education
Anchorage School District
Anchorage, Alaska

Dear Editor:

I was somewhat surprised that a professional publication promoting the positive work of principals (Spring 2000, "The New Principal") would in its contents allow a reporter/writer to laud one at the expense of another. It is my belief that every principal has strengths and opportunities. No two are exactly the same. This does not always mean that one is better than another. It definitely means that your writer could have found enough of Mr. Nufer's accomplishments to write about without his negative references to my work before him. In this case, only part of the story was told.

Nancy Carder Ed.D., J.D.
Principal
Chugiak Elementary School
Anchorage, Alaska

Dear Editor:

I just finished reading the article "A City Fit for Kids" (Winter 1999). I was very impressed with the commitment to the youth of the city of Boise. The ownership conferred on the youth of this city is an example to other cities around the country. These activities and events are developing future citizens who will take an active role in their community and government. They are also developing leaders. The idea of service is missing in many people today, not just the youth. It is exciting to read about young people getting worked up over service to the public good. Specifically, I can identify with action of Boise's youth to build a skateboard park. Some young people in my hometown are working to this end, but encountering resistance. I think they are doing a great job and hope they are successful.

I particularly found the systematic evaluation to be interesting. By identifying the assets that help young people succeed, and then assessing them to check for development and to identify weaknesses, Boise is preparing its children for a successful future.

Randy Hartwig
Science Teacher
Marshfield High School
Marshfield, Wisconsin

Raising

Continued from Page 44

the lower grades. But we're not seeing a response to that recommendation. We thought that when the report came out, it would have a positive impact similar to the landmark report on smoking tobacco back in 1964—that it would change things. Administrators in education either are not aware of it or they just have too many other things on their plate.

NW: How have the national PE standards, which you helped to develop, been received in the field?

WOOD: The last time I checked, over 2,000 copies had been sold. They can't sell them fast enough because physical educators were demanding direction, and we gave it to them.

NW: Were there conflicts or sticking points among members of the Standards and Assessment Task Force?

WOOD: A major sticking point for us was that we came out with seven content standards, three of which deal not with the physical elements of PE, but with the psycho-social element. Three out of the seven! It really shows the trend in schools today. It shows that PE is prepared to address behavioral management issues and some of the interpersonal skills that kids are really going to need to function responsibly in a multicultural society.

NW: What did you personally argue most forcefully for?
WOOD: Many physical educators do not assess appropriately. So it's hard to show accountability for our programs. That's one of the main reasons physical education programs are cut when there's a budget crunch. I've been fighting for accountability through assessment for years now—that is, we have to grade more effectively, and we have to be accountable for what we do. One of the foundations of the educational reform movement and the national PE standards is the assessment piece. How do you know when your students have met the content standards? You have to assess. That's why in the standards document there's a whole section on performance or "authentic" assessment. I saw it as a key to helping physical education become more accountable and to survive in the educational system.

NW: What's the biggest mistake that physical educators make in terms of assessment? Just not doing enough of it?
WOOD: That's a large part of it. Another problem is the reliance on high-inference grading criteria such as attendance, participation, and effort rather than low-inference criteria such as performance of motor skill and paper-and-pencil tests of knowledge. And there are reasons for that. Part of it is lack of sufficient training. Part of it is that they're inundated with students. They want to get their kids active, they don't want to be assessing all the time. And then just finding enough time during their day for all the paperwork is challenging. Much of the motor skill testing involves observation. While this type of assessment is subjective, when it's done properly with rating scales and checklists it's an effective assessment of one's skill. We have the methods for efficient and effective assessment. What it's going to take is retraining inservice teachers and training the new teachers who are in preservice right now. In the teacher education courses at OSU, we spend a lot of time on skill analysis and assessment.

NW: Do you have any sense of how many people are actually trying to adapt their curriculum to the standards?
WOOD: There are some communities and states that have really immersed themselves and are doing an incredible job. Wichita, Kansas, and Kentucky are good examples. But generally, there's slow movement. There are some states that have hardly started at all. Locally, a few of the larger districts such as Portland and Corvallis have adapted their curriculum to the national standards with some modification. However, my intuition is that the majority of districts have done little. Especially the smaller districts —they don't have the funds; it's a major undertaking.

NW: So many people say, "I hated PE." Do you see these new trends that you described earlier as changing that overall attitude toward "phys ed"?
WOOD: Yes, I do. I wouldn't blame those who say, "I really hated it." The individuals who were good at it liked it. Many of those who weren't naturally good at it—which is the majority of people—didn't like it at all. They felt threatened. A lot of practices that went on were not appropriate. But modern physical education teachers are extremely well trained in how to deal with kids. They're well versed in how to teach movement fundamentals in a way that's fun and enjoyable. If kids aren't interested in physical education, they're not going to recreate when they are adults. And so we spend a lot of time teaching our PE teachers how to make physical education interesting for kids.

NW: On the academic side, reformers are stressing the idea that every kid can learn and every kid can be successful. Yet I think a lot of educators might hesitate to say the same thing about physical education. Do you think every kid can learn to be skillful in movement?
WOOD: The idea here is not to mold kids into athletes. The idea is to give them minimal competencies to increase the chances that they'll want to recreate as adults and have a health-enhancing lifestyle throughout the life span. We have students set individual goals, not compare themselves to someone else. For individuals with a disability, we adapt the program to their abilities. The idea is to help each student reach his or her potential. And remember that students are assessed in the cognitive and psychosocial domains in addition to the motor or movement domain.

NW: Is it important to get parents involved?
WOOD: Parental involvement is critical. We're working hard on not only advocating for physical education, but also getting parents involved in PE with their child at home. If the attitudes and behaviors are not modeled at home, it's difficult for the PE teacher to get the point across. Also, if parents don't understand what's going on in physical education, it's really hard to get support for your program. We work a lot with our preservice teachers on how to advocate for their program.

NW: Do you feel optimistic about the future of PE?
WOOD: Guardedly optimistic. If this country is to come to grips with rising health-care costs, we must focus the health-care system on prevention. One of the most cost-effective interventions is a sound physical education program. Currently, some programs are not as effective as they should be, but we know how to deliver effective physical education. It's a matter of convincing taxpayers, parents, and administrators to provide the necessary resources. As the father of two preschoolers, the bottom line for me is that we owe our future generations nothing less than the best we can offer. So let's get to it. □

Raising the Bar

An Oregon professor helps bring PE into the standards movement

By LEE SHERMAN

Terry Wood of Oregon State University is one of eight PE experts nationwide who crafted the national PE standards, released in 1995 by the National Association for Sport and Physical Education. Widely published in the area of psychomotor measurement and evaluation, Professor Wood was a keynote speaker at the 1998 International Sports Teaching Symposium in Taiwan. *Northwest Education* Editor Lee Sherman talked with him about the standards and about PE's ongoing evolution.

NORTHWEST EDUCATION: How has PE changed in emphasis and purpose?

TERRY WOOD: In the last two decades, we've seen an increased emphasis on movement fundamentals—teaching kids to move properly—particularly in elementary school. There is still an emphasis on sport in the upper grades, but it has shifted to leisure-time physical activity—that is, introducing an array of physical activities in such a way that kids will develop a positive attitude toward health-enhancing physical activities throughout the life span. More recently, we've seen the emphasis expand from education of the physical to educating children in three domains: cognitive skills, motor skills, and what I call psycho-social skills. The psycho-social area includes a multicultural component, and is aimed at helping kids with anger management, conflict resolution, taking responsibility for their behavior, and getting along with diverse populations—including individuals with different sexual orientation. And then there are certain values—habits of mind if you like—they should have, such as an appreciation for physical activity and the beauty of movement. This psycho-social area is receiving increasing emphasis, particularly as we see the increase of violent conflict in schools. The struggle in reforming PE is making the transition from the old to the new PE. It's a transition from a sport-oriented model to a physical-activity model based on content standards along with authentic assessment of students in the three domains. We have teachers who've been in the field for many years, and some of them are still operating under the more traditional model.

NW: How many programs out there are good and sound?

WOOD: I would say that nationally, not a high percentage. Recent research has concluded that insufficient exposure to quality physical education programs is a primary factor in the major decline of the fitness levels of American youth. It's pretty sad. In Oregon we do comparatively well. But we could do a lot better.

NW: Oregon has been out front by including physical education as a content area in its Certificate of Initial Mastery (CIM).

WOOD: Since 1995, I've been involved in the lobby to get physical education into the CIM and get some teeth into it. That just happened in August of last year when House Bill 3307 passed. The bill mandates testing in physical education by the district at the third, fifth, eighth, and 10th grades. In addition, the Oregon Department of Education recently hired a PE specialist to coordinate the development of state content standards so that every program will be on the same page. The legislation mandates that the state Board of Education develop content standards in PE to be implemented by the 2001-02 school year as part of the implementation of the CIM. I'm hoping that they adopt the national standards so we can get moving. We don't have to reinvent the wheel.

NW: What would be the typical sad program you might see?

WOOD: The sad program would be a program that lacks facilities. So you get a lot of kids in a very small space, like a cafeteria with a slippery floor, and you've got to move the tables away. A sad program is one with too many kids and too few teachers, many who are classroom teachers minimally trained in PE. When a teacher spends all of his or her time in classroom management, the best they can do is get the equipment out and say, "OK, let's play some games." They're not teaching skills. I can't blame the teachers for this state of affairs because when you see 300 different kids a week, and you've got them in an inadequate space, what more can you do?

NW: Aside from the Physical Education for Progress bill now before Congress, do you see any sign of interest at the federal level for supporting PE programs?

WOOD: In the last few years there was a resolution passed by Congress for daily physical education. It wasn't a bill, there was no money, but the support from the federal level was a real boon for us.

NW: Symbolically, anyway.

WOOD: Yes, symbolically—that they at least felt it was important. The other significant event on the federal level was the 1996 *Surgeon General's Report on Physical Activity and Health.* It calls for adequate daily physical education in

See RAISING, *Page 42*

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Spring issue
Charter Schools 2001: Do They Measure Up?

Summer issue
Designs for Learning: School Architecture

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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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WINTER 2000

NW EDUCATION

THINK SMALL

MAKING EDUCATION MORE PERSONAL

NORTHWEST REGIONAL EDUCATIONAL LABORATORY

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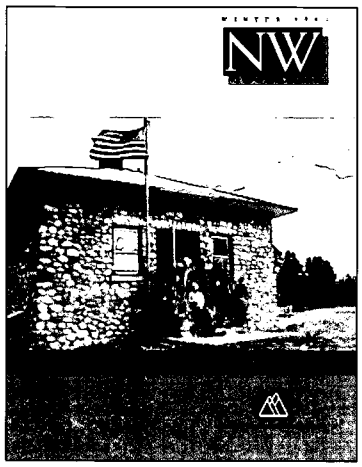
Think Small

Making Education More Personal

ARTICLES



ON THE COVER:
Nye School is a one-room schoolhouse in Montana's Stillwater County. This year's enrollment includes 11 students, grades 1–6, who gather to learn in this historic stone building.
PHOTOGRAPH BY SUZIE BOSS

OPENING SPREAD:
Highland School in Douglas County, Washington, was built about 1900. Photo by John Martin Campbell also appears in his book, *The Prairie Schoolhouse* (University of New Mexico Press, 1996). Used with permission.

What seems like about a hundred years ago, I stood on a football field at twilight with my fellow graduating seniors from San Ramon High in Danville, California. There were 365 of us—same as the number of days in a year. As we took turns crossing the makeshift stage to receive our diplomas, I was struck by how many faces I had never seen before that night. I wasn't alone. My best friend leaned over partway through the ceremony to whisper, "Who are these guys?" I suspect that many of us were wondering the same thing: How could we have spent four years attending the same school and wound up as strangers?

any American youth continue to attend schools so large that they can't possibly get to know the majority of their classmates. Nearly three-quarters of today's high schoolers share a campus with more than 1,000 students, and nearly half attend high schools enrolling more than 1,500. Elementary schools tend to be smaller, but it's not hard to find a middle school pushing up toward 1,000 students, especially in urban areas.

ronically, while American schools have been growing steadily larger, researchers have been identifying the benefits of smaller learning communities, where education is more personal and nobody feels like a stranger. In smaller schools and schools reorganized to "feel smaller," students have a better attitude toward school and make stronger connections with teachers and other adults in the school community. Such ties can boost student achievement and offer a powerful antidote to alienation.

or this issue, we went searching for places in the Northwest region where educators have elected to "think small." As you'll see, the benefits can be sizable for students and faculty alike.

irst, we visit two Oregon schools that have earned the title of New American High Schools. Both have found creative ways to make their large schools feel more personal by reorganizing into grade-level houses and career academies. Their experiences make for especially timely reading, with the U.S. Department of Education supporting reforms through its Smaller Learning Communities initiative. Next, we show you how the Tacoma, Washington, district has managed to reduce class sizes in the earliest grades, and describe how teaching practices are changing in these smaller classes. We head off on a road trip to Montana's rural schoolhouses, where buildings are historic but teaching practices are in synch with some of the latest trends in education.

n a story called "They Wouldn't Teach Anywhere Else," you'll meet a trio of prize-winning teachers from our region who have devoted their careers to working with students in small schools. In places as far apart as Alaska's Bristol Bay and Idaho's Long Valley, these teachers echo the same refrain: "We really know our kids." As one of them was quick to add, it's not that teachers and students can't get well-acquainted in larger school communities, "but it's sure a lot easier in a small school."

s always, we welcome your comments and reactions—whether you're from a big school, a small school, or one that feels "just right."

—Suzie Boss
bosss@nwrel.org

AFTER DECADES OF WATCHING SCHOOLS GROW LARGER AND MORE IMPERSONAL, EDUCATORS AND POLICYMAKERS ARE TAKING NOTE OF THE GOOD THINGS THAT CAN HAPPEN WITHIN SMALLER COMMUNITIES OF LEARNERS. ON THE HORIZON? SMALLER CLASSES, SMALLER SCHOOLS, AND LARGE SCHOOLS THAT "FEEL" SMALLER.

In the Eastern Oregon ranching community of Unity, cows outnumber people. But when it comes to taking stock of educational excellence, head counts don't begin to do the job. When the state's first school report cards were released in February, Unity's Burnt River School, with about 100 students in grades K–12, was the only Oregon public school serving secondary students to earn the top rating of "exceptional."

The rating sent Principal Robert Otheim's phone ringing off the hook. "People were hunting for magic answers," he says. But he had no secrets to divulge. Only a simple math lesson. "With fewer students, we can keep in touch with every one of them. It's hard to get lost," he says, in a school with one teacher for every nine students. Of course, a school this small can't offer the wider selection of classes that students find in large comprehensive high schools. What Burnt River does provide, though, is attention. Lots of attention. "We know what's going on with every one of our kids," the principal says, "and if someone's having a problem, we address it."

In the wide world of education, there's growing respect for learning that takes place on a smaller scale. Since the 1980s, study after study has tallied up the benefits of both smaller schools and smaller class sizes. (See class size story, Page 25.) Researcher Mary Anne Raywid, surveying the literature on small schools for a 1999 ERIC Digest, reports that quantitative studies have "firmly established small schools as more productive and effective than large ones." Those benefits, she adds, "we have confirmed with a clarity and at a level of confidence rare in the annals of education research." What's more, small schools appear especially powerful for helping students most at risk of not thriving in school, whether they live in big cities or rural areas.

"The jury's no longer out," says Kathleen Cotton, an associate at the Northwest Regional Educational Laboratory (NWREL) whose 1996 research synthesis on small schools has influenced policymakers and has been widely cited by other education researchers.

Ironically, small schools have been vanishing faster than the chorus of experts can finish singing their praises. Between 1940 and 1990, Cotton recounts in *School Size, School Climate, and Student Performance*, the number of elementary and secondary public schools declined 69 percent—from about 200,000 to 62,037—despite a 70 percent increase in the nation's population. The loss of small schools has been

pervasive, occurring everywhere from small towns to big cities, from rural places to the suburbs. In a quest for efficiency and from a belief that bigger must be better, states have consolidated small schools into larger ones. The Annie E. Casey Foundation calls consolidation "one of the United States' most widespread reform movements" of the recent past.

Most of the nation's poor, urban children of color attend large schools, according to *Small Schools: Great Strides*, a new report from Bank Street College of Education that describes elementary schools enrolling upward of 1,000 children and high schools topping 3,000 in many cities. Large high schools are especially common. According to the U.S. Department of Education, approximately 70 percent of American high school students attend schools enrolling more than 1,000 students, and nearly half of all high school students attend schools where enrollments top 1,500.

Although Burnt River School is even smaller than what many researchers consider ideal, the little schoolhouse in the heart of cattle country is far from being a quaint throwback to yesterday. From the inner cities of New York, Chicago, and Baltimore to the more open spaces of the Northwest, educators are looking for ways to recapture what Unity has never lost: the understanding that good schools are places where nobody's a stranger.

When enrollments are small enough so that students and teachers know one another well, schools take on a different feel. Cotton's investigation into school-size research uncovered benefits for both students and teachers in smaller learning communities. She discovered that, compared with their peers in larger schools, students in small schools (which she defines as 300 to 400 students for an elementary school and 400 to 800 for a secondary school):

- Have more positive attitudes toward school
- Behave better (as measured by truancy, discipline problems, violence, theft, substance abuse, and gang participation)
- Participate in more varied extracurricular activities
- Are less likely to drop out
- Have better attendance
- Have a greater sense of belonging

Intimacy is a big part of the appeal of smaller schools. It's easier for kids to connect and harder for them to feel anonymous or alienated in a smaller community of learners. But that's not the whole story. The very rhythms and routines of the school day are affected by school size. As Cotton reported, "Students [in smaller schools] take more of the responsibility for their own learning; their learning activities are more often individualized, experiential, and relevant to the

world outside of school; classes are generally smaller, and scheduling is much more flexible."

Small isn't always beautiful, of course. "Downsizing cannot, by itself, guarantee that school transformation will unfold or that marvelous teacher and student performance will occur," cautioned Karen Irmsher in *School Size,* a 1997 ERIC Digest. "When a student deals with a limited number of teachers, the effect of a few bad experiences is magnified," pointed out Carleen Reck in an earlier ERIC Digest. And acknowledging that some students manage to do well in larger schools, authors of *Small Schools: Great Strides* concede that "not all schools should be small. Children differ so much, those that thrive in larger settings should have the opportunity to do so."

Nonetheless, making schools smaller creates an environment where good things *can* happen. Effective small schools tend to be hotbeds for the teaching practices associated with student success and school improvement. Cotton cited team teaching, integrated curriculum, multiage grouping (especially for elementary grades), cooperative learning, and performance assessments as typical classroom practices of smaller schools. Teachers on a small faculty have more chances to interact with their peers and also report higher levels of parent involvement.

What's more, teachers in smaller schools tend to feel better about their work—an important consideration at a time when many districts are struggling to recruit and retain teachers. As Irmsher reported, "Small school size encourages teachers to innovate and students to participate, resulting in greater commitment for both groups."

These benefits are so thoroughly supported by research and common sense, and so potent when it comes to helping disadvantaged students succeed, that many large districts are opening smaller schools or creating schools-within-schools as a cornerstone of reform efforts. The Department of Education is encouraging a variety of strategies to personalize high schools with $45 million in Smaller Learning Communities Program grants. (See sidebar, Page 5, for a look at NWREL's role in supporting smaller learning communities.)

Meanwhile, private benefactors are also lending support to small schools. The Bill and Melinda Gates Foundation in September announced $35 million in grants to fund the creation of smaller, more personalized middle schools and secondary schools across the country, expanding on support for small schools that the Gates Foundation has already started in the Northwest. Gates funds are also helping to establish a Small Schools Center at the University of Washington's Center on Reinventing Public Education. Similarly, the Annenberg Challenge, a $500 million public-private venture to improve education, has supported development of hundreds of smaller learning communities as a reform strategy in Philadelphia and other large cities, and also has worked with 700 small communities to sustain "genuinely good, genuinely rural" schools.

Recognizing the groundswell of support, *Small Schools: Great Strides* describes the "small schools movement" that is gaining momentum across the country. The report focuses specifically on downsizing in Chicago, where at least 150 schools serving fewer than 350 students have opened in recent years, but implications extend well beyond that city's borders. As lead author Patricia A. Wasley, newly appointed dean of the College of Education at the University of Washington, told *Education Week,* "The evidence is very compelling that small schools serve students much better."

Reasons of both excellence and equity are behind the push to create smaller schools and restructure large schools so that they "feel" smaller. "Educators believe that public education is critical to a democracy but that viability requires an important shift so that adults can attend more closely to children," report the Bank Street authors. "While school size is not sufficient in and of itself, it is an essential first step in creating productive, equitable places where young people can actually flourish."

The appeal of small schools comes from their promise to address four broad concerns identified in *Small Schools: Great Strides:*

- To create small, intimate learning communities where students are well known and can be pushed and encouraged by adults who care for and about them
- To reduce the isolation that too often seeds alienation and violence
- To reduce the devastating discrepancies in the achievement gap that plague poorer children and, too

SUPPORT FOR SMALLER LEARNING COMMUNITIES

Schools and districts eager to reap the benefits of smaller learning communities can turn to the Northwest Regional Educational Laboratory (NWREL) for resources, training, and technical assistance, as well as for help with planning for long-term change.

NWREL is collaborating with the California Institute on Human Services at Sonoma State University to provide training and technical assistance for schools that received Smaller Learning Communities grants from the U.S. Department of Education this fall.

The Northwest region was well-represented in the national awards, with grants going to Anchorage and Fairbanks North Star Borough school districts in Alaska; Helena School District in Montana; Beaverton, David Douglas, Eugene, Hermiston, North Clackamas, and Portland school districts in Oregon; and Edmonds School District in Washington.

In addition, NWREL can guide schools that want to use the research-based strategies of the New American High Schools (NAHS) as a springboard to reform. "The Lab is creating a bridge for schools that are low-performing, and that want to develop reforms based on the12 strategies of the New American High Schools program," explains Francie Lindner, a research associate with NWREL's Education, Career, and Community Program. Although New American High Schools include many large comprehensive schools, they have found ways to restructure to tap the benefits of smaller learning communities. (See related stories on New American High Schools, starting on Page 10.)

By spring, the Lab expects to have available a CD-ROM tool to help schools assess "where they are and where they hope to go with reforms" related to the NAHS strategies, Lindner said. She also can provide schools with copies of an 81-page planning guide developed by Sonoma State University that suggests "guiding questions" for schools wanting to connect reform with the concepts of smaller learning communities.

The Northwest is emerging as a hot spot of the good practices identified by the U.S. Department of Education's New American High Schools initiative. In November, the Department named Reynolds High School in Troutdale, Oregon, and Chugach High School in rural Alaska as two of the newest New American High Schools. They join about 60 others across the country, including David Douglas in southeast Portland and Rex Putnam in Milwaukie, Oregon, bringing the total to three schools honored in the greater Portland area. "The only other city with multiple sites is New York City," says Lindner. Each New American High School is open for site visits so that others can see research-based practices in action.

NWREL is taking a lead role to identify future sites to be designated as New American High Schools. The Northwest Lab is working with three other regional educational laboratories—West Ed, the LAB at Brown, and South-Eastern Regional Vision for Education—on identifying possible NAHS sites. "Schools that are interested in being considered can contact us for more information," Lindner said.

High schools located within Empowerment or Enterprise Zones may also tap NWREL for training and technical assistance to help develop one or more strategies of New American High Schools. Currently, NWREL is working with three such sites: Compass High School in Grandview, Washington; Poplar High School in Montana; and Pine Ridge High School from the Pine Ridge Indian Reservation in South Dakota.

For more information or to request assistance, contact Francie Lindner at NWREL's Education, Career, and Community Program, (503) 275-9602. She also suggests checking online for more information about the U.S. Department of Education's Smaller Learning Communities program (www.ed.gov/offices/OESE/SLCP/) and New American High Schools program (www.ed.gov/offices/OVAE/nahs).

often, children of color
• To encourage teachers to use their intelligence and their experiences to help students succeed

HOW SMALL IS SMALL?

Educators, researchers, and policymakers don't always agree on how small a school needs to be to tap small-school benefits.

Deborah Meier, founder of New York's celebrated Central Park East elementary and secondary schools, makes a case for schools of 300 to 400. As she explained in *Educational Leadership,* this size works best to promote seven strengths of smallness: governance, respect, simplicity, safety, parent involvement, accountability, and belonging. Not by accident, 400 students can assemble in one room for an all-school event. The teaching staff is small enough to share a potluck supper or fit around a meeting table. And the principal, Meier says, "can take the temperature of the school" at a glance.

Breaking Ranks, a critical 1996 report from the National Association of Secondary School Principals, in partnership with the Carnegie Foundation, recommended that high schools break into units of no more than 600 students as the first step toward "personalizing the high school experience for students." In addition, *Breaking Ranks* called for high school teachers to be responsible for no more than 90 students per term so that they could offer students more individual attention.

The Department of Education sets a goal of no more than 600 students per high school in its Smaller Learning Communities Program. The Bank Street authors, meanwhile, define small schools as those with 350 students or fewer.

Noticing the range of numbers that researchers have used to define optimum school size, Valerie E. Lee and Julia B. Smith set out to analyze the literature. Their 1997 report in *Educational Evaluation and Policy Analysis* found research-based recommendations for enrollment ranging from 300 to 900. When they correlated size with students' academic gains specifically in high school, however, they concluded that 600 to 900 students offers the right number for a secondary school to reach "an appropriate balance point." It's big enough to offer a broad curriculum, small enough to create an intimate learning environment.

Lee and Smith also concluded:
• High schools should be smaller than many are—students learn more in relatively small high schools; learning is more equitable in small places
• High schools can be too small—students learn less in high schools with fewer than 600 students, as well as in very large ones
• Ideal size does not vary by the types of students who should attend
• Size is more important in some types of schools—size is especially important for the most disadvantaged students

Researchers also have been examining the potential downside of schools that are *too* small. In an ERIC Digest report on curriculum adequacy in small schools, Christopher Roelke pointed out that, despite the growth of large schools, approximately one in three public high school students still attends a school of 400 or fewer. Most of these smaller institutions are found in rural areas, such as the schools that serve as the heart of their communities in the Alaska bush, Montana plains, Idaho panhandle, and other sparsely populated regions of the Northwest.

Small schools tend to pay staff members less than larger ones, especially in rural areas, making recruitment and retention of teachers a challenge. The Montana Office of Public Instruction reports that low salaries and rural isolation are two of the top three reasons many rural districts struggle to fill openings. What's more, teachers typically have to cover more subjects in small schools. "We're expected to teach six preps and coach, too," says one longtime rural educator. Some teachers see that as a challenge that keeps them fresh and staves off boredom. However, the Rural School and Community Trust, in *Why Rural Matters,* released in August 2000, cited out-of-field teaching as a particular concern in rural schools.

To make the most of lean staffs and slender resources, some small schools are pursuing a "less is more" philosophy, Roelke reports, aligning course offerings with national education goals. Although they can't afford to hire specialists or match the curricular breadth of larger schools, small schools can use a variety of strategies to expand options for their students. Among the promising approaches Roelke describes are interdis-

ciplinary courses that reduce the number of separate subjects; innovative scheduling, including longer block periods to accommodate integrated curricula; and distance learning via online classes, video conferences, and other applications of technology. In the Northwest region, some geographically large districts with high transportation costs are also finding success with the four-day school week.

NOT BRICKS AND MORTAR

In Seattle, where students and their families are offered a choice of schools, Nathan Hale High hasn't always been a top draw. Today, though, it's one of the urban district's most sought-after high schools. The increased popularity isn't the result of bricks-and-mortar improvements, but rather comes from restructuring the 1,100-student, comprehensive high school into smaller, more cohesive units.

The first step toward whole school reform at Nathan Hale, in 1998–99, was to organize academies for ninth-graders, with six teachers assigned to groups of 250 students. Setting up academies enabled the school to lower the student-teacher ratio, decrease the number of students individual teachers see daily, and allow time for block scheduling. The results—including better attendance and greater academic success—were so strong that, the next year, Nathan Hale moved forward with interdisciplinary academies for 10th-graders, as well. And when the Gates Foundation announced its grants for smaller high schools in September, a spokesman singled out Nathan Hale "as an example of the success of small schools," reported the *Seattle Times.*

As Nathan Hale has demonstrated, creating smaller learning communities doesn't have to mean investing in expensive new facilities. Nationwide, educators are using a variety of models and strategies for creating smaller schools—or, at least, schools that *feel* smaller—within existing space.

Through its Smaller Learning Communities Program, the Department of Education supports strategies for creating schools within schools, career academies, restructuring the school day, instituting personal adult advocates, developing teacher advisory systems, and other innovations to create a more personalized high school experience for students and improve student achievement and performance.

Some definitions and examples:

Freestanding schools typically are self-contained institutions, with their own physical plant, budget, and principal. As an alternative, freestanding schools also can be housed in a multiplex, where two or more schools share a building but operate independently. This approach has led to the creation of dozens of new small schools in New York City, beginning with Central Park East Elementary in 1974.

In the *school-within-a-school model,* a smaller school is located within a larger host school. The smaller school is typically subject to the budget and leadership of the host building principal, but may have its own personnel, budget, and program. Schools-within-schools typically serve multiple ages and may divide by grade levels, themes, or curricular focus. Seattle's Nathan Hale, for instance, operates an academy for ninth-graders to ease their transition into high school.

Key High School Reform Strategies, a 1999 overview published by the U.S. Department of Education, explains that students enrolled in a school-within-a-school tend to take most of their classes together from teachers affiliated with the smaller school. Variations on the school-within-a-school theme include:

- *Career academies,* in which schools organize their curriculum around one or more careers or occupations
- *Houses,* in which students across grades are assigned to smaller units within a larger school; each house typically has its own discipline policies, student activities, student government, and social activities

Other strategies for making large schools more personalized, according to the Department of Education, include *advisory systems,* in which administrators and teachers are assigned a small number of students for whom they remain responsible throughout high school; *magnet schools,* which have a core focus and usually draw students from the entire district; and *block scheduling,* in which 50-minute classes are extended to blocks of 80 or 90 minutes, allowing for more individual attention, interdisciplinary lessons, and a greater variety of learning activities.

Although high schools are most likely to use these ap-

proaches to restructuring, some elementary and middle schools are reorganizing into smaller learning communities, as well. A recent article in *Principal* magazine, published by the National Association of Elementary School Principals, describes how a failing Philadelphia elementary school reduced behavior problems and improved school climate and student achievement by dividing its 700 students into three communities, each with a collaborative team of 12 to 17 teachers. The surrounding neighborhood continues to struggle with issues related to poverty, but the school has blossomed "like a rose in a thorn bush," school administrator Naomi Booker told *Principal.*

THE COST OF DOWNSIZING

But aren't small schools more expensive than big ones? It's a fair question, especially since it seems like an obvious conclusion. Elite prep schools are universally small, averaging fewer than 300 students, and also are expensive, catering to children of privilege. In public education, the past several decades of school consolidation have been carried out for the sake of economies of scale.

Recently, however, researchers have used hard numbers to challenge the logic that if small is expensive then bigger must be more cost-effective.

A 1998 study looked at the efficiency of small urban schools for producing high school graduates. "It is far more expensive to allow a student to drop out than it is to invest whatever it takes to ensure that student's graduation," researchers reported in *The Effects of Size of Student Body on School Costs and Performance in New York City High Schools.* Similarly, Raywid concluded, "When viewed on a cost-per-student enrolled basis, they [smaller schools] are somewhat more expensive. But when examined on the basis of the number of students they graduate, they are less expensive than either medium-sized or large high schools."

Sparsely populated areas that have seen their local schools closed for the sake of the bottom line are also taking a fresh look at the cost data. A new study published by the Nebraska Alliance for Rural Education found:

- High school completion and postsecondary rates increase as school size decreases
- Annual cost differences between the smallest schools and the most "efficient" size school are cut in half when measured as cost per graduate than as the traditional cost per pupil
- Any higher school finance costs associated with small schools virtually disappear when the substantial social costs of nongraduates and the positive societal impact of college-educated citizens are considered

Increasingly, educators and policymakers also are considering harder-to-quantify factors, such as the seat time students spend on school buses when their schools are consolidated or the community connections lost when a small town shuts its only schoolhouse. School climate and safety concerns, in particular, have mounted since recent outbreaks of campus violence. After the worst incident—at Colorado's Columbine High, with an enrollment of nearly 2,000—analysts were quick to point to the tragic costs of school environments so large that troubled students can go unnoticed. Indeed, the National Center for Education Statistics reports that fighting and behavior problems get worse as schools grow larger.

Michael Klonsky of the Chicago Small Schools Workshop has pointed out the high costs of *large* schools, such as "deleterious effects on a host of student outcomes, including achievement, attendance, involvement in school activities, and dropout rates." What's more, he adds, "Impersonal relationships breed anonymity, making it easier for students to act out and more difficult for adults to curb adolescent tendencies to defy adult directives."

"The needs of small schools are not outrageous or luxurious," assert the Bank Street authors, "just clearer."

NO PANACEA

In a research roundup on school size for the ERIC Clearinghouse on Educational Management, Larry Lashaway pointed out that the school consolidation of recent decades was "achieved at the cost of anguished protests by thousand of citizens served by small schools in small districts." The resulting bigger schools were "viewed by most professional educators as a triumph for enlightened schooling," Lashaway said, but research is now suggesting "that the public's nostalgia for small schools was not misplaced."

Since at least the 1980s, researchers have been point-

ing out the benefits of smaller schools. Today's proponents acknowledge that smaller learning communities are hardly a radical or new idea. An American education used to be a small-school experience for almost everyone, noted Bruce Barker in a report for the ERIC Clearinghouse on Rural Education and Small Schools. He added, "It would be interesting, perhaps astonishing, to be able to identify the number of successful professionals in business, education, science, and other disciplines who received their public education in a small school."

One of those successful small-schools graduates spoke in Salem, Oregon, last summer, at the annual conference of the Oregon Small Schools Association. Stan Bunn, Oregon Superintendent of Public Instruction, spent his formative years in the little Willamette Valley communities of Lafayette and Dayton, where he graduated with a class of 40. "When I look back on my work in high school and later [including law school at the University of Maryland]," he said, "I got no better education, no better attention, than at Dayton High School. I had teachers who knew me, challenged me, pushed me. I believe in the opportunities small schools create for students."

More and more, researchers and policymakers are finding reason to believe in those opportunities, too. Even the most enthusiastic proponents, however, caution not to view small schools as a fix-all for education. "Small is not enough," write the authors of *Small Schools: Great Strides.* Rather, they argue that keeping school communities to a smaller scale is just the starting place for comprehensive improvement. Given the challenges many students face in large schools, they suggest inverting the ratios: "making small schools the norm, and large schools the exception."

ONLINE RESOURCES

- ERIC Clearinghouse on Rural Education and Small Schools provides access to research, online forums, grant information, and a calendar of upcoming events (www.ael.org/eric/)
- *School Size, School Climate, and Student Performance,* by Kathleen Cotton, is available from the Northwest Regional Educational Laboratory (www.nwrel.org/scpd/sirs/10/c020.html)
- *Small Schools: Great Strides, A Study of New Small Schools* in Chicago, published by Bank Street College in June 2000, documents the benefits of integrating small schools into comprehensive school reform strategies (downloadable version at: www.bankstreet.edu/news/releases/smschool.html)
- Small Schools Workshop at the University of Illinois at Chicago maintains an extensive collection of resources, including research, readings, grant information, and a directory of organizations nationwide that support smaller schools (www.smallschoolsworkshop.org/)
- The Smaller Learning Communities Program of the U.S. Department of Education outlines program goals and highlights research supporting smaller schools (www.ed.gov/offices/OESE/SLCP/overview.html) ■

MAKING IT PERSONAL

Ninth-graders use Access Period to prepare their room for homecoming and to do a little bonding.

A large suburban school personalizes its approach to teaching and learning, boosting student achievement and thrusting the school into national prominence as a New American High School.

STORY AND PHOTOS BY DENISE JARRETT

MILWAUKIE, Oregon—A shy boy like Jesse measures his approach to life. Friends, for example, are made with care, but once earned, are cherished in the fiercely offhanded manner of boys everywhere. So, when it comes time to cross over from childhood into the adult-making years of high school, a boy like Jesse will want to go where his friends go. And this is how Jesse happened to enroll at Rex Putnam High School.

To look at, Putnam is unremarkable. It's much like any big, suburban high school. Its territory, a dozen miles from Portland, ranges from forested neighborhoods and small farms going comfortably to seed, to the thoroughfare at the bottom of the hill overgrown with franchises and a local strip joint. What's different about Putnam lies inside, at the heart of the school.

Jesse's parents didn't know this when they opted to send their son to Putnam to be with his friends, rather than to the high school prescribed for their neighborhood. But their choice proved provident.

"We dodged a bullet," says Shannon Evans, 40. Not because the other school was a bad school, but because Putnam happened to be embarking on a restructuring that would transform and personalize the way it teaches its 1,300 students. And Jesse Evans was a kid who needed that kind of attention. He got distracted easily, and learning was often a struggle. Naturally reticent, he shrank from competing for the attention of his teachers or from buddying up with classmates he didn't know well. As he approached ninth grade, Jesse seemed poised to sink out of sight in the swell of big-school crowds and competition.

But before classes started that fall in 1997, Shannon got a letter from Deno Edwards, Putnam's principal, inviting parents to consider placing their youngsters in something called the GATE House (meaning, Gaining Access to Excellence). This "house" would consist of three teachers—one each from social studies, language arts, and science—who would stay with a group of 90 freshmen and sophomore students for two years.

Because they would share the same students, this trio of teachers could collaborate. They could create extended projects integrating all three subjects so that learning in one class would reinforce learning in the other classes. Coordinated schedules would enable teachers to share class preparation time when they could plan curriculum or discuss how a particular student was coming along. In this arrangement, teachers and students would get to know each other very well. The GATE House was Putnam's first structural innovation in what was to become a realignment of the large school into kindred smaller learning communities.

Making Connections

Research shows that smaller learning environments usually lead to positive student outcomes, state the authors of *Key High School Reform Strategies: An Overview of Research Findings,* published in 1999 by the U.S. Department of Education. School size, they write, has an indirect but important effect on student learning, facilitating teacher collegiality, personalized teacher-student relationships, and less differentiation of instruction by ability—characteristics that promote increased student learning.

"Small schools are more likely to create and sustain conditions that are conducive to improving student outcomes" such as better test scores, college-level course-taking, attendance, and self-esteem, the authors conclude. However, smaller learning environments alone, they stress, are not sufficient. "Most successes of whole-school reform efforts are not the consequence of one practice or another, but instead the gathering of many practices under one roof and the interactions among them."

From the time it embraced standards-based reform 10 years ago, Putnam has been carefully constructing multiple and complementary approaches to improving its teaching and learning. The twin pillars of its edifice became "houses" for freshmen and sophomores, and career pathways for juniors and seniors. Three years after opening the GATE House as a blended model for ninth- and 10th-graders, Putnam established seven more houses, enough to accommodate all of its first- and second-year students. Today, each house varies in its structure and approach, depending on the house teachers' preferences. Some are looped, meaning the house teachers stay with one group of students for two years, through their freshman and sophomore years. Some are shared houses, in which a group of freshmen have the same teachers their first year, then advance to three different teachers for their sophomore year.

After reading the letter from Principal Edwards that fall, Shannon Evans wrote back: Put my son in GATE.

"If the school hadn't had this house, I don't think my son would have made it," she says today. "He might have dropped out."

Instead, Jesse is now a senior eager to graduate with his best friends, all pals he first met in GATE.

While the GATE House started as a blended model for ninth- and 10th-graders, it has evolved to become a shared house of freshmen only. Though blending grades had many benefits—sophomores tended to model more mature behavior for the freshmen, and ninth-graders often worked academically at the 10th-grade level—a change this year in the sophomore curriculum required something different.

A career pathways program was introduced to 10th-graders to allow them to explore their interests, aptitudes, and postsecondary career and learning opportunities. This exploration prepares them to choose a Focused Program of Study that they will follow as juniors and seniors. Because most students aren't ready to make these kinds of explorations in their first year of high school, freshmen are now separated from the sophomores. The Focused Program of Study, introduced by the North Clackamas School District

and aligned with Oregon's curriculum standards, requires students at the end of their sophomore year to choose a focus from six career pathways: natural resources, health services, human resources, business and management, industrial and engineering systems, and arts and communication.

Though juniors and seniors are not grouped into houses, the school intends for these older students to have personally meaningful learning experiences, as well. While following one (or more) of the career pathways, students come together with peers who share their interests. Through close contact with each other, and with teachers and professionals from the community, students experience real-world learning —linked to rigorous academic standards—with strong ties to adults and the worlds of work and college.

In fact, to graduate, all students must participate in Career-Related Learning Experiences (CRLEs, or "curlies" as they're often called). This districtwide program involves students in a structured learning experience in the community, workplace, or school that connects students' academic work with life and work beyond the classroom, says Claudia Holstrom, school-to-careers coordinator and a key player in Putnam's reform efforts. Her office in Putnam's Career Center is one of the busiest in the building as students come by seeking advice or to use the computers and library to research professions. Last year, students participated in 2,225 CRLEs, says Holstrom, including job shadows, site tours of businesses, events with guest speakers, and other projects and activities. Many students also regularly attend the district's venerable Owen Sabin Skills Center, a professional-technical school serving the area's high school students since 1963. The center offers students hands-on learning in the district's six career pathways as well as in information technology.

Houses and career pathways aren't the only places where relationships are purposefully fostered at Putnam. The school reserves an 87-minute block of time every other day for an Access Period for all of its students. This period is an inviolate time for students to confer with their designated Access teacher who becomes a guide, a friend, and an advocate, or to meet with other teachers for help with school work, or to visit the media or technology laboratories.

Looking Back

A singular event galvanized the school to bring students and teachers together in smaller gatherings where relationships, social maturity, and learning could be fostered. Though the school's population is nearly 90 percent White and middle class—with few students experiencing the socioeconomic factors that typically put children "at risk"—a survey to parents, students, teachers, and community members delivered a big surprise to Putnam staff. The 1994 poll showed that, while teachers and administrators believed the school was doing pretty well on all counts, students and their parents decidedly disagreed. They believed teachers weren't connecting with students, parents were isolated from the life of the school, and drugs and alcohol were major problems. The survey jolted Putnam's staff. They thought of themselves as caring stewards of these young people's learning and social development, and yet they were being told they were missing the mark by a mile.

Swallowing that bitter pill, they decided to heal themselves. As one staff member wrote in a short history of the school: "Leadership had changed at Rex Putnam High School." Principal Edwards opened the doors wide for teachers to lead the way, urging them, like the former football coach he is, to take risks and double their efforts to take the school where it had never been before.

"Kids have to feel good about themselves," says Edwards. "If they don't feel loved and appreciated, and that you care about them, you can't get to where they can self-reflect and learn. So we decided we needed to change."

They mustered the school community to gather information, formulate action plans, and solve problems. A Site Council of elected teachers and staff and selected parents and students became the school's primary decisionmaking body. The council created better lines of communication, placed teachers in charge of staff development, established an annual planning retreat, recommended hiring a full-time drug and alcohol counselor, and conducted research and visits to other schools to determine which exemplary programs and practices would be right for Rex Putnam.

One school they visited was Sir Francis Drake High School, another New American High School, located in San Anselmo, California. Like Putnam, Drake is a large, comprehensive high school that is undertaking whole-school reform by finding ways to create smaller and more meaningful learning opportunities, with strong school-to-career links. Putnam based GATE

1) Rex Putnam Principal Deno Edwards coaches his teachers to take the lead in reforming their large high school.

2) Shannon Evans attends a fall open house for Rex Putnam parents.

3) Ninth-graders in Jill Colasuonno's language arts class write a passage about their personal "life journeys," then team with classmates to analyze Homer's *Odyssey*.

on a house Drake had formed for a single group of first-year students. When Putnam later began forming additional houses to serve *all* of its first- and second-year students, Drake staff flew up to Milwaukie to see how they did it. Before long, Putnam's staff had taken the school a long way, capturing the attention of others far outside the region.

Improvements were soon evident in grades, test scores, and student behavior, says Holstrom. Sixty percent of students in GATE improved their grade-point averages. While 20 percent of Putnam's students typically received failing grades in language arts, only 4 percent of GATE's students failed the course. And GATE's absentee rate was low, less than 4 percent compared to Putnam's typical absentee rate of 10 percent.

By 1998, improvements were being seen schoolwide. Students' combined SAT score of 1082 exceeded district, state, and national averages that year, and rose above the 1075 score they obtained two years earlier. Fewer students were dropping out of school, about 4 percent compared to 6 percent in 1996. In fact, 65 percent of Putnam's graduating students were enrolling in postsecondary education.

Gaining Recognition

In November 1999, U.S. Education Secretary Richard Riley named Putnam a New American High School. The award recognizes the school for its commitment to educating all students to high standards and preparing them for postsecondary education. As an awardee, Putnam is encouraged to share with others its reform strategies, which emphasize personalized teaching, project-based curriculum, performance assessments, indepth staff development, connections with caring adults, and links to careers and college.

Putnam uses its $5,000 one-time award to host educators, policymakers, and community members who come to the school to observe its programs—which Principal Edwards stresses will always be "under construction." Putnam has hosted several Design Studios, three-day events in which teams of teachers and administrators from around the country come to the school to observe, to hear testimonials from teachers and students, and to craft action plans for restructuring their own schools. Learning and sharing with others has been the key to Putnam's success, says Edwards.

"I certainly don't want to reinvent the wheel," he says. "We borrowed everything that's helped us become a New American High School except the talent of our people. There's no substitute for that."

Sharing knowledge and experience is exactly what the New American High School initiative is all about, says Director Gail Schwartz. Schwartz works for Assistant Secretary Patricia McNeil in the U.S. Department of Education's Office of Vocational and Adult Education in Washington, D.C. When McNeil was appointed to the office in 1995, she discovered that 65 percent of OVAE's local-level funding was spent on high schools, and she immediately realized the important role the office could play in high school reform.

Urged into action by her own children's uneven high school experiences and by watching, with the rest of the nation, news coverage of horrifying violence at high schools around the country, McNeil began formulating her idea. She wanted to give momentum to a movement stirring in communities and boardrooms to utterly change the high school experience. She asked Schwartz to help her launch a plan.

"We decided to establish a recognition program," says Schwartz, and ask the awardees to "serve as technical advisors, in a sense, to let the rest of the country know what they're doing. We asked schools to disseminate information about their good practices. We asked them to work on refining their data collection systems, because we'd have to legitimize why we thought [what they were doing] was a good way to go."

After visiting high schools across the country, McNeil and Schwartz worked with a research organization, MPR Associates, Inc., of Berkeley, California, to identify the core strategies exemplary high schools were taking to transform the way they educated their students. These schools were creating places of learning based on respect, high expectations, and exemplary practices. (For a list of the 12 strategies of the New American High School initiative, see Page 17.)

To date, some 60 high schools have been recognized with an NAHS award. Each group of awardees, it is hoped, will serve to widen the ripple effect, carrying NAHS principles throughout the nation's 17,000 high schools. (For more information about New American High Schools, visit OVAE's Web site at www.ed.gov/offices/OVAE/nahs/.)

"Schools like Rex Putnam and the other New American High Schools are really beacons of light," says Schwartz.

Embracing Change

Rex Putnam still has much work to be done, says Edwards. He would like to see even more integration of curriculum and more teacher collaboration. He'd like to see the school's standardized test scores in math and reading improve. He'd especially like to send more of his teachers to visit schools to see other innovations in whole-school reform.

And Edwards may well will get his wish. The district was recently awarded a $519,041 grant from the Smaller Learning Communities Program of the U.S. Department of Education. The grants are to help districts and schools implement strategies for personalizing the learning environment for students.

"Staff development is critical to us," he says. "There's more of a correlation between a great teacher in the classroom and student improvement than there is anything else."

But staff development must be matched by a teacher's inner drive to excel and be open to new ideas, he says.

"If you're really going to change, change is going to be hard work," says Principal Edwards. "But if you have fun and laugh together, too, it's okay."

Jill Colasuonno, a ninth-grade house teacher in language arts, embraced the change at Putnam because she saw the potential power of deepening relationships and relevancy in the classroom. How does she forge those bonds with her first-year students?

"By lovin' 'em up," she says. The returns are ample. "We feed off each other. I'd rather be in my classroom with my kids than in a meeting or conference. I come in and I just feel better." □

Sometimes, a Great Notion

U.S. Assistant Secretary Patricia McNeil, who heads the U.S. Department of Education's Office of Vocational and Adult Education, talked with *Northwest Education* writer Denise Jarrett recently about the New American High Schools initiative, a recognition program she created to give momentum to high school reform.

Q: It seems most good ideas begin with one person having a notion about something, and that notion grows into a conviction that simply must be shared. Would you tell me a little bit about your idea to create the New American High School initiative?

McNeil: With anything in life that you end up feeling passionate about, it arrives through personal experience. As our children were going through high school, I began to see the very different kinds of experiences they were having, how high school is designed for only one kind of learner. Our oldest daughter is like the 20 percent of kids who do well and could learn and work within the system. Our other four kids faced different challenges. Two actually dropped out of high school. I tried to visualize what a new high school would look like if it could be redesigned for success, one that would really support all students in their learning and would create a culture of respect.

Q: Did the shootings at Columbine High School draw the nation's attention to the need for changes in our high schools?

McNeil: In a very tragic way, that event made a difference in raising high schools much higher on the agenda. We'd been working on this long before Columbine, so when Columbine happened, we actually had some insights into what might be done differently in high schools to change the culture. It's interesting that the first responses to Columbine were all about metal detectors and more police, very much a violence-prevention approach. And yet, when you listen to kids talk about what they think went wrong, the themes are about more support, more adult intervention, closer contact with adults, more positive culture in the school—all of those things were what kids were asking for.

Q: What about your own high school experience strikes you most deeply?

McNeil: As I look back on it now, the expectations of teachers were pretty low for most of us. I think only 20 percent of my graduating class went on to some kind of postsecondary education. Most kids could get a job right in the community, but this was 40 years ago. Unfortunately, when I visit high schools today, it's like déjà vu. Kids have more tattoos, more piercing, the dress is a bit different, but basically the content of what's offered in high school is the same. What is exciting about going into New American High Schools is that they have much higher expectations for the students, and they believe that the students can reach those expectations.

Q: Times are quite different today.

McNeil: Yes they are! There's an intensity today that wasn't there 40 years ago. What you're expected to do to be successful is so different. And the fact that schools are providing the same kind of education that they offered then, and still making judgments about students' abilities, is discouraging.

Q: How essential are smaller learning communities to high school reform?

McNeil: I don't think just creating smaller learning communities is enough, and I don't think just changing content and instruction are enough. We've got to create a supportive learning culture in schools. Part of that is curriculum, part of that is instructional practice. But you can't have a really strong learning environment unless there is a culture of respect. Personalization is critically important for creating that learning environment. You have to feel listened to and appreciated and supported in order to be an effective learner.

Q: Why was a Commission on the High School Senior Year recently established?

McNeil: You may recall, a little over a year ago, Secretary Richard Riley gave a speech at the Press Club about high schools and said that we really need to have a national dialogue on high schools. There was a lot of consensus in discussions that the Secretary had with principals and education experts. From those discussions it became really clear that the senior year could be used more productively. A number of principals from our New American High Schools were talking about some of the innovations that they were doing, like having kids take college-level courses, and doing internships and community service, senior projects, ways in which the senior year could be more compelling for young people. From that, the Secretary started really focusing on the senior year and thought that this might be a way of taking on the high school reform issues in a way that would resonate with a lot of people. So he announced in his State of American Education speech in February (last year) that he wanted to support this commission, and that people from both the private and public sectors would serve on it.

Q: A student serves on that commission, right?

McNeil: Yes, Jeremy Solly—he's from Rex Putnam! He was just wonderful at the first meeting that we had. When he spoke it was so interesting that everybody who spoke after him referenced what he had to say. It was very powerful to have him there. He talked about the importance of the student voice, and he talked about the importance of personalization in the high school, and the importance of teachers who care what their students do.

Q: What will it take to sustain high school reform?

McNeil: I think that it's not a question of whether we're going to reform our high schools, it's just a question of when and how we're going to do it. I'm convinced that economic and social forces eventually exert pressure on all institutions in society to respond to what's going on in the world. Schools are beginning to feel that pressure. The standards movement is certainly one indication. Students need to have a much different set of academic and technical skills to be successful in today's world. The pressure on schools to raise the level of education and achievement for all students is a response to what the world is demanding. I think those outside pressures are going to continue to exist and schools are going to have to change.

What is it going to take? I think we're going to have quite a bit of debate about that. My sense is that we're creating a movement of outside pressure and internal response that probably is not going to gel immediately, because education is a cautious institution, but I do think in 10 years, maybe even sooner, our high schools will look very, very different than they do today. □

BACK TO THE FUTURE

The David Douglas Express is a working light-rail system.

A distinguished graduate returns to campus to find her old high school transformed and today's students newly energized about learning.

BY KATHLEEN COTTON

PORTLAND, Oregon—It has been 40 years since I first walked into that building. I was a bedazzled freshman, scarcely able to believe I had hit the big time and was finally in *high school.* And it was not only the big time, but the big *place* as well, for in those days my alma mater, David Douglas High School in southeast Portland, had approximately 3,000 students. I recall huddling with my friends from elementary school (no middle schools or junior highs back then) in an attempt to feel a little safer in this huge, new, scary place.

As David Douglas's freshman class, we 600-plus students spent our days in what was then called the "junior building." This early version of the ninth-grade house plan had us separated from the building where the upperclassmen went to school by a curving, quarter-mile-long breezeway. So although I did not yet attend school "up close and personal" with the rest of the student body, I was still in an environment much larger than I was used to. And my prize for surviving a year of that was to move over to the much-larger "senior [illegible]," and try to carve out a place for myself amidst more than 2,000 fellow students.

It was not easy to "be someone" in that environment, but at the time I had no point of reference and just accepted it as the way life was. It was not until 30 years after graduating that I came to reflect seriously on the negative impacts of attending such a huge high school. A longtime research analyst with the Northwest Regional Educational Laboratory, I was asked some five years ago to review and summarize the research about the effects of school size on students. That meant reading scores of studies about the way school size affects students' achievement, attitudes, and behavior.

That assignment dramatically changed the way I look at education and education reform. I learned that smaller schools—those with 500 or fewer students—have higher achievement, fewer discipline problems, more satisfied students (and school staff), more extracurricular participation, better attendance, and fewer dropouts than larger schools. I also learned that students from smaller high schools are just as well prepared for college as those from bigger schools. And that smaller schools don't necessarily have higher per-pupil costs than larger ones. It was intriguing to learn, too, that "schools-within-schools"—smaller learning communities within existing school buildings—could provide many of the same benefits as stand-alone small schools.

Which brings me "back to the future" at David Douglas. With approximately 2,100 students, it is still a very large school. It has been recognized by the U.S. Department of Education as a New American High School (NAHS)—one of a select group of high schools around the country. This means that school personnel have restructured the curriculum to make it more relevant to the world outside of school and therefore more engaging to students. Their approach has focused successfully on raising students' academic achievement and preparing them for lifelong learning.

The strategies common to the New American High Schools are as follows:

1. All students are expected to master the same rigorous academic material
2. All the core activities focus on student learning and achievement
3. The curricula are challenging and relevant, and cover material in depth
4. Schools create small, personalized, and safe learning environments
5. Staff development and planning emphasize student learning and achievement
6. Periods of instruction are longer and more flexible
7. Technology is integrated into the classroom to provide high-quality instruction
8. Students learn about careers and college opportunities through real-life experiences
9. Students get extra support from adults
10. Schools use new forms of assessment
11. Strong partnerships are forged with middle schools and colleges
12. Schools form active alliances with parents, employers, community members, and policymakers

That list did not sound like the David Douglas I knew, and I became curious to find out what the staff had done to make such admirable goals a reality.

A Closer Look

Arriving at the school in late September, I noted that its two main buildings, though still connected by the breezeway, are now also joined by a train track. Puzzled, I made a mental note to ask about it.

David Douglas's current principal, John Harrington, is a friendly, soft-spoken man with an understated but unmistakable air of authority. Harrington has been principal of David Douglas since 1991 and is obviously proud of the positive changes he has helped to bring about. He is much more interested in talking about plans for the future, however. Vicki Lukich, also a David Douglas graduate, coordinates school improvement activities in general and the school's Certificates of Initial and Advanced Mastery programs in particular.

Harrington and Lukich explained that the school's current instructional program dates to the early days of Oregon's Educational Act for the Twenty-First Century, enacted in 1991. This legislation stipulated that, in order to graduate from high school, every student would be required to pass core academic coursework and state assessments, as well as amassing work samples of sufficient quality to earn a Certificate of Initial Mastery (CIM). Ideally, the student would complete this work by the end of 10th grade, and then spend his or her last two high school years pursuing one of six broad career pathways leading to a Certificate of Advanced Mastery (CAM).

The proficiency-based CIM and CAM certificates were designed to add value to the traditional high school diploma. David Douglas had become a pilot site for the development of the CAM and received an initial grant of $96,000 from the state shortly after the legislation passed. In addition, the Oregon Business Council, representing 43 of the largest businesses in the state, selected David Douglas as a partner site in 1993, and since then has played a significant role.

While still on the books today, Oregon's requirement that schools graduate only those who have earned at least the CIM have been relaxed, because too many students are failing to meet the standard.

1)

1) Students involved in the Natural Resources CAM tackle a variety of projects, such as finding ways to reduce the use of toxic chemicals.
2) NWREL's Kathleen Cotton (center, in jacket) interviews students about their career and academic interests.

Harrington is not surprised by that outcome. "You can't talk about raising standards," he insists, "without providing a safety net."

Instead of slackening its graduation requirements, however, David Douglas has become more demanding. Its students do even more coursework than the state CIM calls for. Students must pass all CIM courses with a grade of "C" or above. Starting last year, students are truly not allowed to graduate until they have earned the CIM.

Each David Douglas CIM candidate must also conduct two student-led conferences. They present completed work samples documenting their accomplishments to an audience that includes the student's parent(s), if available (otherwise a teacher), and the student's mentor from the high school. By the time students present their second, end-of-sophomore-year conference, says Lukich, they are "old hands" and have no trouble filling the allotted 45 minutes. Last year saw a remarkable 95 percent parent turnout for the student-led conferences.

Once students have completed the CIM, they tackle the Certificate of Advanced Mastery. David Douglas calls this intensive, project-based phase of their education Project STARS—Students Taking Authentic Routes to Success. The original legislation specified six broad career areas from which students would be able to choose in pursuing their CAM: Industrial and Engineering Systems, Social and Human Services, Natural Resources, Business and Management, Arts and Communications, and Health Sciences. To these, David Douglas staff have added a seventh—Hospitality, Tourism, and Recreation.

Asking a question about the variety of CAM projects led me, in a roundabout way, to learn more about that mysterious train track.

Aboard the DDX

Walking down the breezeway connecting the school's buildings on a cold day some years back (east Multnomah County gets some ferocious winds), teacher Mark Haner was uncomfortable. He thought about how much more uncomfortable the school's physically challenged people must be, as they made their way slowly from building to building. And it struck him that developing some sort of motorized conveyance between the buildings might be a good project for his students in the Industrial and Engineering (I&E) Systems CAM.

2)

Haner had his students brainstorm and research ideas (such as enclosing the breezeway and installing an escalator like those in airports) for feasibility and cost. Ultimately, through a democratic selection process, the light-rail system idea prevailed. The project involved work in mechanical engineering (the train itself), structural engineering (the terminal building), and civil engineering (the track). As he told me about the project, Haner emphasized that more than half the work in the I&E Systems CAM focuses on the development of communications skills.

All light-rail project activities were carried out by students working in teams within each of the specialty areas. One team, for example, took apart two old school buses "rivet by rivet," to create a vehicle with two front ends for back-and-forth travel along the track.

Last spring, four years since its inception, seniors in the I&E Systems CAM orchestrated the grand opening of the David Douglas Express. Haner showed me a nicely made video on the light-rail project, prepared by a girl in the Arts and Communications CAM. He also shared the current issues of *Building Futures: The Construction Industry Journal for Students,* which showcases the light-rail project. It is a point of pride for Haner that, with the exception of one student who stepped on a nail and required a tetanus shot, the long-term, complex, and demanding project was injury-free.

Haner took me out to the terminal building, where we boarded the fire-engine red conveyance with DDX, for David Douglas Express, on its side. Haner drove the train out of the terminal, and students who were moving between classes began to gather around, exhibiting personal styles ranging from clean-cut, to '70s-retro, to multiple piercings and "liberty spikes" (hair styled with Jello to stick out from the head in spikes). I could hear the students squabbling good-naturedly about the superiority of their different CAMs, displaying the esprit de corps that comes with engagement in such focused teams: "Our CAM is best because we get to be outdoors a lot." "Well, yeah, but we get to use computers more." "Maybe so, but we get to work with food!"

A senior student named Nick settled into the train's comfortable interior. He had worked on the computer design of the train's gears and motor, as well as the hands-on tasks of dismantling the buses and constructing the train. Self-possessed and thoughtful, Nick spoke enthusiastically about the DDX project and about his aspiration to work in digital animation and Web design. He has worked on the school's Web site, and reads "everything I can get my hands on about Web design and servers." When I remarked that he ought to be able to get a good job with the skills he is developing, he replied, "I'm not even worried about the money; I'm pretty much following my dream."

I thought of the classroom-bound, out-of-context business courses I took at David Douglas in the 1960s. I was definitely not following my dream. Coming from the days of making jumpers in home ec to wear to the mother-daughter tea while the boys made pipe stands and towel racks in wood shop, I envied the students their hands-on experiences with genuinely engaging projects.

Exploring the Stars

For David Douglas students, career exploration begins as soon as they enter high school. Ninth- and 10th-graders take courses that focus on personal finance and career exploration activities. As part of these PACE courses, students take career and interest inventory tests and conduct research into broad career

Cooking for a campus restaurant is just one way that Hospitality, Tourism, and Recreation students apply their skills.

areas or "constellations," such as Human and Social Services or Industrial and Engineering (I&E) Systems. Because eighth-graders in the district have already mapped out a tentative high school coursework plan while still in middle school, they expect and are ready to pursue these activities.

The Oregon Business Council helps open doors for PACE I classes to tour businesses and learn about various kinds of jobs. PACE II students go on focused job shadowing experiences where they interview employees and learn what education and training are needed for each job.

(Hearing this, I search my memory and my yearbook for indications that we were even *aware* of ourselves as people who might someday have careers. We had home economics, typing, and shorthand classes for girls, of course, and wood or metal shop for boys—especially the boys who smoked and were always getting sent to the vice principal's office. And a few courses such as bookkeeping, that were not so rigidly gender specific. But we had no real sense of how these connected with the world outside school, and there was nothing about the way they were taught that helped us to find out.)

Participation in CAM was originally elective, but now all David Douglas students are required to develop an individualized education and transition plan, complete a minimum of six credits in specific CAM coursework, participate in a work-based experience related to their CAM area, prepare a CAM portfolio reflecting high academic and workplace readiness standards, and participate in personal enrichment courses and activities. Each CAM program is flexible enough to match the needs and interests of students, regardless of their postsecondary plans.

Activities integrate rigorous academic learning and hands-on experience in a variety of settings, such as these:

- Students in the Natural Resources CAM grow foodstuffs, which are then used by the Hospitality, Tourism, and Recreation CAM students who operate The Kilt, an onsite restaurant.
- Students in the Industrial and Engineering Systems CAM built the battery-powered DDX light-rail system, and the Natural Resources CAM students are currently developing a solar- and wind-powered battery that will power the train and generate additional electricity to be used elsewhere in the school.
- Natural Resources CAM students are developing a putting green that will be maintained in an environmentally friendly fashion, without toxic chemicals.
- The school's onsite businesses, such as The Kilt, the Douglas Depot store, the Project Invest insurance office, and the Double D Daycare center, are all operated by—or with help from—students from the Business and Management CAM.
- Social and Human Services CAM students work and learn at the school's day-care facility, which serves the needs of students who are parents.

Casting a Safety Net

I was beginning to see why the New American High Schools program had recognized David Douglas. The dozen strategies that guide the program have become a reality on this campus. It's a school that expects academic mastery on the part of all students (Strategy 1), uses portfolios as new forms of assessment (Strategy 10), and involves its students in learning about careers and college opportunities through real-life experiences (Strategy 8). But I was still curious about that "safety net" Harrington had mentioned.

The safety net refers to a couple of things. One is that every David Douglas ninth- and 10th-grader has a mentor who assists him or her in tracking progress toward the CIM. Each administrator and teacher serves as mentor to approximately 10 students, half in ninth grade and half in 10th. A student stays with the same mentor for both years, establishing a relationship that communicates caring and support as well as information.

If students fail to meet CIM requirements, they have several options. Depending on the student and the nature of the need, they can retake classes, receive tutoring, attend summer school, or participate in special credit retrieval classes.

Bob Osburn coordinates the program for students who have not completed their CIM by the end of 10th grade. He makes sure that students understand what they need to do to meet CIM requirements: Take additional coursework? Complete additional tasks for their portfolios? Whatever the need, Osburn meets with CIM-deficient seniors and juniors at least once per quarter to guide and support them through their remaining requirements.

The vast majority of students do earn their CIM by the end of their sophomore year. And what about the others who, according to Osburn, include 100 seniors and 190 juniors this year? Good results here, too: last year all but 13 seniors finished their CIM. A few of the 13 did not graduate. A few transferred to a different area high school where less rigorous standards would allow them to graduate. Five are back at David Douglas this year as fifth-year seniors.

I asked if there is any stigma associated with being a late finisher of the CIM. "Kids realize how important our CIM is," Osburn said, "and they're really pulling for the kids who have to work harder to get it."

Relationship-Building Time

Visiting campus again a week later, I listened as Vicki Lukich facilitated a training activity for a group of new teachers who were about to meet their freshman and sophomore mentees for the first time and hold their first 50-minute mentoring class of the year. She spoke of their role in tracking students' progress through their CIM requirements. "You will become important figures in the lives of your mentees," she said. Noting that the positive relationships they form will help keep the students engaged and motivated, she said, "So don't let them go early; this is relationship-building time."

"Kids here know that their CIM is more rigorous and valuable than what is done at other schools," said Dottie Miller, 10th-grade English teacher. "And they are so much more focused when they leave high school —they have beginning career plans, they know where they're going."

In both Miller's and Lukich's mentoring classes, the teachers recorded students' CIM tasks and had them write down the dates of mentoring classes for the rest of the year. Then freshmen asked questions, and sophomores dispensed practical advice: "Plan ahead." "Don't procrastinate." "When you fall behind, it can be hard to catch up." "Don't try to get away with just seeing the movie if the book is assigned." But also: "Make friends everywhere. You'll need friends, so join sports or drama or other activities."

Yes, I thought, friends are always desirable, and in an environment like this, they are also important buffers against the threat of anonymity.

Good Days Ahead

During visits to my old high school, Harrington, Lukich, and other staff members were in agitated suspense about the fate of the grant application they had submitted to the Department of Education's Smaller Learning Communities Initiative. Selected on the basis of surveys completed by students, the activities in the grant proposal include: expansion of the mentoring program to include juniors and seniors, parents and adult mentors; leadership development activities for older students to build skills for mentoring; increased communications skills activities for seniors; developing an electronic tracking system for students' CIM activities; and several others. Nearly all proposed activities —totaling just under $500,000— involve expanding the personal attention and support provided to students in this large and growing suburban school.

In a follow-up conversation in October, Lukich excitedly told me that they had received the grant. As the funds are released over the next three years, they will be able to move forward with their ideas for making David Douglas's admirable program even better for kids.

Hearing this good news, I thought about the knowledge, directedness, and creativity of the David Douglas students of today. I smiled, remembering their wide-eyed stares and expressions of amazement when I told them I had been a David Douglas freshman in 1960. You might think that such feedback would leave me feeling really old. But thinking of their energy and enthusiasm and readiness to revitalize their world, I find myself feeling strangely young and hopeful. ■

TO BOOST STUDENT SUCCESS FOR THE LONG TERM, AN URBAN DISTRICT CONCENTRATES MONEY AND ENERGY ON HELPING FIRST-GRADERS. MORAL OF THE STORY? ONE SMALL SIZE FITS ALL.

STORY AND PHOTOS BY JOYCE RIHA LINIK

Student teacher Jesse Jones works with a small group of first-graders at Mary Lyon Elementary.

TACOMA, Washington— It has been referred to as Seattle's ugly stepsister, taken potshots for being a gritty, blue-collar second best. But while Tacoma may not be adorned with as many multifaceted glass high rises or its sister city's crown jewel, the Space Needle, Tacoma just may turn out to be a Cinderella story after all.

Recent years have brought a renaissance to Tacoma's historic downtown, built at the turn of the 20th century when the transcontinental railroad broke through the Cascade Mountains and rolled to a stop near Puget Sound. Impressive buildings, including the grand copper-domed Union Station and the old Florentine city hall with its enchanting bell tower clock, have been given facelifts. The city has contributed $5.2 million to build a new fine arts museum, and an International Glass Museum, featuring a 550-foot "bridge of glass," is scheduled to open in 2002. Even the once-industrial waterfront is being cleaned up; the old smelter and its piece of polluted beach are being trucked away bit by bit as cafés, bistros, and parks take hold along Commencement Bay. To connect these points of interest with the rest of the city, a new light-rail system and bicycle paths are under construction.

As a result of changes like these and the area's natural appeal (Mount Rainier and its forested inclines on one hand, the Sound's lapping outlet to the Pacific on the other), businesses are flocking to the area—among them such notables as Intel and Boeing. And as the education level of Tacoma's adult population increases, so does the commitment to improving education for its children. Case in point: a local program called Great Start, aimed at improving outcomes for some of Tacoma's youngest residents.

An Invitation to the Ball

When the Tacoma School District received a $1.06 million federal grant last year to reduce class sizes, it took a novel approach to allocating the money. It could have spread the funds throughout all classrooms in Washington's third-largest school district. Instead, the district decided to concentrate the money where it could make the most impact.

Determining how this would be done "was a collaborative effort between the district, teachers, and the teachers' association," says Lynne Rosellini, Director of Elementary Education. "We sat down together and looked at what's been done and what works best." In short, she says, "We went to the research."

Recent studies have shown that smaller class sizes have the most positive effect when classes are cut to 15 or 16 students per teacher, and that the biggest gains are seen in the youngest children. (See sidebar on class-size research, Page 25.) Because gains in the early years can increase a student's performance exponentially throughout the rest of the schooling years, Tacoma staff decided to focus their efforts on the first-grade level. They dubbed the program "Great Start" and appointed Rosellini as program director.

"We'd been talking about class size for quite a while," Rosellini says, "but we just didn't have a vehicle to make it happen." Now, they're hoping that the grant will plow the way for even bigger vehicles to follow, such as funding to expand the program to all first-grade classrooms and other grades.

The lid was set at 16 students per class, representing a drastic change for Tacoma. Recent reports indicate that Washington's student-teacher ratio is one of the worst in the country at 20 to one, and this figure includes such specialists as music instructors and special education staff who interact with students only intermittently. Average class sizes are even larger. The current classroom capacity, as per Tacoma teacher contracts, is 27 students.

"Federal dollars allowed us to hire 20 additional teachers placed at 12 different schools," Rosellini reports. "It allowed us to create 56 classes of 16 or less, and we were able to serve about 850 first-graders through the program in the first year."

The 12 schools were chosen from 37 elementary schools in the district, including an equal mix of low-, mid-, and high-performing schools to determine the effects of class size on differing populations.

But reducing class size is not enough. Because research also indicates that well-trained teachers are a key component to students achieving success, Rosellini says, "We decided that we needed to provide ongoing staff development. And we decided that we needed to encourage teacher planning and collaboration at the building level."

Eighty-five percent of the grant provided for teacher salaries, with the remaining 15 percent used for training. The district contributed additional funds for materials and for the expense of renovations to school buildings to create additional classroom space.

Preparations

Training for first-grade teachers and elementary principals involved how to provide better instruction within the framework of the smaller classes. Guided by both district experts and the occasional outside consultant, educators worked to improve approaches to classroom management, studied instructional methods for teaching young students to read and write, honed their student assessment skills, and reviewed recent research on best practices. Additionally, they received instruction in a "four-block" approach to teaching literacy and an intervention model for struggling readers.

Pat Pruitt, Geiger Elementary Principal, notes that this training extends beyond Great Start classrooms: "Good instructional strategies and practices benefit all, not just those in Great Start."

"We, as a district, are learning more about exemplary first-grade instruction," says Rosellini. "We have an articulated, unified curriculum. We have addressed time, material, and student management. And we've asked all teachers to utilize a two-hour literacy block and a one-hour math block daily."

TAPPING THE BENEFITS OF SMALLER CLASSES

"Recent research confirms what parents have always known—children learn better in small classes with good teachers."

—President Clinton

After decades of research on class size, the evidence is considerable and compelling: Especially in the early grades, smaller classes do make a difference. Studies show that the academic benefits for students continue after they move into larger classes, and are especially promising for poor and minority children. For teachers, smaller classes offer the opportunity to spend less time enforcing discipline and more time guiding students' individual learning—a chance to "become the type of teacher that they value," as one research team put it. On the wish list of new teachers, smaller classes rank well ahead of higher salaries, according to a recent survey by Public Agenda.

With at least 21 states and the federal government currently pouring resources into reducing class sizes, the conversation seems to be shifting. Instead of asking, "Will this really make a difference for our kids?", states and individual districts are now asking, "How do we get started?" The national Class-Size Reduction Program is helping move from idea into action, with $1.2 billion awarded in 1999 and another $1.3 billion in 2000.

Tennessee's Project STAR (for Student/Teacher Achievement Ratio), the largest scientific study to date on class size, showed that certain conditions are critical to achieving the benefits of smaller class sizes. *Class Size Reduction: Lessons Learned from Experience*, a 1998 policy brief from WestEd, highlights these conditions:

- Adequate supply of good teachers
- Sufficient classroom space
- A representative student mix in each class
- Teacher access to adequate materials and services

These conditions have been underscored in California, where the nation's largest class-size reduction effort—with a pricetag of $1 billion annually—was launched four years ago with the goal of reducing class size in grades K–3 to 20 or fewer students. Small positive gains in achievement were reported for the second consecutive year in an evaluation released in June 2000. But California's massive effort has been hamstrung by a shortage of qualified teachers and a crunch for classroom space. What's more, teachers in California's smaller classes have not substantially changed their classroom strategies, reports a recent ERIC Digest, *Capitalizing on Small Class Size*.

Professional development is a critical need to help teachers "take full advantage of the opportunities afforded by smaller class sizes," according to a recent national conference on class size cosponsored by the U.S. Department of Education and the Laboratory for Student Success. Conference attendees also suggested aligning "teaching practices with the class-size reduction strategy. ... Small classes should enable teachers to cover material in greater depth than they do in larger classes," they explained in a report of the proceedings, *How Small Classes Help Teachers Do Their Best* (published in *The CEIC Review*, journal of the National Center on Education in the Inner Cities, March 2000).

In his 1999 book, *Let's Put Kids First, Finally: Getting Class Size Right*, Charles M. Achilles adds another consideration for teachers by pointing out that smaller classes "are preventive, not remedial. ... If a student does not experience small classes when first entering the 'system,' there may be little gain without tutorials (the ultimate class size) or other expensive 'treatments'." He surveys the research on class size to point out several reasons why smaller works better, including:

- Less crowding: Crowding causes humans to change their behaviors. Why would it be any different in classrooms?
- Better attitude: In small classes, teachers often explain that they and their students feel alive, alert, and active all day long. Some of the best learning continues until the final bell.
- Deeper content: In smaller classes, teachers introduce more topics, cover more content, use more individual teaching strategies.
- More connections: Smaller classes result in more parent involvement with the school and more frequent interactions between teachers and children.

To gain the benefits of smaller classes, the authors of *Capitalizing on Class Size* recommend that a district begin with concrete goals, and consider these points when creating policy:

- Target money and other resources to minority and low-income students who stand the most to gain from smaller classes
- Make better teaching and learning the cornerstone of class-size reduction, and provide inexperienced teachers with training
- Assess facility needs, and plan for reconfiguring existing space or undertaking new construction
- Continually evaluate the results of class-size reductions, including changes in teachers' classroom practices

—Suzie Boss

District training has been supplemented by regular team meetings at the building level. Teachers are given latitude in their approach to these meetings, setting their own agendas based on their unique building and classroom needs. Most find it useful to devote time to both problem-solving and critical focus group study, engaging in professional debate about aspects of literacy and learning.

From Cinders to Silk

Established in 1909, Mary Lyon Elementary on the east side of Tacoma is one of the district's oldest schools. With nearly 25 percent of the student body from non-English speaking homes, 48 percent from minority populations, and 68 percent in the free and reduced-price lunch program, it is also one of the most socioeconomically challenged in the city.

"We felt very fortunate" to be included, says Principal Pili Wolfe. "We're one of the schools that has been in the bottom 10 in both literacy and math, so to have this additional resource to help our kids is just great." Wolfe's school has three reduced-size classes in Great Start.

The odd thing is that, at first glance, Anne Tsuneishi's class doesn't seem especially small. It's only in comparison to the more familiar overstuffed classrooms that this one looks sparsely populated. This morning, Tsuneishi's students are spread out around her on the floor for storybook time, legs outstretched and crossed, hands mostly idle. Sixteen six-year-olds—each with the potential energy force of the animated Tasmanian Devil—can be quite a handful. But with this more manageable number, Tsuneishi is able to spot when a wriggle or a twitch is about to escalate into distraction or disruption, and nip it in the bud.

With the smaller class size, Wolfe observes, "Children are more focused and more time is spent on task. Less time is spent on classroom management, and there are fewer discipline problems."

Teacher's assistant Tanya Hendrix adds: "When kids act out, they're trying to get attention. But here, they're getting attention, so they don't have to act up to get it."

While the class as a whole may not look particularly small, the change in class size is stunning when students break up for small group work, as in Andrea Holzapfel's classroom next door. Their assignment involves reading comprehension. Since children sometimes recite familiar books by rote instead of by reading, the text from a favorite story has been printed on a worksheet, with the sentences out of order. The students must read the sentences to cut and paste them back into the proper order. When these groups of just three to five children interact with Holzapfel and two classroom assistants (one teacher's assistant and one student teacher), students have the opportunity to directly interact with an adult to make sure they comprehend the assignment. Because the groups are so small, there is time for one-on-one communication with each student.

"The extra individual attention really makes a difference," says Holzapfel. "You get to know kids much quicker, get to know their strengths and weaknesses. You're able to help them all."

So Many Pumpkins, One Well-Used Wand

In Betsy Guerra's classroom, students are struggling with a worksheet that instructs them to draw four red animals, draw three blue animals, and then count the number of animals. Eventually, the students will be asked to turn this visual exercise into a numeric equation. Since two of the students arrived just this week from Mexico and speak no English, the bilingual Guerra leans over their table to assist with translation. A parent helps at a second table where students ponder over what particular animals might be best for solving this riddle. Roselli, visiting from the district office, helps at a third, where one boy is having trouble comprehending what he's being asked to do. She softly coaxes him through it until he grasps the concept.

"That little boy was only able to do that exercise one-on-one," Roselli later says. "Kids can't hide in a class of 16."

Teachers report that, even in a class of 27, they can spot the most gifted and most challenged students. But in a larger class, it's very difficult to give those students the help they need, as well as to avoid the tendency of lumping average students together.

In smaller classes, gifted students are more likely to be given academic challenges, instead of spending their time tutoring other classmates. Kids in the middle are more likely to be seen as individuals, with unique strengths to build on and weaknesses to overcome. And struggling students who need extra time and assistance are more likely to get it. All because teachers have more time to devote to each student.

"The real difference," according to Gail Miller, an elementary education specialist in the district, "is that teachers *can* teach because the management issue is not so great. The focus of instruction and the pacing are so different in Great Start; they go further in a day and in a year."

Of course, teachers recognize that small class size is not a panacea for all the problems that plague education. But smaller classes, combined with training and collaboration, do make a difference. Holzapfel says, "I still have kids with learning problems, and I have four ESL kids this year, but it's a lot easier to give them the support they need."

At an after-school meeting, teachers meet with Principal Wolfe and the school's ESL and special education staff to discuss each first-grader's specific needs for the year. In many schools, it's a small percentage of students who need language and/or extra academic assistance; here, it seems to be the majority. There is much discussion on how best to serve students' needs with limited staff, and the teachers work to group and regroup students based on assessments performed the week prior, volunteering to work with and reassess borderline stu-

Thanks to smaller class sizes, teacher Betsy Guerra (photo at far left) finds time for one-on-one work with a first-grader. A parent volunteer (photo at left) helps a couple of Guerra's students with a math assignment.

dents to be sure they're getting the assistance they need to progress as quickly as possible.

Surprisingly, staff know all of the first-graders by name—even those in other classrooms—and contribute information on specific students that might be helpful. When first-grader Francisco's name comes up, kindergarten teacher Patrice Papen asks Tsuneishi if he is wearing his glasses, since he had a tendency to forget them last year. In the three weeks of school thus far, Tsuneishi has not seen them, so Papen suggests that a phone call to "Mama Rosa" might be most productive.

Improved relationships with parents are another plus. "Teachers have more contact with families and can give them suggestions for helping their children to succeed," Wolfe reports. "Even in conferencing, teachers are able to conference for longer than 20 minutes. With more kids, there just isn't time to do that."

Many of Lyon's students need all the help they can get, and progress is sometimes as much social as academic.

"Last year," Tsuneishi says, "we saw a lot of growth in the lowest performing kids. I had two kids who went through some very tough times at home. They were considered high-risk at the beginning of the year and were still high-risk at the end of the year. Things didn't end all roses and candy for them, but I believe it would have been harder for them in a larger class. I am convinced that with a full-size class, I wouldn't have had as much compassion or energy for them. One did make major academic progress; he went from knowing only a handful of letters and no words to knowing all his letters and a hundred words. Whether it's academic or behavioral learning, it does come down to time and attention. And it works the same for both special needs and average students."

Guerra cites a similar story about a struggling student who arrived with "a chip on his shoulder" and a tendency to act out. "It took constant, constant relationship-building to keep him on track. If he knew you loved him, he'd work hard for you. The relationship was what kept him steered to academics and appropriate behavior." Because of the smaller class size, Guerra was able to devote the extra time the child needed.

While students can't hide in smaller classes, teachers can't either. "They can't bury themselves in classroom management," Rosellini asserts. Great Start has "kept teachers hopping because they move through the curriculum so quickly."

Teachers must constantly add to their bag of teaching tools to be able to serve the varied needs of their students. At Mary Lyon Elementary, collaborative teacher meetings at the first-grade level were so visibly successful last year that the rest of the staff elected to participate in weekly grade-level collaborative sessions, as well.

"It's not just about class size," says Tsuneishi. "Having staff development, common planning time, and collaboration makes all the difference. And, yes, that takes more time. But we do it because our classroom instruction is better. Test scores are already indicating improvement."

When the Clock Strikes

It seems evident that Tacoma students are benefiting from Great Start.

"We have great anecdotal evidence of success," says Rosellini. "Our kids are further ahead in the year. They're covering the curriculum more quickly. Teachers have reported that they really know where students' strengths and weaknesses are, that a sense of community in the classroom has developed much faster, that they've developed relationships with parents more quickly, that conferencing is much more meaningful, and that they're less stressed."

Quantifiable evidence is expected to support the qualitative. A full analysis of data from the first and early second year is currently underway. Primary assessment tools include the Tacoma Screening Instrument, a basic assessment for literacy progress, and the Qualitative Reading Inventory, a fluency test that charts student progress. Parent and teacher surveys are used, as well.

Meanwhile, federal grant money only provides for Great Start to continue through the end of this school year, and that has some folks wondering: Will funding disappear when the clock strikes 12?

At this point, Tacoma staff members are confident that theirs will be a happily-ever-after story. After all, it's not just teachers who see the benefit of smaller classes. The issue is firmly in the legislative arena and has strong support from some powerful players. And "parents who want this," Rosellini hopes, "will continue to exercise their rights as citizens."

Even first-graders can see that smaller classes are better.

Six-year-old Janessa says, "There's more empty chairs so you can choose any chair you want."

And classmate Shawn has an even better reason: "Smaller classes are better 'cause you can get through the lunch line faster." ■

PERSONALIZING EDUCATION

THEY WOULDN'T TEACH ANYWHERE ELSE

THREE OF THE REGION'S AWARD-WINNING EDUCATORS SING THE PRAISES OF LIVING, WORKING, AND LEARNING IN SMALL COMMUNITIES.

BY SUZIE BOSS

BERNIE CHASTAIN
MAUPIN, OREGON

By noon on a weekday in late August, the thermometer is pushing up toward three digits on the dry side of the Cascades. For residents of Maupin, population 460, this is the peak season. Late summer sun bakes the basalt cliffs and turns the wheat fields to gold. Every sunny day brings more white-water rafters to this oasis on the banks of the Deschutes River, and all those summer tourists drop needed cash into a local economy that will be looking lean by winter.

At Henry's Deli, a stone's throw from the river, it's not rafters or fishermen who crowd the lunch tables today, however. It's teachers. Students won't return to school for another week, but the staff is already busy with inservice sessions and classroom preparations.

Looking down the long table in the middle of the café, Bernie Chastain, 48, takes in the faces of colleagues and neighbors she's known most of her life. A product of local schools herself, Chastain is a 25-year veteran of teaching in the South Wasco County School District. Just up the road, a community marquee congratulates her for being named state Teacher of the Year by the Oregon Small Schools Association. From her perspective, though, that award belongs to her community. "I just managed to bring it home," says Chastain, a modest-sounding but elegant-looking woman with honey-colored hair falling past her shoulders. When a visitor asks her a question about the quality of education in places like Maupin, it's only natural for Chastain to sidle up to that crowded café table and ask the group, "What are the good things about small schools?"

First, smiles spread around the table. Then the answers start to percolate: "We know our kids so well. We know their families, their parents, even their aunts and uncles. We're close." "We can be flexible to meet a student's needs." "We have more control over what we teach and how we teach." "We're given the freedom to find ways to help our kids succeed. The district trusts us to do a good job." "The school is the center of our community. We'll pack the gym for an elementary school program or basketball game, even if it's the middle of the day. And if our high school makes it to the state playoffs, everybody goes—even people with no kids in school."

Such tight school-community bonding can be found in larger cities, too, Chastain acknowledges, "but it happens here more easily. There are a lot of connections for our kids." The teen-age girl waiting tables at the café today, for instance, had Chastain as her second-grade teacher. The cook behind the counter is an organizer of the local Booster Club, which supports activities at the 100-student South Wasco High (Chastain's alma mater). Two tables over sits a little red-headed boy whose confidence as a reader soared last year in Chastain's literacy lab at Maupin Elementary. The young man sauntering in to order a milkshake is Chastain's nephew and former student.

"People who choose to live here are connected by school, family, church, and history. They have a sense of who they are," Chastain believes. She's lived here since 1965, "but that only makes me a semi-local," she laughs. "Families go back for five or six generations." Chastain appreciated those connections for her own son and daughter, now both in college, "and I see the benefits for my students. We may not be able to offer all the courses you'd find in a larger district," she admits, "but we provide more personalization of education. And we know how to be flexible."

Although the South Wasco district is large geographically, with some students traveling 40 miles each way to get to school, the enrollment is small—about 100 attending the high school, 200 in K–8. The yellow elementary school, junior high, high school, and administrative offices all share a campus smack in the middle of downtown Maupin.

Chastain can't even remember a time when she didn't want to be a teacher. What keeps her motivated and enthusiastic after a quarter-century in the classroom is the opportunity to keep expanding what she knows, whether by serving on a benchmark team with fellow teachers or developing ways to teach to multiple intelligences in the primary grades. "I like to learn, and I want to model the joy of learning and self-improvement for my students," she says. "I need to find ways to make learning connect for them."

A few years ago, for instance, Chastain got interested in brain research that shows how the development of neural pathways can lead to more fluent reading. The information seemed too valuable to keep to herself, so she shared her insights with Superintendent Tom Rinearson. In a small school district like South Wasco, she says, "the doors are open for those kinds of conversations." Rinearson believes in using strategic planning to improve school quality and manages with a data-driven approach known as the Baldrige framework. He suggested Chastain organize a field trip for her fellow teachers so they could assess whether a different approach to reading would fit into their district's overall vision. When they saw students thriving at a research-based reading lab in Eugene, Chastain recalls, "They were as excited as I was."

By fall of 1999, with backing from her superintendent and principal, Chastain had set up her literacy lab at Maupin Elementary (called the R.E.A.D. Lab, for Reading Errors Are Destroyed). She began assessing all students, from emergent readers through sixth-graders, on their reading fluency. She met with students individually to help them understand what sorts of errors were holding back their development as readers. Students set their own goals for improvement, and Chastain charted their progress with easy-to-understand bar graphs. Then, she organized a tutoring program so that more fluent readers—including students, parents, and other community members—could be trained to help students overcome specific reading errors and build reading speed and comprehension.

The approach has proved so effective at boosting students' reading skills that, this year, Rinearson has asked Chastain to leave her classroom and devote her full attention to the R.E.A.D. Lab. She hopes to expand individual reading assessments to include seventh- and eighth-graders. In addition, she's mentoring three brand-new teachers.

While she's thrilled to see students improve their reading skills, Chastain also is excited by the bonds that tutoring builds. "When our sixth-graders tutor the little ones, they become connected in a very positive way. Tutoring takes honest communication and encouragement. And the tutors model fluent reading, so that holds both tutors and readers to 100 percent accuracy." More and more adults are turning to the R.E.A.D. Lab—some

to offer help as tutors, and others to seek help with their own reading.

When she sees students or adults make gains in reading, Chastain knows they also are improving their confidence to overcome obstacles. And modeling resilience—what she calls "learning to rise above"—is a theme in everything she does, whether in the classroom, the community, or her personal life.

Idyllic-looking places like Maupin aren't without challenges, admits Rinearson. Poverty rates are high in south Wasco County, and loss of population has meant closing schools in towns of Tygh Valley and Wamic. Rural communities face not only a tight economy but also an ongoing "brain drain," he says, with many high school graduates leaving family ranches for bigger cities and greener pastures. "But we have a choice," says the superintendent and unabashed advocate of small schools. "We can train our kids just well enough for minimum-wage jobs in the big cities, or we can educate them to become CEOs someday—and maybe telecommute from homes they choose to make in places like this one." ■

GIVING HER WHOLE HEART

MARILYN ROSENE
DILLINGHAM, ALASKA

How small is Dillingham, Alaska? Depends who's asking.

During the 18 years she's been teaching at Dillingham Elementary, Marilyn Rosene, 46, has learned that there's no easy way to size up a community. Her adopted Bristol Bay hometown of 2,200 looks pint-sized to visitors from Anchorage, some 350 miles away by air. There's not even a traffic light on the one road that starts at the commercial fishing harbor and dead-ends 25 miles away. But to people who make their homes in the bush of southwestern Alaska, Dillingham is the hub—the nearest city large enough to house retail shops, a hospital, and offices for government agencies.

For Rosene, Alaska's Teacher of the Year for 2000, Dillingham has proved big enough to carve out a rewarding life. "As a teacher and as a person, I feel like there is a place for me here," she says. She wears all sorts of hats: wife, mother, community volunteer, teacher, colleague, friend, neighbor, leader. "It's not exactly the laid-back existence some people might imagine," she says.

Indeed, not much about teaching in rural Alaska fits outsiders' preconceptions. "Schools here are different from rural schools in other places. We're inaccessible and unknown to most of the world. In rural Montana, you can get in your truck and drive for four, six, or eight hours and eventually get to a Wal-Mart. Not here. You can only get in and out by air—and if the weather turns, you're stuck." And because of the sparse population, she adds, "most of our teaching staff comes from somewhere else."

Like many schools scattered across Alaska's vast landscape, the 580-student Dillingham City School District (including an elementary school for preschool through fifth-graders and a middle/high school for grades six through 12) constantly struggles with staff turnover. This school year started with a new superintendent, several new teachers, a new principal for the secondary school, and an opening for the elementary principal's job. Because she sees so many colleagues come and go, Rosene has given serious thought to the factors that convinced her to stay beyond a year or two—to make a real life here, not just a short-term adventure.

Growing up in the suburbs of Minnesota's Twin Cities, Rosene wanted to be a teacher from a young age. Ironically, it was inner-city children she imagined herself teaching, not the population of predominantly Alaska Native rural youth she teaches today. After college, graduate school, and a few years of teaching in Wichita, Kansas, she moved to Anchorage with a girlfriend in 1982, almost on a whim. She worked in a restaurant, started substituting in schools, and began hearing about the other side of Alaska—the rugged back country of glacier-fed lakes, mountains, tundra, and vast forests that sounded like "a whole other world."

Rosene enrolled in a summer program in Fairbanks designed to help prospective rural teachers get their bearings. "I learned more about the culture, people, and history. Guest lecturers helped us overcome our misconceptions about the bush and provided a good reality check. They told us things like, if you have a missionary zeal, don't come. If you think teaching in a two-teacher school will help your marriage, don't come. They helped get rid of the stereotypes." In hind-

sight, she sees that program as a key to helping her make a successful transition to small-town teaching in a community where being Caucasian makes her a minority. Now, when she's on the recruiting end of summer job fairs, she's the one challenging prospective applicants' myths about living and teaching in rural Alaska. What she hopes to avoid is the horror story she's heard all too often: new teachers flying into a bush community, then hightailing it right back out again before they see their first sunset.

"Teacher turnover is a statistic, but it's also about people," Rosene points out. "Think of a child who gives his whole heart to a brand-new teacher. And then that teacher leaves, and that hurts. So maybe he'll give only nine-tenths of his heart to the next teacher. And after four or five teachers come and go, the child's afraid of getting hurt again. He's not so open anymore." Rosene is not surprised when the first question parents and children ask a new teacher is: Are you going to stay?

When small-town teaching is a good match, though, the benefits extend to teachers, students, and community members. Rosene sees the advantages her own 12-year-old daughter enjoys, growing up in Dillingham. "Kids can participate in all the activities in school here. It's not like the big suburban school I attended, where you were either a jock or a brain or in the band, with no chance to overlap. In Dillingham, either everyone participates or the activities just don't happen." High school students involved in athletics or student government gain exposure to a wider world, traveling by air to competitions and events across the state.

What's more, Rosene says, "You know almost everybody here. Most of these kids have been playing together since they were in diapers. Students know their teachers in and out of school, whether as neighbors, through church, or just bumping shopping carts at the grocery store." Drawing on research in resiliency and on her own experiences in the classroom, she has become a big believer "in having adults really know kids, adults who are important in their lives."

As a teacher, Rosene has found ample room for professional growth in Dillingham. "Because we're a small staff, I've had opportunities to participate in staff development, to write and adapt curriculum, to provide inservice training. As a basic fifth-grade teacher, I've had a lot of involvement in leadership roles. Not every teacher might be as excited about that," she admits, "but it's helped me learn and grow."

In her own classroom, Rosene makes an effort to connect learning with the lives of her 10- and 11-year-old students. "I try to be reality-based. I encourage my students to be responsible for what happens in our classroom, for what doesn't happen, and also responsible for the school and larger community." Her kids operate a school-supply store, for instance, called "The Pencil Place." Rosene invites guests from the community to talk with her young entrepreneurs about how to run a business, how to work with a bank, how to work effectively as a team, how to prepare for careers in the real world. At the end of the year, they donate proceeds—usually several hundred dollars—to causes they have researched and consider important for their community and the larger world. Elementary-aged students are old enough "to think of the future," she says, "to see themselves as productive adults."

In all subject areas, Rosene makes an effort to incorporate both community and culture. A social studies discussion about family, for instance, typically includes a classroom visit from elders in the community. In a math lesson, she explains how the Yup'ik people take a mathematical approach to designing parkas. In health, she talks about avoiding and treating hypothermia—a survival skill during the long Alaska winters.

As Alaska's Teacher of the Year, Rosene has had a chance to share her experiences and insights with everyone from the governor to state education officials to outstanding teachers from other states. Their questions often bring her full circle, to that first query that greeted her in Dillingham: How long will she stay? "What's forever?" she answers back. Although she can't foretell the future, Rosene knows that this remote place on the edge of Bristol Bay feels like home. "It's a comfortable place, and it works for both my husband and me. My daughter is challenged academically. And I've had a chance to form relationships here with children, with community members, and with my educational family. It's a bond I'll never make anywhere else." ■

NEVER UNDERESTIMATE WHAT KIDS CAN DO

CLINT KENNEDY
CASCADE, IDAHO

Soon after the 25 seniors in Cascade High's Class of 2000 were awarded their diplomas last spring, science teacher Clint Kennedy headed off to Washington, D.C., to receive his own high honors. Winner of a Presidential Award for Excellence in teaching secondary science, Kennedy joined an elite group of educators for a week of seminars, sightseeing, and banquets.

One afternoon that week, while participating on a panel with about 15 biology teachers, the Idaho teacher was "astounded," he says, "to hear that only three of us thought small schools offered an advantage." The moderator, from the National Science Foundation, pointed out that research has demonstrated the benefits of smaller schools, prompting many large schools to reorganize as smaller learning communities. Says Kennedy, "It stunned me that these Presidential Award winners from other states hadn't recognized that yet."

In Cascade, Idaho, where about 220 students are enrolled in grades K–12, "it's very clear to us that the small-school scenario is so much more effective. It's better for everybody," he says.

Now 50, Kennedy came to Cascade, and to teaching, about a dozen years ago. He took a roundabout route to the classroom. In the 1970s, he was nearly finished with studies in biology, botany, and zoology at the University of Idaho when his wife gave birth prematurely to identical twin daughters. He turned to logging to pay medical bills and support his young family, just as his own father had done when Kennedy was growing up in the small town of Grangeville, Idaho. After 15 years of working in the woods, he decided to get back to his first love: science. "The best way I could figure out to keep living in small-town Idaho and be involved in science was to be a science teacher."

Soon after completing his teaching certificate, Kennedy interviewed for an opening in Cascade, a community of about 1,000 located 75 miles north of Boise in forested Long Valley. On their first visit to the town, Kennedy and his family took in the crisp high-altitude air and the mountains rising to 9,000 feet behind man-made Cascade Lake. Dangling their feet in that clear, cold reservoir water, Kennedy, his wife, daughters, and son "looked at each other and decided this was the Idaho we loved." He's never taught anywhere else.

Although today Cascade High enjoys a reputation for academic excellence and innovation—including designation as a national Blue Ribbon School and membership in William Glasser's Quality Schools—that wasn't always the case. The front hall used to display only sports awards, not the academic honors that shine in the trophy case these days.

Gradually, Cascade has embraced new ideas to support students and help teachers do their job more effectively. Rather than mandating top-down change, Principal Bill Leaf "kind of presents ideas, encourages us to discuss things, then lets the staff decide," Kennedy says. The high school, which averages 130 students in grades seven through 12, has adopted a 95-minute block schedule. For a science teacher like Kennedy, that means time to schedule labs that promote hands-on, project-oriented learning. Teachers have identified students' individual learning styles and have learned how to make classroom adjustments for learners who are more visual, auditory, tactile, or kinesthetic. Although small, Cascade has managed to bring in big names in education to discuss research-based strategies and has won financial support from the Albertson Foundation and other sources.

The school is also a state leader in integrating technology; every junior and senior is provided with a laptop computer, complete with wireless Internet access. (In fact, the district was exploring the use of multimedia systems for instruction as early as 1968, when it was a field test site for a small-schools project of the Northwest Regional Educational Laboratory.)

"All these things are easier to implement in a small school," Kennedy believes. "If you don't have a ton of students, it's easier to identify their learning styles and have teachers address them. We don't struggle with bureaucracy here. I don't have to jump through any hoops to get my kids out of class for a field trip. Can you imagine going to a large school and checking out a laptop to every student? It would never happen. Yet, it's a powerful thing to do for kids."

Empowering students is what Kennedy is all about, and he's convinced that a smaller school is the best place for that to happen. "The freedom these kids have is unreal. If they want a certain class, all they have to do is ask for it. Our principal is committed to meeting their requests. All he asks is that at least 10 kids sign up." If kids want to use the gym to shoot hoops at night or stay late to work on a project, they just have to ask to gain access. "They feel like the school is *theirs*. They're not just going to some building. That really shows up in kids' attitudes, and in what goes on here in the classrooms." What helps create such a positive climate, Kennedy says, "is that these kids know their teachers, they know the principal, they know the superintendent. Nobody's just a face in the crowd. Stu-

dents' opinions mean something. The relationship kids have with adults here is phenomenal."

Just how far can kids go, when given support, encouragement, and opportunities for learning? Judging by the outcomes of Kennedy's Advanced Biology class, the sky's the limit. The two-year elective immerses students in scientific inquiry —researching and solving real-life environmental problems that affect their own community. The class began several years ago with a focus on water quality problems at Cascade Reservoir, which sits just a few blocks from the school building. Kennedy provides students with a foundation in physical, chemical, and biological sciences, then turns them loose in small teams to pose their own questions and seek solutions. They must find the funds to implement research projects and locate the experts to help answer their questions. While learning about science, they learn the real-world lesson of balancing the different strengths that individuals bring to a team.

The class also offers the kind of experience that keeps Kennedy excited about teaching. "In a small school, I get to teach six or seven preps. For me, that's an advantage," he says, although he knows colleagues in larger schools who would disagree. "I'd go crazy if I had to teach the same thing all day long." In his Advanced Biology class, he says, "the students and I learn together. I don't have to be the expert. They come to me when they get stumped on a problem, and I help them figure out how to learn what they need to know to move forward. Then they're off again, doing their own thing. I love that," he says. "We underestimate the capabilities of kids. We so seldom give them a chance to really think and apply what they know. We should never hold them back."

Over the years, student projects have earned competitive grants, won national awards in science contests, and enhanced the local environment. Students have designed wetlands, engineered solutions to save struggling trout populations, and even convinced local ranchers to change how they use the land. One year, four girls who called themselves the "Sewage Sisters" worked with British engineers to study the feasibility of introducing a cutting-edge sewage treatment technology in Idaho. Cascade students have published findings in scientific and educational journals. Lately, their interest has expanded beyond the lake to include projects involving the DNA of hot springs bacteria and a regional solution to control noxious weeds. Student researchers testify before government agencies and speak to community groups to build support for their solutions. In the process, they forge bonds of respect between school and community.

The first year that Kennedy suggested his students enter their projects in a national contest, they balked. "They told me, 'oh Mr. Kennedy, we're just a small school in Idaho. We're not going to get anywhere,'" he recalls. But that year when the Seiko Youth Challenge announced its semifinalists for the 11-state western region, little Cascade High had won two of the five spots. One team went on to nationals and wound up as one of the top five teams in the nation. "They found out it's not a matter of who you are or where you're from. It's a matter of how hard you're willing to work," Kennedy says. "From that point on, interest in the class exploded. These kids have been winning awards and recognition ever since."

After a dozen years in the classroom, Kennedy has come to see his job this way: "I'm there to present my students with opportunities. I'll do everything in my power to get them time, equipment, and resources to put them in a position to do something neat. Whether they take advantage of that opportunity is up to them," he says. Most kids will jump at the offer, and Kennedy understands why. "When I've wanted to start new projects in my classroom, this community has been there to support me. They create opportunities for teachers like me. Would that occur in larger places? Maybe. But it's sure a lot easier here." ■

BIG SKY LEGACY

IN MONTANA, SMALL SCHOOLS AREN'T A NEW IDEA. THEY'RE A WAY OF LIFE.

STORY AND PHOTOS BY SUZIE BOSS

Depending how you measure it, downtown Reed Point, Montana, stretches for maybe half a dozen blocks. The wooden sidewalk gives out at the Hotel Montana, a bed-and-breakfast inn overflowing with antiques and hospitality, but the road continues across the railroad tracks, past the gas station/convenience store, and down to the new post office. This is the route for the town's annual Labor Day Sheep Run—like the running of the bulls in Pamplona, only woolier.

To find the real heart of Reed Point, though, you have to cut down a side street lined with modest homes and through the front doors of Reed Point School. Here, about 50 students in grades six through 12 are living, breathing proof that this ranching and farming community of 120 boasts not only a colorful past, but a promising future.

A decade ago, Reed Point's secondary school was an eyesore on Montana's educational map. The building was unsafe by any number of standards—from the basement boiler room with a door too warped to shut to the asbestos

Teacher Jim Schaff (left), librarian Dale Alger (center), and students from the Heritage Project explore what's left of a homestead.

falling from the ceilings to the rope ladder to be used as an escape route by anyone unlucky enough to be upstairs if fire threatened. Enrollment was low, even by Reed Point standards and even with foreign exchange students inflating the daily attendance figures.

"We knew we had to do something," recalls longtime teacher Marianne Kaelberer. "Our choices were: build or shut."

Shutting Reed Point School would have meant putting students on a bus to Columbus, 17 miles east, or to Big Timber, 20 miles west along Interstate 90. Reed Point's elementary school, housed in an historic blue-and-white schoolhouse, would have stayed open, but for how long? Consolidation—the force that has meant the end of rural schools across the country for half a century—was knocking at Reed Point's door.

At town meetings, parents, teachers, and other local residents voiced the same concern. "Our community would totally die without this school," Kaelberer recalls hearing again and again. Staff from the Northwest Regional Educational Laboratory's Rural Education Program worked with Reed Point as a partner site as the community went through a wrenching soul-searching process. At well-attended meetings, charts were drawn up to compare the pros and cons of building or consolidating. Grant applications were written. Building plans were drawn and redrawn, getting less grand but more economical with each version.

Finally, armed with a solid plan and convinced of strong taxpayer support, residents traveled to Helena to pitch the value of their local school to legislators who had an eye on the bottom line. To the surprise of folks from Reed Point, residents of other small towns showed up to lend their support, too. These unexpected allies weren't in any immediate danger of having their schools consolidated, Kaelberer says, "but they knew if we had to close, they could be next."

Superintendent Gary Wilz, 40, in his second year on the job in Reed Point, didn't go through the school building process personally. But the crew-cut transplant from North Dakota understands the significance of the story for the community where he and his wife are now raising and educating their own two daughters. Offering a quick tour, he points to the gym that gets a workout from both school and community, classrooms with a student-teacher ratio of about eight to one, brightly lit commons area where students gather for lunch or studying, high-tech equipment that makes Reed Point one of the most-wired schools in the country (with one computer for every 2.5 students and the town's only fax machine).

Not only is local enrollment strong—this year's senior class of 16 is one of the largest in years—but some families are driving their children long distances from other communities so they can attend school here, where the adult attention is close and cliques are practically nonexistent.

"In the end," says Wilz with a smile, "this is what happened."

LOCAL CONTROL

It's been six years since the new Reed Point School emerged from its old shell, but the story continues to resonate with those who live in the state's small towns and rural counties. Explains Claudette Morton, Executive Director of the Montana Small Schools Alliance: "This is a strong local control state. People feel a real connection to their schools, and they don't want to lose that. They're passionate about keeping these little schools open."

Montana's small schools were born of geographic necessity. With 878,000 residents scattered over 147,046 square miles, the Big Sky state is wide enough to stretch from New York City to Detroit but has the population density of Australia—the fifth-least-dense nation on earth. Almost two-thirds of the state's public school districts are rural, enrolling about one-third of all students. Schools with enrollments under 300 are the norm for 75 percent of Montana's elementary and secondary students. And about 150 elementary schools are so small that you can count their teachers on one hand.

By many measures, students thrive in these small schools. As the *New York Times* pointed out last summer, students from Montana's tiniest elementary schools (with 40 or fewer students) "tend to outperform their peers on standardized tests in every subject." What's more, the state's small rural schools tend to be an academic equalizer for students at risk because of poverty, according to a recent report by the Rural School and Community Trust. "The smallness of these schools is an asset to student achievement," the report concluded. Anecdotally, too, teachers and parents report positive results for small-schools students. "Kids who don't quite fit elsewhere manage to fit in a school like Reed Point," says Kaelberer. "It's a good place for a student who needs a chance."

Montana's small schools are more than a local success story. They offer a glimpse of the daily routines and teaching practices that may become more common, if national efforts to reshape large schools into more intimate learning communities prove successful.

Not to say that these little schools are perfect, Morton is quick to add. Teacher pay is low and benefits such as health insurance and funding for professional development are inadequate in many of the state's rural communities. Wilz worries about providing his students with enough course offerings so they can be competitive with peers from larger schools. But when Morton

hears "big schools" teachers talking up the latest trends—peer tutoring or multigrade classrooms or project-based learning—she has to hold back a smile. "This is what small schools *do,"* says the longtime educator whose career has taken her from the classroom to the state Office of Public Instruction to university teaching to national research projects. "It's what they've always done."

Spend a few days traveling the roads that wind along rivers and up valleys into the state's rural heartland, and you'll see that even the smallest town isn't complete unless there's a school at the center. For this state, the small schools model isn't a bold new invention. It's a legacy. And it's something that educators and community members find a way to make work, one small town at a time.

AS SMALL AS IT GETS

Not far from Reed Point, a two-lane road cuts south off the interstate and follows the Stillwater River through a landscape that belongs on postcards: red barns, green meadows, rocky hillsides capped with snow. Lower Stillwater Valley is dotted with communities of a few hundred residents. But as the elevation rises into the Beartooth Range, the miles stretch out between signs of civilization until finally, rounding a bend, you spot a little schoolhouse made of stone.

At Nye School, the lights come on early and burn late. Dawn Mill, 27, is the lone teacher responsible for educating 11 students in grades one through six. Planning six separate lessons for several subjects a day takes time, but she's determined not to shortchange the children this community delivers to the school doorsteps each weekday. Their future rests squarely on her shoulders.

Scattered across Montana's wide open spaces, more than 80 one-room schools endure. Only Nebraska has more still in operation. Nye School is kept alive by Mill's dedication and about a dozen local families who value what kids can learn in a classroom that feels like a family. Several parents work at Stillwater Mine, a platinum and palladium operation. Others find work at a nearby restaurant, the local post office, or employers located "down the hill" in towns like Absarokee (population 800). To supplement the lean school budget, the community hosts an annual auction and social event where fiddling fills the air and pies sell for upward of $200 apiece. In less than an hour, the auction raises $2,000 so students can go skiing at Red Lodge, take field trips to the Museum of the Rockies in Bozeman, or have access to the computers that connect them to the wider world.

ABOVE
Nye School teacher Dawn Mill gives the 11 students in her one-room schoolhouse plenty of one-on-one attention.

BELOW
Teacher's aide Jeanne Campbell, a Nye School neighbor, helps a first-grader with an assignment.

On a Monday morning the kids crowd around Mill, eager to tell her about their weekend adventures. She shoos them good-naturedly to the desks that stretch across the wooden floor. This year's three first-graders sit in a row on one end of the room, seven more classmates are arranged by grade levels to their left, and the lone sixth-grader sits in a place of honor at the front of the class. Mill takes time to listen as a third-grader describes his successful rabbit hunt and a first-grader tells about his new dinosaur slippers. The class has a busy day ahead, but Mill doesn't rush the moment. "They just have to tell their stories," she says.

In a one-room school, students know that their stories matter. Mill doesn't discount the value of the personal attention her students receive—all day, every day. She practically wears out her shoes making the rounds from desk to desk to answer questions and offer individualized instruction. But after five years of teaching in one-room schools, she believes her students gain something even more valuable than personal attention. "What they learn here is independence," she says.

Like many Montanans, Mill is the product of a country education herself. There were three in her graduating class at Lavina. When she moved on to the big city of Billings and enrolled at Rocky Mountain College, she realized that she already knew "how to dig for information, how to find things out for myself, how to learn."

She sees those qualities emerge in her students, too, as they follow the unique rhythms of the school day. They learn patience by seeing that their turn with the teacher always comes around, even if it takes a while. In the meantime, they can ask a classmate for help or listen to the instruction taking place a desk away. There's no need for Mill to implement a formal peer tutoring program; helping your neighbor comes as naturally as breathing in multigrade classrooms. She's careful, however, not to rely on her older students to be mini-teachers. "They need time to be kids yet, too," she says. "I always ask them if they'd mind helping a younger one." As Kaitlin, the lone sixth-grader, admits, "The little kids can get annoying."

Sometimes all 11 students come together to work on a project, such as their recent investigation into bats. In a spirited group discussion, they compared notes on what they already knew and what they wanted to find out. Even the shyest boy in the room—a towheaded first-grader with an endearing grin—finds the courage to speak up in this nonthreatening environment. Without classroom walls to sort kids by age or ability levels, many students zoom past grade-level expectations. A couple of this year's students are reading even beyond the high school level. On the last achievement tests, Mill says, every student in the room earned the highest possible score on at least one subject.

The independence Mill learned early in life has helped as she's found her footing as a teacher, too. Although a school neighbor assists in the classroom as a teacher's aide and a visiting music teacher provides a lesson once a week, Mill is without traditional cohorts. There's no mentor in the building to answer questions or provide inspiration, no principal to step in if she encounters a discipline problem, no peers to kibbitz with in the teachers' lounge (if there even were a teachers' lounge). She's not just the only teacher; she's responsible for everything from ordering textbooks to making sure janitorial duties get done. She does compare notes frequently with her own favorite teacher from Lavina, and whenever she gets together with educators from other small schools, she says, "We just talk and talk and talk."

Helping teachers like Mill overcome professional isolation has become a key focus of the Montana Small Schools Alliance. Last year, the organization brought together teachers from 16 counties for four workshops on aligning curriculum with state standards in math and reading. "They created sample multigrade units that tie to standards," explains Morton, who considers the workshops "a big help" to elementary teachers who typically have to teach all subjects to a range of ages. "The workshops are progressive. They are designed to let teachers share what works." What's more, Morton adds, "It's a chance to get together with their peers on an ongoing basis, which research tells us is the best kind of professional development." This year, workshops will focus on meeting standards in language arts, science, and technology. Another project will help rural teachers teach to state standards in the field of art. The Montana Small Schools Alliance is also a partner in an ambitious new project at Western Montana College that will prepare teachers to use technology in the classroom.

Although sound classroom practices are critical in small schools, teachers who take on these jobs understand that a special kind of learning takes place outside the schoolhouse, too. When it's time for recess, for instance, Mill's students race outdoors, grabbing baseball bats and pausing just long enough to pat the head of Lady, the black dog sunning herself on the school steps. Kaitlin divvies her classmates into two teams, balancing "big kids, little kids." But as the game gets underway, there's no sign of the fierce competition that can get kids riled—and tempers flaring—on larger school playgrounds. The pitcher warms up not only his fastball, but also the blooper pitch that he delivers to those aged seven and under. The fifth-grade boy playing catcher stops the action to give a batting lesson to a first-grade girl from the opposing team.

"They cheer each other on," says Mill. The cooperative spirit that's nurtured here tends to stick with these kids long after they finish at Nye and head to more traditional schools. The one-room school experience shapes how they learn, how they play, and the kind of adults they're apt to become. That's something Mill hears repeatedly from alumni who send letters and e-mail messages back to the little stone school that molded their lives. Years from now, the current crop of students may not remember their autumn lesson on bat biology, but odds are good they will recall the face and name of every other child who shared their world at Nye School. As for Mill, her long-term goal is clear: "I hope they remember that I loved every one of them."

PROJECTS OF PLACE

Up in the midsection of Montana, where mountain peaks flatten into the wide Musselshell Valley, the local economy has been on the flat side, too, in recent years. Drive down the main street of Roundup (population 2,000) and you'll see empty windows peering out of handsome old buildings built when the railroad first steamed into town. This is a place where coal mining boomed, then went bust after a few short decades; a place where ranching—a way of life for four generations—is proving too much of a hardship for many families to continue into the 21st century. Every morning, there's a parade of taillights heading away from Roundup as local folks commute 52 miles south to Billings, where the jobs are.

With many people going elsewhere to work and shop, "this is becoming more a bedroom community. The school is the main place where people still connect," observes Roundup High teacher Tim Schaff, 42. He knows the realities of small-town life too well to wax romantic about the subject. He grew up on a ranch 34 miles away, attended a "bitty school" with a graduating class of five, and married a woman with deep family ties to Roundup. He also serves on the city council and a county board on weed control, and coordinates the local school-to-work project. He's as deeply involved in his community's future as just about anyone in town.

On an autumn morning it's history, not the future, that grabs the attention of Schaff, four Roundup High seniors, and school librarian Dale Alger. They pile into Schaff's four-wheel-drive rig and head out Horse Thief Road to photograph what's left of a homesteader's cabin from a century ago. Stepping with care up to the wooden structure beaten down by time and harsh winters, Schaff tells the group, "Remember, this was somebody's dream."

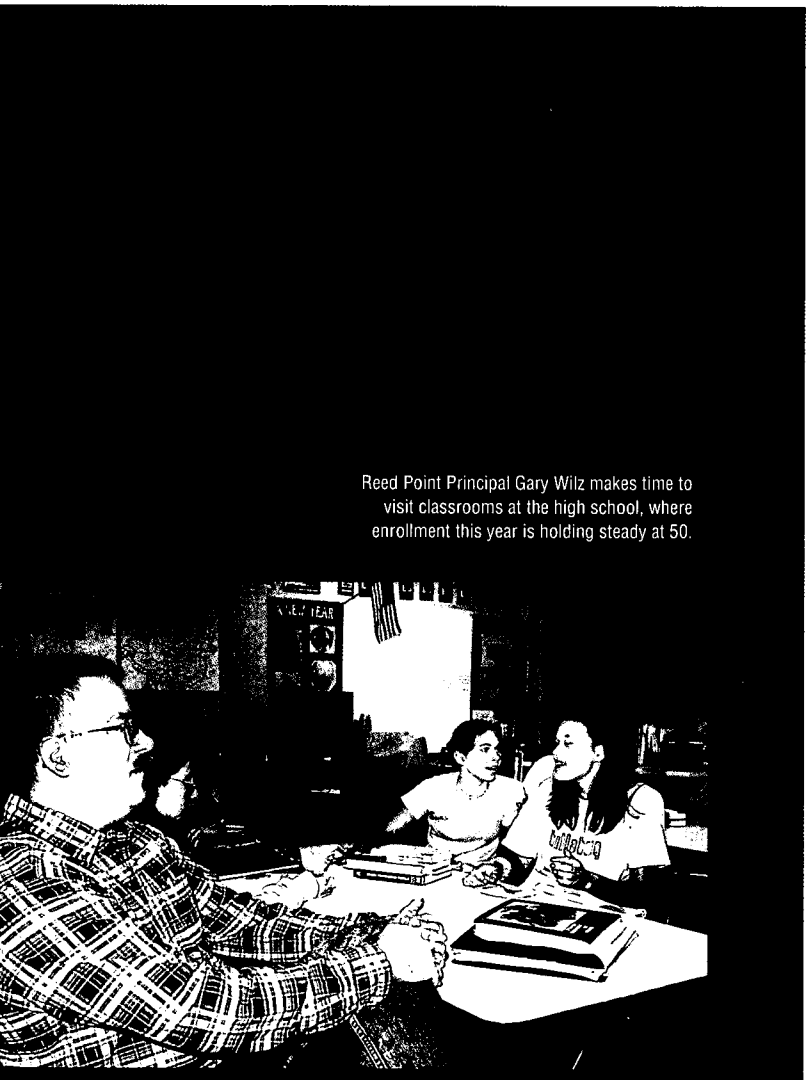
The class is part of the Montana Heritage Project, a six-year-old effort that is forging strong alliances between rural schools and their communities. Although community-centered teaching is the hallmark of the program, each school's annual project is unique to its place. Students have produced videos, performed original theatrical productions, and designed Web pages as "gifts" to their communities. Leaving the classroom walls behind, students dive into the study of their home turf, "its history, its relationship to the land, its built environment, its folklife, its economy, its social arrangements," explains Heritage Director Michael Umphrey.

In Roundup, now in its fourth year with the project, students are working with their local museum to archive photographs and research the region's history through interviews with elder citizens. They've written about topics ranging from vigilantism to the county-busting movement. "Students come out of this changed," says Schaff, "even if they don't know it at the time. They are always surprised by what they learn."

Supported by clothing designer Liz Claiborne and her businessman-husband Art Ortenberg, New Yorkers who have sunk roots into rural Montana soil, the project has been a boon for cash-strapped schools, enabling teachers to invest in everything from literature to multimedia equipment. And the benefits extend well beyond financial. Secretary of Education Richard Riley has praised the project for "giving meaning to life," by having students use their own communities as the focus of serious study. The Library of Congress has embraced it as a national model and last year invited a team of Montana students to Washington, D.C., to submit a sampling of Heritage projects to the nation's archives.

Umphrey sees the project transforming the very way teenagers view themselves: "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."

Along the way, students also polish academic skills. During the visit to the homesteader's cabin, for instance, Schaff reminds students that historians have to answer questions. How could they find out who had once lived here? Why did this homestead fail to "prove up"? Where would they look for records? What kind of detective work does the study of history involve? As they analyze what they learn, students sharpen skills in writing and critical thinking. Roundup High participants also use black-and-white photography to tell their stories visually and computer technology to create a lasting repository of information.



Reed Point Principal Gary Wilz makes time to visit classrooms at the high school, where enrollment this year is holding steady at 50.

The 30 Heritage teachers come together twice a year to learn from others' classroom experiences and cheer one another's successes. "We become a family," Schaff says, while they learn how to use technology, how to prepare archives, how to use literature to help students understand the meaning of "place." In many schools, teachers cooperate across disciplines to guide students through learning that blurs the boundaries between history, art, English, science, and other subjects.

At Broadwater High in Townsend, a lakefront community of about 2,000 located a half-hour's drive from Helena, Heritage students last year drew on a variety of disciplines as they sought to understand the role of veterans in the life of their town. Guided by teacher Darlene Beck, they read Tom Brokaw's *The Greatest Generation* to learn more about those who fought in World War II. They learned how to collect oral histories, then knocked on doors, inviting themselves in to hear the memories of older citizens "who had assumed we didn't care about them," explained a student named Kelsey. As they wrote about the interviews, Beck says, "Their writing showed an empathy and an authenticity that hadn't been there before." Adds Kelsey, "These weren't just stories in a history book. They were *real*—real emotions, real people." The project expanded to include a quilt, hand-stitched by a local quilting club, that features veterans' silkscreened photos. But the year's highlight had to be the memorial service for the community's veterans that the Broadwater High students planned and hosted as their way of offering thanks.

Although such projects can work in larger schools, they seem especially well-suited to small ones. As Schaff points out, "We don't have to have a department meeting to get an idea approved. A small school offers us more academic freedom. We can think of an idea in the morning, try it that the afternoon, and change it the next day if it doesn't work out." Because he has the time to get to know his students well, he can tailor projects to their interests. "Small schools," he says, "are places where all voices get heard." Beck appreciates the "easy atmosphere" of her small school, where teachers and students know one another from life experiences shared both inside and outside of class. Getting students to participate isn't hard. "Activities are very open for kids," Beck says, without the competition or cliques that can hold back participation in larger schools.

Schaff thinks about the boy who stopped after class to tell him, with no little pride, about his football injury. "In a bigger school, he wouldn't have had a chance to participate in sports—he'd never have had the opportunity to get injured!"

By involving students in unique activities of their own design, Heritage projects are creating lasting bonds between teen-agers and their communities. Sometimes, the projects even strengthen family ties. One boy never would have thought to tap his grandfather's memories if he hadn't been involved in the Heritage project. A week after the interview, his grandfather died. Says Beck, "He would never have asked those questions otherwise." Another girl had lived next door to an elderly woman for a decade, "but I knew nothing about her life. We'd never really spoken before."

"It brings the community closer to the school," Beck believes, "and builds harmony. People see these kids going out, doing interviews and service projects, and they realize these are responsible kids. Their spending on education isn't being wasted." Students, in turn, begin to understand their own role as citizens. Both Townsend and Roundup have managed to pass school bonds in recent elections. Roundup's came after repeated failures at the polls, but within days of a Heritage event that drew 32 senior citizens into the high school. Townsend's means construction can proceed on a badly needed building to replace the high school built in 1912. By focusing on a community's past, community-based learning can lead to a brighter future.

THE ROAD AHEAD

Content though he is to be an educator in the small world of Reed Point, Gary Wilz can't stifle a troubling thought. "Our biggest export isn't wheat or cattle anymore," he says. "It's young people."

Indeed, talk to the teens who are winding up their K–12 education in these small communities, and you often hear them describe plans for heading down the road after graduation. A girl who learned to operate a videocamera through her work with the Heritage project in Roundup hopes to pursue film studies in California. A student from Townsend says she just wants to live in a town "big enough to have a movie theater." When Wilz needed a new math teacher, he was dismayed to discover that only 20 percent of Montana's education graduates remain in state for teaching jobs. The rest head off to where the pay is higher. It took him three months of recruiting and the offer of district-subsidized housing to make a hire.

Wayne "Cork" Erfle, a prize-winning high school teacher from tiny Rapelje (where K–12 school enrollment is 87 this year), knows that the life of family farming—which has sustained his own family for four generations—is no longer a sure bet for rural kids hoping to build a stable future. Profits are slim, at best, and many of yesterday's jobs just aren't there anymore. "We need to show these kids something else," Erfle says.

In semi-retirement, Erfle has thrown his energy into the state's school-to-work movement. He chairs the state School-to-Work Advisory Board and has traveled to Washington, D.C., and across the country to work on behalf of the trend he sees as "the greatest thing to ever happen" in education. That's high praise from a man who spent four decades in the classroom, developed a computerized rocketry project with his industrial arts students that earned honors from IBM, and received the National Educator Award from the Milken Family Foundation.

Erfle's school-to-work efforts started when he lined up five kids from Rapelje with local employers willing to let them learn on the job site. Their successful internships sparked the interest of other small schools, and Erfle helped launched similar efforts in Absarokee, Reed Point and, by now, 117 schools statewide. The concept continues to expand. Rural students now start thinking about career opportunities as early as elementary school. By high school, they participate in job shadows, write résumés, practice interviews, and create portfolios. Internship sites have ranged from television stations to public defenders' offices, from John Deere dealerships to accounting firms.

Employers have a profound effect on students, Erfle believes. "Kids know that teachers are preachers—we're always telling them the value of an education. But when it comes from an employer, they believe it. An employer can convince them in two or three words. It's coming from the real world."

Absarokee Principal Mike Mullowney nudged his students into school-to-work projects "because we could see the value of this. Not all our kids will go on to college. And those who are in college prep will benefit if given a chance to take what they're learning in the classroom and apply it."

Once again, the small scale of rural schools has made it easier to get the idea up and running. Mullowney came to Absarokee after years of teaching college in Billings, so he understands what's different about small towns. "We know our kids well here. We know their families. We know what they're like outside of school. We know their total environment," he says, "and we can monitor them closely." What's more, Erfle finds employers particularly keen on having rural students as interns. "There's an understanding that these kids have done chores; they tend to have a good work ethic. And there's no discipline

problems because they're doing what they want to do." Even the rare student who has a bad experience "gains something from it," Erfle says. "They saved themselves a lot of time and money" pursuing the wrong dream.

Helping young people find their dreams is a recurring theme in Montana's small schools. The teachers and community members working so hard to build opportunities for their students understand that a small-town future isn't for everyone. But they also know that, without the fresh ideas and energy of today's students, their communities may not survive.

During her 21 years of teaching, Darlene Beck has heard more than a few students itching to leave their hometown by the end of high school. When she took four Heritage students to Washington, D.C., last year to meet with the Library of Congress, she watched them get their first taste of the big city. Coming from a town with no stoplights, a couple students were almost flattened by traffic. They were awed by historic architecture but overwhelmed to witness a mass march on the capital mall. Before the trip was over, Beck heard a refrain that still brings a smile to her face: "Get us back to Townsend, Montana!"

"They may leave a for a while," she admits, "but I think we'll see many of them coming back." ■

MONTANA FAST FACTS

- If Montana were a nation, its eighth-graders would be among the world's top-performers in the fields of science and math, according to a study comparing state-by-state assessments with results of the Third International Mathematics and Science Study (TIMSS). Montana students would have outperformed students in 40 of 41 countries in science, and 35 of 41 countries in math.
- On the National Assessment of Educational Progress (NAEP), Montana students regularly outperform their peers nationwide. Montana eighth-graders' scores were the second-highest in the nation in both math and science in 1996 and second in reading in 1998.
- The nearly 60 percent of Montana high school students who take the American College Testing (ACT) readiness exam outscore their peers in 40 of the 50 states.
- Montana teacher salaries (averaging $31,356 in 1998-99) put the state in 47th place nationally for teacher compensation, according to the National Education Association. In a survey by the Montana Office of Public Instruction, teachers cite low salaries and rural isolation as two of the top three reasons why many districts struggle to fill openings.
- Per-pupil spending in Montana ($6,349 in 1998) puts the state in 21st place nationally, according to *Education Week*.

Technology and good teaching practices combine to connect rural students with the wider world

By Helen Silvis

Three years ago, Jeff Holt set off for his new job as principal and teacher of Bettles Field School in the Alaskan interior. He expected to teach eight students from this village of about 80 people. Instead, he found that over the summer, enrollment had grown to 16. The school now qualified for an additional teacher, but hiring would take time. Holt soon realized it would be March at the earliest before a new teacher would arrive.

Meditating on the challenges ahead—teaching his K–12 students everything from the alphabet to advanced calculus—he came up with a bold idea. Why not use the extra money available to buy new technology? With computers and the Internet, his students would have access to an array of resources as vast as the Arctic wilderness surrounding them.

"We're 200 miles north of Fairbanks, and to get here you have to fly in by plane," explains Holt, who is originally from Idaho. "There's no TV here, not unless someone has a digital satellite. There's one radio station—it's a religious station—and the newspapers are a day behind. So getting current events and getting news from the rest of the world is almost impossible without these technological links. Sure, we have a library with 8,000 to 10,000 books, but that's it. With the Internet the opportunities are endless."

By waiting until the next school year to hire a second teacher, Holt was able to add a big chunk of the school's budget to federal grant funds aimed at linking rural communities to the Internet. He bought a computer for every two students and arranged a satellite link through the local telephone company. He also wrote to software manufacturers, who offered him discounts on the programs he wanted: a video-editing program, for example, and a Web publishing program. Altogether the school spent $70,000 on technology in one year—and that wasn't the only cost.

"I was not afraid to take the burden of responsibility on my own shoulders," Holt says. "I had no maintenance man. I didn't have a secretary. I didn't have a janitor. I had myself and two aides, who worked four hours a day. That's how important I think it is to have that technology."

Certainly sophisticated technology has brought enormous advantages to small rural schools like Bettles. Not only do Internet links offer access to libraries of information, but they also create openings for collaborative work with other schools or organizations. Teachers can log on to education Web sites and choose from a wide range of professional development courses, while students can study subjects that are not available at their local school.

Alaska's North Slope Borough District, for example, serving eight villages in an area the size of Utah, uses compressed video technology to offer students specialized courses in math, art, and science. As well as attending class via two-way video links, students use e-mail and fax to submit their work and receive feedback.

But if the benefits of technology can be immense, they are also unevenly distributed. Sparsely populated areas are not linked to cable networks, and their telephone and satellite links can be erratic and sluggish, not to mention expensive. In addition, according to the Rural School and Community Trust, a higher proportion of rural schools are economically disadvantaged and can't afford expensive technology.

CROSSING THE DIGITAL DIVIDE

To bridge this digital divide, President Clinton and Congress have created programs aimed at equalizing opportunities for poor and rural students. All 50 states are to receive grants from the federal Technology Literacy Challenge Fund, which is distributing $2 billion over five years. Grant money from the Technology Innovation Challenge fund has helped train teachers to use technology. And the E-rate program offers schools discounts on the purchase of technology, with a preference for those in low-income areas.

Karl Kowalski, technology coordinator for Alaska's Northwest Arctic Borough School District, says only one of the 10 villages in his district has a direct telephone link to the Internet. In the other villages, residents can dial up a service provider, but they have to pay long-distance charges. However, all of the district's students now have Internet access through a dedicated telephone link that connects each school to the World Wide Web.

"The only reason we can afford to do that is because of the discounts we get through the federal E-rate," Kowalski says. "The full cost is $1,200 a month for each connection, but we pay 10 to 30 percent of that, depending on the school."

WHAT IT MEANS

Anne Batey, a professional development associate with Northwest Regional Educational Lab's Technology in Education Center, and her colleague Amy Pearl, an instructional design associate, agree that state and federal efforts to improve access to technology have been successful. Yet, they argue that simply measuring the number of computers and Internet connections tells less than half the story. "It's not what you have, it's what you do with it in the classroom that counts," Batey says. "You have to ask yourself, when does technology make a difference? What can I do with technology that I can't do without it?"

Pearl stresses the importance of the teacher behind the technology. She says, "Go into any school anywhere and you will see great teachers, good teachers, and worrisome teachers—and the worrisome teachers may be using the most technology."

A common pitfall is for teachers to focus on the tool at the expense of the content, she adds. "If the end goal is that the kids now use the technology ... then we're off task. It has to be tied to standards that develop scholarship and thoughtfulness, not just about the source of the information but about what the information means."

To succeed in the wired-up classroom, teachers need to use exactly the same kinds of good practice they would use in any classroom, Batey says. To engage students' interest and commitment, teachers should set up projects that address problems in the real world and have significance for the students.

One class sampled water at local wellheads, for example, and used computer mapping to assess where contamination was strongest and identify possible causes. In this case, technology added value by presenting complex data visually. "You can put in data and then suddenly you see patterns. These sorts of things can be very powerful," Pearl says.

Small schools often excel at working with students grouped across grades and abilities, and this kind of collaborative project work is one of the most effective ways to introduce technology. Students develop research and analysis skills, Batey says, and they learn from one another through sharing knowledge within the group.

SMALL SCHOOLS OFTEN EXCEL AT WORKING WITH STUDENTS GROUPED ACROSS GRADES AND ABILITIES, AND THIS KIND OF COLLABORATIVE PROJECT WORK IS ONE OF THE MOST EFFECTIVE WAYS TO INTRODUCE TECHNOLOGY.

Equally important is the opportunity for students to publish information and to know their work will reach a wider audience. Publishing will raise the level of commitment to a project, Batey says. "The kids realize: 'My work is real. My work is important. It isn't just me getting a grade here'."

Yet, teachers at schools with older computers and no Internet access should not lose heart. Some of the most interesting discoveries can be made with very basic tools. Batey explains: "Let's say you don't have Internet access, but you have a spreadsheet and can display your data in a graph. Teachers can bring kids to a higher level of analysis with a commonly available computer application tool."

At Bettles Field School, Jeff Holt's unorthodox strategy seems to have paid off. His students consistently score in the upper ranges of Alaska's required tests, and they can create a spreadsheet or edit a video as readily as they grab pencil and paper.

In their project work, the value of their new technological tools is evident. Over the Internet, students have collaborated with a class in American Falls, Idaho, comparing weather conditions between the regions. They are also investigating the migration of wild geese and examining the merits of reintroducing wolves to Yellowstone Park. Each project will have its own Web site, linked to the school's home page and designed by the students.

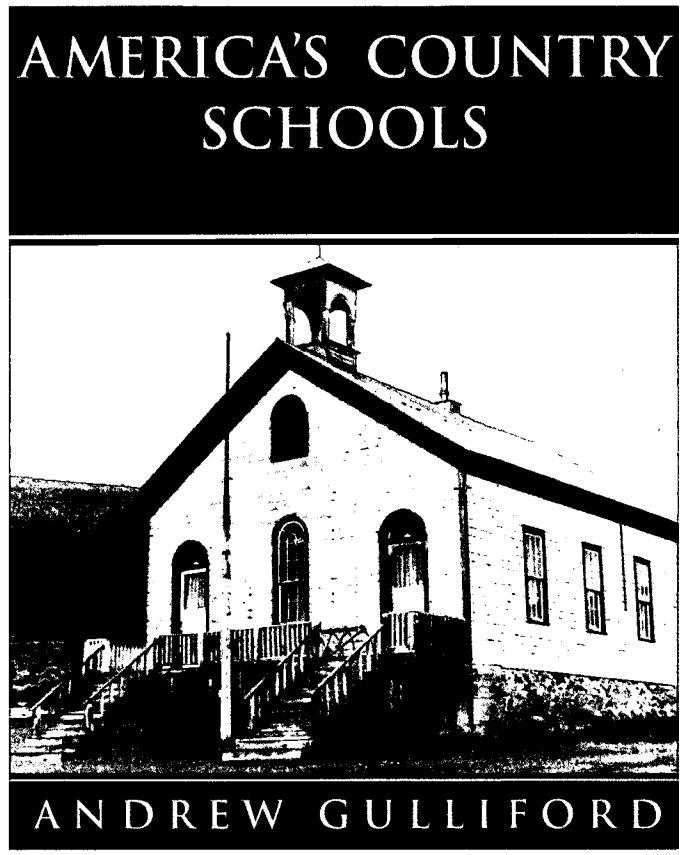
When Holt's class attended a three-day Department of Tourism symposium on how to promote tourism in Alaska, they videotaped the seminars, added still pictures and music, and edited the tape into a three-hour film. They plan to send the educational video they have produced to Alaska's governor.

Now the work of three Bettles students will reach a wider audience. The three were among 20 finalists in an international technology competition, the Thinkquest Challenge, with their Web site: Natives of the Midnight Sun (library.thinkquest.org/26020/). Visitors to the site can learn about the flora and fauna of the region and listen to audio clips of elders talking about their lives and local traditions. Park managers from Gates of the Arctic National Park were so impressed that they hired two of the students to expand the Web site and put the information onto a CD-ROM.

If technology skills mean a richer educational experience for rural students, they may also help preserve the wilderness way of life, Holt believes. "If my students want to stay in the community, they can do so using the Internet for work." ■

AMERICA'S COUNTRY SCHOOLS (University Press of Colorado, 1996) chronicles in words and photographs the history of a fast-fading landmark: the one-room schoolhouse. Author Andrew Gulliford notes in the introduction to this third edition that interest in country schools is soaring at the same time that their numbers are declining. From the mid-1980s to 1995, he writes, the number of one-room, one-teacher public schools dropped from 1,200 to 428. (Today, it's slipped below 400.)

Gulliford makes a case for preserving not only the architecture of America's country schools, but also the lessons they offer about how to teach children. "So many excellent ideas came from one-room schools," he writes, "such as students helping students, oral recitation of selected lessons, pupils working in teams, and true community involvement by children of all ages. ...Tomorrow's workplaces will focus on team management and team work groups, much as harried country school teachers insisted rural pupils rely on each other to build consensus for learning schoolwork and sharing in playground games. ... Such opportunities for creative cross-learning must be continued."



An historian and director of the new Center of Southwest Studies at Fort Lewis College in Colorado, Gulliford takes aim at the competing myths that have grown up around one-room schools: "One is that country schools are the poor stepchildren of American education—primitive buildings where, under intolerable conditions, young, inexperienced teachers try to instill in their students a modicum of knowledge. Another is the myth of the little red schoolhouse pleasantly situated beneath shade trees and full of bright, young students eager to learn their lessons and please their teacher." Neither myth, he concludes, "is wholly true nor wholly false."

America's Country Schools takes a thorough look at this subject, exploring everything from the role one-room schools have played in their communities to a description of schoolhouse architecture to a look at the changing lifestyles of rural schoolteachers.

Preservation is a special focus, with discussion of how historic school buildings across the country are being restored as community centers, living history museums, and learning communities for a new generation of American students.

Along with Gulliford's insightful, well-researched text, the book includes dozens of photos that portray one-room schools, inside and out. Residents of the Northwest will find their communities well-represented. In a photo from 1893, students and teacher gather on the steps of their board-and-batten schoolhouse in Hecla, Montana. A photo taken a century later shows students gathered around the piano for a music lesson at Springhill School in Gallatin County, Montana. A series of photographs taken at Atlanta School in Idaho captures turning points of the school day, from the morning Pledge of Allegiance to the afternoon ringing of the school bell.

For those who want to explore one-room schools for themselves, the book also includes a state-by-state listing of the nation's remaining country schools.

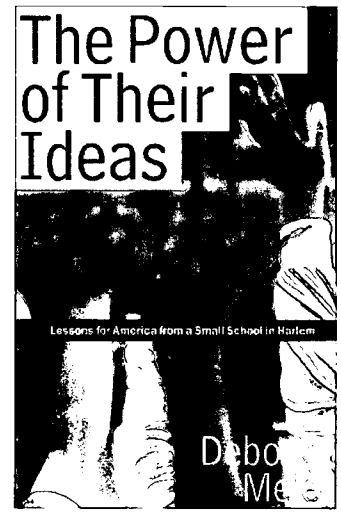
THE BENEFITS OF SMALLER CLASSES, especially in the early elementary grades, have been well-documented by research. Charles M. Achilles, in *Let's Put Kids First, Finally: Getting Class Size Right* (Corwin, 1999), surveys what he calls the "knowledge base" about class size that has been growing since the late 1970s. His conclusion: "A solid foundation for lifelong learning begins in small classes in public elementary schools."

Achilles begins with a look at Tennessee's Student Teacher Achievement Ratio, better known as Project STAR, a scientifically designed, longitudinal experiment that involved more than 11,000 students and 1,000 teachers from 1985 to '89. (Achilles was principal investigator on Project STAR.) Not only did the project demonstrate clear gains for students in their academic achievement during kindergarten and the first three grades of elementary school, but follow-up studies have shown that benefits continue at least into eighth grade. Project STAR also showed that students in smaller classes (15 students to one teacher) were better behaved, more engaged in school, and less likely to be retained than students in either regular-sized classes (averaging 25 students) or regular classes with a full-time instructional aide.

Looking at the classroom as an environment where learning takes place, Achilles points out the benefits of giving small children more "space." He notes, "A class-size reduction from 30 students and one teacher to 15:1 immediately influences environmental variables such as space and fresh air per occupant, crowdedness, materials per pupil, noise levels, and teacher time for each student. ... Teachers report that in small classes, discipline is better, and classroom management is less troublesome. ...Teachers and students help each other. The classroom climate changes."

Noting that a variety of studies have documented similar benefits of smaller classes—namely, better classroom management, active instruction, individual attention, and lots of time on task—Achilles goes a step further to describe how teaching practices change in smaller classes. Drawing on class-size reduction studies such as Project SAGE and Success Starts Small, Achilles notes that teachers are better able to individualize programs for students, vary reading instruction, increase time on task, and bond with students. Specific changes in curriculum and instruction include more frequent reading and writing conferences; more hands-on activities, especially in math and science; and added use of portfolios to assess student growth. Because parents are more likely to get involved with school when their children are assigned to smaller classes, teachers also make more use of volunteer time.

In addition to highlighting research, Achilles also quotes extensively from teachers. One educator explains why smaller classes seem to be especially powerful for closing the achievement gap: "Small class size has leveled the playing field for all children. All children have the opportunity to be honored each day." Another adds: "If I had 28 students as I did in my practice teaching, and had them all in rows, I could not accommodate the five very low-functioning children. ...I can see that they are learning; they see themselves as successful, vital persons in our class."



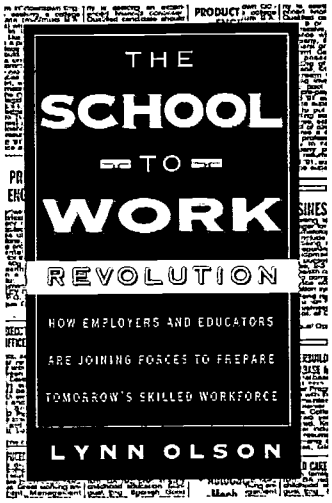
THE POWER OF THEIR IDEAS, *Lessons for America from a Small School in Harlem* (Beacon, 1995), is no longer new, but the observations and reflections of author and educator Deborah Meier remain worth hearing, especially as more schools move in the direction of smaller learning communities.

Meier, who won a MacArthur "genius" grant for her work as director of New York's famed Central Park East schools, knows firsthand the challenges of breaking up large institutions into smaller, independent schools where teachers can work collaboratively. She acknowledges her bias: "Large schools neither nourish the spirit nor educate the mind; except for a small elite who run the place and claim (falsely) to know everyone, what big schools do is remind most of us that we don't count for a lot."

In making a case for small schools, Meier does not mean tearing down existing facilities. "It doesn't depend on new buildings," she writes, "just using the ones we have differently."

She offers half a dozen compelling reasons in favor of downscaling:

- Smallness allows the faculty to self-govern, to make decisions about teaching and learning
- Small schools enable teachers to have access to each other's work and to be accountable for the collective work of the school
- Small schools enable teachers to get to know each student's work and understand the way he or she thinks
- Small schools offer safety—the safety of being where you are known well by people who care for you
- Small schools are accountable to parents and the public
- Small schools create opportunities for connections across generations



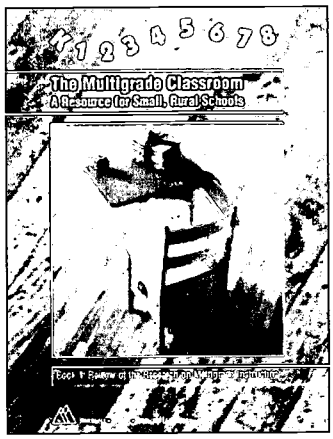
THE SCHOOL-TO-WORK REVOLUTION (Addison-Wesley, 1997), by Lynn Olson, takes an in-depth look at high schools that are restructuring by linking the worlds of work and learning.

Olson, a senior editor at *Education Week,* takes readers inside high schools across the country that are taking new approaches to preparing students for life after graduation. Among them: Rindge School of Technical Arts in Cambridge, Massachusetts, where "hands and minds work in harmony rather than in opposition." Students engaging in work-site seminars in their community also explore such thoughtful classroom topics as "What is work?" and "What is success?" Olson visits two Oregon schools: David Douglas High in suburban east Portland, and Roosevelt High, located in a working-class neighborhood in north Portland. Both schools are engaging students in real-world learning. (See a related profile of David Douglas on Page 16.) She travels to Pasadena, California, to visit the small career academies that feel like "extended families" to participating students and teachers.

Although the book is strong on reportorial detail and weaves in the opinions of experts, its strongest passages may be the conversations Olson has with teen-agers. "I heard an almost constant refrain: Now I understand why I have to learn this," she writes. "The comments were the same, whether I was talking with a straight-A student who hoped to become a surgeon or a C-average student who just wanted to get out of high school and find a job." Both extremes, of course, are well-represented in American high schools.

Finally, Olson concludes with a set of basic principles to guide both school-to-work and high-quality education for adolescents in general, including:

- The central goal of school-to-work systems should be to help students achieve more academically
- All students should have the opportunity to learn by doing, to complete projects, and to apply their knowledge to problems beyond school
- Schools need to emphasize and demand basic work ethics and good citizenship from students
- All students should have opportunities for career exploration and a broad perspective on career options
- Every student should have the chance to be part of a small, supportive learning community and to develop close relationships with adults



THE MULTIGRADE CLASSROOM: Although one-room schoolhouses have become more and more scarce over the decades, teachers in sparsely populated communities have continued to teach in classrooms that combine students of different ages and grades. Only recently, however, have researchers turned their attention to the benefits students receive in these classroom arrangements, and the strategies teachers employ to help their students thrive and their classes run smoothly. Now, interest in the multigrade classroom is increasing—not only in rural areas, but in a variety of educational settings.

To guide teachers to best practices, the Northwest Regional Educational Laboratory has just published a seven-book series, *The Multigrade Classroom: A Resource for Small, Rural Schools.*

The series dates to 1987 when a group of rural educators raised concerns regarding resources and preparation for teachers providing multigrade classroom instruction. The Laboratory's Rural Education Program took on the topic for further study. NWREL's first handbook for multigrade educators was published in 1989. The same year, the Lab brought together multigrade teachers from throughout the Northwest and Pacific Island regions to expand the research base with insights from practitioners. The result of a decade's work is this series, designed to provide multigrade teachers with a thorough guide. The stand-alone books incorporate both research highlights and the common-sense solutions of teachers who have "been there."

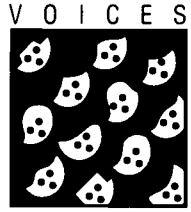
Each book in the series presents information, strategies, and resources on a specific aspect of the multigrade classroom. The series begins with a review of the research on multigrade instruction (Book 1), moves on to classroom organization, management, and discipline (Books 2 and 3), and then to instructional organization and delivery (Books 4 and 5). The last two volumes cover self-directed learning (Book 6) and the use of peer tutoring (Book 7). The bottom line in each book is the same: helping the multigrade teacher be effective in meeting the needs of students.

Readers will gain insights into such practical matters as when to teach the total class, and when to use a more individualized approach; how to maximize cooperation and self-directed student learning; how to monitor noise level in a classroom where many activities are underway at once; how to use computers as an instructional tool; and how to schedule the day to make most-effective use of time.

Case examples from teachers illustrate how to put concepts to work in the "real world" of the multigrade classroom.

To order copies of The Multigrade Classroom series, call the Northwest Regional Educational Laboratory at (503) 275-9519. The seven books can be ordered as a set, or purchased individually.

—Suzie Boss



LEAVING HOME AND LOOKING BACK

By Jesse Bloom

I'D JUST FINISHED TELLING A FRIEND from New York about working last summer as a water-commissioner. We were sitting in my dorm room in Chicago. My friend looked puzzled. "I don't mean that I was on a commission," I explained. "I was the water-commissioner for a creek —you know, the ditch-rider."

My friend looked even more puzzled. "What's a ditch?" he asked.

Right then, my heritage came a little more into focus. I think it's usually like this with our heritage. Sooner or later, most young people leave Montana, at least for a while, and it's on those journeys through other places that we start to appreciate the special place we call home.

You don't understand how interesting your way of life is until you have to explain it to somebody who doesn't have any idea what you're talking about. I'd grown up in a place where people had fields that they irrigated with water that came out of ditches that flowed from creeks that were fed by high mountain lakes. I thought most people knew what ditch-riders were. And surely everybody knew what a ditch was.

But here in Chicago, I was learning that I had to provide a lot of background information before I could explain much about my life to friends from New York, Cincinnati, and San Francisco.

Before I could tell them about my job as a ditch-rider I had to tell them about the water rights system in Montana, but before I could tell them about the water rights system I had to tell them about the dams and mountain reservoirs, but before I could tell them about the mountain reservoirs I had to tell them about all the creeks that flow from the Bitterroot Mountains into the Bitterroot Valley, but before this would make sense I had to tell them about how farmers have to irrigate their fields because of the semi-arid climate, and even after I explained all of this I still needed to define "ditch."

All this knowledge is part of my heritage, and as I talked about it I became more appreciative of things I had always taken for granted. People from New York, Cincinnati, or San Francisco might have never gone hiking or fishing. They may not know that the best duck hunting is at dusk and dawn. They probably won't know that Marcus Daly made his fortune from copper mining in Butte and built a special place at his ranch in the Bitterroot.

I tried to enlighten my friend about these things, but he was only mildly interested. He thought that it was kind of cool that I had shot a shotgun, but he wasn't that interested in hearing about Montana water rights. I didn't even mention Marcus Daly's copper empire—I was pretty certain that he didn't care.

Instead, my friend from New York wanted to tell me about Yankee Stadium, Mayor Giuliani, and all the different neighborhoods that he knew. As I listened to him prattle on about New York, I learned another lesson about heritage: someone else's can seem less significant than one's own. I liked hearing about Yankee Stadium, and mayoral politics were kind of interesting, but learning about the history of New York's many neighborhoods was about as exciting as watching paint dry. I was polite, and pretended to pay careful attention.

Maybe my own heritage is interesting because it is a living heritage. I know that my future is entangled with Montana's future. Even though I now spend three-quarters of the year in Chicago, I still think of myself as a resident of the Bitterroot Valley. Anything that relates to the valley remains part of my heritage. I still care about the basketball games there, and I don't get bored by Marcus Daly.

New York's neighborhoods are interesting to my friend because they are part of a heritage that is alive to him. I've learned to appreciate that, just as particular places are important to me, other places are equally important to him.

We can't love all the little places in the world, but it's important that we love some place, and it's important that all the good places in the world have people who care about what has happened and what is going to happen there. For me, that place is Montana. I am thankful somebody took the time to teach me about my heritage. ■

Jesse Bloom, a 1997 graduate of Corvallis High School in Corvallis, Montana, attends the University of Chicago on an academic scholarship. This article originally appeared in the spring 1999 edition of the Montana Heritage Bulletin, *published by the Montana Heritage Project. Reprinted by permission.*

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Summer issue
Designs for Learning: School Architecture

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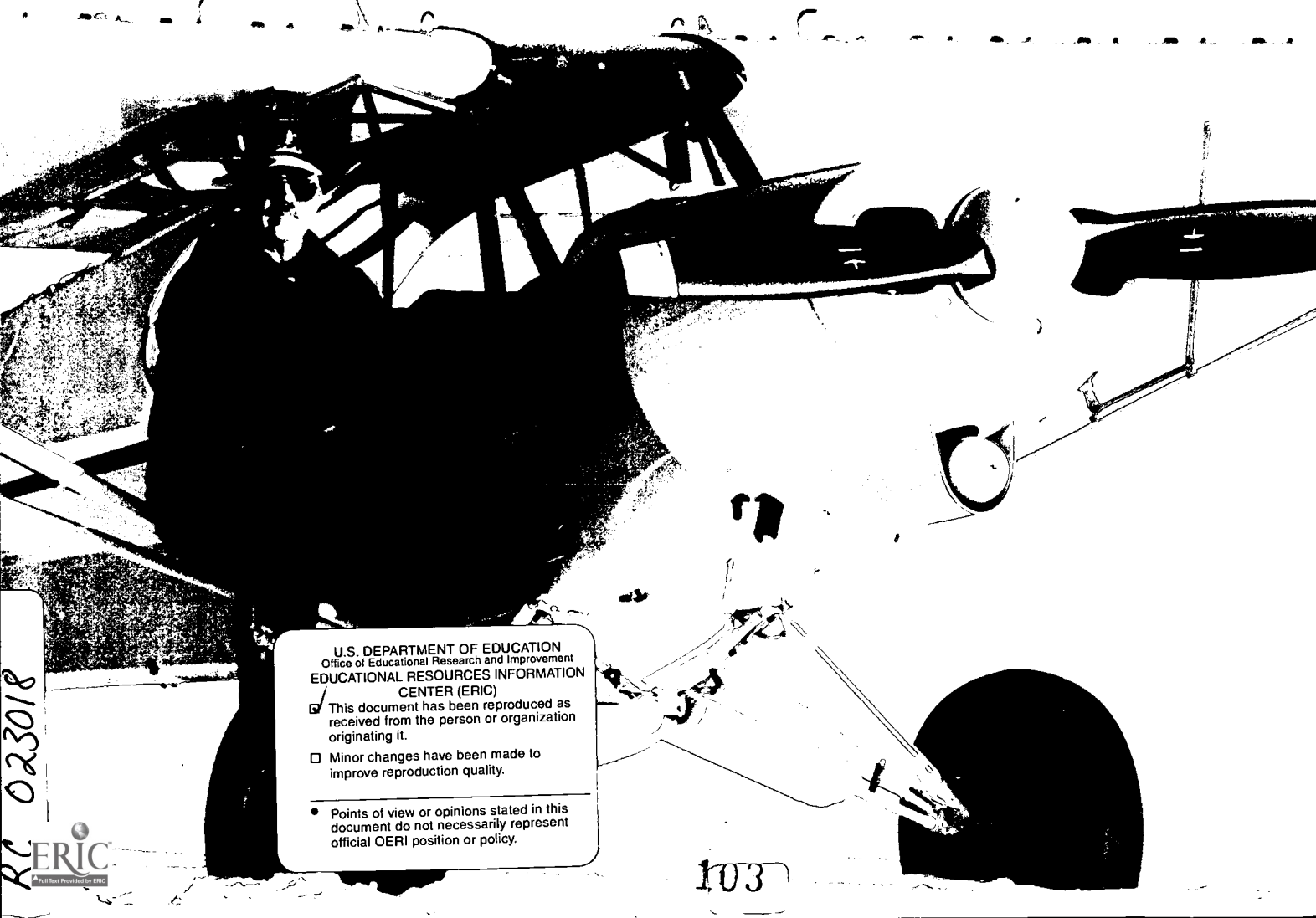
SPRING 2001

THE WILD BLUE YONDER
CHARTER SCHOOLS FLY INTO THE UNKNOWN



NW EDUCATION
VOLUME 6 NUMBER 3
SPRING 2001

The Wild Blue Yonder
Charter Schools Fly Into the Unknown

ON THE COVER:
Lifelong educator and pilot Larry Nauta, Principal of Aurora Borealis Charter School in Kenai, Alaska, flies a two-seater Piper Supercub, which uses floats, wheels, or skis for landing, depending on the terrain. "For hardcore bush flying, this is considered the ultimate plane," says Nauta. After three decades on the Kenai Peninsula, Nauta still marvels at the majestic scenery right at his doorstep.
PHOTOGRAPH BY SCOTT MOON

ARTICLES

DEPARTMENTS

More than an hour before the start of the school day, I found Larry Nauta already hard at work in his tiny cubicle. I was still off-balance from the series of delayed and bumpy flights that had brought me to Kenai, Alaska, from Portland, Oregon, the night before. The double shot of espresso I'd gulped down on my way to the Aurora Borealis Charter School hadn't completely compensated for the early hour and the unfamiliar place. The principal, however, was wide awake, cheerful, and ready to be interviewed.

We were nearing the end of my list of interview questions when my gaze happened to drift to the window behind his desk. Framed there was a patch of sky as black as deep space. A quarter-moon was shining bravely, but it couldn't dislodge the stub-born night. I sneaked a quick look at my watch. It was well past 8:30.

"So, what time does the sun come up around here?" I ventured, trying to sound as if idle curiosity, not mild alarm, had prompted the question. Nauta seemed startled at my question. "Uh, well, hmm," he said, thinking hard, "about nine or 10 o'clock, I guess." Then, dismissively, "I don't pay any attention to it."

By his reaction, I realized that only a "cheechako"—slang for a newcomer who hasn't yet survived an Alaskan winter—would remark on the darkness that drapes the Kenai Peninsula for nearly 20 hours a day in January. It's kind of like remarking about gray skies in Seattle. The locals just don't notice.

In this outpost on the fringe of the wilderness, charter schools fit. They fit the local character, which leans steeply toward the daring and the independent. They fit the landscape, where you don't have to walk more than a few yards in any direction to break new ground. Breaking new ground is, after all, what charter schools are all about.

The man at the controls of Aurora Borealis personifies the hearty, unflinching spirit required to steer a charter school to success. Until a few weeks ago, Nauta split his time between running the school and flying freight and passengers from the Arctic and sub-Arctic hubs of Kotzebue and Nome out to the 34 isolated villages they serve. The two jobs are a lot alike: flying blind into a blizzard, relying on three decades of experience to get you safely to your destination, whether it be a fishing village or a set of benchmarks in English and math.

The U.S. charter school movement is 10 years old this year. In the Northwest, charters were slow to get a toehold, lagging behind such pioneering states as Minnesota, Arizona, and California. But by now they've been around long enough for patterns of both promise and concern to emerge. Here we take you inside this bold new experiment in school reform and show you how it looks from the Northwest perspective. With Alaska taking the lead and Oregon and Idaho close behind, charter schools are carving out a definite niche in the region's school choice mix. Where these brave pioneers are headed is still a big unknown. But the journey is sure to be an adventure.

—Lee Sherman
shermanl@nwrel.org

HOMEGROWN

CUSTOMIZED SCHOOLS MATCHING LOCAL NEEDS AND EXPRESSING FOUNDERS' PHILOSOPHIES ARE SPROUTING UP IN COMMUNITIES ACROSS ALASKA, IDAHO, AND OREGON.

BY LEE SHERMAN

There's a new breed of pioneer in the Northwest. Descendants of the fur traders, gold miners, and homesteaders of the 1800s are turning their adventurous spirit toward another groundbreaking endeavor: Creating schools from scratch.

Charter schools are the educational equivalent of the Oregon Trail. The details are different: The covered wagons are likely to be minivans and U-Haul trucks. The supplies aren't bacon, hardtack, and buckshot, but pencils, textbooks, and software. Dangers aren't cholera, whitewater, or unseasonal snowfall but rent increases on crummy facilities, philosophical divisions among founders, and hostile editorials in local newspapers.

But the trailblazers of yesterday and today share the same goal—to find a place with room to breathe and to build, free of the old rules and constraints. The journey is long and arduous, with no guarantee of success. But for those educational explorers who can hang on, the destination is sweet.

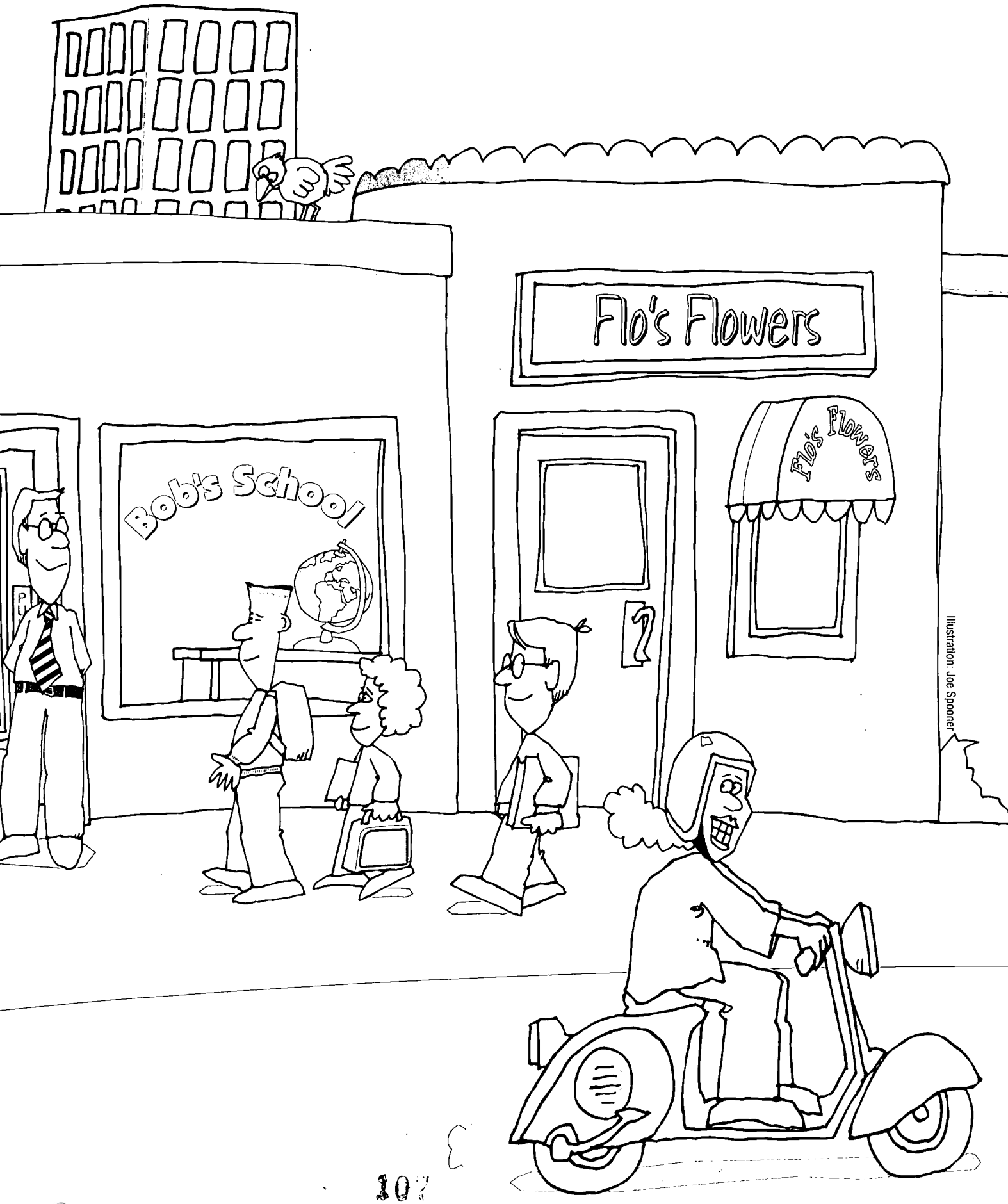


Illustration: Joe Spooner

"Building a warm, nurturing community within these human-scale schools, which average fewer than 200 students, is quite rewarding," observes Professor Bruce Fuller of the University of California at Berkeley. Within this "colorful garden of charter schools," he says, one can find "inventive pedagogy, strong ways of raising kids, and educators who are unsurpassed in their commitment to learning and to a variety of moral values."

The charter school made its debut in the U.S. exactly a decade ago. That's when Minnesota passed the nation's first law allowing educators and parents to open public schools under contract with a local school district or university. For-profit businesses may be hired to run the schools. The idea caught on and quickly spread. Today, 37 states have charter laws—three of them in the Northwest. But the region has lagged behind such quick starters as Arizona, California, and Michigan, which together have more than 750 of the nation's 2,000 charter schools. In contrast, Alaska, Idaho, and Oregon can claim only 35 charters, total. Washington and Montana have yet to join the movement.

The rapid spread of this innovation across vast geographic and political divides is a testament to its adaptability. Like a chameleon, the charter concept changes colors wherever it lands. In the howling winds of the Alaskan tundra, where native families are struggling to hold onto an ancient way of life, a charter school can become an immersion program for Yup'ik culture and language. In the dense forests and frozen fjords of southeast Alaska, where annual rainfall is measured in feet, a charter school can become a conservatory where children make music and art against winter's storms. Across the Gulf of Alaska on the oil-rich Kenai Peninsula, where commercial fishing families are being driven out of a dying industry, a charter school can become a rigorous prep school where "the basics" include Latin and Greek.

In short, a charter school can be just about anything for just about anyone. It's an idea whose time has come. Parents are dissatisfied. Teachers are disillusioned. Students are dispirited. Universities and employers are dismayed with the products of the public schools. New options have never looked better. As

oregon

Oregon became the most recent Northwest entry into the charter school movement when it passed its charter school law in 1999 after two earlier attempts failed. There are 12 official charter schools up and running, ranging in enrollment from 40 to 100 students and in location from inner-city Portland to coastal Coos Bay to rural Southern Oregon burgs Phoenix and Talent. A few are start-ups, but most are public or private schools that have been converted to charter status under the charter school bill. Here's a glimpse of their broad educational array—everything from a semi-military academy for troubled teens to a Montessori school for little kids:

- **Armadillo Technical Academy**—Opened this year with an enrollment capacity of 60, this school near the Shakespearean mecca of Ashland is designed to provide service learning and technology training to at-risk middle school– and high school–aged kids and home schoolers. The school boasts a strong community involvement focus.
- **Destinations Charter School**—This public alternative school in Coos Bay switched to charter status before the current school year. Aimed at students in grades 6–12, the 70-student school brings project-based learning to at-risk kids in an environment that connects learning to real life.
- **Detroit Lakes Charter School**—Another new public school conversion, this K–6

school in the timbered Santiam Canyon enrolls 40 students for a community-centered curriculum built around the Core Knowledge sequence. The charter law came just in time to save the last public school in the canyon from closing because of the depressed logging industry.

○ **Lincoln City Career Technical High**—This public alternative conversion charter in the beach community of Lincoln City serves 40 at-risk students in grades 9–12. The simulated office environment stresses skills for workplace success.

○ **Lourdes School**—Hidden in the rural Willamette Valley community of Scio, this small country school of 48 students serves students in K–8 in a nongraded program emphasizing community involvement. It converted from a private alternative school to charter status in fall of 1999.

○ **McCoy Academy**—Another private alternative school that converted to charter status in 1999, McCoy Academy was Oregon's first official charter school. In a supportive learning environment that stresses individualized instruction, the school serves 80 troubled or at-risk students in grades 6–12 who have been unsuccessful in regular public schools.

○ **Molalla Alternative Options School**—Another public conversion, this school in Beavercreek enrolls 100 students in grades 6–12. Its three buildings include the community's original schoolhouse—an historic landmark. The self-paced, self-directed program encourages students to take responsibility for their learning. Portfolios are used for assessment, and students must achieve 80 percent or above to pass. Work experience and community service supplement the core curriculum.

○ **Pioneer Youth Corps Military Academy**—This Springfield private alternative conversion serves 40 at-risk youths in a semi-military environment with clearly defined boundaries. The academic program is built around small class size and individual attention.

○ **Ridgeline Montessori Charter School**—A 40-student start-up for kids in grades 1–3 in Eugene, this charter employs the Montessori philosophy, which stresses the student's freedom to explore and think for herself and her responsibility to work and learn in a community.

○ **The 21st Century Community Schoolhouse**—This start-up in Salem enrolls 90 students in grades 9–10. Global collaboration, thematic instruction, and integrative learning characterize its approach. Flexible scheduling and community partnerships are integral to the school's goals

○ **The Village School**—The first charter school in Eugene, this school serves 40 children in grades K–8 using the Waldorf model, a wholistic, arts-integrated curriculum.

○ **Willamette Valley Community School**—Enrolling 40 students in the university town of Corvallis, this private alternative school switched to charter status in the fall. The students in grades 6–12 receive adventure-based learning and arts integration, along with a service-learning component.

SOURCES: Oregon School Boards Association; Oregon Department of Education

school choice goes, charters have a much broader appeal than their kissing cousins, vouchers. First, charters (along with the kids they serve and the per-pupil dollars they spend) stay in the public system. Vouchers, on the other hand, take money out of the public system and give it to private schools. And that's where the second big point comes in: charters can't be granted for religious instruction. Vouchers can. Liberals and conservatives, who will never agree on vouchers, have a rare meeting of the minds on charters.

"Republicans like the charter idea because it offers greater choice," *The Economist* reported in 1994. "Democrats like it because it keeps within the bounds of free public education."

Charters have clearly captured the imagination of education professionals and consumers alike. But as the movement enters its second decade, huge question marks loom: Can charters and regular public schools coexist happily? Will teacher unions tolerate charters' looser rules about certification, seniority, hours, and other employment issues? Do charters inadvertently promote segregation of ethnic groups? And, finally, the two vital questions beating at the very heart of the charter school movement—Do charters spawn true innovation? And do they reach new heights in student achievement?

The answers to these questions will, in the end, decide the fate of this burgeoning reform effort. For now, promoters and detractors alike are watching the research base grow and wondering where it will all lead.

To Realize a Vision

The motives for starting charter schools are as different as the schools themselves. In a 1999 evaluation report on Michigan charter schools, researchers Jerry Horn and Gary Miron identified the five most popular reasons as:

1. Dissatisfaction by a group of parents with the educational program being provided by the local district
2. Opportunity to obtain a more stable financial base for a private school
3. Personal mission of one or more individuals to develop a school with a particular emphasis

alaska

Alaska, the first state in the Northwest to pass a charter law (1995), has 16 schools currently operating. Fourteen of them, together enrolling more than 1,800 students, are briefly described here. As distinct from one another as Alaska is from Florida, the schools have as few as nine and as many as 600-plus students. They emphasize subject areas from hard sciences to fine arts. They teach skills from the most basic social skills to the most advanced Internet skills. Here's a brief peek:

- **Academy Charter School**—Housed in several portable classrooms, this K–5 school in Palmer enrolls 106 students in its back-to-basics program emphasizing the sciences. Daily, 120-minute labs are taught by specialists.
- **Aquarian Charter School**—This Anchorage school for grades K-6 provides a "gifted" curriculum to all of the 220 students it serves at the Charter School Complex. Using the Accelerated Learning program, the school stresses experiential activities in homework.
- **Aurora Borealis Charter School**—A back-to-basics K–8 charter enrolling just over 100 students in Kenai, this school is noted for academic rigor, including Latin and Greek for students at all levels. Emphasis is on direct instruction with research-based programs such as Saxon Mathematics and Shurley Grammar. (For a detailed look at Aurora Borealis, turn to Page 12.)
- **Ayaprun Elitnaurvik Charter School**—Serving a largely Alaska Native population, this 149-

student school in Bethel aims to strengthen Yup'ik language and culture with its Yup'ik Immersion Program. The school works closely with local organizations such as the Association of Village Council Presidents and the Bethel Senior Center.

- **Chinook Charter School**—The first charter school in Alaska, this K–8, multiage school serves its 95 students in space donated by the Army at Fort Wainwright. Using a Montessori approach, along with an apprenticeship program and community service, the school works with families to develop weekly and yearly individual goals for students.
- **Delta Cyber Charter School**—This electronic correspondence program serving 149 middle and high schoolers throughout Alaska teaches telecommunications skills and academic content through interdisciplinary, cross-curricular learning projects and other online resources. Electronic collaborative learning groups network students across the state and beyond.
- **Family Partnership Charter School**—Located in a small strip mall, this K–12 school based in Anchorage serves 674 home schoolers by linking each student and his or her family with a certified teacher who helps them plan an individual education plan. Curriculum materials and other resources are also provided.
- **Homer Charter School**—Serving 21 students in grades 3–6, this school housed in portable classrooms on an elementary school campus in Homer uses Socratic methods, projects, themes, and manipulatives to deliver an interdisciplinary education.
- **Juneau Community Center**—This year-round, multigrade, K–6 school serving 60 children in downtown Juneau offers piano and music instruction to all students in grades 1–3; violin instruction to all students in grades 4–6; and art instruction at all grade levels. The integrative arts program is delivered across expanded time blocks, drawing heavily on community resources such as museums.
- **Ketchikan Charter School**—Emphasizing mastery of basic skills in core academic subjects, this school located at the public high school offers a structured curriculum tied to the Alaska state standards. Parent involvement is mandatory for the families of its 113 students.
- **Midnight Sun Family Learning Center**—This 95-student school tucked into a small strip mall in Wasilla offers a family-oriented program in which siblings learn together in multiage classrooms. Core knowledge concepts and technology are integrated into the program, which encourages meaningful parent involvement.
- **New Beginnings Charter School**—Owned and operated by the Fairbanks Native Association (a nonprofit resource agency), this school for students in grades 8–12 serves a population that is more than 50 percent Alaska Native at two sites—a residential treatment center and a nonresidential location. Each of the 37 students has an individualized instructional plan for the self-paced program. The school provides linkages to social services agencies for students who need them.
- **Takotna Training Center**—This nine-student high school in Takotna, housed in a renovated school building, uses a "modified" Paideia instructional approach (a reform movement based on student-centered learning). The program integrates didactic instruction, coaching, and Socratic seminars.
- **Wiseman Charter School**—A K–12 school serving 11 students in the Yukon-Koyukuk School District incorporates educational aspects of rural village life (such as trapping, hunting, and fishing) into its multiage program. Self-assessment, peer teaching, problem solving, and community interaction are integral to the approach.

SOURCE: Alaska Charter Schools: Program Evaluation Report. *Brenda Britsch and Elke Geiger. NWREL: April 14, 2000.*

4. Opportunity to create a school designed to be safer
5. Opportunity to create a financial profit by one or more entities in the private sector

The first-year report of the *National Study of Charter Schools* sponsored by the U.S. Department of Education's Office for Educational Research and Improvement identifies three general categories of charter founders: grassroots organizations of parents, teachers, and community members; entrepreneurs; and existing schools converting to charter status. This study found three slightly different top motives for starting charters, but overlapping the five above:

1. Two out of three newly created charter schools set out to realize an educational vision
2. Twenty percent of newly created charter schools were developed to serve a special population of students including at-risk, language minority, disabled, or ethnic and racial minority students
3. One-fifth of the surveyed schools cited autonomy with respect to personnel matters, educational programming, state laws, and independence in financial management

In the earliest years, founders had to scrape up money for start-up costs from personal funds, private donors, and banks that were willing to take a chance on an untried idea. But with three-fourths of the states now on the charter bandwagon and a half-million kids enrolled, federal start-up funds are making it far easier to found a school. Setting a goal of 3,000 charter schools nationwide, former President Clinton earmarked several hundred million dollars during his administration for planning, development, and start-up.

"There are certain things you have to tackle early—the right lawyers, a financial plan, a purchasing process," senior policy analyst David DeSchryver with the Center for Education Reform told *Education Week* in June. "It's a little harder on the budget because it's money spent up-front, but you have to have these things in place if you're going to be successful."

But federal money, which always comes with some strings attached, poses a dilemma for charter supporters. For while government largesse has helped

idaho

The 31st state to pass a charter law (1998), Idaho has nine schools enrolling close to 1,000 students. Enrollments range from 20 to over 200. Programs span the spectrum from fine arts to basic skills. Student populations include delinquent kids on probation to high-achievers heading for top colleges. Here's a quick look:

- **Anser Charter School**—An ungraded school that shares space in a business park with a Boise gymnastics academy, Anser's program centers on Expeditionary Learning Outward Bound (ELOB) for all of its 112 students. Students work on a point system, and most teachers use portfolio and rubric assessment. Parents run the school's weekly enrichment program, which draws heavily on resources in the larger community.
- **Blackfoot Charter Community Learning Center**—This K–5 school near the Fort Hall Indian Reservation builds its educational program around three concepts: brain-based research, interdisciplinary teaching, and flexible student groupings. With a strong commitment to bringing every one of its 50 students to academic mastery, the school uses the "Physio-Neuro" therapy program to address the learning disorders that block as many as 30 percent of children from success in school.
- **Coeur d'Alene Charter Academy**—This school, housed in a converted pet and garden center, serves 200 students in grades seven through high school. Emphasis is on college preparation, with a rigorous program

focusing on English, math, and social studies, as well as process and thinking skills. Latin, Spanish, and French round out the tough curriculum.

○ **Lost Rivers Charter School**—Idaho's smallest charter school with fewer than 20 students, this converted alternative school serves at-risk kids in the rural community of Arco. Operating from a doublewide mobile home, it offers extended hours to meet the needs of kids who typically are on probation or under house arrest.

○ **Meridian Charter High School**—Operating from a brand-new building designed with student input, this Boise-area school features a cutting-edge technology focus through an integrated curriculum. The highly hands-on curriculum promotes involvement and critical thinking for its 114 students.

○ **Moscow Charter School**—Serving 63 K–6 students in a church on the western edge of the state, the school offers an enrichment program that includes age-appropriate experiences in theatre, music, dance, art, Spanish, martial arts, and environmental education. The thematic curriculum includes character education, core knowledge, and foreign languages delivered in flexible, multiage groupings for project-based learning.

○ **Nampa Charter School**—Portable classrooms on church property house this back-to-basics, year-round, multigrade school—Idaho's largest charter. With a heavy emphasis on character education, the highly structured curriculum includes drilling in math and grammar for the 233 students.

○ **Pocatello Community Charter School**—Tucked into the back of a shopping mall, this charter's 120 K–7 students receive instruction in the ELOB curriculum. Parental involvement is high, with parent committees making hiring decisions, policy recommendations, and assisting in curriculum selections.

○ **Renaissance Charter School**—With portable classrooms on a residential lot, this Moscow charter enrolls 72 K–12 students for an enriched curriculum delivered in small classrooms. Offering lots of individual attention and project-based learning, Renaissance has attracted kids who were "falling through the cracks" at big, impersonal schools. The arts-based curriculum includes multiple intelligences theory, ELOB, and the Suzuki music approach.

SOURCE: Idaho Charter Schools: Program Evaluation Report, Year One. *Elke Geiger, Jed Schwendiman, Brenda Britsch, Debbie Hornbrook-Hehr, and Jessica Melvin. NWREL: July 1, 2000.*

fuel the movement, those encumbering twists of government red tape are exactly what charter schools were designed to avoid. In order to innovate, schools must not be bound by rules and regs that stifle experimentation, advocates argue. So while start-up cash is welcome, some critics charge that the feds might "love charter schools to death" by getting too involved. A conservative think tank called the Lexington Institute recently offered a series of proposals for "ways the federal government can further promote charter schools without squelching their development," *Education Week* reported in May. Among the proposals:

- Shielding charter schools from teacher-certification requirements, which prevent schools from hiring professionals from other fields who lack traditional training.
- Improving the availability of facilities, which is often the biggest obstacle to starting up a charter school. This could include help in financing or freeing up second-hand facilities, such as buildings previously used as post offices, military bases, or other public schools.
- Extending grants beyond the first three years of a charter school's existence because some schools need more time to "gain necessary traction."

"Washington must maintain the right middle ground between neglect and smothering," Lexington's Vice President Don Soifer says. "It will be a difficult balancing act."

Old Meets New

Some observers and writers have noted another interesting twist in the charter school phenomenon. Charters, they say, are pushing the envelope backward as well as forward—reclaiming a Rockwellesque idea of the old village school while blasting off into a Buck Rogers future, destination unknown. Many charter operators have looked to the past for inspiration, getting "back to basics" with direct instruction in phonics, grammar, math facts, and computation. Others feel the pull of small classes, close-knit school "families," and a return to character or values education and stricter discipline. Historian David Tyack

suggests that charter advocates may be "reinventing the one-room schoolhouse," reports Fuller, editor of a new book of case studies from Harvard University Press, *Inside Charter Schools: The Paradox of Radical Decentralization*. Fuller himself takes the notion even farther when he talks about the return to "tribalism" he sees in the charter movement—and the dangers it can pose to the public school system.

"If charter schools are essentially to serve the 'tribal' agendas of well-off white parents, faithful home schoolers, La Raza devotees, black nationalists, even Mormons and Muslims, then why would society continue to support the public purposes that hold together public education?" he posits. "And once we all win our own private places, like private clubs surrounded by high walls, who will be left behind to rely on public spaces?"

This fear—that charter schools will become "limited oases" or "elite campuses of excellence that will doom large numbers of children left out to mediocre education"—is just one of many concerns voiced by skeptics, notes the Little Hoover Commission in its 1996 study of charter schools in California. The report, *The Charter Movement: Education Reform School by School*, cites a widespread uneasiness over intended or unintended results of charter schools: Some critics, for instance, "worry that charter schools are a backdoor way of subsidizing religious teachings. Some unions believe that employees' rights will not be adequately protected and that hard-won benefits will disappear. Education administrators, deeply engrained with the habit of procedural accountability, believe that relaxed or nonexistent rules are an invitation to corruption, graft, and scandal."

A handful of charter schools have indeed gone down in a blaze of infamy. But the real threat to the health of the movement, many observers agree, is the accountability question. Charters have staked their lives on a simple-sounding trade-off: autonomy for accountability. The argument goes something like this: A school can't excel if it's mired in bureaucratic muck. Free us from the mess and we'll soar to unimagined heights of educational innovation and academic achievement.

But reality has a way of tangling up the simplest ideas. All tied up in this trade-off are some of the messiest questions in education. What, for example, is the best measure for student achievement? Standardized tests? Portfolios? Dissertations? Orations? If a school's approach is unique—soaring way beyond the usual answer-the-questions-at-the-back-of-the-book practices—does it make sense to have kids mulling over multiple-choice questions on discrete bits of knowledge? How can districts or states compare student scores across the board when one school stresses music, another phonics, and a third environmental studies? If schools rely on standardized tests, are they in danger of molding instruction to the test, thereby defeating their main mission of innovation?

A lot of charter schools are stuck on this pile of question marks without a solid plan for demonstrating student achievement that is measurable, practical, and applicable to their program. Depending on the state, charter contracts give schools anywhere from three to 15 years to show positive results, thus fulfilling the terms of their charter. The concept is built on what former Assistant Secretary of Education Chester Finn calls "market-style mechanisms" that "regulate" the quality of education. In the free marketplace of schools competing for kids and dollars, this argument goes, only the strong will survive.

"If flaky people are operating a school with a weird curriculum, or money is squandered, or test scores are sagging," Finn and colleagues recently wrote in *Education Week*, the school's clients (parents and students) should have ready access to that information. Then, "either the school shapes up or finds itself without students (or its charter renewal). Conversely, a school that works well will find people beating a path to its doors."

But not everyone has Finn's rock-solid faith in the education marketplace.

"The rhetoric is that if you don't produce good results, you'll be closed down," Paul Herdman, a graduate student at Harvard University graduate school of education, told *Education Week*. "The reality is that virtually no schools have been shut down."

The Gordian knot of accountability will not be untangled anytime soon.

"Educators and policymakers have yet to agree on how the publicly financed but largely independent schools should be held accountable for their results," reporter Jeff Archer wrote in *Education Week*. "Pressure to reach some consensus on the issue is mounting," Archer said, noting that even as staunch a charter supporter as Clinton admitted that holding schools to the terms of their contract is hugely problematic.

"The one problem we have right now," Clinton said in a speech last spring, "is that not every state has had the right kind of accountability for the charter schools. Some states have laws that are so loose that no matter whether the charter schools are doing their jobs or not, they just get to stay open, and they become like another bureaucracy. Unfortunately, I think even worse, some states have laws that are so restrictive, it's almost impossible to open a charter school in the first place."

In response to a survey finding that accountability is the topmost priority for charter schools nationwide, a group of charter school and assessment experts have formed the National Charter School Accountability Network. Its goals are to help schools meet demonstrable performance standards and to improve state and local government oversight of charters, *Ed Week* reports. In its practical 1998 publication, *Accountability for Student Performance: An Annotated Resource Guide for Shaping an Accountability Plan for Your Charter School*, the network lays out key issues schools must tackle, along with useful resources to guide the process. (Find it on the Web at www.charterfriends.org/performance.html.)

"We can't, as a movement, allow charlatans and weak providers to get charter schools," says John Ayers, director of Leadership for Quality Education, a business-supported reform group in Chicago.

By Any Other Measure

Some researchers offer a bleak assessment of charter schools' track record so far.

"Charters have yet to demonstrate a broad ability to boost children's learning through more effective classroom practices, to nurture more accountable schools, or to create competitive pressures on still moribund urban systems," Fuller asserts.

Thomas Good and Jennifer Braden of the University of Arizona, who authored a study for the National School Boards Association called *Charting a New Course*, as well as a book titled *The Great School Debate*, concur. "A representative review of available studies suggests that charter schools have not had an immediate, dramatic effect on student achievement, as promised by many of their early proponents."

But, as the Little Hoover Commission notes, it's just too soon to make a fair judgment. "Charter schools have been operational too short a time to track achievement in a meaningful fashion," the commission insists.

If it's too soon to gauge achievement gains, by what other qualities may we judge today's charter movement? Here, the commission's view is hopeful: "By many other measures, these schools are successful." Based on its site visits and extensive research in California, the commission found that, "while the academic results are not yet clear, charter schools can be judged at least a partial success on the basis of a variety of criteria." Below, in the commission's words, are some of its conclusions:

• **Test scores and other pupil assessment tools**. Many schools have documented single-year improvements and are making progress on alternative assessment tools, such as portfolios and performance requirements. Without a statewide test

See HOMEGROWN, *Page 42*

Photos: Greg Daniels

Charter students Trent, Natalie, and Travis Semmens excel in school.

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ALL IN THE FAMILY

A back-to-basics charter school provides home schoolers with a choice they can embrace whole-heartedly.

By LEE SHERMAN

KENAI, Alaska—Here on the northern half of the planet, the heavens turn predictably around that fixed point of light, the North Star. In much the same way, the daily lives of one Alaska family revolve around a shining little school they've helped create.

Larry and Susan Semmens were among the original members of Aurora Borealis Charter School four years ago when enrollment barely topped 75. They held on through a Mixmaster start-up, when parents and staff sought to blend sometimes-conflicting ideas into a workable reality. As the school began to gel, the Semmenses settled into a routine: making the daily 30-mile round trip in their mud-splattered 4x4 carting the kids to and from school. Susan volunteering in

the classroom. Larry chairing the monthly board meetings. Both parents chaperoning field trips. Even in their home, the school has a central presence. While most Americans gather around the television after dinner, this TV-free family huddles over homework at the dining room table. When the assignments are done, Larry reads aloud from classics like *Robinson Crusoe* and *The Swiss Family Robinson*. The scene is quaint in its simplicity.

It's no coincidence that the three younger Semmens kids—Travis, Trent, and Natalie—excel in school. (The oldest son has grown up and moved away.)

"I want my kids to be challenged," says Susan, a youthful 40-year-old whose long brown hair is touched with gray. "The public schools teach to the lower-performing students. They have a lot to learn about really pushing kids, about letting them reach their full potential."

It wasn't that long ago that the Semmens home was itself a schoolhouse of sorts. Unhappy with a curriculum that seemed "dumbed down," Susan and Larry decided to home school their children. But after seven years of steering them through their lessons, Susan was getting weary. She was ready to retire her red pencil. And about that time, Trent, who was nearing his seventh birthday, was still unable to read. Tests found that he may be dyslexic, and Susan didn't feel equipped to deal with Trent's difficulty in learning to read. So when the Kenai Peninsula Borough School District got the go-ahead from the state to launch several charter schools, Larry and Susan jumped.

Like Little Red Riding Hood's third bowl of porridge, the charter school option seemed "just right."

GEOGRAPHY AND INDEPENDENCE

On the map, the Kenai Peninsula looks like an ice skate extending into the Gulf of Alaska just south of Anchorage. When the clouds lift, the craggy south face of the Chugach Mountain range provides a stunning backdrop to the town of Kenai—a modest collection of B&Bs, strip malls, gas stations, and espresso stands. To the west of this recreational hunting and fishing hub, more than a dozen gas and oil rigs with friendly names (Platform Bruce, Dolly Varden Platform), rise from Cook Inlet—testimony to the peninsula's growing dependence on fossil fuel as commercial fishing declines. Bears outnumber humans on this windswept jut of land, where two million acres have been set aside as a national wildlife refuge.

Fifteen miles inland from Kenai, tucked away on a wooded hillside, is the Semmens' simple home. The warmth of the woodstove envelops visitors as they knock the snow or ice from their boots in the cheery kitchen. Susan pours hot tea into delicate china cups decorated with rosebuds. The dainty cups and saucers contrast sharply with the enormous horned head of a Dall sheep that keeps a silent vigil on the living room wall. Beaver pelts ("from the creek down below," Susan offers) drape the backs of comfy armchairs, and a seven-foot length of whale baleen, like a giant's hair comb, hangs below the loft railing. A 66-pound Chinook salmon is preserved for eternity on a plaque above the picture window.

"It's a part of Alaska," Susan explains when she senses a visitor's uneasiness with the animal trophies and skins. She has on occasion waged her own quiet protest. When her husband suggested hanging a bearskin on the wall above the sofa, she quickly pieced together an eye-catching quilt in shades of pink and teal for the spot. "I had to work fast," she confides with a conspiratorial smile.

Something else that's "a part of Alaska" is home schooling. The state's vast and rugged terrain is one big reason Alaska leads the nation in number of home schoolers per capita, according to Dr. Bryan Ray, President of the National Home Education Research Institute based in Salem, Oregon. The 40-site Kenai Peninsula Borough district alone ranges across 26,000 square miles—an area bigger than West Virginia. Getting to the "neighborhood school" for some requires a ride in a boat or a float-plane. "If we gathered up all the home schoolers on the peninsula and put them into one school, I'm pretty certain it would be bigger than the biggest school currently in the district," says Superintendent Donna Peterson. That school, Interior Distance Education of Alaska (IDEA), enrolls more than 600 students.

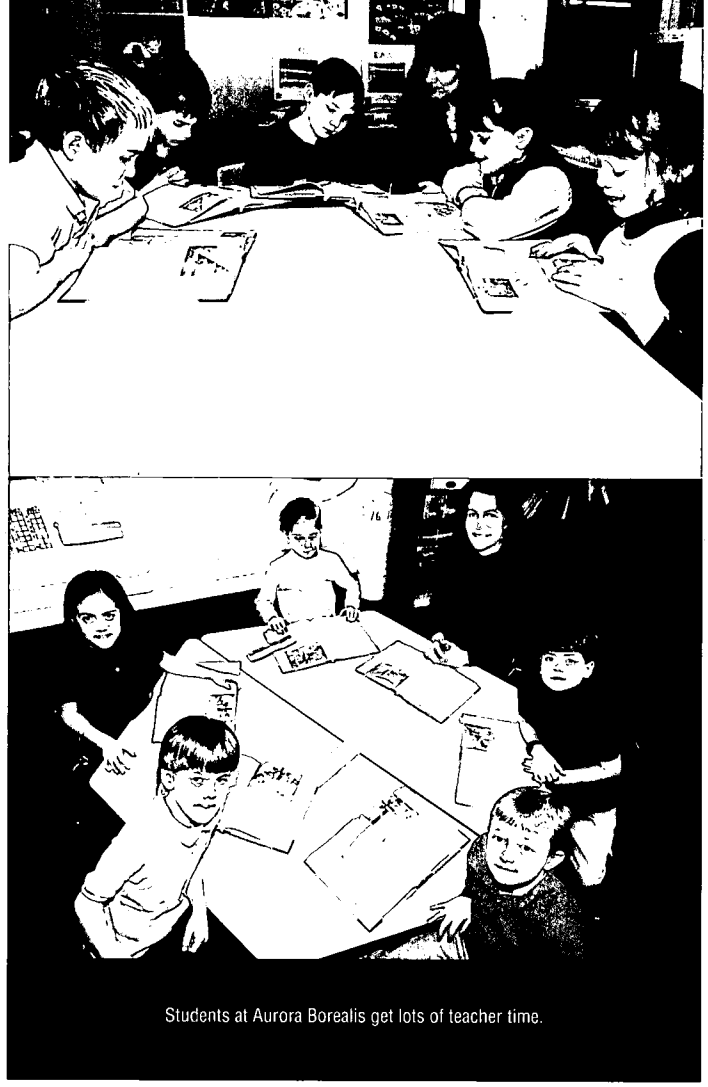
But geography is only part of the reason for home schooling's popularity. It also grows from Alaskans' "last frontier" outlook. "It's the attitude of freedom and independence that's so prevalent in Alaska," Peterson says

While many families, like the Semmenses, do an admirable job of educating their kids, others botch the job. "We've had eighth-graders show up on our doorstep who are simply not prepared to do

high school work," says Peterson. The trouble is, home schoolers in Alaska aren't held accountable for results. Charter schools, on the other hand, must spell out their academic goals in advance and measure progress regularly—at least that is the law's intent. So when charter schools started to really take root in the state in 1997, the district saw an opportunity. Here was a chance to attract families back into the public school fold. Charter schools, which are typically small and open to parental input, present an attractive alternative for parents who are jaded on schools they feel are overcrowded, unchallenging, undisciplined, and/or unresponsive to parents' concerns.

"Alaska has been a real home schooling state, and the school districts have been fighting that for at least 10 years," says Susan Semmens. "They've been losing that battle. I think the reason the district wasn't fighting us on the charter school was because we pulled in so many home schoolers the first year. Therefore, they were getting back those per-pupil dollars—or the kids, depending on how you look at it."

Peterson says the charter school option helps the district better fulfill its mission, which is to educate all children on the peninsula.



Students at Aurora Borealis get lots of teacher time.

"We want families in the system," she says.

Aurora Borealis is doing its part to reclaim straying families. Former home school and private school pupils account for about half of its current enrollment of just over 100. Another 200 kids are clamoring for a spot. The Semmenses were drawn by the promise of structure, high standards, and close adherence to the three Rs. The day begins with the Pledge of Allegiance. Kids follow a pretty strict dress code—no sports logos or imprinted T-shirts, no wild colors (everything must be red, white, blue, or khaki), no Hawaiian shirts, saggy pants, blue jeans, or platform shoes.

The K–8 charter shares a renovated building with the Boys and Girls Club and an alternative school. The 1960s-era yellow-brick schoolhouse, which has the name of its one-time tenant Kenai Elementary School lettered across its solid countenance, feels in some ways like a throwback to an earlier era. The reasons go way beyond architecture. Walk from room to room and you'll hear students reciting jingles about parts of speech, see them frantically scribbling basic computations during the "mad minute," and catch little voices reviewing letter sounds. The curriculum is a patchwork of canned curricula, including Shurley Grammar, Saxon Math, Riggs and Spaulding phonics—all with solid track records of success, staff members are quick to note. Also woven into the mix are a couple of other off-the-shelf programs, Direct Instruction and Core Knowledge, both featured in NWREL's 1998 *Catalog of School Reform Models*. Every minute is put to good use. One recent day, for instance, when the first- and second-graders slouch against the wall as they wait to use the restroom, their teacher drills them on math facts.

Aurora Borealis is, in short, a back-to-basics school with lots of rote learning and repetitive drilling—strategies that make many school reformers cringe. But Susan and Larry believe this is the best approach for their kids.

"Content is important to us," says Larry over a Cobb salad at Charlotte's Restaurant, a favorite Kenai lunch spot that's packed with a boisterous noontime crowd. "Some of the current thinking in education is that the main thing is critical thinking skills, which can be obtained without content. We disagree. I think E.D. Hirsch is right—that there's a core of knowledge we all need, and if you don't know those things, it puts you at a disadvantage in so many situations."

Larry, who logs long hours as Finance Director for the City of Kenai, has carved out time in his schedule to chair the school's Academic Policy Committee, a six-parent board that hires (and fires, if necessary) the principal and ratifies all changes in the school's state-approved charter. A man of 45 whose dark eyes and steady gaze give him an air of quiet authority, he presides calmly over a recent meeting that brings some challenging questions from several parents in attendance. Under discussion is the principal's recommendation that the school begin slowly expanding enrollment to eventually replace the current mixed-age groupings with single-grade classrooms. One of the moms listening to the board's discussion voices concern about the suggested class size increase from 20 to 22 as part of the expansion. She peppers the board with questions.

"Where is the data that shows 22 is a good class size?" asks Pam Johnson, who demonstrates her commitment to her three kids' education each day when she loads them into a van for the 35-mile journey to Aurora Borealis from the outlying community of Sterling. "Twenty-two might be too much for one teacher. Can we get an aide to help the teacher? The increased number could raise problems."

Another woman jumps in to express her own concerns about the influx of new students. Will the new kids be able to keep up? Will they slow the forward momentum of the existing students as they strain to catch up in the demanding curriculum?

The board listens to the women's worries. The two Larrys—Semmens and Principal Nauta—explain the need to bump up class size to ensure adequate funding while allowing for attrition. In an interview after the meeting, Johnson notes that the Kenai district has mandated a class size of 18 for first-graders, a research-based recommendation from the state education department. She knows that small class size is critical, especially in the early grades. She's afraid the board might be starting down a slippery slope of classroom expansion that could be detrimental to learning. "I don't want us to lose the quality that we have," she says.

Johnson, who moved her kids to the charter school because she was disenchanted with regular public schools, shares the same commitment to rigor as the Semmenses and most of the other parents at Aurora Borealis. The teaching strategies at the charter may seem old-fashioned. Yet the school's lofty expectations are right in line with the current nationwide clamor for stiffer standards. And the approach appears to be working, despite a population that leans toward the low middle in income. The school consistently comes in at the head of the pack on standardized tests.

"In 15 of the 18 areas that are tested for state benchmarks, we're the top school in the district," notes Aurora Borealis Principal Larry Nauta, as he forks a gooey slab of black-bottom coconut pie at Charlotte's. Last year, he notes, one seventh-grader scored "99 with an asterisk" on the C.A.T. in math—the highest possible score. And every graduating eighth-grader who wanted admittance to an advanced-placement class got in.

WRANGLING OVER LATIN ROOTS

The most immediately obvious evidence of the school's super-tough program is the Latin instruction. Most people associate Latin with religious schools or pricey East Coast prep schools. Yet these students, whom the principal describes as "average kids from average families," get lessons on Latin and Greek every day, starting in kindergarten. They can recite Greek and Latin roots and their meanings as easily as other kids can lip-synch the lyrics to hip-hop hits or sing advertising jingles for sugarcoated cereals.

Each day, Latin teacher Michelle Hinkle makes her rounds, visiting every class for half an hour. One dank morning in midwinter, she takes over the first- and second-grade room where she introduces a new root.

"*Brachium* means 'arm,'" she tells the students. Eliciting lots of input from the kids, Hinkle explores the root's role in common words, such as "embrace" and "bracelet." She then leads the class in a recitation of the roots they've learned—*verbum*, *graph*, *tele*, *metron*, *tropos*, *philia*, *phobos*, *kinesis*, *manos*, *sonus*, etc. For each root, the kids make a corresponding gesture (for example, a hand cupped behind one's ear for sonus, meaning "sound"). A couple of kids then volunteer for solo recitations. Mac rattles off the roots perfectly until he hits a snag at *prae*. Hinkle gives him a hint. "It's a lot like pro," she says. The other kids, squirming and wiggling with the suspense of it all, start hissing out hints of their own. When finally he comes up with "in front of," the class heaves a collective sigh. Clearly, they're happy and relieved at their friend's success. At the lesson's end, the teacher reads to them from Greek mythology.

Watching the Windchill

KENAI, Alaska—
In January, this windy corner of the world seemed more like Oregon than Alaska. It was wet and mild. People were remarking on the oddity of wading through mud puddles when they normally would be negotiating snow and ice. One woman complained of having to put on knee-high rubber boots just to pick up the mail.

"Last year at this time, it was 23 below," says lifelong Alaska resident Anita LeDoux. Monitoring the weather is part of LeDoux's job as secretary for Aurora Borealis Charter School. Right before morning recess, she gets on the Internet and checks the windchill factor. If it's 10 below or colder, recess is cancelled.

It was a bit accidental that LeDoux, a single mom, landed in this position. When the school was just getting off the ground four years ago, she was one of 40 or 50 home schooling parents who joined the start-up effort. She found lots of ways to make herself useful—running errands for the principal, setting up meetings, keeping minutes, typing letters. So when the charter was approved, she slid right into the job.

Being at the school every day with her two daughters, Allison and Cadee, has made it easier for LeDoux to turn over her teaching duties to the staff at Aurora Borealis. But she was ready to make the transition. When Allison, the older of the two girls, was nearing fourth grade, LeDoux was feeling less confident about her own ability to thoroughly cover the curriculum. "I wanted to make sure there weren't any gaps in her education," she says. "The charter school really fit the bill for us. It was like getting the option of a private school without the expense."

LeDoux's daughters are thriving at their new school—although Allison, now a seventh-grader, regrets being unable to attend school in her pajamas. A true child of the 21st century, she talks about chatting with her best friend over the Internet and playing virtual-reality games as casually as girls from earlier generations talked about hopscotch and jump rope.

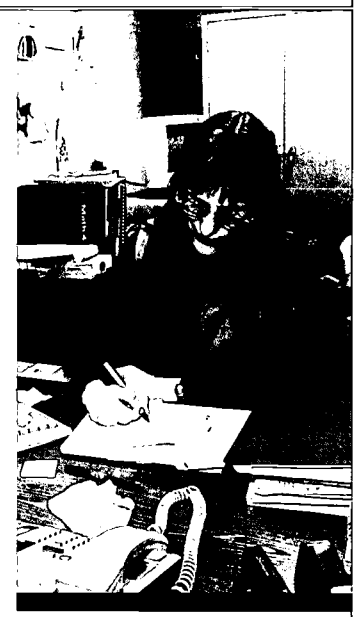
But some things never change. Like kids throughout time, Allison thinks dissecting animal parts is icky. Her mom, who's responsible for placing teachers' supply orders, enjoys getting a preview of the "fun experiments" in store for the science students.

"I didn't like the cow eyeballs," Allison admits. "I wasn't going to touch it. I could feel it through the rubber gloves and I was like, bleahhh!"

She wasn't crazy, either, about the lamb's heart and lungs. But in general, she's very happy at the charter school. Pronouncing words that are music to the ears of teachers and parents everywhere, Allison says: "I like learning. It's fun."

LeDoux is having fun, too. The school's tight-knit, family feeling seems to seep into every relationship and interaction—even students' requests to use the phone in the office.

"I go to the secretarial inservice trainings and listen to the horror stories," she says. "I think, I am so blessed that I don't have those kinds of problems. I never have students who come into the office who are mouthy or demanding. They're polite and helpful." □



School secretary Anita LeDoux

The next day, Hinkle reviews basic concepts with the class.

"What is a derivation?" she asks.

"A word that comes from another word!" Torrey pops off the answer, no sweat.

Using a simple metaphor, Hinkle then reminds the kids of what a "definition" is ("a fence that goes around the meaning"). She then builds upon this image to make the idea of "derivation" ("a stream that comes out of the fence") more visual, and therefore less abstract for the young learners. Next, she introduces the root word *dent*, meaning "tooth." After giving students several derivations of *dent*—dentist, dental, dentifrice—she gathers them into a circle at her feet and reads aloud Shel Silverstein's poem, The Crocodile's Toothache, showing them how their just-learned root word, far from being lost in the past, turns up today in children's literature. The kids don't seem at all intimidated by the level of the instruction. In fact, these little guys have been known to wrangle about Latin roots at recess.

In her kindergarten class, Julie Ball weaves the threads of Greek and Latin roots into lessons on science, math, and literature, making connections wherever she finds them. In astronomy, for instance, she reminds her young charges of the Latin words for sun and star, and talks about the Greek myths from which the constellations take their poetic names. Just the other day, she says, the kids were begging to hear again the story of Zeus's son Perseus, who chopped off the head of snake-haired Medusa—a story easily rivaling any Mel Gibson movie for action and gore.

When Ball introduces a new phonogram, the children jump "out of their seats with joy." She hardly believes it herself, but within a couple of days of learning phonograms (combinations of letters that form a distinct sound), something clicks for some of the kids, and they're reading. By November, all but two or three kids out of 20 are reading Arthur books. "They blow me away because I didn't know kindergartners could do this," she marvels.

Ball—whose family runs a local bed and breakfast and leads guided fishing trips down the river—was "very skeptical" when she first saw the Riggs phonics program. The direct-instruction approach didn't seem consistent with current thinking in early childhood education, which stresses discovery learning. Was it developmentally appropriate, she wondered? But she's found that the systematic, repetitive, predictable nature of the instruction "builds confidence" in kids.

"There's not huge amounts of pressure applied to these children," she says. "Whenever I see that I'm pushing some limits, I back up a little. I strive for a balance between challenge and success."

A PLACE TO PLANT OUR FEET

You know you're in Alaska when you switch on the morning news and get a story about infected beavertail making folks sick. Or you swing into a local hangout for a halibut sandwich, and you have to duck under a buffalo head to get to your seat. Or you stop for an espresso, and you catch hair-raising snatches of a conversation about guys fishing for king crab and riding out 60-foot seas and 100-mph winds. Office chitchat revolves around such everyday occurrences as nearly colliding with a moose on your way home from the grocery store or training your hunting dog to point.

Fish and wildlife are a ubiquitous and powerful presence on the Kenai. Maurice Sendak's classic children's story, *Where the Wild Things Are*, has a special resonance for kids who grow up here where the woods and waters teem with life forms of all kinds—furry, feathered, and finned. The peninsula has a way of grabbing onto people and never letting go.

Gene Palm spent his childhood in Africa, the son of a missionary. But his life changed forever when he ventured to Alaska as a young man to fish. He fell in love with the place and with a fisherman's daughter named Debbie. When their second child came along, they decided to get out of the public school "rat race." So for the next six years, Debbie home schooled their children. Gene fished commercially for herring and halibut and then, after the resource "went south," worked "on the slope" (local lingo for the oil trade) until he got his teaching credential. Now, Gene and Debbie work summers fishing for red salmon. Winters, they're both at the charter school, he as the fifth- and sixth-grade teacher, she as enrollment administrator. One of their kids is a student there, too. "We've found a place to plant our feet," Debbie says.

Gene, like the six other teachers at Aurora Borealis, defends the back-to-basics approach. "How do you teach creativity to kids when they don't have the base?" he asks. "I don't have a single student who's not fluent in basic operations. I can discuss higher-order topics, and they're with me. The payoff is when they get it."

First-graders are challenged at Aurora Borealis.

Another teacher, Suzi Phillips, is Alaskan to the bone. Born near Anchorage, she can remember her first visit to the peninsula a quarter-century ago with pure clarity. Kenai was so small and remote then, it didn't have a stoplight. The snow was melting; the ice was breaking up. At high tide, she saw the Kenai River roiling with the shiny backs of beluga whales. That day, she knew she wanted to raise her kids here—in this wild place where her husband's parents had homesteaded.

A one-time pre-med major who switched to teaching, Phillips masterfully handles the seventh- and eighth-graders. She also teaches science and art across grade levels. "We all take on extra roles to fill the gaps in the curriculum," she says. "It's been a killer. We all work really hard." Hanging in the main hallway are examples of a recent art project. The vivid blues and intense yellows of kids' unmistakable renditions of Van Gogh's masterpiece, *Starry Night*, stop visitors in their tracks. Right next to the artwork is a display of reconstructed rodent skeletons, pieced together with tiny bones picked out of regurgitated owl pellets. The best thing about Aurora Borealis, from Phillips' perspective, is the way curriculum hooks together across grade levels. "The teachers don't hop, skip, and jump around through the curriculum," she says. "The material keeps building and spiraling upward."

"Suzi knows exactly what's been taught all the way back to kindergarten," notes Nauta.

Coming from a previous position in a private school, Phillips was comfortable with the structured curriculum and the high standards, she says. Bill Severson, the third- and fourth-grade teacher, argues, along with Gene Palm, that not only kids but also teachers benefit from a carefully designed curriculum. In the teacher certification program at the University of Alaska at Anchorage, he says, "They taught one day of phonics, downplayed texts, and encouraged you to create your own materials. It was a big hodgepodge. To take a new teacher and expect them to put it all together is just overwhelming. When I went through student teaching, I was pretty ill-prepared."

So he was already leaning toward a more structured approach when he found Aurora Borealis. There he encountered kindred spirits, like Palm, who'd had a strikingly similar encounter with preservice training. "The whole approach," says Palm, "was for teachers to design raw materials. There was no research base."

The real surprise at Aurora Borealis is how much richness and creativity the teachers manage to squeeze in around all the basics. There's a medieval feast and a powwow. There's a "mini-society" where kids raise money for their classroom and learn about running a business at the same time. There's a play wrapping up the Revolutionary War unit when students act out events they've studied. And there are field trips. This year's seventh- and eighth-graders are going to Anchorage to see Shakespeare's *Comedy of Errors*. One year they ventured across the peninsula for a campout in Seward. Another time they designed and dug snow caves for a sleepover in Phillips' yard.

Lori Uponen didn't expect to get an offer when she interviewed at Aurora Borealis to teach first and second grade. "I was honest about wanting to do creative things," she recalls. "I figured I was a little too creative for the school."

To her surprise, she got the job. As it turns out, the strict structure hasn't inhibited her teaching a bit.

"The emphasis is definitely on the curriculum—I *have* to cover that curriculum," she says. "That's the bottom line. But I can still do a unit on bats and a unit on Egypt. I can still do performing arts and journals."

And she can do music.

"I integrate music into everything," she says with obvious enthusiasm. "We do songs about dinosaurs, about Martin Luther King, about Abe Lincoln. We do rhythmic activities in math and reading. We use music with phonograms and rhyming. I think music is really important for the little guys."

Uponen pinpoints what she believes are the three secrets of the little school's success:

- Teachers who work well together and have the same vision
- Continuity and consistency across grade levels
- High academic expectations for all students

"I think that's what makes good learning happen," she says.

ONE BIG, HAPPY FAMILY

The buzz around school on a slushy Tuesday in mid-January is Mr. Severson's impending family expansion. First thing in the morning, word leaks out that his wife is expecting a baby—the sixth child for their blended clan. Each new person who hears the news—whether student or staff—squeals or gasps in surprise and delight. Their joy is so heartfelt, you'd think they were anticipating a newborn in their own family. And in a sense, they are. Because everyone at Aurora Borealis says the same thing: It's like one big family here.

At the head of this extended family sits Principal Larry Nauta. The silver-haired 52-year-old came to Aurora Borealis to help the new school through its growing pains. The first board meeting he attended was supercharged with emotion as parents, teachers, and the original principal battled over their educational dreams and ideals. He jokes about it now, but admits that at the time, it didn't seem funny at all.

"It reminded me of some blood-and-guts movie," he quips. "So much for civilization in Alaska."

Larry Semmens is glad Phase One is behind them. "The start-up year is difficult," he says. "Besides trying to get your program together, you have to get people to agree about what you're hoping to do. Everything from curriculum to uniforms was a wide-open, free-for-all debate. Often, it was stressful."

When the first principal resigned, Nauta stepped in. A 30-year veteran of school administration with a talent for bringing people together, the district consultant held a steely belief in the curriculum materials he had used successfully as a principal on the peninsula. His expertise, coupled with his easygoing style, personal warmth, and self-deprecating humor, helped to defuse the friction that marked the first year.

Raised and educated in Oregon, Washington, and Idaho, Nauta took his master's degree in school administration to Kenai, where he spent the next three decades honing his skills, both in and out of the schoolhouse. The risks he takes are calculated risks, always tempered by practical know-how and deliberation. His firm belief in direct instruction grows in part out of a lifetime of flying in the bush—landing his floatplane on hidden, wilderness lakes and then fishing the wild rivers that run thick with trout and salmon.

"Flight training is all direct instruction—'I'll show you this; now *you* do it.' And in my case," he jokes, "they sometimes had to show me multiple times." He scoffs at the idea, for example, that if you simply put kids into a word-rich environment and expose them to literature, they will learn to read.

"If you expose me to a 747, am I gonna learn how to fly it?" he posits. "Sure, some kids will catch on and learn to read. But you've got your 30 percent who won't pick it up. They'll just get frustrated."

Nauta sums up the school's guiding philosophy this way: "It's real easy. Provide the best quality basic education that we can possibly provide for students. That's it—the sum total of it. Pretty straightforward, huh? When our kids leave here, they do great in high school."

Junior Natalie Semmens bears out that claim. Despite getting excellent grades in her academic subjects, Natalie is nostalgic for Aurora Borealis. "I would go to a charter high school if there was one," says the long-legged girl whose dark hair curls in thick tendrils. "It was more like a family, and nobody talked bad about anybody, ever."

Her younger brother Trent, a serious, confident fifth-grader, tells an anecdote to illustrate his sister's point. "Yesterday," he says, "I saw three seventh- and eighth-grade girls gathering around this little kindergartner, going, 'Oh, the little guy lost two teeth! So cool!'"

Though their goals are very different—Natalie wants to be a fitness trainer and Trent (now an excellent and avid reader) envisions a career as an orthodontist—the siblings agree that the charter school has been a boon for them. As for their little brother, first-grader Travis, who has a dimpled smile that could light up an Alaskan winter, he's eyeing a future as a chef. He could, though, end up a financial guy like his dad. He's already helping older kids with their math, which he finds "real easy."

Whatever he ends up doing, chances are good he'll be a success. Because even more important than a good school is a committed family. Travis, like all the kids at Aurora Borealis, has both. There's no bus service, no lunch program, and a heavy homework load. It's a big job for moms and dads.

"It's a sacrifice to spend an hour on the road and pack lunches and help with homework," Susan Semmens notes. Adds her husband: "When it's not a choice for people, you don't have the educational buy-in from the parents. This offered us a great alternative to home schooling. It's less effort than home schooling, but at the same time it's not like putting your kids out at the end of the road and a bus picks them up. Parents have to be dedicated." □

WHY CHARTER SCHOOLS STUMBLE-

BY CATHERINE PAGLIN

Illustration: JOE SPOONER

Founders can trip up as they try to negotiate the financial, educational, legal, technical, and personal obstacles to creating a new school.

Cardboard boxes sit atop wooden tables. Child-sized chairs are stacked in a corner. Racks of books go unread amid a jumble of office supplies, soccer balls, and jump ropes. When teacher Beverly Grogan looks around the classroom that once housed Bay View Charter School, she remembers children working with colorful Montessori shapes and letters, set in carefully crafted wooden trays. She remembers the tapping and ringing of rhythm instruments—hand drums, glockenspiels, marimbas, xylophones—that now sit silent on a shelf. She remembers her students gathered on the floor at morning circle time, around a segment of a 200-year-old spruce tree trunk.

Grogan also remembers frustration, conflict, and overwork.

Even under the best of circumstances, opening and running a charter school is no easy feat. In addition to providing a sound educational program, these schools-from-scratch must manage purchasing, contracts, facilities, personnel, recruitment, fund raising, and record keeping. A mistake in the recipe and sometimes the whole venture falls flat. A recently updated study of charter schools by the Center for Education Reform (a charter advocacy group) found that 86 schools in 21 states, or 4 percent of the nation's total, had closed of their own accord or had their charters revoked as of December 2000. Also, 50 schools in eight states were granted charters but never opened, and 26 in 10 states opened but were later consolidated into their school districts or with another charter school.

The optimistic names of which charter founders are fond—Success Academy, Bright Horizons, Education Redirection, Life Is Beautiful—do not ensure a shining future. The updated CER report, *Charter Schools Today: Changing the Face of American Education*, which documents the demise of these and other schools, found the most common reason for charter closure was "mismanagement" (33 schools), including deliberate misspending and an overall lack of accountability. Another common reason was "financial inequities"

-AND SOMETIMES FALL

(32 schools), meaning budget problems the school was not able to overcome resulting from conditions such as underenrollment or higher than projected expenses. Smaller numbers of schools closed because they could not find a facility in which to continue (13 schools) or because they did not meet the academic goals of their charter (seven schools).

The Northwest has yet to produce grisly charter revocation stories like those recounted in the original CER study. In Phoenix, for instance, the founder of Citizen 2000 and her sister were indicted on 31 counts of theft, fraud, and the misuse of $179,000 in public funds. In Los Angeles, an audit of Edutrain found that administrators inflated enrollment figures and took expensive retreats while teachers lacked supplies and went unpaid. In Washington, D.C., the principal of Marcus Garvey Public Charter School allegedly attacked a newspaper reporter, scuffled with police, and disrupted school operations after she was suspended. When she was fired, she tried to take over the school by locking out the trustees, removing computers and other property, and naming a new board with herself as chair. In Waco, Texas, Emma L. Harrison Charter School accumulated a $400,000 debt, failed to pay into unemployment and retirement funds, missed teacher paychecks, and violated laws related to nonprofit corporations, open meetings, public information, employee payment, and the federal child nutrition program.

Thus far in the Northwest, where charter schools are few, only two have closed—Bay View Charter School and Walden Pond Charter School, both in Alaska. Problems at Bay View and Walden Pond were not sensational, but similar to the problems many charters face at some point in their development—poor planning, internal disagreements, lack of management skills, lack of district support, burnout, and budget imbalances.

> "In addition to providing a sound educational program, these schools-from-scratch must manage purchasing, contracts, facilities, personnel, recruitment, fund raising, and record keeping."

THE LIFE AND DEATH OF A CHARTER SCHOOL

Bay View, a K-5 Montessori-based school in Seward, got off to a rocky start. Its founder readily admits that planning was inadequate.

"We started too soon," says Beverly Grogan, former head teacher and administrator. She and the other founders liked Howard Gardner's theory of multiple intelligences. Although no one curriculum embodies his theory, the Montessori approach comes close, the founders learned. But by the first day of school the all-important Montessori materials had not arrived. Neither had the child-sized Montessori furniture. Complicating things further, Grogan had no Montessori training and the school's year-round schedule prevented her from taking the training in June.

Even before Bay View opened, relations with the local elementary school were strained. Before the meeting at which the school board was scheduled to decide on the charter, teachers from the school sent faxes in opposition. The charter group temporarily withdrew its request for approval and Grogan went to a tense site council meeting to try to explain the purpose of Bay View. "I said to them, 'It's not an attack; it's an alternative.'"

Bay View set up shop in a room at Seward Middle/High School—a location that was meant to be temporary but became permanent after plans to locate in the local aquarium fell through. The rent at the middle/high school was reasonable and the staff was welcoming and helpful, says Grogan. But in several ways the facility was inappropriate for elementary students.

The first year, the school was in a room with no windows, no running water, and no area for staff to deal with discipline problems, except out in the hall. The second year, the school moved to a room in a bottleneck area of the high school where Grogan sometimes had to break up fights among older kids outside the door. Parents were unhappy with both locations.

As simple sounding a task as submitting attendance records to the district was daunting. Grogan wanted to fax attendance records for what was never more than 19 students, but the district was on a computerized system. A parent had to drive 95 miles across the peninsula to Soldotna to be trained to do budget transfers and attendance. Taking care of students with playground scrapes and bumps was something else that seemed as if it should have been straightforward but wasn't. Though there was a school nurse at the high school, the district wouldn't let Bay View students see her. Grogan was told to call 911 in an emergency. "It seemed so unfair," she says. "These were district kids, too."

It's just such details that really test a charter school, says Jim Green of the Oregon School Boards Association. "When I talk to groups I tell them, 'You've got a great idea for providing an educational program to boys and girls, but you need to think about who's going to turn on the lights, who's going to repair the boiler when it breaks down, who's going to unlock the door in the morning,'" he says.

Grogan feels that more support from the district could have made a big difference. "They never even identified a contact person," she says. A contact person who supported the charter school concept could have been a liaison between the school and the administration. Such a person could have helped the school work out problems related to special education services, nursing services, and transportation, she says.

The idea of an advocate or outreach person for charter schools in a district of 10,000 kids in 40 schools in a 26,000 square mile area is unrealistic, says Assistant Superintendent Patrick Hickey. "We don't just hire someone to be an ombudsman for a cadre of programs." There is nothing the district provides from which participants in charter schools are excluded, he notes. "We have special education problems," he says. "We have transportation problems. We've got people dedicated to addressing those. Is it management's role to be anybody's advocate, or is it to provide equitable distribution of resources for the good of the whole to avoid the perception of favorites?"

By the second year Bay View's relations with the elementary school had improved, but internal dissension was rife. The policy council discussed every issue at length, but often failed to come to a decision because it was set up to operate by consensus. "We wanted to please everyone," says Grogan. In the absence of decisions on issues such as half-day versus full-day kindergarten, she was often left to decide by herself when the day of reckoning came, inevitably angering those who disagreed.

From Grogan's point of view, some parents and board members had become intrusive, more concerned with curriculum details than writing policy council bylaws or dealing with big-picture issues such as funding. Whereas the first year interested parents sat in the Montessori observation chair and watched the class, in the second year they sometimes marched right into class with their comments and disagreements. "I felt they were trying to run my classroom instead of running the school," she says.

Grogan felt pulled in every direction. Though a parent took the students for PE so that she would have prep time, if a child got hurt, Grogan, as the only certified teacher, was required to be present. The Bay View charter was set up to waive certain policies and also reserved the right to request other waivers. But as situations like this one arose in which a waiver would have been helpful, no one seemed to have time to write the request. "There were too few people to do the work," says Grogan.

In hindsight, says Grogan, there is much she would do differently. She would start up more slowly, with more planning, and have training and materials in place before opening. She would clarify the mission of the school by making it strictly a Montessori program, not a Montessori-*based* program, which left her open to continuing discussions with parents about what was acceptable in the curriculum. Ideally, the school would have two classroom teachers with one class for three- to six-year-olds and one for six- to nine-year-olds, to better carry out the Montessori philosophy. The board's responsibilities would be defined more narrowly, a certain number of people would serve, and they would need to make a minimum time commitment to do so. The board would operate by majority rule instead of consensus. Grogan would hire a part-time secretary to do payroll and attendance.

In February 1999, an accident put Grogan in the hospital for two months. Substitutes took over. But when she returned, enrollment—

which had already dropped from 17 to 12—had dropped again. By the time the school board voted in May to terminate Bay View's contract, the school had no more than seven students, and its policy council had not responded to the superintendent's request for a plan to boost enrollment to the minimum 20 required by the charter contract. The board left the door open for the school to reapply for charter status by January 2000, but Bay View closed in June and did not reopen. No other school has rushed forward to fill the void. "Under current rules there remains one more slot for a charter school, but it's remained open since their contract was terminated," says Hickey.

A SCHOOL FALLS THROUGH THE CRACKS

Like Bay View, Walden Pond Charter School for grades seven through 12 began with a concept that was too broad. "You need to picture what kind of student you want to serve," says Meghan Hackett, a teacher and the school's fourth and last head during its three and a half years. Walden Pond, says Hackett, who was not involved in the school's start-up phase, was conceived to serve "kids who were falling through the cracks." The problem, she says, was that this vague phrase meant something different to everyone. The school, the first charter to open in the Anchorage School District, brought in some capable students who didn't thrive in a traditional setting, but also became a destination for kids with behavior and academic difficulties.

"We didn't want to attract students with behavior problems because we had no counselor," says Hackett. Over the years the school, which opened in fall 1997 and closed in December 2000, tried to correct its mistake by stressing academics in its marketing materials and with the students. But its image as a place for difficult kids was hard to shake. Twenty-five to 30 percent of the student body was always made up of special education students. The school came up with a plan to have failing students meet certain GPA goals in order to attend, but at a time when the school was struggling to boost enrollment, consequences were rarely enforced.

Hackett, like most of the Walden Pond staff, was new to teaching when she came to the school. She continued to teach when she took over the job of headmistress. "The job was designed incorrectly," she says. "There needs to be one person in charge all the time without the responsibility of classes." She also served as treasurer for the policy council because no one else stepped forward to fill the job. Like Grogan at Bay View, Hackett felt overwhelmed by the multiple responsibilities. Her teaching suffered.

Finding suitable quarters at a reasonable rent is a major challenge for many charter schools. Whereas Bay View had affordable rent but a less-than-ideal facility, Walden Pond had the opposite problem. The facility—a former junior college in an office tower attached to Anchorage's largest mall—was excellent, says Hackett. The classrooms were spacious and the mall had an iceskating rink and bowling alley. Students could eat in the food court, which meant they didn't have to go off campus. But the pricey space was a major factor in the school's downfall. For the first year, the school got the space at an affordable rate. The next year, however, the landlord wanted a three-year contract at a much higher rate. In the meantime, says Hackett, the school's policy council had not looked into alternatives.

"We signed a lease for an incredibly large amount of money [$187,000 annually] that we weren't able to pay," says Hackett. "We didn't realize we could have asked the district to look over the contract." To make matters worse, after the lease was signed the Alaska Legislature passed Senate Bill 36 which, in order to encourage economies of scale, reduced funding to alternative and charter schools with enrollments under 200.

The Anchorage School District made up the difference in funding during the first year of cuts, and offered other support, such as sending a representative to school meetings to explain the financial problems. "The district was wonderful," says Hackett. The school made efforts to increase enrollment, but it was too little, too late. Walden Pond had run for a year and a half in the red when the Anchorage School Board closed it in December 2000 to avoid the approximate $225,000 deficit projected at that time, says Superintendent Carol Comeau.

"I believe if we had had a strong and dedicated academic policy council, we could have made it,"

"I believe if we had had a strong and dedicated academic policy council, we could have made it."

says Hackett, who feels the council had more than adequate warning of the impending financial crunch. Without a council dedicated to finding less expensive space or raising funds, she says "our school was destined to fail with or without SB 36."

EXPLORING "UNCHARTERED" TERRITORY

While Grogan's vision lies abandoned in a lonely classroom, some would-be charter starters find their paper proposals are the end of the line. The Number One reason for charter rejections is budget numbers, says Marc Abrams, Vice Chairman of the Portland School Board. "It's easier for us to process that before making the finer judgments on the academic merits of a proposal," he says. "If the numbers crunch, then you turn to—is it pedagogically sound?"

The first group to apply for a Portland district charter—European High School—suffered from fuzzy math. "Their numbers didn't crunch," says Abrams. "They didn't even snap, crackle, or pop." The school's prospects looked even dimmer when *The Oregonian* newspaper reported that one of the charter proposers had had her teaching license revoked.

In Southern Oregon, Eagle Point School District denied the state's first charter application on several counts. The Renaissance School, an existing alternative school with a visual and performing arts focus, closed at the end of the 1999 school year when it could not continue in its space in a church. While looking for a new home, the school's founder applied for charter status.

"One of the issues was a concern about the understanding that this was really a small business," says Bill Jones, Eagle Point School District Superintendent. "The applicant was never able to present a balanced budget after several tries." The school's budget included what the district felt were unrealistic assumptions about costs and about grant funds that the applicant had yet to apply for and secure. "On her very last, I believe it was the seventh try, out of $131,496 the applicant allocated $100 to instructional supplies," Jones reports.

Besides, says Jones, the mission of the school seemed to be in flux. When the latest potential location was a mall, the school was to have a marketing focus. When it was near the Rogue River, the focus was to be environmental. He also had concerns about the depth of community support for the school. The school appealed the charter denial to the state Department of Education, but after seven months with no official action dropped the appeal.

PIONEERS BLAZE A NEW "OREGON TRAIL"

In Oregon, where the charter law is still young, none of the 12 operating charters has come to grief. They are experiencing growing pains, however, and this applies to established schools that have converted, as well as to start-ups. Hungry for greater financial stability, Willamette Valley Community School, a five-year-old private school, became a charter in fall 2000. Subsequently, enrollment grew from 25 to 45 students, and the budget ballooned to twice its original size—from just under $150,000 to close to $300,000. The new funds were a welcome change. But along with the conversion to charter school status came unexpected consequences.

"The huge shock for them, what they had not anticipated, was the number of special needs students," says Corvallis School District Assistant Superintendent Ron Corbell, who acts as the district's liaison to Willamette Valley. Whereas regular schools in the district average about 12 percent special education students, Willamette Valley's percentage is currently twice that high.

"That has caused them incredible difficulty," says Corbell. "The whole notion of IEPs (individual education plans) and special education laws—which are familiar to us in the public sector—were brand-new to them. They didn't have systems in place to deal with it—or with the reporting of attendance, assessment, and curriculum."

Increasingly, says Corbell, there was a mismatch between the creative, visionary director who founded Willamette Valley and the school's new nuts-and-bolts needs. "The way the charter law is written, the director functions more as a superintendent than a principal," says Corbell. "It takes a very talented individual to be a creative leader, know systems inside and out, and report to the board." In January 2001 Willamette Valley's board dismissed the school's founder. There ensued what Corbell termed "a month of confusion and craziness in the news media."

"The difficult thing for parents is getting beyond the idea that the school is about one person," says Marion McNamara, a member of Willamette Valley's board.

The board's action sparked a student walkout and a call for board members to resign. Unhappy parents recommended the board appoint four additional members to the original five-member group. The board complied. A handful of parents pulled their children out of school. In February, after a meeting

that stretched more than five hours, the board hired an interim director, someone with a superintendent's certificate and experience heading educational programs.

WHO PAYS THE PRICE OF FAILURE?

"I have lots of faith that Willamette Valley Community School will thrive," says Corbell. "This is a bump in the road, a course correction." McNamara is hopeful all the attention focused on the school will translate into additional parent commitment to fund raising and volunteering.

A bump in the road or the end of the road? The possibility of failure is a major difference between charter schools and mainstream public schools. The idea that a school can close voluntarily or that a school board or other authorizing body can revoke or refuse to renew its charter, raises an array of reactions and concerns from those involved with the issue. Charter school advocates, for instance, see closures as evidence that the charters work as they are supposed to. The Center for Education Reform points optimistically to the 86 failures documented in its report as proof of "real contractual accountability, which is all too often missing at many traditional public schools."

Others put a different spin on closures. The National School Boards Association cautions: "A charter school is not simply a small business subject to the vagaries of the marketplace and the business acumen of its operators; it is an institution that holds an important key to a child's future. When a charter school fails, the students whose education is disrupted pay an immediate price. The entire school district also bears a burden as it hurries to accommodate those students. And citizens, whose taxes paid for the failed experiment, suffer a financial loss and, perhaps, a loss of faith in the ability of the local school board to make sound educational decisions."

The NSBA urges school boards to take seriously their oversight responsibility for charter schools. Portland School Board member Sue Hagmeier does. She's particularly concerned about providing stability—six years of it at the elementary school level. " I wouldn't want to experiment on my child," she says. "And I don't want to be in the hot seat for saying you can experiment on someone else's child." She points out that Portland already has numerous magnet schools, special-focus schools, and alternative schools. She worries that charter schools, even those with academic merit, could fail simply because of market saturation.

The idea behind charter schools is that they will compete in the educational marketplace by showing academic results. Thus far, however, as at Walden Pond, it is financial trouble, not academic nonperformance that causes most closures. "Education people are rarely also CPAs," notes Abrams.

Will school boards and other authorizing bodies in fact terminate schools for not meeting academic goals when charters run out in three, five, or even 10 years? Abrams is skeptical that they will have the political gumption to do so. "Once you do something there's a presumption of continued validity and that concerns me," he says. "A body in motion tends to stay in motion. A program approved tends to stay approved, and that sometimes results in misspending."

At least one charter school in Oregon isn't counting on Newtonian physics for its survival. The 21st Century Community Schoolhouse, a high school in the Salem-Keizer District, has contracted with Teaching Research Institute for an evaluation of everything from attendance to parent satisfaction to student progress in meeting benchmarks. The first year of the three-year evaluation will cost approximately $21,000. "That's another expense a lot of charters don't put into their budget," says co-founder Andrew Goldstein, "But you'd better be able to cut the mustard when your charter comes up for renewal." □

> "The way the charter law is written, the director functions more as a superintendent than a principal. It takes a very talented individual to be a creative leader, know systems inside and out, and report to the board."

The Quest for Accountability: Charter Schools' Holy Grail

Third-grader Megan Lundquist works intently to compile her portfolio at Boise's Anser Charter School.

THE SUCCESS OF CHARTERS HINGES LARGELY ON THEIR ABILITY TO SHOW RESULTS. A RECENT SEMINAR IN IDAHO HELPED A GROUP OF CHARTER SCHOOL FAITHFUL FIND THEIR WAY TOWARD SOLID ASSESSMENTS.

By MELISSA STEINEGER

BOISE, Idaho—They were shut inside a drab, windowless conference room for two snowy days in January. The dozen charter school staff members and policymakers nevertheless traveled far in their journey toward accountability. And, judging by their careful attention and comments along the way, these public school pioneers welcomed the trip—even though it included a two-hour presentation by a statistics expert; an afternoon of humbling discoveries about their shortfalls as appraisers of student writing; and a morning of lessons on the deficiencies of their portfolio assessment. That's because the Idaho Department of Education seminar on Assessment, Portfolios, and Data Analysis could, in the end, prove critical to the success of their charter schools.

Charter schools across the Northwest and throughout the nation are struggling with two crucial—and related—issues: assessment (measuring student achievement) and accountability (measuring the school's performance as a whole). Without one, you can't have the other. Yet, how do you determine if you're really doing well in either? That's what charter school founders, staffers, parents, and authorizing agencies are struggling with across the region.

In theory, charter schools are given more autonomy than other public schools because they're held more rigorously accountable for substantiating student performance. To do this, charter schools set forth goals in their agreements with the authorizing agency. The authorizing agency then measures the school's performance against those stated goals to determine whether to continue the school's charter. If a charter school does not demonstrate solid performance, the authorizing agency can close the charter school's doors.

The problem arises when a charter school's goals are vague. And the problem, it turns out, affects almost every charter school operating today. Indeed, unmeasurable performance goals have the potential for being the charter school movement's Achilles' heel.

An analysis by the state of Florida found that only six of 33 accountability agreements between the Sunshine State's charter schools and their authorizers contained any measurable goals and objectives. Studies by the Northwest Regional Educational Laboratory found that similar problems exist in Alaska and Idaho.

Solving the problem is crucial. Charter schools typically have a time limit of three to five years for achieving what they have promised. If authorizers don't see the benefits, they may decide to revoke a school's charter. The more a school can demonstrate quantifiably that it is making a difference, the better. Charter schools are well aware of the issue. An informal survey by Charter Friends National Network in early 1998 found accountability to be their top priority.

Yet, after almost a decade, educators and policymakers have still to agree on the nuts and bolts—by what methods should these publicly financed schools be judged?

One obvious way to measure charter schools, at least in the eyes of those outside the movement, is with state and national tests. Even some backers of charter schools say such tests complement the schools' aims because both the tests and the schools emphasize performance-based accountability.

But most charter schools see obvious problems with the world of high-stakes, nationally standardized tests. By relying on traditional tests, schools risk skewing instruction to match the tests. Or recreating the status quo.

Some charter advocates believe that attempts to tighten charter school regulation is an effort to rein in the entire movement. Others complain that standardized tests create a conservative influence on charter schools. Freedom from rules and regulations is supposed to give charter schools the latitude to innovate, so it would be a great irony if they had to use traditional tests to prove their worth and ensure their existence.

Yet, even if schools and authorizers can agree on the yardstick, setting performance targets for individual schools can be tricky. Schools must be able to build their own mission and goals based on their philosophies. But at the same time they must be able to assess progress toward their goals.

The problem with demonstrating achievement seems to be in large part due to difficulty in crafting data-based performance measures. Understanding the nuances of assessment and how schools could create their own assessment and accountability plans were the

goals of the Idaho workshop, organized by Carolyn Mauer—who heads up the Idaho Bureau of Curriculum and Accountability in the state's Department of Education—in consultation with the Northwest Regional Educational Laboratory.

THE ROAD TO MEANINGFUL ASSESSMENT

The journey in Idaho started when the keynote speaker related the true story of a first-grader who had not yet learned to distinguish a T from a J—both letters were Ts to her eyes. One morning at the beginning of the school year, she took a 10-minute reading test and failed. That afternoon her parents were informed that the little girl would be moving into the special education program, despite the fact that she was doing well in all her subjects. After two days of hearing her parents discuss their efforts to have the child retested, the child told her father not to worry about it, explaining, "I'm just not very smart."

"I tell that story," explains the girl's father and workshop keynoter, Phillip Kelly of Boise State University, "to demonstrate the power of misused assessment. Anyone can use assessment to destroy a child's confidence. We must use assessment to build children's confidence."

For some students, Kelly says, assessment is about personal risk management. A child who is successful the first time gains confidence and encouragement. But imagine a child—perhaps intimidated by the school environment or simply shy—who fails the first time, second time, third time, and so forth. Why on earth, asked Kelly, would that child try his or her hardest on the 17th time, or after six years of failure, merely at a teacher's urging? That, he says, would actually be irrational. Such children would rather slouch in the back of the room, sneering, or simply tune out and eventually drop out than to be seen as failures. "For them," he adds, "assessment is about avoiding the embarrassment of being seen as incapable. If kids don't feel able to learn, there will be no learning."

The essential question, Kelly says, is how to help students want to learn. Used well, assessment can help children gain the ability to self-assess and the confidence to take risks and succeed. At the end of every video game, Kelly notes, the player "fails." "Yet, kids don't give up, they start over. Why? To better their score—in other words to raise their achievement." Video games, Kelly says, have clear goals and provide immediate feedback the player can use to measure his or her accomplishments. "Would video games be as popular," he asks, "if you finished the game and waited three months for the results to be mailed to you?"

For Kelly, the three key attributes of a good assessment tool are that it:

- Intimidates no one (because students know the target)
- Surprises no one
- Merely corroborates what kids already know (because kids understand what they will be assessed on and can reasonably predict the level of success they will achieve on the assessment)

Kelly cites the case of a high school English teacher who had students read an example of good writing and discuss why they thought it was good. The next time the class met, the teacher had students read an example of bad writing and discuss why they considered it bad. In the third class, the teacher had the students compare the two papers. Using the discussion, students developed their own scale of good, bad, and the steps in between. In the fourth class, the teacher asked students to write a paper that would be evaluated on the scale that they had discussed and developed.

That teacher, Kelly says, helped each student develop the understanding and insight to determine what was good and what was bad. Again, the teacher showed them that these were exactly the qualities they would be assessed on. That understanding of what they would be assessed on and how they would be measured gave students the confidence to take risks and succeed.

In other words, Kelly says, teachers can help students by using assessment not just as a checklist, but as a way for students to gain insight into how to improve. The English teacher, for example, could show a student that his or her writing did not contain the qualities the group had set as desirable—qualities that the student had a full and complete understanding of—and use that as a starting point for the student to improve his or her writing.

This type of good classroom assessment actually boosts test scores, Kelly says. A 1998 review of the effects of classroom assessment found that good classroom assessment provided the grade equivalent increase of one to four grades, with the biggest boost for low achievers. Yet, teachers rarely have training to develop high-

SIX-STEP PLAN

FOR DEVELOPING ACCOUNTABILITY

A charter school's accountability plan is the way a school indicates the goals it will achieve, or, from the authorizing agency's viewpoint, the performance levels it will be held accountable for attaining. The accountability plan provides:

- **Information needed to measure and track the school's progress toward its goals**
- **Program adjustments when needed**
- **Reports to parents, the community, and chartering authority on performance and progress**

The Northwest Regional Educational Laboratory offers an organizing framework based on six questions:

1. What is our school's mission? (Answers three key questions: whom you seek to serve; what you seek to accomplish; what methods you will use.)
2. What do we want our students to know and be able to do? (Articulation of the desired characteristics of students described in concrete graduation or exit standards and benchmarks along the way to reaching those exit standards).
3. How will we know whether our students are achieving or attaining the goals and standards we specified in our charter? (A list of specific academic skills that students will demonstrate in each subject area and class.)
4. How will we gather and monitor the necessary student performance information?
5. How will we set and measure progress toward our school performance goals?
6. How will we use the student and school performance information we have gathered? For more information on NWREL's charter school assistance program and publications, please turn to the Resources section on Page 40.

quality assessments to inform future instruction. "The U.S.," Kelly says, "needs basic assessment literacy."

For starters, Kelly suggests that teachers—and schools—look at what they want to measure, whether it's content, reasoning ability, performance skills, or even values. Then, consider the best type of assessment tool to use, from multiple choice to interaction between teacher and student (see sidebar).

One form of assessment that is popular especially among charter schools is the portfolio method. Indeed, 75 percent of Idaho's charter schools use or plan to use student portfolios as part of their battery of assessments. But, in the words of Susan Seaman, a teacher at Renaissance Public Charter School, "You can call any collection a portfolio, but what is the quality of the contents?"

Renaissance Charter School in Moscow, Idaho, enrolls about 70 students in K–12 with an emphasis on the individual nature of student learning. Arts education, multiple intelligences theory, and holistic learning are part of the educational emphasis. Renaissance teachers are so interested in the topics of assessment and accountability that they came in for two days before the start of the school year to review the issues.

The education department's Mauer offers some criteria for using portfolios in assessing student work. The first step, she says, is to decide which subjects will be included in the portfolio and what the scoring criteria will be. Portfolios should incorporate the same content schoolwide, and ensure that teachers are requiring and scoring the same things in the same ways to ensure comparability and replicability. Portfolios should document a student's strengths, Mauer says, not his or her shortcomings. Portfolios should build confidence by demonstrating what students can do, not what they don't know. Finally, portfolios should be only one of multiple measures a school or teacher uses to assess student learning.

Tammy Emerich of Idaho's Meridian Charter High School near Boise presented examples of the portfolio method her school uses. At the beginning of each term, Emerich gives her students a list of things they must know by the end. Then instead of giving a final exam, she interviews each student to determine his or her true achievement level. "Life isn't multiple choice," she says. "It's a project-based world, so it's much more realistic to have students sit down and explain."

Writing is often included in portfolios. Lynette Hill, an English and language arts specialist at the state's education department, offers some tools for assessing student writing. Hill helped develop Idaho's direct writing assessment and is the state's writing competency course coordinator. Idaho conducts writing assessments in grades four, eight, and 11.

"Assessing writing is so subjective," says Hill. "Twelve experts would say 12 different things about one piece." Standards help reduce the subjectivity of scoring.

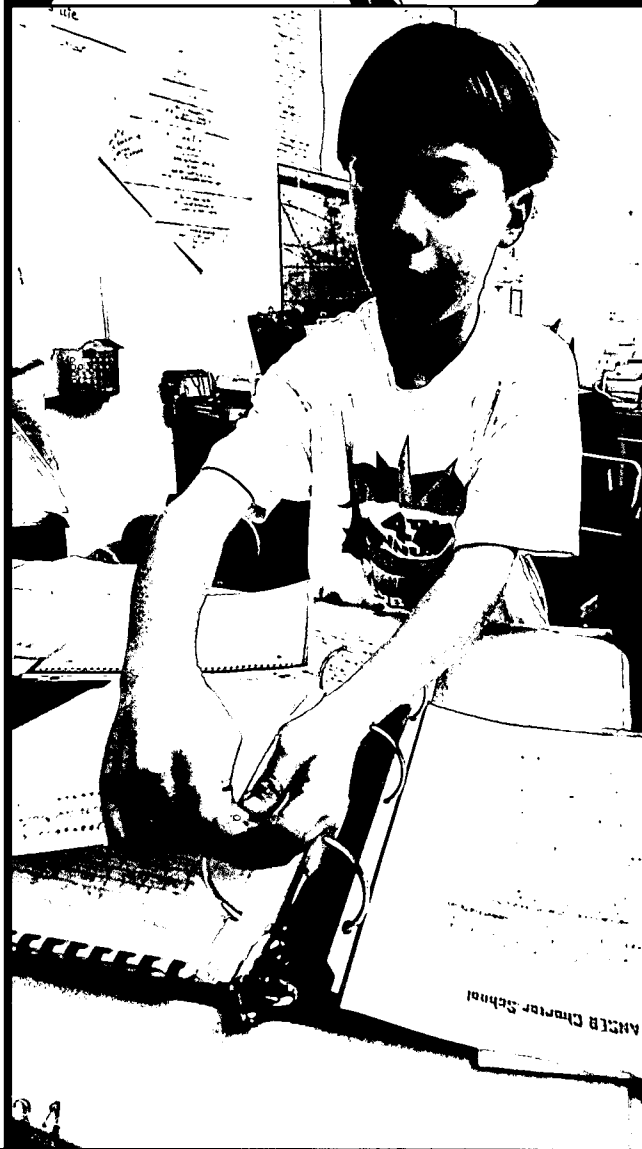
To help teachers use standards in assessing their students' writing, Idaho publishes booklets of the areas that will be measured in each of the grade levels that are officially measured, as well as three additional grade levels. The booklets contain the rationale for the testing as well as the writing terms and vocabulary students are expected to know and how they will be scored. Scoring grids list the five "grades" papers can receive, from "advanced" to "minimal," and what specific attributes each of those levels demonstrates. An advanced paper for a fourth-grader, for instance, is a uniquely developed topic with details related to time, place, characters, and plot using figurative language in a vibrant, consistent voice with varied sentence length, among other things.

NO CREDIBILITY WITHOUT ACCOUNTABILITY

David Breithaupt, a research and evaluation analyst for the Idaho Department of Education, is an unabashed numbers zealot. A buoyant man with a booming voice and a gusto for his topic, he strides through the conference audience, looming close to make a point at first one table, then another. He seems on the verge of grasping participants by the shoulders to heal them of their fear of statistics. Amazingly, he infuses even an after-lunch crowd with his arithmetical ebullience. While he orates, listeners' faces light up appreciatively.

"Successful assessment starts with measurable objectives," he booms. "A goal doesn't have to be measurable; an objective does." To drive home his point, he recites an objective lifted directly from the charter of one participant's school: "Demonstrate refined reading, writing, listening, speaking, and presentation skills in multiple forms of expression, using communication skills appropriate to the setting and audience." He pauses a moment to let the words

Anser Charter School teacher Susanne Gregg confers with Stewart Miller.



Micah Sandusky puts together his portfolio book.

sink in. As worthy as this objective may sound, he continues, "It is not measurable."

Begin crafting a measurable accountability plan, he says, by asking three simple questions:

- Where am I going?
- How shall I get there?
- How will I know whether I have arrived?

The answer to "Where am I going?" becomes your goal, he says. Next, look at where you are. The difference between the two is what you need to learn—or teach—to reach your destination.

Such goals are not necessarily measurable, he notes. So the school must next set measurable objectives to determine whether it is on the way to reaching its goals. Measurable objectives describe specific measurable tasks or steps to the goal that students are expected to achieve and answers the question, "How shall I get there?"

To be measurable an objective must pass the "Hey, Dad" test. "In other words," Breithaupt says, "'Hey, Dad. Let me show you how I can factor a polynomial.' This is measurable. 'Develop communication skills' is a worthy concept. But you can't show whether or not someone has 'developed communication skills,' so it's not measurable."

Three to four objectives per area of curriculum are easier to measure than an exhaustive laundry list, he notes. So, rather than "improve fourth-grade reading," a measurable objective might talk about vocabulary, comprehension, word-attack skills—in other words, the components of good reading. "And let me give you a tip," he adds. "Don't use the word 'and' in writing objectives because you can't measure two or more items well, such as reading and writing. If I demonstrate refined reading but not writing skills, did I pass? You can't tell."

Evaluation, he says, is simply what a student must be able to exhibit for a school to say the student has met the goal. He explains that all evaluation can be boiled down to a two-step process, whether you're evaluating fourth-grade reading or a new car model. First, you describe what you're looking at. Second, you judge. In educational parlance, "describe" is to issue a grade via the assessment tool you've chosen, and "judge" is to compare to your standards or goals.

After planning, teaching, and evaluating, it's time to report—to describe and disseminate the information to provide a foundation for additional and continued funding and as an aid for other schools to replicate success or learn from mistakes.

Jana Nichols of Meridian Charter High School has taught for 22 years in schools throughout the West and Midwest. That breadth of experience convinced her, she says, that "we could do school differently." After finishing an advanced degree, she interviewed for a position at Meridian, and the school's outside-the-box thinking clicked with Nichols' beliefs.

Meridian has some 150 students in grades nine through 11 and plans to add grade 12 in the 2001–02 school year, with a cap of 200 students. The school focuses on technology and offers career paths in computer networking, electronics, computer programming, and graphic design. Students' grades for the week are delivered to parents each Thursday, and youngsters have the opportunity during Friday study hall to either catch up or improve their classwork. If their grades are satisfactory, they can watch a movie or participate in a job shadow.

A consultant helped write the school's improvement plan objectives, which were clearly measurable. But when the improvement plan team tried on its own to write objectives for safety and discipline, they got stuck, Nichols reports. Breithaupt's presentation helped her start the process of rewriting the objectives in measurable terminology.

Trina Burns of Blackfoot Charter Community Learning Center also learned enough to begin rewriting her school's goals. Blackfoot, which opened its doors in August, has about 50 students in kindergarten through fifth grade. "Our charter doesn't have concrete goals—I've been struggling with that," Burns says. For example, one first-grade objective at Blackfoot is "read well." With the help of what she learned in the workshop, Burns expects to be able to rewrite that into a specific goal that will help her school not only demonstrate the students' learning, but also help kids learn better. Rewriting the goals will take time, she says. But in the long run, the effort is worth it. □

STUCK ON THE STARTING BLOCKS

DESPITE BACKING FROM VOCAL PARENTS, POLITICIANS OF ALL STRIPES, AND A BILLIONAIRE WITH DEEP POCKETS, WASHINGTON STATE CAN'T SEEM TO GET CHARTER SCHOOLS UP AND RUNNING.

By SUZIE BOSS

Jim Spady of Seattle

Photo: Suzie Boss

SEATTLE, Washington— Judging from the headlines, it would be easy to assume that the recent fight to bring charter schools to Washington State is nothing less than a full-blown political battle. All the big hitters—from Governor Gary Locke to billionaire Paul Allen—have taken sides. Most of the state's largest newspapers have debated the merits of charter schools on their editorial pages. And while the voters have spoken twice—turning down charter school initiatives soundly in 1996 and again, narrowly, in 2000—proponents show no signs of giving up.

The irony is, if charter schools ever do get the nod in Washington, they will succeed in spite of politics. Although the quest for charters has become politicized, this crusade started as something much more personal. It began with a family—a husband and wife eager to join in the life of their children's school, and a school door stubbornly closed to their good intentions. Their story may have gotten lost in the bigger debate, but it offers a reminder of why charter schools resonate with a small but determined base of supporters.

Jim and Fawn Spady are baby boomer parents and the products of public schools themselves. By the early 1990s, Jim had been a commercial lawyer for nearly a decade, living in a Seattle suburb with his wife and two young children, when he decided to move into the city. A generation earlier, his father had helped launch Dick's Drive-in Restaurants, a small chain of burger joints. Now it was time for the son to help run the show. He took down his lawyer's shingle and moved into humble office space in the shadow of a rotating Dick's Drive-In sign in Seattle's Wallingford neighborhood.

"We moved back into the city just at the time when our friends were moving out to the suburbs. Other parents told us we were crazy," he admits, to think of enrolling their children in an urban district. Seattle's crusading Superintendent John Stanford had not yet arrived to light a fire under school reform efforts. "But we told our friends we really believed in public education," Spady recalls, "and my wife wanted nothing more than to be a good public school mom. She couldn't wait to get involved."

At the school where their son started kindergarten, however, their story took an unexpected turn. Every day, Fawn Spady and half a dozen other parents would arrive early to pick up their children. Standing in the hallway, waiting for the dismissal bell, they compared notes. All of them would have been thrilled to participate in the classroom. Many had tried volunteering. "But the principal told us, 'Oh, we've tried parental involvement before, and parents are just too unreliable,'" Jim Spady recalls. "These parents kept thinking, we're here every day anyway. Why not let us come inside and help?" But the door stayed closed.

Within weeks, the Spadys grew tired of waiting in the wings. When the principal suggested that the school and the family weren't a "good fit," they pulled their children out of public school and enrolled them in a nonreligious private school. "It was small and personal and caring—exactly the kind of school that shouldn't have a reason to exist," Jim Spady argues in his outspoken way, "if public schools are doing a good job."

The little elementary school, located in a funky old house, was nothing fancy. "But it was a wonderful community," he says, "so welcoming. The parents were made to feel that these 25 kids were all our children. We came together as a community at that school."

Day by day, the Spadys also watched their son grow more excited about learning. In his previous school, "he was visibly less excited the longer he stayed there. But at that little school, his love for learning was reignited," his father says. "It was really positive."

That might have been the end of the story, except for one thing. The Spadys couldn't help but think about those other parents, waiting in a hallway outside their children's classroom. Why couldn't public schools provide them with more options, more flexibility for educating their children? As Jim Spady recalls, "Our own children were doing great in their new school, but we felt so bad about the families we had left behind. My wife and I were idealistic Democrats. We felt an injustice. What could we do?"

They've spent much of the past decade working on an answer. Along the way, the Spadys have changed political parties, moved back out of the city, tangled with organized labor, and learned to swim in the turbulent waters of state politics. Yet they remain convinced that charter schools offer the best solution to keep well-meaning parents connected to public education and prevent talented, professional teachers from fleeing the field. "It's public sector entrepreneurship," Jim Spady says, "a way for teachers who feel boxed in by bureaucracy to be creative and innovative in the way they teach."

Someday, he predicts, people will look back on the protracted battle to launch charter schools in the Evergreen State and wonder what all the fuss was about. "Fifty years from now, no one will understand why charter schools were ever opposed," he speculates. "In our view it's a civil rights issue, a struggle for freedom," he says, not apologizing if he sounds like a bit of a zealot. "Issues like that can take a long time to win."

ONE STEP FORWARD, ONE STEP BACK

Washington state has been debating the merits of charter schools since at least 1995. That was the first year Jim Spady filed a charter initiative. Somewhat naively, he thought an initiative would be a good way to educate voters about this new breed of independent public school. He failed to gather enough signatures to get that first initiative on the ballot, but the effort introduced him to others in the state—teachers, parents, and politicians—who share his passion for creating more options in public education.

Kurt Lauer, for instance, is a veteran public school educator who is a fairly recent convert to the idea of charter schools. A teacher and administrator from Seattle's South End neighborhoods, he has grown frustrated with the lack of options for lower-income families. "There already is choice for the more wealthy families," he says, "and even middle-class families know how to work the system to their advantage. But those in lower socioeconomic areas don't have the same choices in education. And we have to do something for these kids. We're not succeeding, and we have to do better."

Out of frustration, Lauer conducted his own research, seeking out schools that successfully serve poor children in other states. To his surprise, many turned out to be charter schools. He went from being a charter foe to a charter fan. "I've met people who would not have been able to accomplish the same things for kids in a traditional school setting," he says. "Charters allow us to attack things from a different way."

Despite the enthusiasm that individuals have expressed for the charter concept, building statewide support has proved challenging. Since the mid-1990s, two charter initiatives have failed at the polls and several bills have died in the state legislature. The most recent defeat in Olympia took place last spring, when a charter school bill appeared to have the support to pass on a floor vote but stalled in the Education Committee headed by Sen. Rosemary McAuliffe, a Democrat and former school board member from Bothell.

It's a testimony to optimism that charter supporters can see in these defeats the signs of growing support. In 1996, for instance, voters turned down charter schools by a two-to-one margin. Last November, charter schools Initiative 729 failed statewide by less than 4 percentage points. It passed in five counties in the populous western half of the state, but took a drubbing in more rural eastern Washington. To charter foes like Doyle Winter of the Washington Association of School Administrators (WASA), the consistent losses show, "People are clearly saying 'no.'" But with each setback, supporters for charter schools have become more vocal, more politically savvy, and better funded.

In the weeks before the November 2000 election, in fact, it seemed that all the pieces were finally falling into place. I-729 was a more modest proposal than the earlier initiative, authorizing only 20 charter schools per year and requiring charters to be sponsored by school districts or public universities. No longer an issue championed by a small group of dissatisfied parents, I-729 won endorsement from a cross section of supporters, including many in the minority community: the Urban League of Metropolitan Seattle, which hoped to sponsor

one of the first charter high schools; El Centro de la Raza, representing the interests of Hispanic families; the United Indians of All Tribes, which hoped to launch a charter school for Native American middle school students; nearly every newspaper in the state; incumbent Governor Gary Locke as well as his Republican challenger, John Carlson; and Paul Allen, who showed his support by chipping in more than $3 million for the I-729 campaign.

Of course, when a billionaire like Allen throws his weight behind an idea like charter schools, the story changes. No longer is it a grassroots effort to tinker around the edges of education reform. Suddenly it's a morality play about big muscle, big interests, and big changes in education policy. The campaign strategy favored expensive, targeted television advertising over the low-key community meetings that had been used by charter supporters in the past.

"It was no longer a grassroots message," admits Spady, who found himself on the sidelines of his own initiative campaign. In hindsight, he says, "The grassroots message is critical. This is a complicated concept—much more complex than vouchers," with which charters are often erroneously confused by voters. "You need time to educate people about charter schools," he says. In 1996, for instance, former state schools chief Judith Billings opposed charters. By the 2000 election, she had come to see charters as "something we owe our kids," and co-chaired the I-729 campaign.

Taking the lead to oppose I-729, with a scant $11,000 in campaign coffers, was the Washington Association of School Administrators. WASA argued that charter schools would siphon off precious support for public schools for the benefit of a few, and cast its membership as little David in a battle against big-bucks Goliath. Because Paul Allen is an investor in the for-profit Edison Schools, which contract to operate charter schools in several states, critics also were free to suggest that his motives were less than pure.

Winter, executive director of WASA, saw dollar signs in Allen's motives. "He stands to make money from charters," Winter said several weeks after the election. "That's part of our concern." WASA members also worried that charters would be "independent of the obligation to be accountable to school boards or superintendents of instruction," Winters added. Most of all, though, the school administrators group "is adamant about keeping public money from going to private schools. We don't believe in letting special interests decide the future of our state."

Those criticisms were echoed by the Washington PTA, which also opposed the initiative. "We don't say 'no' to charter schools carte blanche," explained Jean Carpenter, the organization's executive director. "But we felt that this initiative didn't provide enough accountability to elected officials. The PTA wants to be sure nothing is done to divert resources away from public education."

When I-729 failed, Washington was halted from becoming the 37th state to allow charter schools. State Sen. McAuliffe pointed to the defeat as the final word from the people. She told the *Seattle Times*: "The message has always been clear on charter schools. People did not vote for them in 1996, and they did not support them today. I think the message is: Let's invest the dollars in our public schools, in our education reform." Indeed, in the same election, voters did approve two other measures to boost public education. After several false starts, had charter supporters sighed their last gasp?

DREAMING ON

A few weeks after the defeat of I-729, about 100 charter schools advocates gathered in Seattle for a conference that had been planned in advance of the November election, when hopes were running high. But in the wake of the election, the conference title—Imagine the Possibilities—sounded more ironic than hopeful. Nonetheless, the event drew a who's who of speakers from the charter movement: Mike Feinberg, founder of Houston's successful KIPP Academy, serving primarily at-risk minority students; Robert Rauh, founder of Marva Collins Prep Charter School in Milwaukee; Joe Nathan, author of *Charter Schools: Creating Hope and Opportunity in American Education*; Paul Hill, executive director of University of Washington's Center for Reinventing Public Education; and, of course, Jim and Fawn Spady.

Some dreams just won't die.

"It's not exactly a groundswell of supporters," points out WASA's Winter. Among the general public, he says, "charter schools are just not that high an interest."

But charters—by their very nature—have always been the darlings of the passionate few.

If Washington ever does pass a charter school law, Jim Spady acknowledges, "it will be too late for our children." His daughter is now 15. His son is 12. When the children outgrew their private elementary school in Seattle, the family moved to Snoqualmie Pass. Fawn Spady, the mom who yearned to be involved in her children's education, has gotten her wish—but not exactly the way she imagined. For the last several years, she's been home schooling.

Jim Spady, who considers himself "a pragmatic Republican" these days instead of an idealistic Democrat, has gotten his own education about politics by leading the charge for charter schools. He now understands that those on the far ends of the political spectrum—both right and left—will never support charters. But he insists that there's growing support in the middle. And even as an outsider, he's found that he can have a voice in state education reform. Last year, he was appointed by the governor to the state's nine-member Academic Achievement and Accountability Commission.

Winter acknowledges that the burger executive and his wife probably had a legitimate beef, back in the early 1990s, with the public school that wouldn't welcome their participation. But since the Spadys began their crusade, he points out, alternative education has grown in Washington state, creating more options for families who want to keep their children enrolled in the public school system. "We'd like to see that option expanded even more," Winter says, "so we can continue to meet the need for more choices for families." Winter can even imagine the day when his association might support charters, "if we felt satisfied that they had built in accountability."

So while much of the rest of the country cautiously joins the charter movement, Washington remains stuck at the starting line. "We'll never be a leader," Spady admits, "but I'm convinced someday it will happen here. Maybe in time for my grandchildren." □

Taking It Slow

An Alaska educator urges caution in starting charters

By LEE SHERMAN

Seattle native Dr. Gordon E. Castanza, a retired teacher and an administrator with more than 22 years of experience in Boston and Alaska, is the author of *Alaska's Charter Schools: Freedom and Accountability*, published in 1999 by Publications Consultants in Anchorage. *Northwest Education* Editor Lee Sherman spoke with him recently. That conversation is distilled below.

NORTHWEST EDUCATION: You've been superintendent of two districts in Alaska—Chatham and Hydaburg. Are they remote districts?

GORDON CASTANZA: Well, I guess by Oregon standards, yeah, they are remote. Hydaburg is located on the southwest tip of Prince of Wales Island about 45 miles west of Ketchikan. But at least there were grocery stores, gas stations, Burger Kings, and pizza places, and they were connected by paved roads. So by Alaska standards, it really wasn't very remote—especially when you compare it to Chatham on Admiralty Island where I was for four years. It was only accessible by ferry and small plane. You had to go into Juneau all the time if you wanted to get anything. They had a Fred Meyer and a Costco and that sort of thing in Juneau, but it was a 12-hour ferry ride.

NW: How did you get involved in the charter school movement?

CASTANZA: The concept appealed to me, particularly since at the time charters appeared on the scene I was implementing site-based management in my district. Site-based management was a brand-new concept that kind of dovetailed into charter schools as the school choice movement started to pick up some momentum. It kind of led the way, at least intellectually and emotionally, for folks to say, "Well, gee, if it's OK for us to manage our own money, then maybe we can handle our own governance."

NW: What was it you liked about the charter school concept?

CASTANZA: I liked the fact that it allowed folks who had children in the schools to have a say in the way the school was being operated and what kind of curriculum would be taught and so on. Prior to that, you had a bureaucratic system—very hierarchical, top-down—and the parents were sort of an adjunct.

NW: The parents didn't fit into the picture very well.

CASTANZA: Right.

NW: How do you compare charter schools to other choices people have, like vouchers, private schools, open enrollment. A lot of different options have been popping up. Do you see charter schools as the best of the bunch, or just one of many choices that should exist?

CASTANZA: I think the charter school concept is fraught with lots of problems. Not the least of these is what Seymour Sarason talks about in his book, *Charter Schools: Another Failed Education Reform?*—the lack of preparation, even among the most zealous of the charter school founders. They haven't a clue how to put together a school. They're trained in a subject area or in elementary ed. My experience with educators is that they don't know how to run a business. And a school definitely has a business side to it—there's the roof that needs to be fixed and the contractors to be dealt with. By and large you have people who don't know how to use the resources or what's available, even in their backyard. In spite of their desire to do something brand-new and experimental and the enthusiasm that comes with that—"Oh man, we can go out and do something really great"—they don't know the infrastructure that is needed. And they don't understand all of the education theory that's behind it. They think all they need to do is go on the Internet and buy something off the shelf, and OK, this will work in our classroom and we can call ourselves a charter school.

NW: So you're seeing people jumping in who are unprepared for the rigors of the job?

CASTANZA: What I've seen happening in Alaska is that a lot of the original charter school founders are being ousted. It's almost like a domino effect—you know, after the revolution, the revolution begins to eat its young. How many of us are really groomed for positions of power, and know how to deal with it very well? You just don't jump into a position of power by somebody handing you the keys and saying, "OK, now you're going to run the state of Oregon." There's a lot that goes into it—knowing

how to manage change, dealing with disparate points of view, seeking not only compromise but moving the ball forward, and creating a sense of mission. These are attributes of leadership that very few of us have. Yet, one of the assumptions charter schools make is that everybody is coming out of the seashell fully formed and understanding how to handle a position of power and how to interact with their fellow human beings in order to get something done.

NW: This idea of freedom for accountability is at the heart of the charter school movement. Yet you're saying that in reality, not all charter schools are built solidly on that foundation.

CASTANZA: Well, of course, my research is just focused on the state of Alaska. But that's what I found-that charter school founders were long on the rhetoric for freedom but short on accountability. Thank you very much for the money, but we don't want to have to answer to you, or a school board, or anyone else, about how we're spending the money.

NW: My understanding is that that is the fundamental trade-off in charter schools—that they would have to show results, they would have to have a plan. They had to have specific goals that were measurable, and they had to be able to show at the end of five years or whatever that they had actually accomplished those goals. You're saying that's a nice theory, but it hasn't happened consistently in Alaska?

CASTANZA: That's right. And I lay a lot of the fault at the feet of the legislature. Alaska's charter school law was very poorly crafted. It was probably one of the worst pieces of legislation I've ever seen come out of the state.

NW: What was wrong with it?

CASTANZA: Well, it didn't lay out any parameters for what a school had to do. It said, "OK, you go to your local school board, and if they'll give you the blessing, fine, then you send it up to the state and if it looks like a duck, we'll call it a duck. But there was nothing built into the law for any kind of oversight—no revisitation of it. I mean, you take a look at Massachusetts' charter school law. Now there's a model of how to get it done. They have an accountability team that goes out to the charter schools and checks on them. The team is made up of a broad cross-section of people from Massachusetts: businesspeople, industries, parent groups, the education department, other school districts. It's like an accreditation team.

NW: Like an audit.

CASTANZA: Yes, that's right. And they're very careful, too, about granting charter schools. There's a lot more t's and i's that need to be taken care of before you can get a charter approved in the state of Massachusetts. And they had the first real handbook on accountability of charter schools.

NW: If you had a chance to create the ideal charter school plan, what elements would you insist on?

CASTANZA: Well, first of all I'd want leadership that has some seasoning behind it—you know, show me the beef. If you went to a bank and said, "I want to open a school," the first thing they're going to ask you is: "Have you had any experience in running a school? Do you understand what it takes to run a business?" Typically, a small business folds up its tent within five years. We've got boneyards full of small businesses that come and go. Remember when the rage was yogurt places? Now it's espresso houses. That's the great American experiment in free enterprise.

NW: Well, and opening up a school is infinitely more complex than opening an espresso stand, just in terms of the knowledge required.

CASTANZA: Right. And then the next thing is a well-defined curriculum. And next, some definite outcomes, quantifiable outcomes. And then some very strong language having to do with checking up—the accountability side. Most charter school legislation doesn't have that. In Alaska, I think charter schools are by and large a political phenomenon, not an educational phenomenon. There are elements that go into thinking about charter schools that have nothing to do with sound educational theory and practice. I went to the legislature and I told them why they shouldn't jump into this charter school movement too soon. And the reason is the kids. I said, "Would you experiment with taking a thousand gallons of crude oil and dumping it into Glacier Bay, just as an experiment to see how quickly the superintendent of Glacier Bay National Park could react and respond?" Well, of course not. I mean, that's a rhetorical question. Well then, if you aren't going to do that, then why would you let somebody experiment with your children? Aren't they as valuable to you as the sea otter or the humpback whale? Maybe we can take a look some of these test spots and see how it works out first. Let's not rush into something because of political expediency and to quiet some voices. Our children are too valuable to us to do that. When these charter schools get started, what if they go belly-up, as many of them have? What are you going to do with those kids? Well, they go back into the public school system. So you've created

something that you haven't prepared yourself or the legislature for the eventualities. You're trying to create a Band Aid and silence these voices, and taking the money from public education in order to do it. Because according to Alaska legislation, the money follows the child.

NW: So, you said these things to the legislature, and what was their response?

CASTANZA: Well, other people had also come to them and said: "Wait a minute. Anchorage School District already has umpteen alternative schools for at-risk kids—everything from teen moms to kids on drugs, in prison, in and out of reform school, and so on. They're trying to take care of a lot of different students' needs." But other voices were saying, "Everybody knows that the public school system is in a shambles and that public schools are the worst thing going for kids." These are people who, by the way, were themselves educated in the public school system. Weird, isn't it? And they were also listening to things like international test scores that showed that America's math and science scores are third-rate, and so on and so forth.

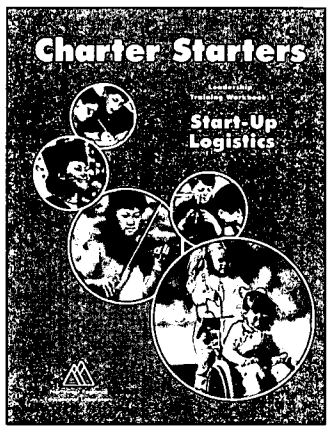
NW: I can't decide if you're a charter school supporter or a critic. Do you think we should abandon this concept, or do you think it can work with the right ingredients?

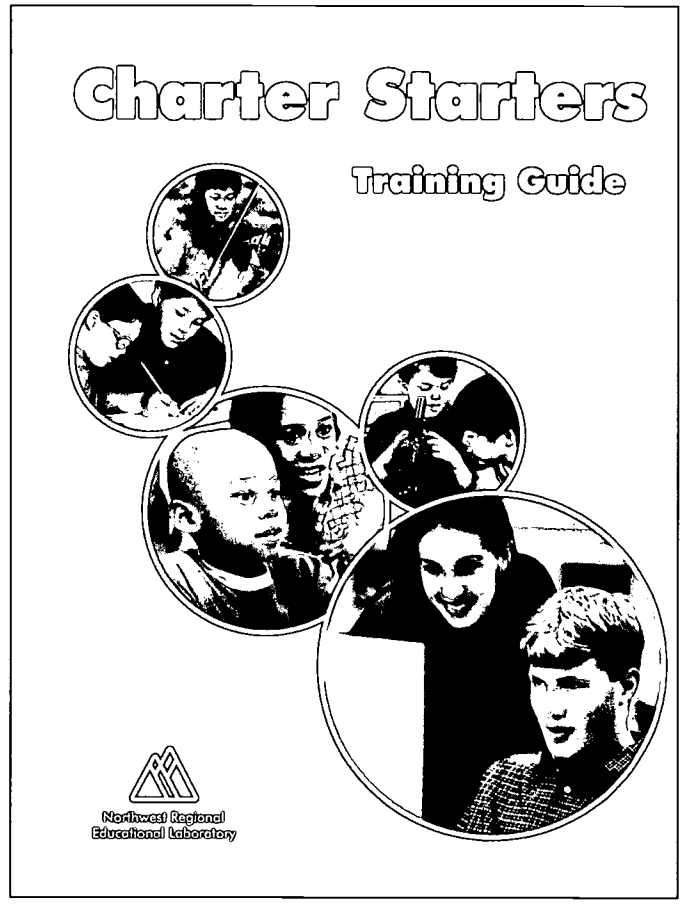
CASTANZA: I am an advocate of charter schools, and I think they can work. But having been both a practitioner in education and having run school districts and managed large budgets, I know what it takes to run a school. And I don't see charter legislation that provides people with the proper tools.

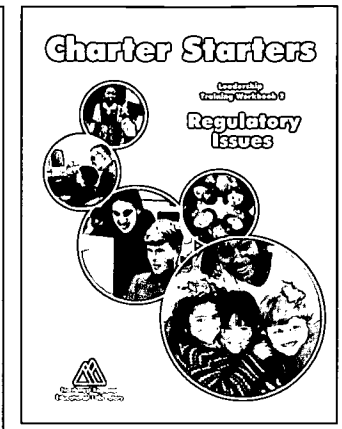
NW: So you think there's still a long way to go in making charter schools a viable piece of the school reform puzzle?

CASTANZA: There've been some really good thinkers in the area of charter schools. But you know what's odd about their writing? They don't get at the underside. They get the nice theory and the romance of going off and doing this bright and beautiful thing. But they're really out there romancing the stone. They don't have any idea of the work that's going to go into doing this. And I look at the studies that are being done at the national level by RPPI (Research, Policy, and Practice International), and their work is superficial. I mean, it has appearances of being in-depth, but you look at the results, and they're not plowing any new ground. They're going after the low-hanging apples—you know, counting the number of Hispanic kids, the number of kids in special education, and things like that.

But what nobody wants to touch is student achievement—how well are these kids doing? They say, "Charter schools haven't been around long enough." But then, why do we have 1,600 of them? If they haven't been around long enough, why are we spending hundreds of millions of dollars? I mean, the Clinton administration just kept throwing money at charter schools because they're crying: "Nobody gave us any start-up expenses. We're not getting any money to build a school." So we're going to give you some money to start a school with no research base to substantiate that this is what we ought to be doing. For at least 30 years now, going back to the work of educator and researcher Ronald Edmonds—one of the first guys who started to look at education as a research laboratory—we've slowly started to build a research base. Now we've got researchers like Lawrence Lezotte and David Berliner and Linda Darling-Hammond. Why don't we take a look at these folks and see what they're saying about education? Let's get our research base first. Let's substantiate and look at what we know before we go out and try to do something we don't know. □







IN RECENT STUDIES OF CHARTER SCHOOLS IN IDAHO AND ALASKA, the Northwest Regional Educational Laboratory (NWREL) found that they are having trouble in a couple of key areas: setting measurable achievement standards and making sure that the mix of kids reflects the diversity of the community.

"The biggest thing we found is that goals are really fuzzy for a lot of the schools," says NWREL researcher Elke Geiger. "We also found that student populations are pretty different from the regular schools—fewer minorities, fewer Title I kids, etcetera."

To help charter schools deal with these and other thorny issues—issues that are critical to the success of individual schools and, ultimately, of the charter movement itself—the Northwest Lab has developed Charter Starters. This timely leadership training program includes research-based training modules, workbooks, and training institutes.

"We discovered a parallel between rural schools and charter schools," says NWREL's Rural Education Program Director Joyce Ley. "In rural schools in our region, educators are frequently geographically isolated, and this often creates a barrier to professional development. Educators in charter schools also tend to be professionally isolated because they're regarded as being different."

Charter Starters training modules include activities, sample forms and policies, checklists, resources, and references. A set of workbooks provide research-based strategies for effectively starting and operating a charter school. Two companion publications provide a review of leadership characteristics and a guide for using the Charter Starters program to conduct leadership training. Charter Starters training modules, with corresponding workbooks, address five core content areas of charter school development:

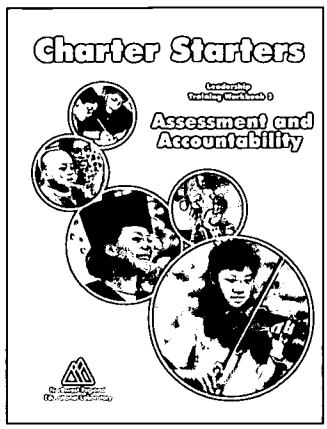
- **Workbook 1: Start-Up Logistics**—drafting a charter, creating a vision and mission, developing a core founding group, accessing expert information, navigating the application process, acquiring a facility, allocating resources, establishing a legal entity, and contracting for services.

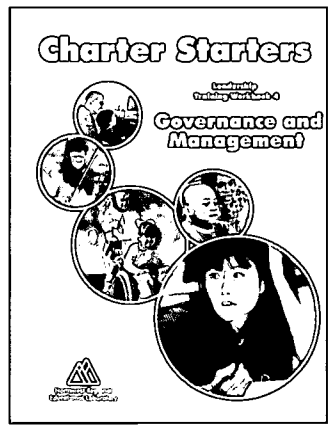
- **Workbook 2: Regulatory Issues**—special education requirements, civil rights regulations, federal and state laws and regulations, and requirements for parent involvement.

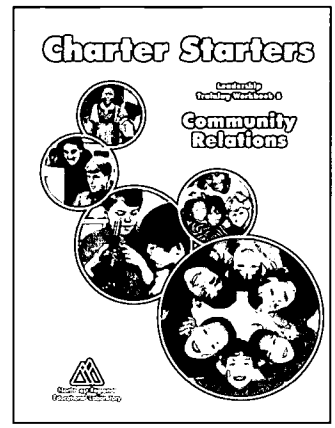
- **Workbook 3: Assessment and Accountability**—academic accountability, fiscal accountability, public/parental accountability, rule compliance, assessment and evaluation, financial management, developing a business plan, and how vision and mission connect with assessment and accountability.

- **Workbook 4: Governance and Management**—creating an organizational structure, establishing strong leadership, handling personnel issues,developing internal policies, creating a board and board bylaws, managing growth, and dealing with liability issues.

- **Workbook 5: Community Relations**—coordinating public relations, marketing the school, and dealing with controversy.







The companion publications are: *A Profile of the Leadership Needs of Charter School Founders* and *Charter Starters Training Guide*. The workbooks are targeted toward both charter school founders/developers and charter school trainers. Although originally designed as the training material for a five-day training academy, each workbook is relatively self-contained.

Charter Starter Leadership Training Institutes offer participants guidance in using the Charter Starters program to train founders in the leadership and planning skills they'll need to launch a successful charter school. For more information on setting up an institute for charter school founders and operators, state liaisons, regional service centers, higher education institutions, and others interested in charter schools, contact NWREL's Rural Education Program, by e-mail at ruraled@nwrel.org, by phone at (503) 275-0747, or visit their Web site at www.nwrel.org/charter/training.html. The workbooks are available for purchase individually or as a set. For ordering information, call (503) 275-9519 or 1-800-547-6339, ext. 519.

THERE ARE A NUMBER OF OTHER USEFUL RESOURCES for charter schools, especially dealing with the difficult but critical issue of assessment and accountability. Elke Geiger particularly recommends the following:

- www.uscharterschools.org/, a Web site that includes assessment and accountability resources
- www.charterfriends.org/ for a list of contacts in each state
- www.pioneerinstitute.org/csrc/ch2.html for the *Charter School Handbook*
- *Navigating the Standards Maze* by Laude Gardner/Charter Schools Development Center. A briefing paper is available at www.csus.edu/ier/charter/standardsmaze.html
- Putnam Valley School District's site (www.putwest.boces.org) has a large number of standards-related links
- http://ieric.ae2.edu.cua.edu is the Web site for the ERIC clearinghouse on assessment and evaluation, with an extensive array of links
- The National Charter School Accountability Network set up in 1999 with resource centers in Chicago, Washington, D.C., Massachusetts, North Carolina, Texas, California, New Jersey, and Wisconsin to help schools develop and strengthen accountability plans and practices. These state-funded resource centers generally manage the chartering process and develop classroom materials, workshops, and additional funding sources for schools. Contact Margaret Lin, Coordinator; National Charter School Accountability Network; 1155 15th Street N.W., Suite 300; Washington, D.C. 20005-2706; (202) 785-4311 (linmaggie@earthlink.net)

HOMEGROWN

Continued from Page 11

and performance benchmarks, however, it is difficult to hold charter schools to a standard that is nonexistent for other schools.

• **Parental satisfaction.** The student population in charter schools is there by choice, meaning that parental satisfaction can be measured to a large degree by how many students continue to attend the school. Almost all charter schools have waiting lists for admission, and most have a high rate of retention year to year.

• **Fiscal prudence and economical value.** Many charter schools have found ways to cut corners and trim costs in order to redirect resources into the classroom. The examples range from saving a few hundred dollars by purchasing services from outside the district to saving thousands of dollars by streamlining cafeteria processes and using creative staffing.

• **Academic innovation.** Not only are charter schools different from their district noncharter counterparts, but very few resemble each other. Academic approaches range from Montessori and Waldorf to humanistic and open. Some schools share quarters with mainstream schools, while others inhabit industrial or business complexes. And some have no walls, relying on computer modems.

• **Enhanced opportunities for teachers.** In many charter schools, teachers drive policy, shaping curriculum, networking for continuity, and controlling working conditions.

• **Increased focus on low-achieving students.** Large urban charter schools and many independent study charter schools focus on low-achieving students, bringing them programs designed to meet their needs.

• **Avoidance of discrimination.** Despite fears that charter schools would be formed mostly in white, affluent areas, charter schools have demonstrated an ethnic balance that reflects that found in statewide schools. Some of the largest cater to students who are socio-economically disadvantaged.

• **Consequences for performance.** A performance-based system that did not follow through with consequences would soon be too weak to stop abuses and poor results. In California's charter system, the price of failure is revocation—and in one instance, when a charter did not live up to its commitments, it was shut down by the sponsoring district.

If charter school founders are indeed the educational pioneers of the 21st century, their journey is barely out of the staging area. But there's a hint of newness in the air and a glimpse of something hopeful on the horizon. Most observers believe this is one school reform that will stay the course. But caution is the watchword.

"High hopes must be tempered with sound evaluation and unrelenting attention to evidence," writes Fuller. "The skeletal remains of earlier generations of 'reform' already litter the dusty plains of public education." □

Old Jocks

Great articles ["New Moves," Fall 2000]. Maybe for your 30th class reunion you can line up all those old jocks (they are the bald, overweight, beer drinkers that you do not recognize now) and throw red rubber balls at their bald heads to repay them for your childhood scares. Too bad so many people had to experience the old PE. Maybe your children and grandchildren will have fonder memories. The new PE is so exciting and benefits every child. I appreciate your publication taking the time to print this story. We have a nation to re-educate about the new PE. Thanks for your effort

Phil Lawler
PE teacher
Naperville School District 203
Naperville, Illinois

100 Percent

What an excellent article ["The Death of Dodgeball," Fall 2000]. I wasn't even searching for this subject [on the Web], but it certainly hooked me right away. I agree 100 percent with the article and the issues discussed.

Ben Murphy
Future PE/Health Teacher
Southern Oregon University
Ashland, Oregon

Negative Trend

This is a very solid article ["The Death of Dodgeball," Fall 2000]. It details a very serious negative trend that is currently being accepted by the field of education. Hopefully, PE professionals will continue to strive to create positive environments for our fitness and physical education classes. I applaud the metaphoric overtones contained in the article. Bravo!

John Dunlop
Elementary PE Teacher
Portage Public Schools
Portage, Michigan

Beyond Her Years

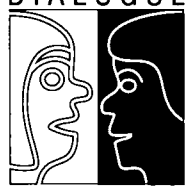
I was so impressed with Alisha Moreland's writing [Voices: "Shined By the City," Winter 1999], and her ability to look at the whole educational picture, not just the negative elements. Apparently, she is beyond her years as far as having insight and wisdom about our youth. Making emotional connections and building relationships with high-risk students is essential when trying to provide guidance and instruction. As Alisha mentioned, not just going through the motions, but following up with whatever support the child needs or asks for. Alisha has vision and determination-what a wonderful role model for other children trying "to figure it out." I applaud her for "staying the course" and not allowing outside influences to interfere with her goals and convictions!

Jackie Portwood
Discipline Assistant
Irvington Grade School
Portland, Oregon

Correction

I just wanted to let you know that although not required by law, many districts, at least in the King County area, use certified PE Specialists to teach elementary PE. ["NW Schools at a Glance," Fall 2000] Specialist time is the classroom teacher's planning time. I work in the Issaquah School District and we hire certified PE specialists whenever possible. This year we did have to hire a person who did not have PE certification because there were no qualified PE specialists available due to the teacher shortage. We are required to take 15 credit hours or 150 clock hours every five years for re-certification and it does not matter if you have a master's degree or not. There are no yearly requirements. I just had to apply for my recertification this past June and even though I have my master's degree. I was still required to have 15 credits/150 clock hours.

Gina Ayco Jackson
PE Specialist
Apollo Elementary School
Issaquah, Washington



Forgotten by Some

Outstanding articles on the health of physical education in the Northwest as well as the entire country ["New Moves," Fall 2000]. I applaud the authors and your magazine for focusing on the importance of physical health and wellness in our ever-changing society. Quality physical education programs are out there, and when families are relocating to another school district, they need to research the physical education program just as much as they need to research the amount of technology there is in the district. We may be forgotten by some, but at some point in time you are going to wish you had remembered us sooner. Remember: seven days without exercise makes one weak.

Dave Steavpack
PE Instructor
Manitowoc Lincoln High School
Manitowoc, Wisconsin

Tremendous Teamwork

At the risk of being shot, dodge ball is one of the most sought-after games by all of my third-, fourth-, and fifth-grade students. We use it sparingly and only as a reward for outstanding effort in class. If you find that appalling, then I encourage you to re-examine the game.

Our dodge ball requires tremendous teamwork, strategy, confidence, cooperation, and strength of body and mind. You must understand motion and your body, throw in a little math and physics, and the game just starts getting good. You won't see too many Nolan Ryans in our game but you will see quite a few Carlton Fisks, Johnny Benches, and an occasional Ken Griffey Jr. We have one player we call the Swamp Fox of Revolutionary War fame and a team that puts the ballet to shame. We require degrees in science and math if you hope to win, and you better not think you can rest, even if you're out because death in our dodge ball is only a throw away from reincarnation. A single dodge ball game can last the entire period and can leave every student laughing, sweating, and with a target heart rate that you can be proud of. I'm sure there is a winning team but most of the time the class is too busy complimenting a teammate or an opponent on a fantastic play or laughing at themselves for something silly they did.

I was the kid your article describes, hiding in the corner, always pushed aside by the jocks and praying for gym class to be over. I became a PE teacher, not to hide but to encourage and support and bring life and vitality back to our youth.

We love dodge ball at Lake Spokane and we're darn proud of it. We'll be glad to stack up our academics, fitness, and our love for friendship, fellowship, and fun with any school on the block.

Bill Bender
Elementary PE Specialist
Lake Spokane Elementary
Nine Mile Falls, Washington

Cheering for Peers

I absolutely agree with the article ("The Death of Dodge Ball," Fall 2000). I had set up my company to focus on the problems of obesity in children and to prevent my child from becoming attached to TV and computer and forgetting about outdoor activity. I take my climbing wall to elementary schools in the Midwest to enhance physical activity in the PE class and encourage outdoor activities such as our portable climbing wall. When I have gone to the schools, the children are excited to climb, but also cheer their peers in accomplishing their climb. Our wall being so different from the status, children from kindergarten on up can climb and everyone can be successful. I think that is what your dodge ball forgot to do. Give children self-esteem and a team building activity. That is why I am adamant about getting our wall to as many physical education classes as possible and other school events. I hope there will be action taken with the new president to encourage physical activity and fund it in the public school.

David Jensen
President
Hang Tough, LLC
Platteville, Wisconsin

NORTHWEST EDUCATION

Quarterly magazine of the
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NW EDUCATION

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Summer issue
Designs for Learning: School Architecture

Fall issue
The Standards Movement: Where Is It Taking Us?

Winter issue
Preparing New Teachers: What Helps Them Succeed?

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.

NORTHWEST EDUCATION

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SUMMER 2001

NW EDUCATION

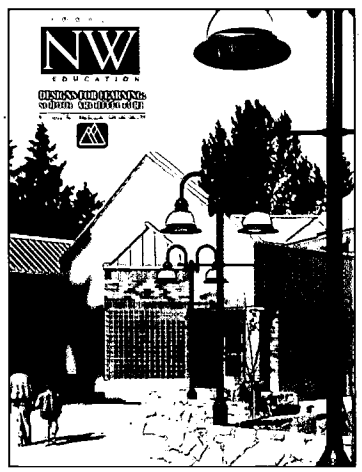
DESIGNS FOR LEARNING: SCHOOL ARCHITECTURE

NORTHWEST REGIONAL EDUCATIONAL LABORATORY

NW EDUCATION
VOLUME 6 NUMBER 4
SUMMER 2001

Designs for Learning

School Architecture



ON THE COVER:
Discovery Middle School in Vancouver, Washington, has been winning awards ever since it opened. The exterior conveys a "village" feel, echoing the academic village approach that organizes students into smaller learning communities. Story begins on Page 14.
PHOTOGRAPH BY BY JANIS MIGLAVS, COURTESY OF LSW ARCHITECTS.

ARTICLES

The day after I toured a school that has won a string of awards for its stunning architecture, I happened to have dinner with a friend who's a principal. "You really should see this school," I told her.

"No, I shouldn't," she said.

"Oh, but it's spectacular," I went on.

"I know. That's exactly why I don't want to see it," she said, "because then I'd have to go back to my building. It would be too depressing."

Her reaction gave me pause. The average school building is now more than 40 years old. Chances are good that it suffers from delayed maintenance, if not major disrepair. And few of the schools housing today's students were built to accommodate contemporary teaching methods, to take advantage of new technologies, or to build connections between school and community. If adults are depressed by the school environments where they spend their days, how must students be feeling?

In this issue, we take a look at some awesome alternatives. The award-winning schools featured on the following pages differ wildly in the details, but they share an architectural approach that promotes learning, sparks curiosity, delights the senses, and fosters pride. At a time when many communities are just starting to think about rebuilding their aging schools, these stories remind us that school buildings don't have to be bland or boring. They can be beautiful. As a principal explains later in this issue, "When school buildings are beautiful, it suggests that those who spend their days in them are valued by the community." And as many school districts are discovering, the most extraordinary schools can be designed on ordinary budgets.

Some of these designs shake up the traditional concept of what "school" should look like. Alpha High in Gresham, Oregon, for instance, features movable walls instead of fixed classroom spaces. Discovery Middle School in Vancouver, Washington, makes state-of-the-art technology as common as a pencil. Other communities choose to stick with tradition, such as the landmark high school building that citizens in Boise, Idaho, saved from the wrecking ball but remodeled to fit the needs of a new generation of learners.

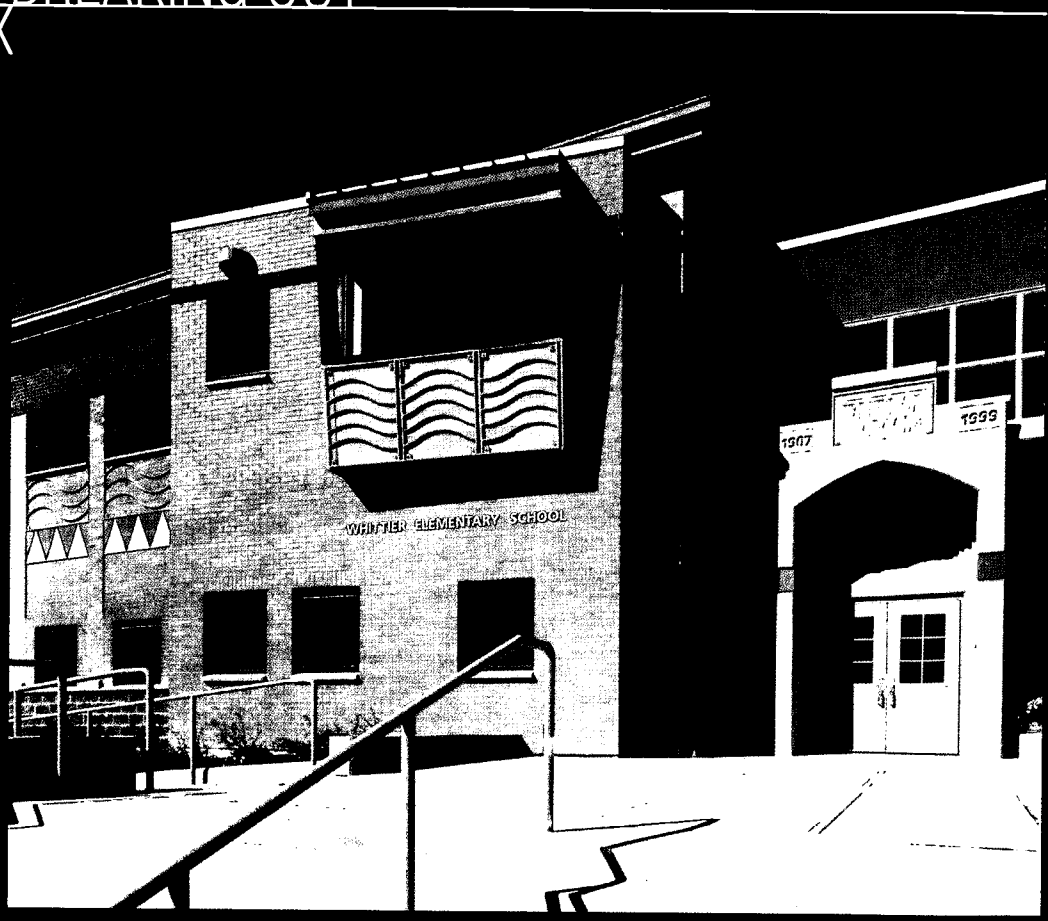
As experts on school design explain in these pages, building or renovating a school offers a community a chance to come together and create something of lasting value. It isn't easy. It takes careful planning, involving diverse audiences. It takes courage, too, to break the mold. And leadership to move a community forward with a shared vision. But when all the pieces come together, you can wind up with a school that engages students, teachers, and community members in an environment that fosters learning. And there's nothing remotely depressing about that.

—Suzie Boss
bosss@nwrel.org

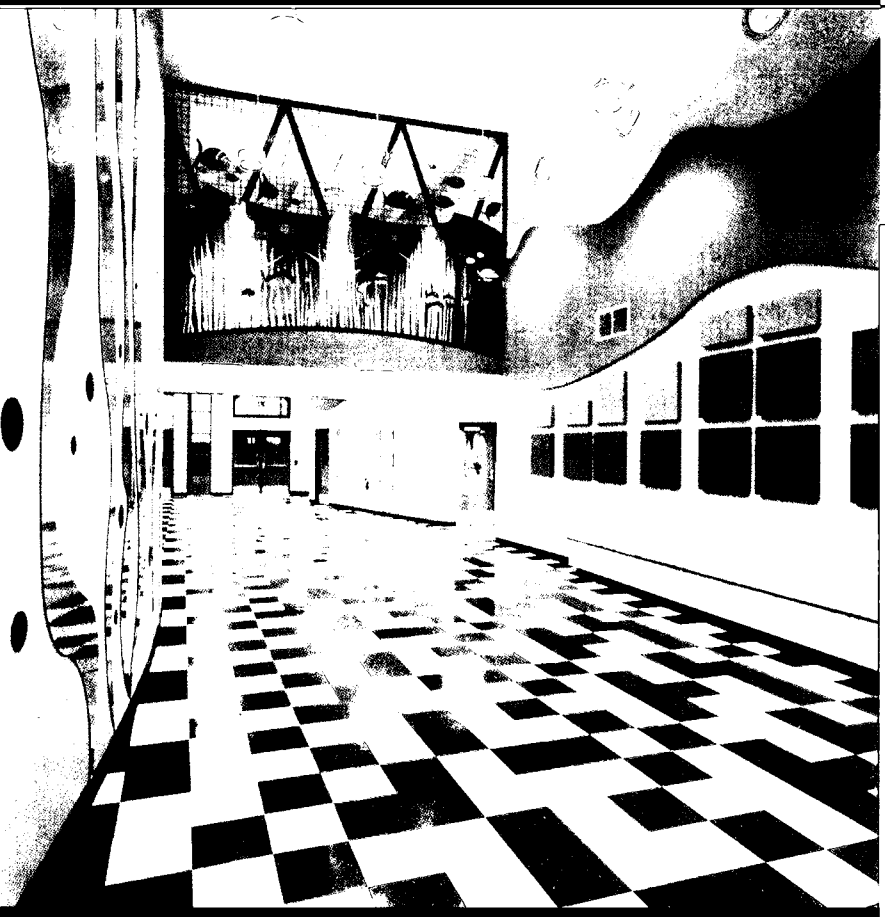
IN THIS ISSUE

BREAKING OUT OF THE BOX

Across the country, hundreds of school buildings are reaching the end of their life span. Educators and architects are teaming up to reinvent the physical environment of schools so they foster learning for the whole community.



By SUZIE BOSS



PHOTOS OF WHITTIER SCHOOL BY CHRIS ROBERTS, COURTESY DLR GROUP.

For the better part of a century Whittier Elementary School has been a landmark in Seattle's Ballard neighborhood, which hugs a hillside above an historic ship canal and the waters of Puget Sound. It's the kind of community where parents walk their children to school and get involved in their education, the kind of school where high achievement is the norm. But by the late 1990s, Whittier was starting to feel like a favorite toy that has been loved to death. Not only was the aging building showing visible signs of wear—including a leaky roof and sagging ceiling tiles—but it was cramped and poorly designed for the way teachers work with children today. What's more, there was little space inside for community use.

After two years of construction funded by the district's Building Excellence Program, a structure suited for a new century has risen on the site of

the old school. Borrowing metaphors from the nearby ship locks, the school is a seafaring fantasyland that captures a child's sense of wonder. The playful mood begins inside the front doors—which include architectural elements from the original Whittier School as a nod to neighborhood history. Hallways are adorned with graphics of sea grasses, big bubbles, and shapes that mimic waves. Upstairs, a "bridge" bearing images of stainless steel fish crosses an expanse, connecting two wings and cleverly satisfying a safety code. Outside, a whimsical sea serpent undulates across the playground.

For the adults who work here, the new facility feels "uplifting, effective, safe, and secure," says Principal Greg Immel. The academic wing features a large library, technology center, and classrooms grouped in pods to encourage teamwork and collaboration within grade levels. For the community, the school now offers resources for all generations, with a separate wing housing everything from a Head Start preschool to a social program for senior citizens to a gym that's open for recreation late into the evenings. Since its opening in 1999, Whittier Elementary has won praise and prizes, including a Citation of Excellence from the *American School Board Journal* and an Exemplary Learning Environment award from the American Institute of Architects.

But the real test of the $9 million facility, says Immel, is whether it's kid-friendly. "From the minute the children walked in here," he says, "I knew we had succeeded. They love it, and that tells me we did things right."

All across the country, more and more communities are facing the challenge of repairing or replacing their aging or overcrowded school buildings. It's no small task. The General Accounting Office reports that one-third of America's schools need extensive repairs and puts the price tag to bring them into good condition at more than $112 billion. The National Education Association estimates it will cost upward of $322 billion to repair, modernize, and build enough public schools to meet projected population growth. And *Newsweek* forecasts a $500 billion school-building boom in the upcoming decade to accommodate rising enrollments and a desire for smaller class sizes. Currently, construction begins every business day on two new K–12 school projects somewhere in the country.

For architects and educators alike, this is also a rare moment of opportunity—a chance to "do things right" for the next several generations.

21st CENTURY SCHOOLS

The chance for a community to build a new school doesn't come along very often. Today, the average American school is 42 years old. Schools designed four decades ago were typically built quickly and economically, to accommodate the hordes of baby boomers. Facility design was pretty standard back then, with classrooms lined up along corridors, blackboards front and center, and rooms shaped like rectangles to house neat rows of desks. There was no need to wire up classrooms for the Internet, because it didn't yet exist. And practices such as project-based learning and schools-within-schools—decades away from gaining popularity—had no impact on facilities designed to move students from grade to grade as if they were on a factory conveyor belt.

Schools designed today are expected to last half a century or longer and allow for more forward-thinking educational practices. Craig Mason, the Seattle architect who designed Whittier Elementary for DLR Group, says strategies have changed considerably in his profession. "Back in the '60s, the last time we had a big crunch of school building, the main question was: How fast and how cheap?" Today, he says, architects are asking, "How will the design support the educational program of the school?"

Getting everything right for the next 50 years is a tall order. Teachers want flexible spaces that will accommodate more active classrooms, weave in the latest technology, allow them to collaborate with their colleagues, but also give them workplace basics such as storage cabinets and nearby restrooms. Parents often ask for attention to safety and smaller class sizes. School boards worry about escalating costs for buildings and the land to build them on. And community members, looking at the investment they're asked to shoulder, clamor for buildings that can be used around the clock by people of all ages.

Recognizing that districts across the country will be struggling to meet these complex demands on a limited budget, the U.S. Department of Education is encouraging

STATE OF DISREPAIR

When Alaska Governor Tony Knowles sought a photo opportunity last year to illustrate the need for school construction dollars, he boarded a plane for Togiak. In this rural community in Southwest Alaska, 265 students cram into a school built 50 years ago to house about 100. The roof leaks, and the heating system works so poorly that children often wear coats during class.

Although the governor wanted $510 million to repair existing schools and build enough new facilities to accommodate growth, the legislature approved a more modest plan. Over the next decade, the state will spend $198 million in bond funds on school construction and maintenance. The funds are not sufficient to pay for a new school in Togiak and don't begin to cover the nearly 100 school maintenance projects ranked by the state as high need. This session, Governor Knowles has sent another school construction bill to the legislature.

Across the Northwest region, states struggle with the same difficult math problem: How to stretch not-enough dollars to pay ever-increasing costs for school construction, renovation, and maintenance?

The Northwest is far from alone. The General Accounting Office (GAO) reports that 25,000 schools need major repairs or outright replacement, with 60 percent of schools having at least one major building feature in need of repair. The U.S. Department of Education reports that 46 percent of schools lack the basic wiring to support computers, modems, and up-to-date communications technology.

The National Education Association uses data from the GAO and other government sources to estimate school modernization needs. In the Northwest, according to the NEA, every state faces major challenges to bring schools up to overall "good" condition, by GAO standards. As of August 2000:

- ALASKA: 80 percent of schools need to upgrade or repair buildings
- IDAHO: 87 percent of schools need to upgrade or repair buildings
- MONTANA: 70 percent of schools need to upgrade or repair buildings
- OREGON: 96 percent of schools need to upgrade or repair buildings
- WASHINGTON: 89 percent of schools need to upgrade or repair buildings

The National Governors Association suggests that state policymakers consider key areas relating to the adequacy of school facilities, including:

- Have there been recent enrollment changes? Are changes projected?
- Is school building maintenance up to date? How old are the state's schools?
- Does the state have an inventory of all school buildings?
- Are the state's schools equipped for technology?
- What's the state's role in funding school construction?
- What funding options exist to subsidize local investments in schools?

new schools to be designed not only as effective places for learning but also as centers of their communities. At a National Symposium on School Design sponsored by the Department of Education in 1998, six principles for designing and planning new schools were outlined. The principles advocate learning environments that:

- Enhance teaching and learning and accommodate the needs of all learners
- Serve as center of the community
- Result from a planning/design process involving all stakeholders
- Provide for health, safety, and security
- Make effective use of all available resources
- Allow for flexibility and adaptability to changing needs

Designing schools to serve multiple needs means applying new problem-solving approaches and experimenting with design concepts. The Department of Education advocates bringing more community members into the planning process to broaden the vision of what a new or remodeled school might look like and how it might better serve students and the community. *Schools as Centers of Community: A Citizens' Guide for Planning and Design,* published by the Department of Education in 2000, outlines a step-by-step process for bringing all stakeholders into the design process.

When the process works well—when a variety of users have a chance to offer suggestions and when architects are free to be creative about meeting educational and community needs—you can wind up with a stunning school like Whittier Elementary. Says architect Mason: "We always try for community involvement, but this planning group was special. It was a great collaborative process. Our challenge was to create a new landmark for the neighborhood, but still make it look and function like an elementary school." The special touches that give the building its personality are more than decorative flourishes. They're practical—albeit playful—ways to make the building enhance learning.

SPACES THAT SHAPE LEARNING

Research shows a strong connection between the built environment and student performance. *Learning by Design 2000,* a special edition on school architecture published by the *American School Board Journal,* cited research showing "school conditions have a real impact on student achievement and behavior." Among the highlights:

- Students in overcrowded schools score lower on math and reading exams than their counterparts in schools that aren't crowded.
- Lower achievement is associated with such factors as inadequate science facilities, substandard classroom furnishings, graffiti, and noisy environments.
- Students attending schools in poor physical condition achieve at levels 11 percent lower than those attending schools in excellent condition.

Architects who specialize in school design are becoming increasingly savvy about best practices in education. The most daring advocate designs that break the mold of the "big box" schools most American children still attend.

Steven Bingler of Concordia Architects in New Orleans (and an author of the Department of Education's *Schools as Centers of Community* guidebook) suggests connecting schools with communities in new ways—locating schools in places such as museums or city halls. One charter school he designed, for instance, is housed inside the Henry Ford Museum in Dearborn, Michigan. Glass walls separate learning spaces from the exhibit floor but also create an openness that fosters community. What's more, the school was built at one-third the cost of a stand-alone facility.

It takes more than a little courage to plunk down a high school in the middle of a museum, but Bingler suggests the time is right for new ideas. He has collaborated with Harvard's Howard Gardner to explore the underlying question: "What is a school?" Most schools, Bingler told *Education Week* in a 1999 interview, are still variations on the old factory model—efficient, perhaps, but alienating to students who don't fit the "one-size-fits-all" mold. New schools that don't consider different ways of delivering education, schools that continue to isolate students from their community, "are dinosaurs on the day they open," Bigler told the *Washington Post.*

Indeed, experts at the forefront of school design lament the trend toward sameness in many communities. "Today's school buildings are still too much like those constructed 50 years ago," writes C. William Day in *Learning by Design 2000.* "Oh, they might have

more electrical outlets and computers and use state-of-the-art building materials, but they tend to be otherwise spatially monotonous with rectangular rooms in which students sit at individual desks and listen to teachers who stand in front of the class."

New ideas are gaining a foothold, however, as educators, architects, and community members fine-tune their vision for schools of the future. Bruce Jilk, Minneapolis architect and chair of the American Institute of Architects Committee on Architecture for Education, has been a longtime collaborator with education researcher George Copa, interim dean at Oregon State University School of Education and a driving force behind rethinking American high schools. (See interview with George Copa starting on Page 10.)

Their research has generated a set of design principles, called New Designs for Learning, that can be applied to planning schools in all sorts of settings—urban, rural, and suburban; small and large; specialized and general. The principles call for attention to everything from a school's learning context (including its unique assets, problems, opportunities, and aspirations) to its learning audience (not only school-aged youth, but also the broader community and school staff) to the learning expectations and process (focusing on the expected outcomes for students and the learning projects that will help them reach those goals).

How do the principles look in practice? In a word: spectacular. Jilk and Copa have created such innovative learning environments as Minnesota's School of Environmental Studies, known as the Zoo School because of its location on the grounds of the Minnesota Zoological Gardens. The school serves 400 students in grades 11 and 12, who pursue interdisciplinary learning and tackle hands-on projects related to environmental problems in the real world. Students are organized into houses of 100 to create a more intimate scale and enhance relationships. Rather than traditional classrooms, the building includes student work stations and pods, allowing for both individual and group work. Extensive use of glass brings in the outside environment. Spaces for displaying student work send the message that student products have value—an element that the New Designs principles refer to as "learning celebration."

What new design concepts might we see in schools of the near future? Currently, Copa is helping citizens in Sumner, Washington, think boldly about the kind of school they want to create when they build a second high school for their fast-growing community. The answers are still in the formative stages, but the project should be well worth watching.

Meanwhile, Jilk and Copa are encouraging communities around the globe to think not only about how schools are organized, but also where and when learning takes place.

"In our hectic lives and the need to continuously learn, how do you make the possibility to learn present all the time?" asks Copa. "Instead of thinking that learning can only take place on a campus, at a certain time in your life, how can we create opportunities for learning throughout the community and across the life span?"

That concept meshes well with the "livable communities" that many urban planners are working to create. In presentations to the international design community, Jilk draws on thinkers as diverse as John Dewey and Abraham Maslow and architectural sources ranging from ancient Greece to the New Urbanism to describe his ideas for educational environments that will respond to human needs and create opportunities for more informal, lifelong learning.

SAFE, HEALTHY BUILDINGS

When the last batch of schools was built in the 1950s and 1960s, little attention was spent on health or safety issues. Gang-related violence hadn't yet erupted. School shootings of the sort that shocked the nation in the last few years seemed unimaginable. "Safety and security were not of paramount concern when the vast majority of the nation's school facilities were designed," reports a recent publication, *Safe School Design: A Handbook for Educational Leaders* (ERIC Clearinghouse on Educational Management, 2000).

Authors Tod Schneider, Hill Walker, and Jeffrey Sprague, all affiliated with the Institute on Violence and Destructive Behavior at the University of Oregon, point out that the physical ecology of a school is "a powerful factor in contributing to its safety, security, and effectiveness. The design and use of school space has a huge

but often unrecognized impact on the behavior of students as well as staff."

The authors advocate a set of principles known as Crime Prevention Through Environmental Design, or CPTED, to build safety features into the school environment. CPTED focuses on three basic concepts:

- Natural surveillance—the ability to see what's going on
- Natural access control—the ability to control entry into and exit from an environment
- Territoriality—the ability of legitimate users to control an area while discouraging illicit users

Rather than a global approach to school security, Schneider, Walker, and Sprague advocate considering local needs in order to reduce risk factors and enhance protective factors within the unique environment of a school. Structural issues are only one area to focus attention. School climate and other elements of a school's "social ecology" are just as important, the authors point out. Even attention to maintenance can bolster security. Picking up the trash or fixing broken windows, they note, "sends a strong message that this is a school someone cares about." And students get the message that they are cared about, as well.

In addition to safety issues, health concerns are also earning increased attention from school planners. Recent research has highlighted links between classroom lighting and student achievement, with students making faster progress in classrooms with large windows or skylights to bring in natural light. Acoustics can have an effect on student achievement, too, according to studies that have looked at schools located so close to airports that runway noise interferes with learning. And indoor air quality not only affects comfort levels, but also may exacerbate allergies or contribute to health problems such as asthma.

Schools that neglect basic maintenance may be inadvertently contributing to students' health problems. In an interview last year with CNN, C. Kenneth Tanner of the University of Georgia's School Design and Performance Laboratory cited dirty carpeting and leaky roofs as factors that can lead to mold spores and trigger respiratory ailments and allergies.

The Environmental Protection Agency (EPA) is developing a set of guidelines called Tools for New Schools to assist school planners in providing a healthier and more productive learning environment for students and staff. According to the EPA, attention to indoor air quality can have an impact on student learning, comfort, and attendance, and similarly affects performance of teachers and other staff members who may experience greater discomfort or absenteeism in schools with poor air quality.

COMMUNITY VALUE

For communities willing to consider new options for school designs, the rewards can be long-lasting and profound. "The most successful schools of the future," predicts *Schools as Centers of Community,* "will be integrated learning communities, which accommodate the needs of all of the community's stakeholders. They will be schools that will be open later, longer, and for more people in the community from senior citizens using the gym and health facilities during off-hours to immigrants taking evening English classes after work."

The silver lining is that innovative schools don't have to be any more expensive than the old big-box facilities. In Washington's Vancouver School District, which enjoys a national reputation for its innovative school design process, cost per square foot of some of the most spectacular schools in the country is less than the state average for school construction. (See related story, Page 14.) One Vancouver principal says the district's up-to-date school architecture is even a helpful recruiting tool: "When I interview teacher applicants that I really want to hire, I bring them to the school for a tour. They can't wait to go to work here!"

Seattle parent Lisa MacFarlane is president of Schools First, an organization that has lobbied to support the Building Excellence Program currently rebuilding 19 schools throughout the Seattle district. "New schools make a difference," she explained recently in the *Seattle Post-Intelligencer.* "They have a catalytic effect—energizing students, parents, teachers, and even neighborhoods. They also say a lot about how our community values children and their futures."

Just ask the kids at Whittier Elementary, who every day walk through the doors of a school designed to make them feel safe, secure, welcome, connected to their neighborhood, and eager to learn.

ONLINE RESOURCES

• **American Institute of Architects Committee on Architecture for Education's** Web site has information and resources for educators and design professionals. (www.e-architect.com/pia/cae/home2.asp)

• **Council of Educational Facility Planners International** provides information on industry trends, including updates on state and federal funding for school construction and renovation. (www.cefpi.com/)

• **Educational Design Principles for Schools and Community Learning Centers,** researched by Jeffery A. Lackney of the Educational Design Institute, Mississippi State University, and sponsored by the National Clearinghouse for Educational Facilities, synthesizes the research literature on school design. (www.edi.msstate.edu/learningcenter.html)

• **Learning by Design 2000,** a special edition on school architecture published by the *American School Board Journal,* showcases exemplary school design projects and includes a variety of resources. (www.asbj.com/lbd/2000/about.html)

• **National Clearinghouse for Educational Facilities,** created in 1997, is an information resource for people who plan, design, build, operate, and maintain K–12 schools. (www.edfacilities.org/)

• **School Design and Planning Laboratory** at University of Georgia provides links to research, case studies, and planning guidelines. (www.coe.uga.edu/sdpl/sdpl.html)

• **Schools as Centers of Community: A Citizens' Guide for Planning and Design,** published by the U.S. Department of Education, outlines six school design principles that have been endorsed by the American Institute of Architects, American Association of School Administrators, Council of Educational Facility Planners International, and Construction Managers Association of America. (www.ed.gov/inits/construction/ctty-centers.html)

• **Tools for New Schools** is a project of the Environmental Protection Agency that helps school planners provide healthier learning environments for students and staff. (www.epa.gov/iaq/schools/newschool.html) □

NEW VISIONS

Designing schools fit for a new century will require not only bold thinking and fresh ideas, but a willingness to engage local communities in the planning process. Two experts—one an educator, one an architect—shed some light on the trends and opportunities facing the region in recent conversations with *Northwest Education*.

THE EDUCATOR

***GEORGE COPA**, interim dean of the School of Education at Oregon State University and director of New Designs for Learning, has spent more than a decade researching innovations in school design. He has toured schools all over the world, served as an international consultant on school design projects, and helped shape the national dialogue on reinventing American high schools. Now, as communities across the country are faced with the challenge of rebuilding their aging or overcrowded schools, Copa has some keen insights to offer about designing schools to enhance the learning experience. "Facilities," he cautions, "are just a small piece of good school design."*

Northwest Education: What other considerations are important in school design, besides the physical environment?

Copa: Too often communities focus on the design of a new school facility, but the design of the learning plan gets missed. The real challenge is how to make a connection between learning expectations and what the learning environment ought to be like.

NW: How did you come to this realization?

Copa: In about 1990, I started working on a project called New Designs for the Comprehensive High School. It was funded by a grant from the U.S. Department of Education. We pulled together people from across the country—teachers, counselors, administrators, researchers, students, policymakers, business leaders—and asked them to help us envision, if you were going to start from scratch and design a new

high school for the future, what would it be like? We explored what the learning expectations and outcomes might be, the learning process, how the school should be organized, who the partners might be, how you'd staff a school like this, how you'd finance it. Finally, we got to the question: What would the facility look like?

NW: Did some general guidelines emerge from that conversation?

Copa: We found that you need a strong learning plan, a strong concept of community, and strong architecture that's supportive of both community and learning. Those are the three major pieces. And now, with the new expectations for learning we're seeing across the states—the increasing focus on results, outcomes, standards—we have a real challenge. What kind of learning process would be powerful enough to deliver on these high expectations for all students? If you want to make sure that no students get left behind, you need to create smaller learning environments. By working in smaller groups, smaller schools, and schools within schools, the teachers and students get to know each other much better. Teachers can be more responsive to more of their students.

NW: So school size should get more attention during the planning process?

Copa: Not just size. We already have a lot of small schools in this country. But if small schools operate no differently than big ones—if they have the same departments, bell schedules, and all the rest of it—then you don't get the benefits of smallness. You have to change the way you do learning in the school. Break paradigms. Break out of the ruts in terms of how we do school in this country. But if we keep designing new schools just like our old schools, we're not going to get any better results than we get today. And in most of today's schools, we already know who's going to win and who's going to lose.

NW: What else is important in school planning?

Copa: I encourage schools to look first at their assets: What's working now that you want to take into your new environment? Then, what are the problems? What are the opportunities for learning you might want to take advantage of, but can't because of the way you organize schools? You can plan so that the school fits the community and makes a contribution to the community.

NW: Why is connecting a school with its larger community so important?

Copa: We've isolated our schools, moved them to the outside of our communities. So many high schools are surrounded by parking lots, sporting fields, almost like they're surrounded by a moat. And young people sense that isolation. We send them off to these places that are huge, and they find no meaning there—because meaning has to do with connectedness. Much of what young people produce in a school during the day is carried out in the garbage at night. That says something to them about the worth of what is produced there. Instead, we could be giving young people a chance to be making a contribution to their communities. More of their learning could take place in the real world, using real things. Imagine how the energy of a thousand young people, in the course of nine months, could contribute to the betterment of their communities and the betterment of their own lives. There's so much talent in a school. We have to find better ways to release it.

NW: What does a well-designed school feel like?

Copa: There's a seriousness about learning that you notice right away. An informality. A feeling of self-management. You can see that students know what they're doing. They're about something. These schools can be very active places, sometimes messy, with a lot going on and spilling out into the hallways. You see teachers working together as teams, and there are spaces that invite them to collaborate. You sense real pride. Students don't feel as if school is being done to them.

NW: Can you plan for a school where students and staff will feel special?

Copa: Yes. I make a big thing, during the planning process, of urging communities to think about a learning signature for their school. What would be a uniqueness, a specialness, something that their students would brag about? How could they design a facility to showcase that, so that when visitors walk into the building they will know what the school is about? We find that specialness in very good private schools, but many of our public schools don't have it. Their specialness is often a set of colors or an athletic team, but it doesn't relate to everyday learning. A learning signature needs to grow out of place. You can't impose it. It has to feel authentic, otherwise it's just a slogan.

NW: Where have you seen schools that capture what you're describing?

Copa: In Minnesota, the School for Environmental Studies uses the Minnesota Zoological Gardens as a learning environment. When you walk in there, you notice plants growing everywhere. There are terrariums, aquariums, connections to the outside environment. You see dogs that the students take care of. You immediately get the feeling that this is a living place. High Tech High in San Diego uses many good ideas (see Web site at www.hightechhigh.org). And Alpha High School in Gresham, Oregon (see related story, Page 20), really moves in the direction I'm talking about. You walk in there and think, oh my, I would want my kid to go here.

NW: Are you optimistic about where we're headed with school design?

Copa: Right now, the public is beginning to sense there's a problem with our educational facilities. We need to improve them, and over the next 10 years a large amount of resources will be spent on schools. But typically, a very small amount of money goes into school planning. We need to invest more on the front end so we can be provocative and consider other possibilities. It costs money and takes time to come up with creative ideas.

And if you're going to try something innovative, you have to bring along the community, the students, and the faculty. It takes strong leadership to move in new directions.

NW: Finally, how important is safety in school planning?

Copa: The first thing students want in a school is a safe environment. Safety needs to be there. But if we stop there, in terms of design, we'll close schools down from the community. You can't solve security concerns by further isolating schools. It might be tempting to say, we're going to build locked little cells called classrooms and supervise them closely and not allow anybody to move freely in the hallways. We can get security that way, but we don't get much learning. If you start going in that direction, the end of the path is a prison. Instead, I suggest we think about community. If you're in a place where you feel a sense of family, of neighborhood, where it's small and open enough so that people know each other by name, then you won't have many problems with security. Safety issues need to be thought about in the broader context of how we do learning.

For more information about the work of New Designs for Learning, see the program Web site (newdesigns.orst.edu/).

THE ARCHITECT

***SHARON SUTTON** has worn many hats in her 60 years: professional musician, artist, licensed architect, psychologist, activist, writer, professor. But the unifying theme of her work, she says, "has always been participation." As director of the University of Washington's Center for Environment, Education, and Design Studies (CEEDS), she is creating opportunities for participation in collaborative teaching, research, and service projects that have the potential to change not only K–12 schools, but also the fabric of the larger community.*

NW Education: With the need for school construction becoming more and more apparent, are we at a moment of opportunity to think in new ways about the physical environment of our schools?

Sutton: With the nation's expanding population and the large stock of schools we have that are more than 40 years old, we're facing an urgent need for new facilities. And even if a building isn't old, it may need to be reconceived to accommodate new technology.

We're also seeing more interest in building schools to be centers of their communities. There's a practical reason for that—if the building benefits more people, it's more likely to get funding approved. But having a more vibrant use of our schools will also be of great benefit to young people.

NW: What role can a program like CEEDS play in planning for new schools?

Sutton: CEEDS is an interdisciplinary program, involving faculty from fields such as architecture, education, social work, urban design, psychology, and public health. We look at school architecture not as a product, but as a process. We are interested in using the moment of school design as an opportunity for organizational change. It's a chance to rethink what you're doing in a school. And it's a chance for community-building.

NW: What lessons does the design process offer K–12 students?

Sutton: Design can be used to teach anything. It's a very integrative subject matter. Most of us spend our whole lives now in the designed environment. So kids need to have an awareness of the physical space around them. Kids learn positive and negative things from their environment, but they need to learn to think critically to understand how space affects them. That critical thinking needs to be part of their literacy. It's a fundamental life skill.

NW: How are you getting younger students to think about design?

Sutton: Last year, our graduate students [from UW] worked with elementary students from the Tukwila School District. The district had already approved a design for a new building. Our charge was to help the kids understand the building process. That's a start, but we want to go beyond the building process to get them actively involved in creating their own space. So we've been teaching them about design and are working toward a final public art product that the community will own.

NW: Does the students' involvement make the design process messier, more complicated?

Sutton: The architect in Tukwila is very excited about what we are doing. But when I first suggested that we wanted to come up with something the children could do, he said, "The building is already designed! Don't change my drawings!" Now he sees that having the children involved is going to protect the building.

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BLUE RIBBON PLANNING

VANCOUVER SCHOOL DISTRICT HAS EMBARKED ON AN AMBITIOUS BUILDING CAMPAIGN TO BRING ITS SCHOOL FACILITIES UP TO DATE. BUT THERE'S MORE INVOLVED THAN BRICKS AND MORTAR. A FORWARD-LOOKING DESIGN PROCESS UNITES THE WHOLE COMMUNITY.

BY SUZIE BOSS

VANCOUVER, Washington— Late on a weekday afternoon, a school district conference room begins to buzz with conversation. The atmosphere feels a lot like a class on the eve of a much-anticipated show-and-tell, except that the 60 or so folks gathered here are nearly all adults—teachers, parents, and district administrators. A middle-aged principal leans over to another onlooker and crows, "Wait till you see our team's drawing. It's *so cool!*"

For two days, these community members have been playing the role of visionaries: imagining a school that will still feel inviting and innovative 50 years from today. Now they're here for the unveiling of preliminary architectural sketches for a building to replace 47-year-old Salmon Creek Elementary School. They didn't get to hold the pencils in their own hands, but their words and ideas have shaped the images that architects have put down on paper.

"They're here to look to the future," says Todd Horenstein, assistant superintendent for the Vancouver Public Schools and an architect by training. For the better part of a decade, Horenstein and his colleagues have been conducting design symposiums as a way to bring the community's perspective into school architecture. Participants take their assignment seriously. Says Horenstein, "People seem to understand that you don't get the opportunity to do something like this very often."

Indeed, at a time when the typical American school building is more than 40 years old and falling into disrepair, Vancouver is rebuilding its entire infrastructure. Since 1989, the district has moved forward with renovations and new construction in every corner of this fast-growing community in southwestern Washington. The building boom—17 remodeled or rebuilt schools and five brand-new ones to date—fits the district's long-term strategic plan for delivering high-quality education. If a single lesson has emerged from the process, it's this: "Building a new school takes the entire community coming together over time to make it the best it can be," says Vancouver Superintendent Jim Parsley.

THE OOOOOH! FACTOR

Architecture is often called frozen music. That metaphor rings true at Vancouver's Discovery Middle School, a school that practically sings. The facility was showcased at the National Symposium on School Design hosted by the U.S. Department of Education in 1998 and has been visited by a steady parade of dignitaries, including former Secretary of Education Richard Riley and Senator Bill Bradley. Discovery has won a host of awards since its completion in 1995, including the Learning by Design Grand Award bestowed by the National School Boards Association, the James D. MacConnell Award from the Council of Educational Facility Planners International, and the prestigious Shirley Cooper Award presented by the American Association of School Administrators and the American Institute of Architects.

Although Discovery Middle School backs up to busy Interstate 5 near central Vancouver, the campus feels like a neighborhood park. Mature trees form an evergreen curtain where the property dips toward the freeway. Outside, the building sports a clock tower, peaked roofline, and streetlights that give it a village feel, echoing the "academic village" theme that organizes the 800 students into smaller learning communities. Inside, the school is packed with three floors of unique features that enhance the learning process while also serving the needs of the larger community. "When people walk in here," says Principal Susan Cone, "we always get that oooooh! response."

While visitors rave about the school's inviting physical space, they are often equally impressed to learn about the planning process that went into creating it. "The people who contributed ideas for this building," including architects, principal, teachers, district administrators, and community members, "started with a good understanding of what kids need," says Horenstein. "They were out front with design that takes good educational ideas and helps them go even further."

When planning for Discovery Middle School began in the early 1990s, lead architect John Wyckoff of LSW Architects brought what could best be called a fresh perspective to the design table. "This was my first school project in 20 years," he admits. But at a series of design symposiums, he listened closely to what educators were saying about the benefits of smaller learning communities, the need to make schools more personal, the desire to offer a sense of "smallness within largeness." He heard Superintendent Parsley ask for a building that would make technology "as common as a pencil." He paid attention to requests for work spaces that would allow students to learn individually, in small groups, and in larger assemblies—what the district calls its "1/3, 1/3, 1/3" approach.

Wyckoff translated that research into practice when he designed a three-story building to fit onto a sloping lot. Each story is designed to operate as an independent aca-

demic village. Classrooms are clustered around central plazas instead of being lined up along corridors. The plazas provide flexible common areas for conducting small-group work or spreading out messy, hands-on projects, as well as places where students and staff from the same academic village can mingle informally.

Other aspects of the design also support good teaching: flexible classroom walls that open for team teaching; a learning center on each floor where students can receive the extra support they need to be successful; a large, open room called the Toolbox, equipped to accommodate integrated instruction, online and print research, science labs, and art projects; technology woven seamlessly throughout the building; and a sun-drenched room called the Loft that houses the school's fiction collection along with couches and comfortable chairs for curling up with a good book. There's also a well-equipped staff work space in each village that makes life easier on teachers. They don't have to trek a mile to the office to telephone a parent, photocopy a class assignment, or use the restroom, and they don't have to go out of their way to connect with their colleagues.

"The building makes it inviting for students and staff to stay together as a group," notes Cone, who took over as principal when the school was a few years old. As an administrator, she appreciates how the building supports sound classroom practices. "It's easy to do teaming, project-based learning, small- and large-group work." Those approaches build cohesiveness that's especially important for young adolescents, she believes. As students make the transition from cozy elementary schools to larger secondary schools, "it helps to keep personalization at the forefront." Discovery enrolls several hundred students of diverse backgrounds, but within each academic village, Cone says, "it's still a place where everybody knows your name."

OPEN-DOOR POLICY

Almost since the day it opened, Discovery Middle School has thrown open its doors to the larger community. Cone's secretary keeps a special appointment book just to log requests to use the Gallery, a large room outfitted with multimedia equipment (including a broadcasting booth) that was designed for showcasing student projects and presentations. The staff loves this room, too, with its tranquil view of evergreens and even a barbecue grill on the balcony. And so do community groups, who have used the space for receptions, lectures, art shows, and a variety of other functions.

Most days, Discovery stays busy 'round the clock. At this Title I school where more than 50 percent of the students qualify for free or reduced-price meals, breakfast and lunch are busy times in the Commons, a multiuse room adjoining the cafeteria. Later in the day, the round tables might be rearranged for a performance on the Commons stage that backs up to two music rooms. In the evenings, the room provides a popular meeting place for parents and community groups, and can be closed off from the classroom wings to ensure security. Windows from the Commons frame a view of the gymnasium on the floor below. It's big enough to hold two PE classes at once during the day and recreational basketball leagues or fitness classes at night. Back up on the ground floor, a counseling facility nicknamed the Green Room (because of the comfortable green sofas and high wall of glass block) is booked day and night with small-group sessions and parenting classes.

"Build it and they will come!" laughs Cone about her facility's popularity. "You can never plan for enough places for community use," she adds. "This school probably has more flexible meeting places than any other school in the district, and they're all busy, all the time. Nothing sits idle here." But she isn't complaining. "Any time you can bring the community into your school, you'll benefit. The kids will benefit," she insists. "Community members won't realize the value of their schools unless they see for themselves how their buildings are used, how wisely money is spent, and the quality that comes back to the whole community when people support their schools."

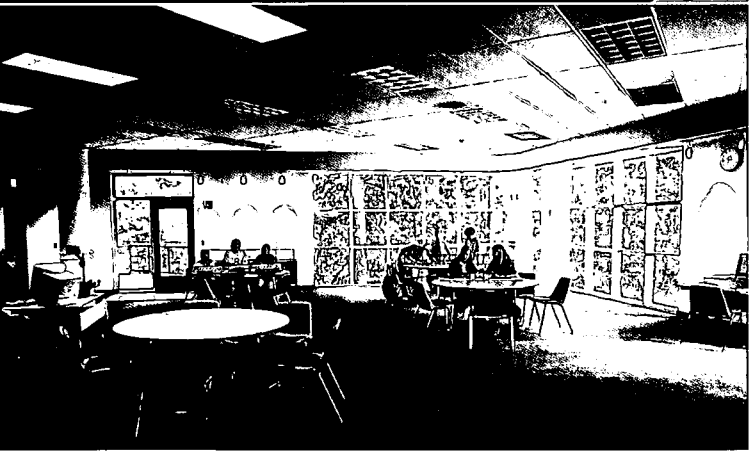
Discovery's open-door policy started back in the planning stage, with widespread involvement of the public. That involvement not only led to a better design, but also has helped to build community ownership of the school. "People need to believe that the school belongs to them, not only during the years when they might have children enrolled," Wyckoff says.

NO COOKIE CUTTERS

After producing a school as successful as Discovery, a district might be expected to crank out carbon copies. But in the Vancouver School District, there's no cookie-cutter approach to school design. "We want each building to have its own signature," explains Assistant Superintendent Horenstein. In a district with demographics as wide and varied as Vancouver's, he adds, there's no master blueprint.

Each project "starts with a blank

TOP: THE FORUM AT DISCOVERY
MIDDLE: DISCOVERY EXTERIOR
BOTTOM: THE GALLERY
PHOTOS BY ED VIDINGHOFF
COURTESY LSW ARCHITECTS



sheet of paper," says architect Wyckoff, whose firm has enjoyed a long-term relationship with the Vancouver district. Sometimes the symposiums generate what Wyckoff calls "wild hiccups. Someone suggests an idea like putting an environmental lab on the roof—something no one's thought of before." Community involvement has become such a critical element of school planning that Wyckoff's firm has shared the symposium concept with other clients. "We try to do it on every project," he says.

In a couple days of brainstorming, the symposiums manage to capture a theme for each site, whether it's a remodel or brand-new construction. Skyview High, for example, Vancouver's newest secondary school, is designed to foster hands-on learning. The high-tech building features open learning areas where students operate enterprise projects such as a credit union and food court. Those concepts, Wyckoff says, emerged during the initial design symposium.

Although each school is unique, collectively they fit the district's strategic vision of sound educational programming. And they share one more feature: a tight budget. Good design doesn't mean sky's-the-limit spending. "Our average cost per square foot is consistently below the state average for school construction," Horenstein points out, even for stellar buildings like Discovery Middle School. One cost-containment strategy has been to increase the efficiency of buildings. As Wyckoff explains, that means designing schools where all spaces are used actively and effectively. Doing away with long corridors, for example, can free up the funds for a school to invest in a state-of-the-art auditorium. That strategy worked at Skyview, a facility that Wyckoff estimates is "95 percent efficient, compared to most schools in the 75 percent range." Careful fiscal planning has been a strong selling point for voters, who have approved $180 million in bonds since 1990 to upgrade district facilities and technology.

EXPANDING THE VISION

At the start of the recent Salmon Creek School symposium, participants spent the first morning trying to capture the essence of their school. Despite its outdated facility, this is a school with a lot going for it: a stable community, high parental involvement, and an experienced and cohesive teaching staff. "Salmon Creek is about stability," Principal Bill Nicolay realized as he listened to the discussion. "It's stable for kids, for parents, for relationships. Our parents feel like they

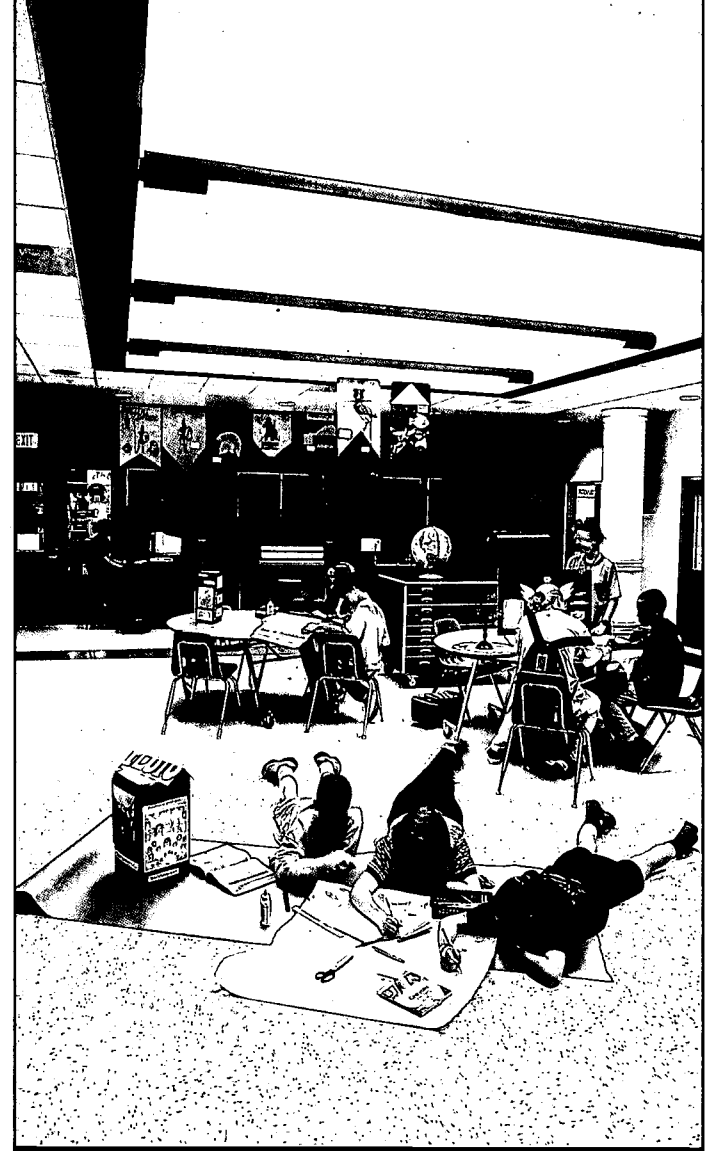
go here, too, along with their kids. It has a family culture, and we don't want to lose any of that when we move into a new building."

It's also a school with a strong focus on literacy, and participants kept circling back to that idea during the discussions. As Superintendent Parsley listened, he suggested that participants expand their vision. "He reminded us that literacy is bigger than literature," recalls Nicolay, "and that's when a light went on for me. We want our students to realize that all of literacy is open to them when they walk through our doors. That means art, science, literature, math, technology —to be literate, you need to understand all these things." But the principal was still perplexed. How could a building convey that message?

After the first day's discussions, Nicolay went home "and didn't sleep well." But while he tossed and turned, the architect who had been listening to the community's input worked late into the night. When Nicolay saw the sketches the next morning, he was amazed. "He captured all our ideas on paper. It's all right there," the principal said, including a multimedia space called the Literacy Center at the heart of the new building and a "river" (made of floor tiles) running from the entryway to an aquarium. For years, Salmon Creek fifth-graders have been raising hatchery salmon as a community service project. The architect found a way to make that project part of the school's signature.

A long-time Salmon Creek teacher who was part of the planning process saw that her comments had shaped the design, too. "Right now, we teach in self-contained classrooms that are walled off from each other. We want more flexible space to do the collaborative things we struggle to do now, because we don't have room for it to happen." She was delighted to see cooperative work spaces included in the preliminary plans. Another teacher, however, fretted when she saw that the sketches didn't include sinks and storage space in each classroom. "Weren't they listening to my suggestions?" she asked.

Tom Olson, an experienced facilitator (and former NWREL staff member) hired by the district to lead the design symposiums, used that pointed question to remind participants that designing a school is a long-term process. The symposium is just the starting place—a chance to lay down a melody line, he explained, for all the improvising that will follow. "We'll get to the little details, eventually. But if you start with the sinks," he added, "you'll never get to the bigger picture, like what a school with a literacy theme might look like."



DISCOVERY PLAZA SPACE PHOTO BY JANIS MIGLAVS

As the symposium wound to a close, Horenstein offered some final words of reassurance: "We won't forget what you've told us. All your ideas will go into a binder, and that will be our reference book throughout the design process," he told the group. At each step of the way—from drafting more concrete specifications to presenting the final design to community groups to lobbying for voter approval—the participants' forward-looking vision for Salmon Creek School would remain front and center. That's just the way it works in this community that has learned how to build for the future, one school at a time. □

SITES WORTH CELEBRATING

The Northwest, like most of the country, has its share of aging and outdated school facilities. But it also is home to some spectacular examples of schools designed for the 21st century.

As the stories on the following pages reveal, school architecture has never been more innovative. The prize-winning schools featured in this special section are as individual as fingerprints. But they do share common themes, such as:

Smart spaces: Learning spaces are designed to support good classroom practices

Technology integration: Schools fit for the future weave in technology in creative ways

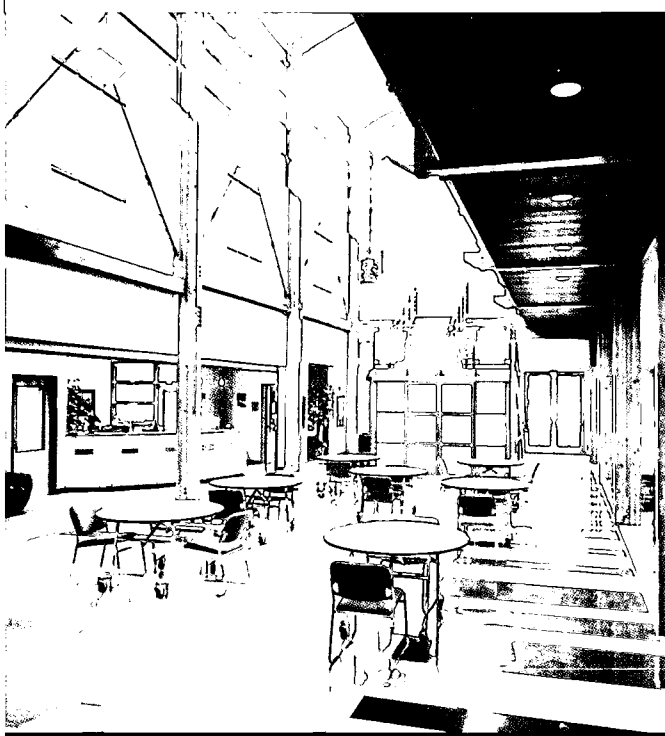
Flexibility: Knowing that tomorrow may bring different needs and opportunities, new schools are being designed for maximum flexibility

Collaboration: Building a new school or remodeling an old one is a chance for community members of all ages to come together and talk about the future

Personality: Successful school buildings convey a sense of what they're about —whether it's a proud history, like Boise High, or a child's sense of wonder, like Alpenglow Elementary

So what's new in school design? Take a look—and prepare to be amazed.

A SCHOOL THAT WORKS



An alternative high school with a career focus finds a new home in an urban setting, and students welcome the role of caretaker.

By CATHERINE PAGLIN

GRESHAM, Oregon—Alpha High School has no gym, no cafeteria, no field, no football team, no banging metal lockers, no teachers' lounge, no library, no squeaky chalkboards, no bells, and no long dark hallways. It doesn't look or sound like a school, and that's the way the students and teachers like it.

"We really designed it as a business, not as a school," says Principal Tom Dearborn. "The first time I addressed students in the space I said, 'Does this look like a school?' and everyone said 'No!' and I said 'Good, we were successful.'"

The 16,000-square-foot building that houses this school-to-work program in Gresham, Oregon, has garnered state and national awards for its beauty and functionality. Located in what is planned as a dense, mixed-use downtown area along a light-rail line, the school has only 13 parking spaces; 75 percent of its students use public transportation. Trees, benches, a setback at the entryway, large ground-floor windows, and window bays give the building a human scale and connect it to the street scene. Its interior is bathed in natural light emanating from high windows in its central, two-story commons.

Alpha High School's design has won many awards for the Portland architectural firm Dull Olson Weekes, which specializes in school architecture. Honors include: American Institute of Architects National Committee on Architecture in Education Honor Award; Governor's Livability Award Special Mention; American School Business Officials Certificate of Excellence; *American School and University Magazine* Outstanding Design Award; Council of Educational Facility Planners International Project of Distinction Award; City of Gresham Community Design Excellence Award; and International Interior Design Association Merit Award. In November 2000, Alpha's lead architect Norm Dull presented the project at the Innovative Alternatives in Learning Environments Conference in Amsterdam.

Alpha students are proud of the newness, cleanliness, and business-like look of their prize-winning building. "It's more pro-fess-ion-al," says one, enjoying each syllable. Others say the building is "relaxing" and feels like "a second home." That's not surprising considering that students were involved in the building's conception: Two Alpha students worked at the architects' office during the design phase and helped shape the appearance and function of the school.

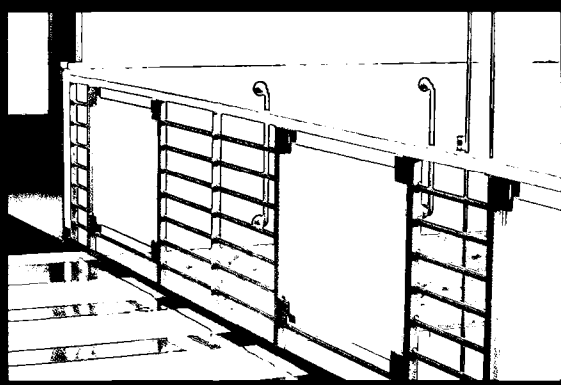
"They offered so much insight into the needs and the thinking, the colors, materials, the responsibility students were willing to take on," says Dull. "We were hesitating putting wood railings in because we were thinking kids would start carving them up. They said, 'Give us some credit. If you give us a nice building, we're not going to tear it up.'" The architects also discovered that students were not as interested in having a student lounge as having "little places." Thus they took small corners that were neither classroom nor office and made them into cozy spaces with couches for studying or casual conversation.

"Flexibility" is the word and concept used most often when Alpha staff and students describe their new building. "The way the school is designed it's almost malleable to our needs," says senior John Albi.

Those needs are many. Alpha's 130 students don't have a typical schedule of six or eight class periods. Half the students are in the building in the morning, half in the afternoon. When they're not at school they're at job sites gaining job readiness skills and exposure to career options. "We don't generally have all of our kids here at once," says Dearborn. Nonetheless, he adds, the design team realized that the school needed a space that was large enough to accommodate a general assembly of those students, but would not go unused the rest of the time. As well, he says, teachers needed to be able both to combine their classes for team teaching and to break up classes into many small working groups. And the Multnomah Education Service District, which runs Alpha, wanted the building to be available and usable for community groups in the evening.

At first it seemed as if the Alpha building would have to be huge to meet all these needs, says Dull. "Because of the restrictions on the site and on the budget, it became obvious that we had to become more innovative." That's where the idea of movable walls and mobile cabinetry came in. Alpha's multipurpose commons area and the adjacent classrooms can all be made bigger or smaller through an innovative system of moving walls. Tables, cabinets, and student "cubbies" are easily rolled out of the way as room configurations change. Because the space is always changing, teachers have offices instead of their own, permanent classrooms. They can roll carts with student work back and forth from office to classroom.

Remembering the flimsy, difficult-to-use accordion walls popular early in his 31-year education career, Dearborn had some concerns when the subject of moving walls arose. "When you deal as we do with special students and students who aren't always focused on a curriculum presentation to begin with,



then you need to cut out as much distraction as you can," he says. But the operable partitions between classroom and the moving walls that flank the common space are two-and-a-half inches thick and, though they weigh 15 pounds per square foot, glide smoothly on ball-bearing rollers. "When they're in place," says Dearborn, "you can have a video going on one side and a conversation happening on the other, and it's not soundproof but it's not distracting."

To promote safe and appropriate behavior, the school's administrative "hub" is located across the commons from the classrooms. From there the staff can see students coming and going from classrooms on both floors, as well as entering and leaving the building.

"In the '50s the schools were one story, spread out along long corridors, and generally those corridors were separate. So it left a lot of isolated space for students to do whatever, and we knew we didn't want that to happen," says Dearborn.

The open, two-story Alpha design, however, has its own potential trouble spots. Dearborn admits to feeling "really paranoid" when he first stood on the second floor and looked down into the common space. "This is open. Who's going to see how far they can jump?" he wondered. But his fears have been unfounded. "The kids have been really appropriate," he says.

Alpha's teachers praise the building and find it supports their work with students. "It's a dream because of all the flexibility, the newness, the openness," says Terry Gerber, who is in his 11th year and third building at Alpha. Gerber team teaches entry-level students with another staff member. They often begin the week by removing all the partitions between the four first-floor seminar rooms to discuss the week's work. Then they break down into groups. He says, "With the walls as movable as they are, they allow us many, many configurations whether we want to set up small groups of six or seven or even smaller groups of two or three."

Alpha has no computer lab that would require an extra staff person as a monitor. With wall panels positioned appropriately, teachers can easily keep track of students at computers just outside the classroom on the perimeter of the commons. "One of the reasons we have the computers out here," says Gerber, "is that we want the students to feel as if they're in more of a professional atmosphere. The other reason is that we have guests all the time. We want them to see students at work, and we want the students to interrelate."

As well as going out to job sites, Alpha students can get job site experience at school in an in-house video production lab and a "business lab" where businesses can come to the building and set up shop temporarily. This exposure is particularly important for younger students who usually don't have much idea of what job sites they would like to go to, says Dearborn. The lab, which doubles as a science room, is equipped with stainless-steel-topped movable tables, air, gas, chemical hoods, chemical storage, and a roll-up door. "We had an engineer come in and with 10 students did a miniclass on bridge design as a job site," says Dearborn. "Then they built a footbridge the City of Troutdale needed in their park system."

Completed in 1999, the Alpha building cost $2.3 million including fixtures, furnishings, and the moving walls. Multnomah Education Service District financed the building by selling 10-year certificates of participation. "We were renting space, and the cost of the space continued to grow while the space continued to stay the same or get worse," says Dearborn. "So we were getting less and less for the money we were paying. By looking at our cost for housing the program over a 10-year period, we could say it's cheaper to build." Alpha was expensive per square foot, he says, but well worth the money. "We're serving a population that, if not served, would probably end up costing a lot of money down the road."

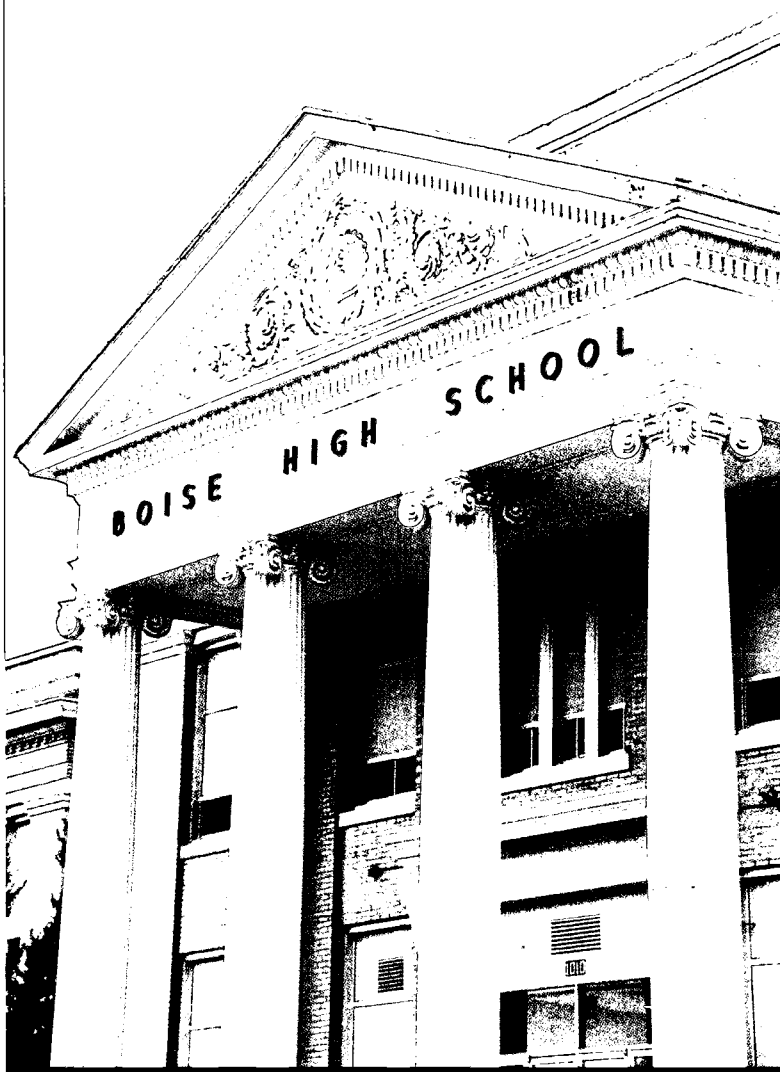
Alpha's educational mission and its new building fit both a regional economic development vision and Gresham's urban design goals, says Shelly Parini, Business Assistance Program Manager with the city's Community and Economic Development department. Recently, regional leaders completed a vision statement that focused on building community wealth through "smart growth, smart kids, and smart industries," she says. As well, the city's downtown is being designed as a complete community where people can "live, work, play, and learn."

"To have a school that has synergy with existing industries that are training and grooming the future labor force, to have it on the light-rail and bus lines which opens up even more workforce opportunities, and to do it all in a safe, conveniently located neighborhood environment," says Parini, "you can't get any more perfect than that." □

Saving a landmark school in downtown Boise

BRICKS & MORTAR, HEART & SOUL

By JOYCE RIHA LINIK



BOISE, Idaho—In the heart of Boise's downtown, just a stone's skip from the state capitol dome, Boise High School has stood its ground for nearly a century. Built in phases between 1906 and 1922, the white brick structure is an impressive example of Classical architecture, complete with Ionic columns and a tympanum featuring a stone-carved Plato. It is a landmark for the thousands of students who have passed through its classrooms, as well as for the many residents who have seen the likes of Duke Ellington and Bing Crosby in its historic auditorium. Understandably, many were concerned in the early 1990s when the Boise School District considered closing the school's doors to build elsewhere.

No one denied that the school was in a state of disrepair. The wiring was ancient, turning the old school and its antediluvian timbers into a virtual powder keg. The ceiling of the auditorium showed cracks, dangerous not only because of the possibility of a plaster rain, but also because of the potential asbestos hazard it could expose. In the event of an emergency, the structure did not possess sufficient exiting routes. In short, the building wasn't close to meeting modern safety codes.

But the school district also recognized the implications of closing this downtown school. Research shows that older neighborhood schools often serve as community anchors. The closing of such schools can have a detrimental impact on a community, alienating local students who must then be bused to faraway suburban schools, making nearby residential neighborhoods less desirable to families, and lowering property values.

"Schools that hold the memories of generations are disappearing," cautioned the National Trust for Historic Preservation in its recent report, *Historic Neighborhood Schools in the Age of Sprawl: Why Johnny Can't Walk to School.* As the report also pointed out, "Schools are part of the glue that holds communities together." What's more, the National Trust noted that many historic school buildings house more personalized, "human-scaled" learning programs that are supported by education research. Boise High's 1,100 students—typically the district's most diverse population—include a large number of high achievers.

Closing Boise High could have released a blight upon its vital urban community. Recognizing the threat, residents of the historic North End neighborhood adjacent to the school led the charge to save this integral piece of the community's social fabric.

Improving Boise High's chances for survival was the fact that the district had the foresight, as early as the 1950s, to purchase land surrounding the school as it became available. This enabled the school to add a football field in earlier years and to provide small spaces for parking as the times changed and more students had access to cars. To further remedy the parking shortage, the school sponsored a contest to come up with creative solutions. These included: partnering with the city bus system to allow students to ride free of charge, improving bicycle storage facilities at the school, and arranging for shared parking with neighboring churches. As a result, these potential barriers were eliminated.

In 1995, after several years of intense debate, the school board voted to save Boise High. And last year the National Trust celebrated the newly renovated school as a local success story and a lesson for other communities to take to heart.

LAYING THE FOUNDATION

The plan called for a massive renovation of the original structure, as well as the replacement of a Depression-era industrial arts building next door that couldn't be salvaged. The renovated "Old Main" would house the humanities classes, including art, drama, language, and history. The new structure would be home to computer, science, and math classes, in addition to a state-of-the-art media center, cafeteria, and auxiliary gymnasium.

A budget of $13.5 million was earmarked for the project. "The money came from various sources over a period of time," says Chuck Tinder, Facility and Operations Administrator for the district, "and was saved in a planned facility fund."

When an initial bid far exceeded the budget, the city of Boise came to the rescue. With the Boise High renovation in mind, city officials adopted the Uniform Code for Building Conservation (UCBC), an example of what the National Trust calls a "smart code" to encourage the rehabilitation and modernization of historic buildings.

"Anytime you compare new construction against old construction, you run into all these fire code and life safety issues," says Skylar Rubel of Hummel Architects, the firm that took on the Boise High project—and, incidentally, the firm that designed the original structure nearly a century ago. "If this UCBC wouldn't have come along, there would have been a barrier because it was such a major remodel to bring up to current code, and it would have killed us. But the UCBC came into place for when we got on board, and provided the necessary flexibility to work with the historic structure."

PHOTO BY DEBORAH HARDEE

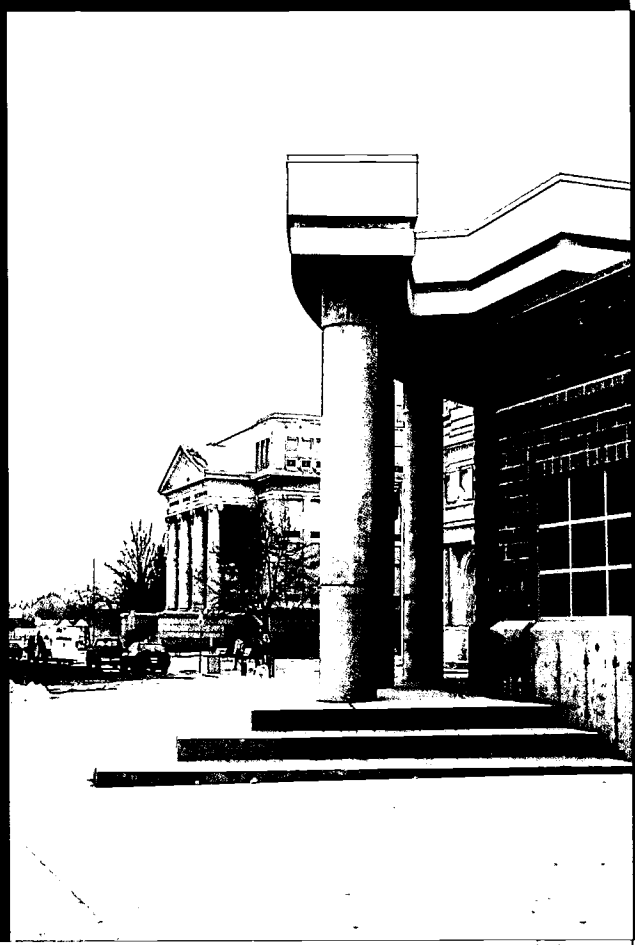
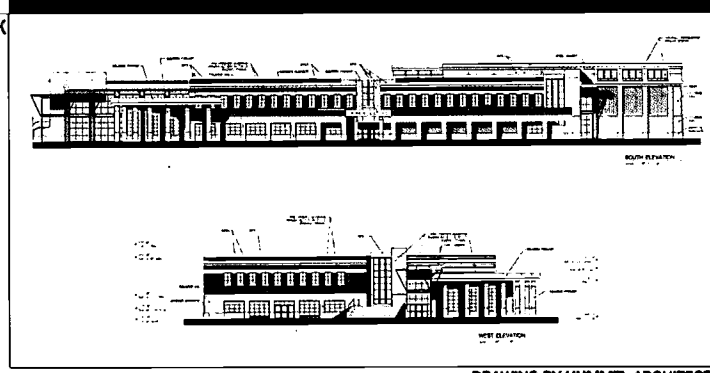


PHOTO BY JOYCE RIHA LINIK

PHOTO BY DEBORAH HARDEE



DRAWING BY HUMMEL ARCHITECTS

Another coup was a statute that enabled the city to hire a construction manager for the renovation project. Versus the traditional design-then-build process where one general contractor is hired to take the architects' plans and run with them, the construction management option allowed the school district to hire Ray Hoobing of CM Company as the middleman who would oversee the project and arrange for subcontractors to contract directly with the district. This gave the school district more control over budget and scheduling, and eliminated the sometimes adversarial relationship that can develop if a contractor is more concerned with turning profits than adhering to a client's schedule and budget. "In a very complicated, messy reconstruction project such as this," Tinder says, "the construction management approach was ideal. It was like getting an extension of my staff, someone on my team."

By all accounts, "team" was the operative word. Hoobing worked closely with architects Rubel, Scott Straubhar, and Ed Daniels throughout planning and building. Additionally, Boise High Principal Ken Anderson and district representatives were highly involved in the process. "We set the tone at the beginning," Anderson says, "that this was going to be a cooperative effort."

Even students and teachers took part. A crew of students was hired over the summer to help move furniture. Staff meetings included the architects and builders, and camaraderie resulted. Multiple stories recount construction workers volunteering to move furniture and materials for teachers to allow them to concentrate on instruction. The crew even built a makeshift stage for the drama teacher when she and her students were left without one on the eve of a production.

"What was stressed," Hoobing says, crediting Anderson's leadership, "was that we needed to provide decent facilities for the education of the kids. We felt the kids deserved a decent place. So we put our heart and soul into it."

SCAFFOLDS RISING

The renovation of Old Main included: life safety upgrades (i.e., fire sprinklers, fire alarms, smoke detectors, and new exiting routes); accessibility improvements to meet the Americans with Disabilities Act; the installation of new electrical, data/telephone, and lighting systems; and a re-roofing. Additionally, classrooms were reconfigured to provide optimal learning environments; a special area was designed to accommodate special education facilities; the old cafeteria was transformed into an art gallery; and the administrative offices were remodeled.

It was a messy business. Years of debris needed to be removed from the old coal shaft, described by Rubel as a "sci-fi" experience. One electrician nearly had a cardiac arrest when he discovered a body in a pitch-black vent; fortunately, it turned out to be an old Mark Twain mannequin. And there were other challenges, not the least of which was that there were scanty to no records for reference.

"One of the biggest challenges for us," Daniels says, "was that all of the electrical and structural systems were totally unknown." The building had seen several remodels in the '40s, '50s, and '60s, he notes, "and we had to get in there and figure out how to bring it all up to date, without disrupting the classrooms—that when you pull a switch down here, it doesn't turn off classrooms on the other end of the building."

Because work continued during the school year, those classrooms weren't sitting empty. While the builders worked on one wing or floor of the building, classes were in session down the hall or stairs. As the crew finished with one area and headed for another, staff and students cleared the way with balletlike precision, often moving classes from one room to another overnight.

It took incredible teamwork to choreograph the building and class schedules, respectively managed by Hoobing and Anderson. Great care was taken to adhere to set timetables to avoid disrupting classes.

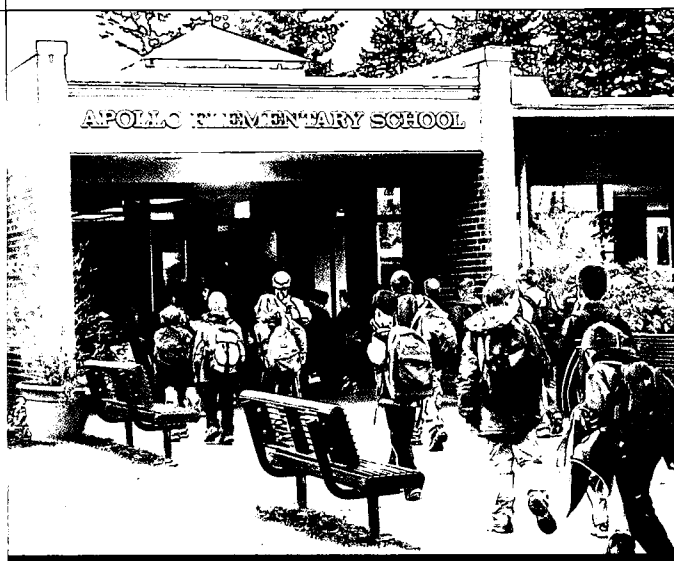
Not only was the project completed according to schedule, but because the team worked so efficiently together, cost savings made room for several unanticipated extras.

A complete restoration of the historic auditorium was one such extra. It turned out that the overhead cracks were not ceiling fractures after all, but tears in a canvas and horsehair matting installed early in the century for acoustics, easily repaired. While the scaffolding was up, crews removed the boards and wallpaper that had been plastered over the auditorium's grand arched windows during the energy crisis in the 1970s, and installed sound panels—shaped like the original arched panes—in their place. Other modifications included closing off a third balcony to create a modern control room and meet exiting requirements, as well as installing new lighting and sound systems. Backstage, the antiquated rigging—with its frayed ropes and dangling sandbags—was completely overhauled, and a new catwalk/grid was added.

See BRICKS, *Page 40*

A MODEL PROGRAM IN A

REMODELED BUILDING



For one elementary school, schoolwide reform has meant major academic improvements along with a physical overhaul. The results look spectacular for students, staff, and community.

By MAYA MUIR

ISSAQUAH, Washington— In 1997, Apollo Elementary had just gone through a long period of flux, including changes in staff and grades at the school, and rapid enrollment growth. Staff and parents thought the situation had finally stabilized when they were hit by a new blow: the first year of the fourth-grade Washington Assessment of Student Learning (WASL) tests rated Apollo abysmally low, the worst scoring in the Issaquah School District. Only half of fourth-graders passed in reading and 22 percent passed the math.

"Those test scores shocked us," says Dr. Abby Adams, then school principal. "We had been working hard and had turned in a new direction, stressing the Washington state standards, and already academic levels were rising, but the test results were a wake-up call. We all knew we had to work much harder."

Within a year, Apollo was transformed from an embarrassment to a showpiece; three years later it has become a model school, still improving every year. Washington's nonprofit Partnership for Learning has identified Apollo as one of the state's most-improved schools.

This dramatic reversal has been the result of intense effort by Apollo staff and parents who have worked overtime developing a plan that pinpoints and addresses weakness, that sets higher expectations of pupils and staff, and that encourages collaborations between the community and the school.

And, although it was a major headache for staff and students at the time, a supporting factor in the academic turnaround has been the physical remodeling of the school.

BUILDING A TEAM

The open and participatory process adopted to discuss the kind of physical space the school needed has stayed fresh in everyone's mind. "It took a great deal of teamwork to plan the remodel and deal with the disruption it brought about," says Adams, now Director of Research and Assessment for the district. For close to three years, 30 to 40 people, including teachers and parents from every grade level, met to discuss everything from carpet color to library design. "We operated by consensus," says Adams. "Then we took committee decisions back to staff for final approval."

Apollo's 600 students were included, too. "Every month in assembly, I pulled out the floor plan to show the students what was happening," Adams continues. "Once, the project foreman came in to explain how the heavy equipment worked, which the younger children loved." Aspects of the building process were worked into the children's lessons. Royce Nourigat, construction coordinator for the district, discussed color samples with a fourth-grade class, then listed for them the cost of doors, windows, carpeting, and so forth. Then he had students estimate the cost of building a room.

"We probably created a few architects and engineers," says Doug Snyder, Assistant Superintendent for the district, who oversaw the project. Snyder adds, "If we learned anything from the remodel at Apollo, it was: communicate, communicate, communicate."

"We worked hard, accomplished much—and survived," says Adams. "We realized things could change."

MAGNET FOR COMMUNITY

The result is a warm and welcoming school that has become a magnet for community involvement and an environment that ably supports the kind of teaching and learning targeted by the post-WASL improvement plan adopted in 1997.

"In the old school, the classrooms opened onto a covered, open-air corridor, which in winter was as cold and windy as a Boeing test tunnel," says kindergarten teacher Thom Lee. "It created a sense of isolation," agrees PTA chair Mary Kopacz. "There was nothing physical to draw classes together. It was scary for younger kids."

In the remodel, those corridors were enclosed. The new interior halls were carpeted in soft green-blue, the walls covered with student artwork—not possible before. "Those displays create such school pride and community spirit for kids and their parents," says Kopacz.

And because they were once exterior, Apollo's hallways are wider than those in newer schools. That feature has proved an unexpected asset. Walk down the halls on any school day, and you may find parents of Judy Whipple's third-graders working quietly with kids on individual reading and math. Before the remodel, one-to-one activities happened in the classroom or not at all. Or you might find Cory Walsh's second-graders spacing themselves apart to represent distances between planets in the solar system, or launching "rockets" through straws—and then measuring the distance in centimeters over three trials before calculating the mean. The new hallways provide room for activities that promote active learning.

Inside, double doors open like French doors to join many neighboring classrooms. This innovation was requested by teachers to facilitate team teaching and collaborative learning. Says Judy Whipple, "One year, I collaborated with another third-grade teacher. We opened


Fish Eyes

those doors and combined classes for spelling, which I taught, and reasoning and writing, which she taught. Recently, we had someone from Puget Sound Energy come talk to us about electricity, and someone from a salmon hatchery to talk about the fish. Now it's easy to combine classes."

The single most popular innovation of the entire remodel, however, is the wall-to-wall carpeting that is everywhere but classroom sink areas. Before, the floor was mostly tiled, which amplified noise and echoes, supplemented with small areas of old rug. Fifth-grader Kelcie Walther says with disdain, "That carpet was really, really, really bright orange," a universally unpopular color. Staff and students alike agree that the new teal/blue/green/gray color scheme is calming and warm—and a big improvement over the orange/yellow/olive green it replaced. Teacher Thom Lee also appreciates the way carpeting allows his kindergartners to work on the floor, where they are often most comfortable.

The music room and library at Apollo, newly built in the interior courtyard, are showpieces. Both, like many rooms in the school, have skylights in addition to large windows, maximizing natural light. The library, centrally positioned, "has become the social hub of the school, and makes us more a community," says librarian Lynn Thompson. Cushioned window seats run beneath a bank of tall windows at the back; computers line one wall; soft armchairs invite leisurely browsing. All freestanding bookcases are on wheels so they can be pushed aside to create one large space for special events.

The school's interior courtyard, diminished in size by the library and music room, is now a more intimate space, pleasantly decorated with planters. The bricks that surface it were sold as a fund-raiser for the school; each carries the name of its purchaser, strengthening the community's sense of ownership. "I like the courtyard," exclaims fifth-grader Alex Muir. "My name is on a brick there!"

A remodel this extensive carries a hefty price tag. For Apollo, it totaled $7 million, which was one slice of a larger bond issue passed in 1994 by district voters for school construction and modernization, the latter matched by 20 percent to 40 percent state money. The same year a levy passed to improve technology in the schools, so that enhancement became integral to the Apollo remodel. Old, inadequate wiring was replaced to make possible a computer lab and computers in every classroom. The district's goals for computer use in each grade are easily met in the new building.

Teachers enjoy the access to computers in the classroom and outside it. They report that the new, easy access to e-mail facilitates dissemination of information and conversations between them, encouraging collaborative efforts. In addition, the PTA, which now has an in-school office, has a listserv for the community, strengthening school-community relations.

Improvements in technology have not stopped there. In the remodel, phones were installed in every room, improving communication for parents, who can now easily leave messages for teachers, and vice versa. A sound system was installed in most rooms, making it easier for all students and particularly the hearing impaired to follow their teachers.

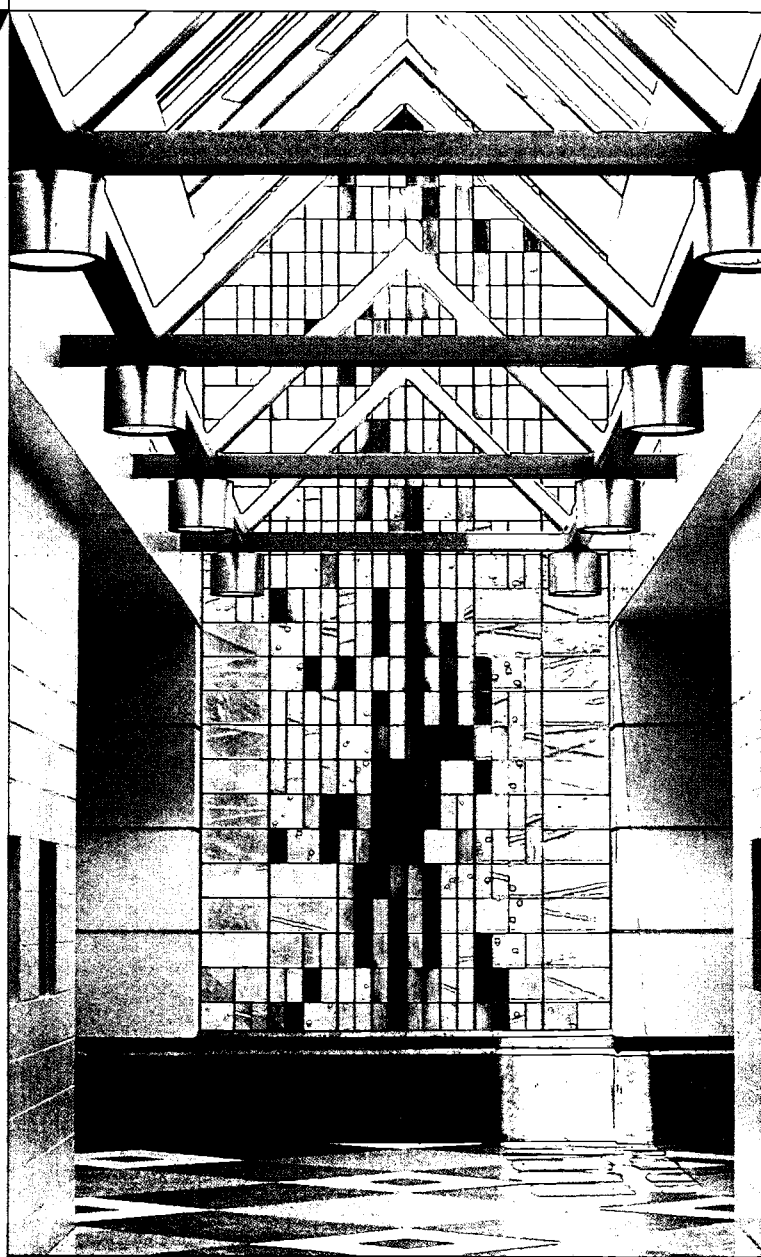
Apollo parents have long been involved in the school. Since the remodel, they more frequently use its facilities for their children's extracurricular activities such as Scout meetings and sports. "This is like home to the kids," says Mary Kopacz. "Having many of their nonschool activities here is helpful to them. They know the rules and where the bathroom is." According to Kopacz, even the already-involved PTA has become more active since the school's physical transformation.

The remodeled school has become a center of activity for many others in the community, as well. Apollo is a local voting site. Classes in foreign languages, pottery, drawing, karate, and dance as well as homeowners associations and chess clubs meet there regularly. An active day-care program runs before and after school. The school and the district encourage this use. "In 11 elementary schools in the district, we have 12,000 bookings for community activities for the year," says Doug Snyder proudly. The community-Apollo collaboration has had clear benefits for everybody.

Anyone who walks the halls of Apollo can easily see the pride of ownership—and achievement—by parents, children, and staff. It is evident from the intent faces and the colorful hallways. It shows, too, in the reduced vandalism. Best of all, academic performance continues to rise yearly, assisted by a building that is, in Thom Lee's words, "kid-friendly all over." □

LIGHTING THE WAY TO LEARNING

In Alaska, a dazzling elementary school blends into the landscape, inviting students to enjoy the view while they soak up knowledge.



By LEE SHERMAN

EAGLE RIVER, Alaska— What you notice about Alpenglow when you drive up is the way the long, low building follows the lay of the land. Perched on a plateau in the sheltering embrace of the Chugach mountains, this award-winning elementary school stretches out along the Eagle River Valley a few miles outside Anchorage. The school's footprint follows the river's tumbling course, and its profile matches the wooded foothills, whose birch, aspen, and spruce give way to barren, rocky peaks above. When autumn tinges the trees in glowing red, the school's brick-colored masonry recedes into the landscape, chameleonlike.

While the exterior design is all about melting into the surroundings, a closer look reveals a slew of contrasting notions that the Anchorage-based architectural firm ECI/Hyer has managed to braid together: Functionality with whimsy. Practicality with playfulness. Durability with artistry. The result is a school that provides food not only for the brain, but also for the spirit.

Designed to capture and hold the scant winter light and to frame the surrounding peaks in the bountiful windows, Alpenglow is the antithesis of the dim, boxy fortress where most kids spend their school days. Bringing daylight into interior spaces—schools, particularly—is a "very strong belief" of the firm, says Terry Hyer who, as principal architect on the $9 million Alpenglow project, worked with project design architect Greg Frosberg and project manager Jonathan Steele.

"Up here, we have short daylight hours in the wintertime," Hyer notes. "A good deal of the time when school is in session, we are faced with gray skies and darkness. So to capture that daylight when we have it is very important."

Natural light comes in everywhere —through skylights and through small hallway windows positioned low to the ground where kids can look out as they walk by without standing on tiptoes. It filters through a 21-foot-high green and blue glass mural that gives the school's vaulted common area a sense of cathedral-like serenity. Light, which buoys the heart and so perfectly symbolizes learning, also has a very practical aspect, Hyer stresses. It has the important purpose, he says, of "way-finding," or "trafficking" within the building. You don't usually think of "dangerous intersections" inside schools, but where one hallway turns a corner or meets another hallway, kids can collide or make a wrong turn. At these places, the architects have binged on daylight, inviting it in abundantly through doors and windows.

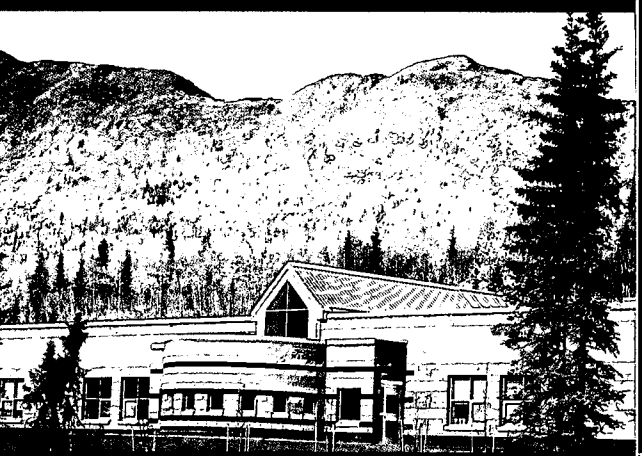
Curving out above the valley is the school library, offering expansive views of river and mountains. With the primary and intermediate classroom wings and common area converging there, the library is, by design, the school's heart and focal point. A cozy alcove tucked into one corner invites children to come closer, to climb the steps and investigate the small, square windows, each inlaid with a colorful illustration from Aesop's Fables. The whimsical windows, as well as the glass mural in the common area, were created by artists chosen in a juried competition under the state's "1 percent for the arts" requirement for all public buildings. Kids and visitors encounter another touch of whimsy when they walk up to the front entrance, where they discover a Disney-esque clock, cockeyed in a cute, cartoonish sort of way and painted in blazing yellow and passionate purple. Its lighted dial offers a cheery welcome even on the most dreary days.

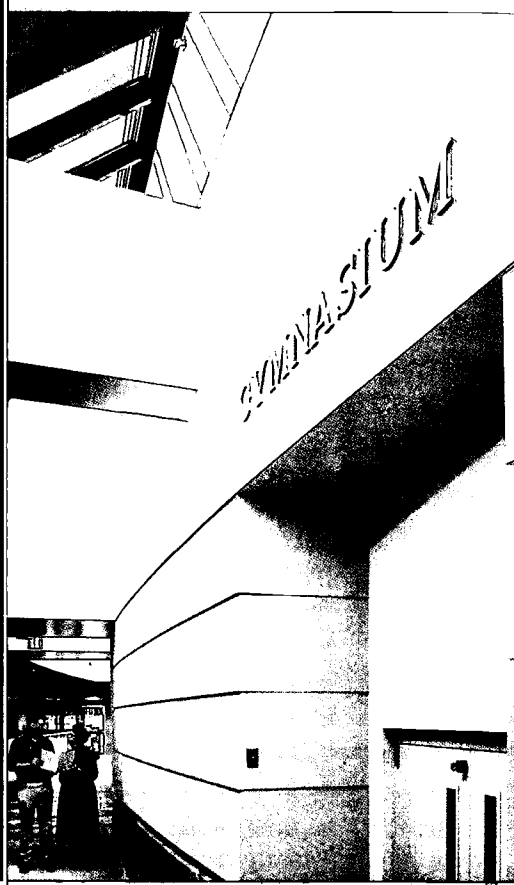
"The clock has become a local landmark," says Principal Larry Huff, who happens to be wearing an Alpenglow School sweatshirt imprinted with the very same clock.

Traveling from the library down the wide hallways, a visitor is struck by the peaked, bright-white ceilings in both halls and classrooms, lending a further sense of light and space. Teachers have several levels of lighting to choose from in classrooms, depending on the activity. They can, for instance, direct more intense light onto the board to draw students' attention there. Or they can dim the room for a quiet, read-aloud story. Kids' artwork hangs on the hallway walls ("to the fire marshal's chagrin," Hyer says). The classroom pods, zoned for primary and intermediate, give a "neighborhood" feel to the place.

Hidden behind the inviting aesthetics of this six-year-old school in an upper-middle-class neighborhood of the Anchorage School District are the creative ways the architects have accommodated safety, flexibility, and practicality in the design. For example:

- A dual entry, with parents driving up to the main doorway on the west end of the building and buses swinging around back to the east end, to avoid the before- and after-school traffic tangle and the safety hazard of kids running between cars
- A stage that straddles the multipurpose room and gymnasium, with movable walls on both sides for "vast flexibility" in use
- An exterior and grounds design that incorporates native landscaping with play areas; indigenous plants such as blueberries and cranberries are integrated with a sledding hill and an ice rink where kids skate and play hockey




GYMNASIUM

- A covered, lighted stairway connects school grounds to the high-end subdivision where many of the students live
- A vaulted "galleria" or main intersection that takes advantage of the efficiencies created by "adjacencies"—the grouping of spaces—of the office, gym, computer lab, multipurpose room, and library

With this kind of creative, outside-the-box thinking, the architects were able to get maximum mileage from the square-footage limit mandated by the state and contain costs at the same time. Surprisingly, great school design doesn't need to cost more than bad or even mediocre design. For example, the rich exterior colors of brick-red, buff, and black were achieved with relatively inexpensive concrete masonry blocks and cast stone. The bands of color, which the architects "played with" on a computer model of the building, mirror the tones in the volcanic rock and reddish bark of naked birch trees in winter. Another example of durable, inexpensive materials that look terrific is the hallway flooring. The granite tile is tough enough to hold up against hundreds of little feet. Yet the pattern achieved with black, white, and gray squares is attractive, even elegant.

"The district is always after materials with high durability and minimum upkeep," says Hyer. "Our goal is to bring variety into the space with color, material, and volume. We aim for designs that are timeless—that hold up, both in the aesthetic expression as well as materials. We try to stay away from fads." □

DESIGNING PLACES FOR DISCOVERY

Terry Hyer, principal architect at ECI/Hyer in Anchorage, has been involved in more than 40 school design projects in Alaska, including Alpenglow Elementary School which has won honors from the American Association of School Administrators/American Institute of Architects/Council of Educational Facility Planners, International Architecture Jury, among others. Here are some excerpts from a recent conversation:

Northwest Education:
What do you like about designing schools?
Terry Hyer: Schools are such wonderful facilities to design. Because they're places for discovery, schools should provide an environment that enhances the learning process—not only from the students' standpoint, but also from the staff's standpoint. I think it makes a big difference if the staff is really excited about going to work every day and about the spaces they're in.
NW: And yet it seems that a lot of school design is the opposite of exciting.
Hyer: In the early days of my career I would feel frustrated when I'd hear a speaker talking about new trends in education design. I always came away going, "I don't see a new trend. We're doing it the same old way." There's a lot of room for more collaboration between educators and architects to define improved environments for teaching and learning. Sometimes architects stretch out there to try to create something new and fail because the educators haven't participated in the solution. If the educators don't buy into it and aren't willing to teach in that environment, it's not going to work. I'm excited about some of the middle school concepts that are catching on and moving into the high schools. I see it as a more pronounced change and adjustment in the way we look at the delivery of the educational curriculum of any that this country's gone through in many, many years.
Continued on next page

NW: You mean in terms of smaller, more intimate spaces?

Hyer: Smaller, more intimate spaces, more real-world relationships, more interdisciplinary curriculum delivery, team teaching. Teachers can learn to work together and show kids that there's an interconnectedness among subjects. Maybe you're a great mathematician, but if you can't communicate with people, you can't get your ideas across. It doesn't work very well to give kids 50 minutes to learn math, and 50 minutes later they're expected to learn social studies, and 50 minutes later they're expected to learn something else, and there's no interrelationship between them.

NW: So, as an architect, how would you begin to translate that kind of a notion into space design?

Hyer: Well, that's the real challenge—how do you support a philosophy with a physical, tangible space? You want a school that is welcoming in appearance. You want some color, you want some interest, you want people to feel good about the entry. And it goes without saying that it needs to function. All those appropriate spaces need their proper adjacencies and you need to be efficient with the utilization. You've got a fixed amount of square footage, and that's where the architect, working with the community, develops priorities as to how you sprinkle that square footage across the programs. You could, for instance, have large classrooms, but you might have to have a smaller gymnasium to make up for that. If you had a lot of area devoted to the physical education component, you might wind up with smaller classrooms.

NW: What other factors get in the way?

Hyer: The fear of litigation is hampering some good design. Safety is paramount in a school where you've got hundreds of children and staff. But it does affect some of the spaces you can create. Some years ago we did an elementary school that had some little loft kinds of things built into the classrooms. It had guardrails around it and so forth, it wasn't too high off the floor, but it was kind of a neat little space that was special to the scale of the children that you're talking about. It could be used for little reading alcoves. There was even a cavelike space underneath where kids could crawl.

NW: Oh, how neat.

Hyer: The district was going to do some more of these schools, and ultimately took that out of the design because there was some concern that a child might be injured by falling. I can appreciate that, and we don't want to do something that puts children at risk.

I think that's one of the challenges we have to take on as architects. And that's where the cross-fertilization with educators needs to come in. The teacher needs to be able to be creative and figure out how to teach in a different environment than what they're accustomed to.

NW: I remember a period of time when schools were being designed with a lot of big, open spaces. Has that gone away?

Hyer: Gone away and coming back a little bit. Open classroom concepts swept through classrooms all over the country. The idea was flexibility and team teaching. But it took teachers out of their comfort zone of having their own individual classroom with four walls. And they didn't know how to deal with it.

NW: Is a beautiful school more expensive than an ugly school?

Hyer: No.

NW: Really? My perception would be that a really neat-looking, innovative design would cost more.

Hyer: It depends on the design team and the district. If you have a design team that is creative—and if they'll allow the design team to really be creative—that's the secret to it, not necessarily whether you have a tremendous budget. I mean, budget does play a part, but creativity plays a much bigger role.

SCHOOLYARD LESSONS

More and more schools are finding ways to take education outdoors

Story and photo by Suzie Boss

On an early March morning, unseasonably warm weather has coaxed the daffodils into a display of color near the front doors to Chief Joseph Elementary School in North Portland. But the real action, nature-wise, is unfolding a short stroll down the sidewalk where four students are pulling weeds and shoveling compost onto garden beds. Teacher Eric Olson makes sure they're digging into science at the same time they're turning over topsoil.

When a girl named Melissa stops weeding to scoop up a caterpillar, the other students gather for a quick look. "It's a different color than the one you found a few minutes ago, isn't it?" Olson asks. As she returns the fuzzy insect to its habitat, Olson turns his attention to the boy shoveling compost out of a truck bed. "How warm is it?" the teacher asks, and the boy plunges his hand into the pile to get a reading. "Wow! It's hot!" the surprised student discovers. And that gives Olson the perfect opening to explain the chemical reaction that occurs when brown and green plant matter comes into contact with dirt and bacteria.

For a decade, Olson, 53, has been developing this school garden as an earthy extension of the classroom. Tucked between the building and the sidewalk and set off by a chain-link fence, the garden gives urban students a chance to learn about everything from botany to bugs, from organic chemistry to cooperation. The garden is also a reminder that school grounds shouldn't be overlooked as places that offer powerful opportunities for learning.

Eric Olson and students explore Chief Joseph garden.

"There's something in our genes that makes us want to dig in the dirt," says Olson, who likes nothing better than getting his own hands dirty—unless it's watching a student make a discovery. A 17-year classroom veteran, Olson won the prestigious Presidential Award for Excellence in Science Teaching presented by the National Science Foundation last year.

Across the Northwest—indeed, all over the country—educators are finding similarly creative ways to turn school sites into environmental labs, wildlife habitats, and green spaces bursting with flowers and food crops. Although projects can become quite elaborate—connecting outdoor environments with indoor science and technology labs, integrating public art into garden plots, or involving students in growing the foods served in the school cafeteria—school gardens can also be effective on a simple scale.

The school garden at Chief Joseph, for instance, began as a humble patch of grass alongside a bare school wall. "I thought it was too small at first," admits Olson, who had a grander scheme in mind. But when he assigned his students to prepare environmental impact statements, comparing potential sites around the campus, they convinced him that this spot on the south side of the building would work. "It has water nearby, it's close to the classrooms, and it gets good sunlight," he says. "It works."

Having a knowledgeable advocate like Olson on staff is a key to making a school garden flourish. "You need someone to supply continuing energy," acknowledges Leslie Pohl-Kosbau with Portland Community Gardens. She and her co-workers have helped nurture school gardens in all sorts of settings, including an ambitious project at Woodlawn Elementary in Northeast Portland.

As Woodlawn Principal Marian Young explained recently, "The garden is a wonderful living metaphor of the growth we seek to achieve for the children and the 'village' of supporting adults around them." The Woodlawn Garden, with the support of Portland Community Gardens and other community groups, has benefited from having a part-time garden coordinator position funded through grants. The coordinator not only helps teachers tie garden projects to the curriculum, but also works in the garden with children after school and during the summer months.

Around the region, different models have been used to organize and sustain school gardens. In addition to collaborations with community gardening programs, some schools engage students in service learning, growing produce for local food banks, for instance. Other schools recruit help from master gardeners trained by university extension programs. In the Tacoma area, Washington State University Cooperative Extension has devel-

oped a 4-H experiential learning curriculum called Growing With Plants. Lessons on plant ecology and human nutrition help children see the connection between their own growth, the food they eat, and where food comes from.

Amy Sutton, Resource Specialist with NWREL's Mathematics and Science Education Center, notes the untapped potential residing in school gardens. "British educators call it 'schoolyard learning'—they recognize the many contexts for learning that school gardens and grounds offer." Besides the rich possibilities for science, mathematics, literacy, social studies, and art, Sutton sees another level of benefits. Gardening and closely observing the natural world give children much-needed opportunities to develop a relationship with nature. "The act of planting seeds, tending, and harvesting helps young learners feel the excitement of nature," she says. "They begin to feel responsibility for their environment at the same time they realize a sense of control over their environment."

Sutton believes gardens grow healthy relationships as well as nutritious food. Working in gardens helps students practice teamwork and communication skills, while involving families and the larger community reinforces a sense of connection.

Gardens also help teachers address students' diverse needs and interests, Sutton adds. Stepping outside the classroom to answer a question, plant seeds, or observe insects n flowers not only adds variety to the curriculum, but also motivates many students who are less engaged in the usual class routines. Students who strain to sit still in class may be captivated—and stimulated—watching a beetle make its way through a just-turned pile of dirt. When students have the opportunity to ask their own questions about things that interest them and discover the answers, they are taking vital steps to becoming lifelong learners.

Other lessons that experienced school gardeners have learned:

- Make the garden an easy resource for teachers to use. "You don't want teachers to feel guilty," says Olson, or that tending a garden plot is one more thing they have to do. He works with students to prepare a garden bed for each classroom to plant and nurture, and helps other teachers see how garden projects tie into standards in areas such as math, science, and writing. Similarly, Sutton recommends creating opportunities for teachers with no gardening experience to "get comfortable in the garden."
- Keep work groups small. Olson "borrows" a handful of students at a time to help him in the school garden. That allows for easier crowd control and creates more teachable moments. "Kids need time to discuss and play," he says, in order to make their own discoveries.
- Be inclusive. "Gardens work great with TAG (talented and gifted) kids, because they tend to see things that others might miss. And gardens are also great learning places for special education kids," says Olson. He recalls a girl from Somalia who was having difficulty cooperating in the classroom. "But to see her work with the earth—it was an act of love. Gardens offer a place where kids can discover themselves."
- Build partnerships. Sutton encourages schools to build collaborations with community resources, which might include university extension, youth groups, garden clubs, botanical gardens, or business sponsors.
- Have clear rules. Olson starts building good work and safety habits with first-graders. He delights in seeing older students coach younger ones not to trample growing plants or harm insects, to clean up as they go, to use tools safely. "These may seem like little things, but they're important concepts," he says.
- Think year-round. Depending on local weather conditions, school gardens can offer opportunities for learning across all seasons. In Alaska and Montana, some schools use greenhouses or raised beds to extend the short growing season. Because Olson lives near Chief Joseph School, he stops by to water and tend the garden beds over the summer and takes delight when students see the results in September.
- Have fun. Woodlawn's school garden includes a circular "pizza garden," where marigolds of different hues and pizza herbs like oregano grow atop eight "slices" of soil.
- Celebrate beauty. Olson, who has worked as a professional gardener, knows that gardens offer the perfect setting to learn about design concepts such as line, color, shape, and space. Gardens provide a natural environment "to help a kid learn to look at things in an aesthetic way," he says. Sutton encourages recording the garden's growth with photos, children's drawings, and writing projects. And harvest times offer perfect opportunities to celebrate.

RESOURCES

Edible Schoolyard—Nurtured with the help of celebrity chef Alice Waters, the Edible Schoolyard at Martin Luther King Middle School in Berkeley, California, is one of the nation's best-known school gardens. Read about the transformation from cracked asphalt to half-acre green space on the Web site (www.edibleschoolyard.org.).

National Gardening Association—More than 1,000 schools have joined the Garden in Every School Registry maintained by the National Gardening Association. See the Web site for more information (www.kidsgardening.com).

National Wildlife Federation—Schoolyard Habitat projects currently are underway at more than 1,100 schools. See the Web site for more information (www.nwf.org/habitats/schoolyard/).

Northwest Regional Educational Lab—Mathematics and Science Education Center has a variety of materials to help educators integrate gardening into their curriculum. Northwest educators may search the collection and request items online (www.nwrel.org/msec/resource). □

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NW: Why is this important?

Sutton: With so many schools, the doors open and it's a brand-new building. Two years later it looks worn. By 10 years later, it's old. But if they're involved in designing it, the kids can feel as if they own the space. And then they take better care of it.

NW: Have you seen this happen?

Sutton: When I was in graduate school, I was hired to teach architecture in the public schools in New York City. I started working with a school that had always supported arts education. The neighborhood had recently started to change. More and more upper-middle income families began sending their children to private schools, and more immigrant Black children—many from the West Indies—were starting to enroll in this public school. The community began to pressure the school for more discipline, more of a law-and-order approach, and less art. It's true that the kids were tearing through the neighborhood. But the principal—a wonderful mentor—told me, "I want you to teach the children that this is their community and they need to take care of it. Teach the kids to be good citizens. And get some of their art projects on the outside of the building, so the neighborhood can see that our children are creative."

NW: And did it work?

Sutton: I stayed there for four years. Before I started working there, the low-income parents did not feel they were included in the school. They weren't the ones running things. But my projects gave them a way to get involved. They didn't have to come just for meetings. They could help pour concrete or work on other construction projects with the students. The design process became a way for me to teach team-building skills, cooperation, environmental awareness. The art objects that we built together did not get vandalized. On pre- and post-tests, children made improvements in how much they valued being a cooperative person. The same was true on environmental awareness, on taking responsibility for solving problems in their immediate environment.

NW: You're describing a hands-on way of learning, too.

Sutton: I learned it by accident! Before I became an architect, I was a professional musician in New York. In the daytime, my quintet did a lot of concerts for public schools. And we had to play serious programs. At 9:15 a.m., I had to get up and make the French horn real to an audience of 300 children. I was living in an old brownstone with an air conditioner that ran on water. One day the water hose broke. Water was everywhere. As I cleaned it up, I realized that the hose was the same size as the tubing on a French horn. By attaching a length of hose to a kitchen funnel and a mouthpiece, I could "build" a French horn right in front of the kids, and they could play it. Well, we were a big hit!

NW: So you've continued using that approach?

Sutton: When I put that mouthpiece in the tubing and got the kids to participate, I learned the importance of involvement. I try to teach in a way so that my students are taking action for their own education. And in our community-building projects, the spark we use to get people to participate is called a charrette. It's a design workshop that gets people thinking and talking about the future of their environment. We bring together a couple hundred people —practitioners and academics, students and architects, landscape architects and urban planners— and ask them to generate ideas for using schools as places of discovery, proposals for projects that would link school and community. It's a springboard to design that's responsive to a community. And it's also a learning model. It teaches schools and communities that, not only can they share buildings, but that there are community-building activities they can do together. And involving children in planning and design inspires a level of creativity many adults do not normally experience.

For more information about Sharon Sutton's work with the Center for Environment, Education, and Design Studies at the University of Washington, see the CEEDS Web site (ceeds.caup.washington.edu). □

BRICKS

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Another extra, not included in the original plan, was the air conditioning system.

"Through a team effort, we generated a savings," says Hoobing, "not enough to put in a first-class state-of-the-art air conditioning system, but enough that we could find a solution. Is it one of these high-tech, sophisticated control systems? No, it's not. It's a big lever in the basement. But it works."

In designing the new technology center next door, Hummel architects faced an obvious challenge. The new structure would need to tie in with the existing school design, blend with the adjacent residential and business districts, and deliver prime learning facilities.

The resulting Frank Church Building of Technology, named after the former Idaho senator who graduated from Boise High in 1942, pays homage to the Classical elements of Old Main, but also adds a contemporary flair to the campus. The structure features a body of brick and windows, topped by a cornice, to mimic the original school's style. "The columns in front of the media center were also an attempt to tie into the original design," says Daniels. For a modern touch, the architects incorporated a wheel and spoke concept, centered on a Boise Braves logo with design elements radiating out onto the main plaza —a logical choice given that the school has long served as a hub for the community.

CORNERSTONES

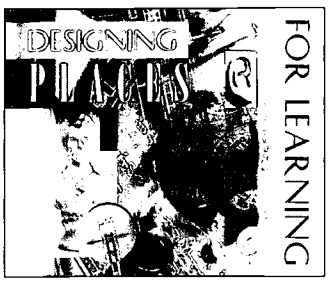
Reactions to the new-and-improved historic school have been extremely positive.

"Community pride has been incredible," says Liz Horn, an instructor at Boise since 1983. "And teachers are much happier. For years, we were functioning—the top high school in the city—in a dusty old place with faulty wiring and scarred-up desks. Now we've got the best of everything. The old building was renovated into something beautiful, and we have a new facility for the kids that we're really proud of. And the kids are doing even better."

"I like the style of it and the way things are set up," says Janean, a junior who works in the new media center. She has heard stories about the library's former location in the dreary basement of Old Main, frequented by leaks and even the occasional stray cat falling through old ceiling vents. "This is much, much, much better."

The 16-year-old adds that she can't imagine what life was like before the computer labs were added. "Oh-my-God, are those important! Especially for kids who don't have them at home." Though Janean admits she has access to a home computer, she says she'd rather spend time at school.

It's easy to see why. Boise High has that effect on people. Perhaps it's because the building is a living museum, with its historic photos of old schoolmasters and 20th century war memorials lining the hallways, or its sculpted muse watching over the old stage. One can almost see the ghosts of yore dipping their quill pens into inkwells or shoveling coal into the titanic furnaces in the basement. Or perhaps it's something else. "Of course, new construction is nice," Anderson notes, "but it just doesn't have the personality of the old high school." □



DO SCHOOL BUILDINGS play a role in school reform? Of course they do—although it's often overlooked, according to more than a dozen thinkers from the fields of education and architecture whose provocative essays are collected in *Designing Places for Learning* (published jointly by the Association for Supervision and Curriculum Development and the Council of Educational Facility Planners International, 1995).

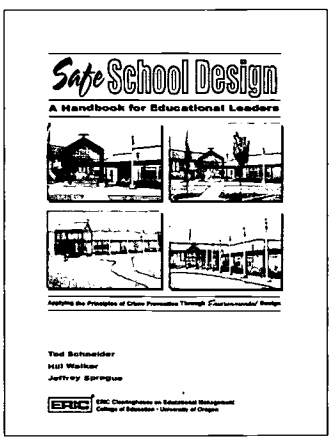
Editor Anne Meek opens the discussion by reminding readers that most of us inhabit school buildings when we are "young and impressionable, when our minds are busy with the tasks and issues of deep meaning." She encourages educators, policymakers, architects, and facilities planners to get comfortable with "a larger vision of the mission of schooling ... by acknowledging the symbolic importance of the school as place."

Education writer Edward B. Fiske, who has been covering school reform for two decades, points out that systemic reform demands "rethinking all aspects of the structure of schooling, including the design of school buildings and other physical aspects of the learning environment."

Architect Steven Bingler suggests that a fundamental shift in thinking about education has occurred and now needs to translate to school design. Instead of seeing education as something "delivered" by teachers to passive students, educators are more inclined to see the student at the center of the learning process. And that changes the role of the school building. Instead of being a container from which knowledge is dispensed, the school must be reconceived as a learning tool, Bingler asserts.

Similarly, architect Anne Taylor describes her vision of the school as a "three-dimensional textbook." Not only the built environment of school but also the school's natural setting, she writes, "reveal the ideas, laws, and principles that we are trying to teach children from textbooks. ... The buildings, the trees, the dirt, the grass can become convenient teaching tools for innovative educators."

Designing Places for Learning also includes chapters on revitalizing older schools, designing for students with disabilities, and using cultural information in school design, along with photo essays of successful projects.



BUILDING SAFETY INTO SCHOOLS has become an increasingly important goal to communities across the country. Episodes of school violence that continue to shock the nation have resulted in "enormous pressures on school administrators to do everything in their power to make schools safer and violence free," reports *Safe School Design: A Handbook for Educational Leaders* (ERIC Clearinghouse on Educational Management, 2000).

With advice grounded in the real world and informed by research, authors Tod Schneider, Hill Walker, and Jeffrey Sprague outline a set of environmental design principles to enhance school security and improve school climate. The three authors have ties to the Institute on Violence and Destructive Behavior (IVDB) at the University of Oregon. Schneider, a national consultant on violence prevention and environmental design, is the Crime Prevention Specialist with the Eugene (Oregon) Police Department. Walker and Sprague are co-directors of the IVDB and nationally recognized researchers on violence prevention.

The authors acknowledge that some schools have reacted to concerns about security with defensive measures, such as installing metal detectors or attempting to profile or identify students with a higher-than-normal risk of violent behavior. Such severe approaches are "fraught with limitations," the authors conclude. Instead, they assert that most schools "will be better served by implementing alternative techniques of a more positive, enduring nature that shape the design, structure, operation, and climate of the school."

Safe School Design begins with research showing that safer schools tend to be places that:

- Are well led
- Have positive climates and atmosphere
- Are inclusive of all students
- Are academically effective

The most neglected area in school safety, the authors suggest, is the architectural design of the school building and surrounding grounds. The average public school building is more than 40 years old, built at a time when school safety and security were not such high-priority issues. Time-tested principles of architecture can be used today to enhance security in new buildings as well as in older facilities—but only if they are made a priority during the planning process. "The design and use of school space has a huge but often unrecognized impact on the behavior of students as well as staff," the authors note.

Crime Prevention Through Environmental Design (CPTED) encompasses a set of principles that have been used extensively to prevent criminal behavior in a range of community settings. *Safe School Design* traces the origins of CPTED to the work of Jane Jacobs, author of the 1960 classic *The Death and Life of Great American Cities*. She advocated building neighborhoods on a human scale so that community members would take ownership of public spaces. In more recent decades, urban planners, architects, and law enforcement experts have implemented design principles that build a sense of community and reduce the fear of crime. CPTED strategies have been used successfully in a variety of settings, from inner-city neighborhoods to railway stations to parking garages.

Safe School Design shows how CPTED principles work in school settings. The authors walk readers through the process of conducting a thorough site evaluation, outlining key questions to consider and providing tools to help readers identify potential hot spots on or around campus.

Even schools that almost never see evidence of violence would be advised to pay attention to enhancing the physical safety of their campus. As the authors point out, "It has been the low-risk schools, devoid of security features, that have suffered the most dramatic consequences" in the ongoing spate of campus violence. In a chilling example, the authors retrace the events that unfolded at Thurston High School in Springfield, Oregon, where a student

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volunteers met with me regularly for 22 months prior to the school's opening. A staff lead team began working 18 months in advance. And an official parent organization was formed 10 months before "Inaugural Day."

3. Working smarter requires a systems approach.

During a passionate conversation about school reform, Washington State Superintendent of Public Instruction Terry Bergeson leaned across the table and said to me, "Linda, I am not telling you to work any harder. I am telling you that we have to work smarter."

"But Terry," I replied, "this is as smart as I am."

Ever since, I have been thinking about what it means to work smarter. And I have come to understand that it has to do with taking a systems approach to our work. If every part of the school system supports every other part, we really can get more bang for our buck.

When designing schools, this means we have to look at everything as one whole, resisting the tendency to parcel out the work to committees of experts. The 12-member lead team that worked with me to design Emerald Ridge put this idea into practice. Although members represented different areas of expertise, they agreed to consider all aspects of our new school together, from the design of its facilities to the design of its programs. By bringing their collective wisdom to bear on issues as diverse as detracking science classes to creating inclusive policies for extracurricular activities, they were able to avoid the creation of a school made up of isolated parts and separate, sometimes even contradictory, functions.

4. Systems-focused planning process takes time.

Unfortunately, planning is often given short shrift in educational circles. Just as teachers are only considered to be working when they are standing in front of a class of students, educators engaged in a complex and therefore lengthy planning process are often viewed as nonproductive by value-conscious taxpayers. In our "show-me-the-money" culture, it's quick fixes and fast results we yearn for. But community-based facilities planning takes time. It takes time to incorporate diverse points of view, forge a shared vision, and develop a collective commitment —all of which are critical to the ultimate success of any project.

5. Partnerships stretch limited resources.

In the process of scaling down the design of Emerald Ridge to garner voter approval, we had to scrap plans for an on-campus swimming pool. To avoid losing the benefits such a facility could provide, we began collaborating with a community group that had its own plans to build an aquatic center. At PHS, an interagency agreement with the Private Industry Council gave students and staff access to county job search software in the school's career center. In Chicago, the Henry Ford Academy shares facilities and resources with a museum. The Gaylord Community School in Gaylord, Michigan, houses senior activities, day care, performing arts programs, community health care clinics, higher education classes, and even weddings. In each of these cases, community resources have been leveraged to extend both school facilities and learning opportunities for students.

6. Beautiful is not an ugly word.

Too often in the public sector, we confuse lack of aesthetics with economic responsibility. We think bleak designs indicate good stewardship of public funds. But schools should be beautiful places. In fact, I believe they should be among the best examples of public architecture. When school buildings are beautiful, it suggests that those who spend their days in them are valued by the community. And most of us work better in pleasant, attractive environments. "Beautiful" does not have to mean "pricey." Steve Soboroff, head of the Proposition BB School Construction Committee in Los Angeles, addressed this point by researching the cost of replacing blacktop in Los Angeles schoolyards with lawns and plants. Not only would the outcome be a much nicer environment, but also the reduced cost of air conditioning would more than offset the increased cost of maintenance.

The upshot of the renovation of PHS is a stately, beautiful building. A dramatic atrium allows light to spill into the commons. Expertly applied paint transforms plaster pillars and columns into faux marble. Overall, the facts and data show that we got excellent value for the money we spent on this project, thanks to skilled architects and craftsmen. However, more than once "nice" has been interpreted by some district residents as "extravagant," signaling a waste of public funds. Critics complain about a glass palace with marble columns. Response to this kind of criticism can take one of two routes: We can work to educate our public with facts, as Steve Soboroff did, or we can jerk our collective knee and resign ourselves to making future buildings less beautiful than they might be, regardless of cost, just to keep some citizens from misjudging our commitment to fiscal responsibility.

7. Change is tough.

Never underestimate how tough change can be. During the design phase at PHS, we battled for three full months over 12 cement stairs leading to the front door of the old school. When alumni got wind that architects planned to remove the stairs to create a more open, handicap-accessible entrance, they became enraged. With memories of class pictures and who-knows-what-else that happened on those stairs, they showed up at board meetings, circulated petitions, wrote letters to the editor, and in the end negotiated a six-stair compromise.

One strategy we used to foster understanding, and thereby mitigate some of the strong reactions to change at PHS, was to build our messages about the reconstruction project around a metaphor. We helped people see the renovation of our old building as a visible symbol of other kinds of educational reform and restructuring going on across our state and nation. We acknowledged that PHS had always been, and remains, a place that honors the richness of tradition and the successes of the past. At the same time, we affirmed that PHS is also a learning community where staff and students grapple daily with serious questions about how to build on the foundations of the past to construct the kinds of educational programs necessary to prepare all students for their future. In the process of recognizing that the walls and beams of yesteryear—while functional and effective for their time —would not support tomorrow's needs any more than yesterday's curriculum and instructional strategies, many members of the PHS community became more receptive to the reconstruction process.

8. Building a community is as important as building a facility.

A quality high school is more than a place. It is all the people who work and learn there, and all the people who support them in their

learning, and all of those who count on them to learn well. Because we knew at a gut level that this is true, we actually launched two building projects during the construction phase of Emerald Ridge. While contractors were busy with bricks and mortar, groups of students, parents, staff, and community members worked on a second construction project: building a school community.

At the outset of our community-building process, the parent of a former student introduced me to the concept of *nemawashi,* a Japanese term borrowed from gardening. Literally, *nemawashi* means to dig around the root system of a tree a year or two prior to moving it so that new root hairs will grow and successful transplanting will be more likely. Business leaders use the term and the ideas it represents to think about preparing people to make significant changes in their workplace. We used it to frame our efforts to make sure that the students, staff, and parents who would be transplanted to Emerald Ridge could make a smooth and healthy transition. We not only needed to make sure the ground at the new high school was ready to receive them, but we also needed to take care of them during the year preceding their move. Such care required plenty of opportunity for conversation and meaningful involvement.

9. A positive approach works best.

As my grandmother used to tell me, you can catch more flies with honey than with vinegar. At least once a week, I hear leadership expert Michael Fullan whispering in my mind's ear that "problems are our friends." When it comes to talking about issues related to school construction, my experience suggests that the "friendship" part ought to be promoted above the "problem" part. A recent market research study conducted by the National Education Association (NEA) led to the same conclusion: Focusing on opportunities is a more effective sales strategy than beating citizens over the head with all of the needs and problems of schools. At the federal level, former Secretary of Education Richard Riley started his school construction campaign by talking about how "we cannot raise children and standards up in buildings that are falling down." In light of NEA's findings, he shifted his theme to highlight the educational possibilities and opportunities to be realized through modern school facilities. After three failed bond issues, we got the message in Puyallup, too.

10. Selection of architects and ed spec writers is critical.

If our goal is to create facilities that support 21st century learning needs, rather than to recreate 20th century schools, then the process we use to select designers and architects will need to extend beyond looking at what they have already accomplished. For Emerald Ridge, this meant inviting six architectural firms to respond to a specially designed assignment. We gave them the parameters—an educational vision framed in a series of yin-yang statements and a description of the building site. Then we asked them to give us their best architectural solution to our educational problem—not necessarily a solution that would ever be built, but rather one that would demonstrate their knowledge of educational practice, creativity, and imagination.

Linda Quinn has worked as a public school educator in Washington state for 27 years, 20 of those as a secondary school principal. During the 1996–97 school year, she was the one principal in the nation selected to serve as Principal in Residence at the U.S. Department of Education and as special adviser to then-Secretary of Education Richard Riley. Since her return from Washington, D.C., she has continued to work on school construction issues at a national level and has coauthored a guidebook, Schools as Centers of Community: A Citizens' Guide for Planning and Design, *published by the U.S. Department of Education. Currently, Quinn is serving as principal of the brand-new Emerald Ridge High School in the Puyallup School District.* □

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named Kip Kinkel committed a mass shooting in 1998. The school is far from unique, the authors suggest: "The school is vast and sprawling, with at least 14 major uncontrolled access points, mostly in the form of dark, underlit breezeways."

Despite the serious subject matter, the authors focus on enhancing the positive features of schools. For example, they explain that establishing a sense of "territoriality" involves sending "a clear message to others that says, 'We're in charge here.' In schools, it also helps reinforce a message among students and staff that says, 'We belong here and this is our school.'" Attending to the physical aspects of a school should be complemented by curricula, attitudes and beliefs, and behaviors "that create a social ecology of nonviolence and mutual respect."

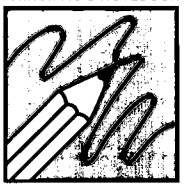
Safe School Design costs $18 and can be ordered from the ERIC Clearinghouse on Educational Management. Phone: 1-800-438-8841.

THE OUTDOOR SPACES of schools are often neglected as potential sites for learning, but have the potential to offer students "endless possibilities for exploration," writes Sharon Stine in *Landscapes for Learning: Creating Outdoor Environments for Children and Youth* (John Wiley & Sons, 1997).

The author draws on her dual background in early childhood education and design to inform and inspire both educators and design professionals. She also focuses on the role of the child, "who is often a major force in 'messing up' the space," she adds.

Case studies of successful learning environments are wide ranging, including an outdoor play site in rural Japan, a California high school focusing on environmental studies, a children's art studio, and a school garden that has blossomed on a former vacant lot. The physical transformation, writes Stine, "can be read by the children and the neighborhood as a tangible symbol of the ways people care."

—Suzie Boss



HOW FACILITIES FACILITATE EDUCATION

By Linda Quinn

WHEN I STARTED COLLEGE IN THE '70S, I wanted to be an architect. I studied architecture for two years before switching majors to English and education. What goes around comes around. As a high school principal, I have spent countless hours during the past decade with architects and design teams, first renovating a 70-year-old high school building, then leading the planning of a brand new high school. Both of these major construction projects took place in the Puyallup School District, 30 miles southeast of Seattle. Between them, a yearlong stint at the U.S. Department of Education gave me the opportunity to work at a national level with government officials, architects, and citizens on issues related to school design and construction and the way school facilities impact both student learning and community health.

The story of the renovation of Puyallup High School (PHS) began in May 1991 when Puyallup voters passed a bond issue allocating $12 million to give our old girl a makeover. A team of architects was hired, a design was developed, and in spring 1993, we began to turn that design into timber, steel, and concrete. To make way for the reconstruction, we packed up everything and moved into temporary quarters, consisting of 47 portables and three churches, where we ran a school of 1,600 for 15 months. We taught classes in church social halls, put on plays without a stage, tried to get hundreds of high schoolers to obey crossing lights even at risk of being tardy to class, gathered in the rain, and tramped through the mud. Our top priorities during this reconstruction year were twofold: (1) to renovate our school in a way that enhanced safety, maximized use of space, made way for new technology, and restored historic features of the architecture; and (2) to maintain a quality educational program for the students who would spend a third of their high school careers in a PHS that meant Portable High School.

The story of the creation of Emerald Ridge High School (ERHS) is a longer one. We began our planning in 1992 by forming a committee and hiring a team of architects to design a third comprehensive high school to house Puyallup's growing population. The bond issue that allowed us to begin construction, however, was not passed until 1997, after three failed attempts, the involvement of a second team of architects, and creation of a scaled-down building plan. Finally, in July 2000, our $29 million, 204,000-square-foot facility, all under one roof, was completed—just in time to open its doors to students in September.

From my work on these two projects, reinforced by what I learned during my year in Washington, D.C., I have developed a profound belief that a *facility* really can *facilitate* effective education. While I know that a school is way more than the place in which it exists, I also know how much easier it is to provide a 21st century education in a well-designed, well-equipped, 21st century building. Therefore, when the opportunity presents itself to improve our school facilities, we need to be poised to take full advantage of it. Although the renovation of PHS and the new construction of ERHS were different in many ways, some of the lessons I learned were the same. They include the following:

1. A vision of teaching and learning must come first.

First and foremost, the school facility must support teaching and learning. It is a tool. It can even become part of the curriculum. Therefore, planning must proceed from well-thought-out educational outcomes. A school design must emanate from a clear vision of teaching and learning, not from some architectural vision of art or our grandparents' memories of the way things used to be.

The planning committee for Emerald Ridge took to heart the research that says students do better when the learning situation is real, when the context is real, when the audience is more real, and when communities can interact in ways that directly impact learning. Based upon this research, they settled on four themes to drive the design of our new school building: collaboration, integration, application, and community connections.

The Emerald Ridge facility supports collaboration through numerous flexible common spaces, both large and small, for students, staff, and others to work together in various-sized groups. It supports integration through its nondepartmentalized arrangement of learning spaces. It supports application of learning through its inclusion of a variety of areas for students to do authentic work, such as three large project rooms; a fully-equipped 3,000-square-foot science laboratory; six production-type areas with garage-door access to the outside; and accommodations to allow nearly every aspect of the facility to function as a part of the curriculum itself. The 550-seat performing arts center, for instance, has been created as a showplace for student performances and also as a laboratory for students to study the technical and artistic aspects of theater. The on-campus health club and weight room provide spaces for students to pursue personal health and fitness and also a context for those in the sports medicine program to apply their learning.

Finally, the building design supports the kinds of community access and connections required

by a society that promotes lifelong learning. Realizing that in schools of the future, such concepts as "after school" and "before school" may become as meaningless as ditto machines and flash cubes, the design team equipped Emerald Ridge with a designated parent room, a career and counseling center with spaces for business and university partners, and multiple options for the building to serve as a community hub.

2. All stakeholder groups deserve a place at the table.

People tend to support what they help to create. Therefore, widespread community involvement in the school planning process is vital to success. A recurring theme among representatives of the 10 Creative Solutions Schools featured at a 1998 national school design symposium in Washington, D.C., was the way they had involved their constituents in planning schools and connected their plans to the priorities of their communities.

Broad-based participation of both internal and external constituents is equally important. During the two years prior to the opening of Emerald Ridge, I took part in approximately 120 meetings with different segments of the community, including more than 30 public forums and more than 20 presentations to service clubs, school boards, and business groups. A task force of student

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