The High Schools We Need

Improving an American Institution

Dr. Terry Bergeson
State Superintendent of
Public Instruction

May 2006

Office of Superintendent of Public Instruction
Old Capitol Building
P.O. Box 47200
Olympia, WA98504-7200

For more information about the contents
of this document, please contact:
Sue Shannon, Ed.D.
E-mail: sshannon@ospi.wednet.edu
Phone: 360.725.6317

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THE HIGH SCHOOLS WE NEED
IMPROVING AN AMERICAN INSTITUTION

Prepared by

G. Sue Shannon, Senior Researcher
Pete Bylsma, Director, Research/Evaluation/Accountability

Assessment and Research
Office of Superintendent of Public Instruction

Dr. Terry Bergeson
Superintendent of Public Instruction

Dr. Mary Alice Heuschel
Deputy Superintendent, Learning and Teaching

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ABBREVIATIONS

AIR	American Institutes for Research
ADP	American Diploma Project
CES	Coalition of Essential Schools
CTE	Career and Technical Education
EALR	Essential Academic Learning Requirements
GED	General Education Development credential
HSTW	High Schools That Work
ITBS	Iowa Test of Basic Skills
MDRC	Manpower Demonstration Research Corporation
NCLB	No Child Left Behind Act of 2001
NELS-88	National Educational Longitudinal Study of 1988
NGA	National Governors Association
NPTA	National Parent Teacher Association
NWREL	Northwest Regional Educational Laboratory
OSPI	Office of Superintendent of Public Instruction
SRS	School Restructuring Study
SWS	schools-within-schools
TDHS	Talent Development High School
US DOE	United States Department of Education
WASL	Washington Assessment of Student Learning
WSIPP	Washington State Institute of Public Policy

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Executive Summary

After nearly two decades of pressure to increase student learning, American high schools are increasingly the target of educational reform. There is much to celebrate about secondary education—contemporary high schools provide more opportunity to millions of people than in previous generations, students are taking more demanding courses, and more students are attending college. However, high schools are now expected to graduate *all* students with the rigorous academic knowledge and skills necessary to prepare them for college or a career. Because that expectation is not being reached, public high schools are called obsolete and anachronistic. Think tanks, foundations, governors, policymakers, and educational experts have called for a "remaking" of the high school for a new era.

This report provides a comprehensive look at high school reform based on a review of research and professional literature. The report is intended for a broad audience of educators, policymakers, and other stakeholders. Specifically, the report answers the following general questions:

- What are characteristics of the high schools we have and need?
- What historical forces have influenced high schools to become what they are now?
- How can we improve high schools to better prepare students for their future?

THE HIGH SCHOOLS WE HAVE AND NEED

The traditional high school is expected to serve multiple, often contradictory, goals. Educators have tried to juggle the "democratic, meritocratic, and practical purposes" of high schools, while keeping in mind the aspirations that parents have for their children and a national tendency to use schools as solutions to widespread problems and to sustain the social culture. High school goals include preparing students to (1) perform as effective citizens in a democracy, (2) fill needed roles in the economy and to have skills to promote economic growth, and (3) obtain the knowledge and skills to successfully enter the adult world and get ahead or maintain their position in society.

But many schools, particularly those in large urban areas, are criticized as being large and impersonal bureaucracies. They are fragmented and unfocused, alienating and unresponsive to many students. They offer too much variety and settle for too little quality in student performance. National Assessment of Educational Progress (NAEP) statistics indicate that high school students are not making the improvements found in elementary and middle schools. At age 17, little difference existed between the average scores in 1971, 1999, and 2004 in reading and mathematics. The reading levels of African-American and Hispanic high school students are equivalent to white eighth graders.

Although students are making steady gains on standardized tests, many still fall short of the standards that have been set, particularly in mathematics. In 2005, the percentage of students meeting the grade 10 standard on the Washington Assessment of Student Learning (WASL) was 72 percent in reading, 65 percent in writing, and 47 percent in mathematics; 42 percent met the standard in all three areas. Nationally, high schools graduate only about 70 percent of the students they enroll. The rate for the class of 2004 in Washington is also estimated to be 70 percent. Of those who graduate and go on to college, many need remedial coursework before they can enroll in credit-bearing classes.

Critics say high schools do not adequately prepare students for college or for careers. Many business leaders and policymakers assert that the traditional high school diploma is meaningless. Those promoting high school reform express concerns about the ability of the nation to compete successfully in the global economy, about the high dropout rate and low earning power of students who do not graduate, the changing demographics in schools and communities, and the disengagement or apathy of many students, even of those who remain in school. Student voices, heard through various surveys, add to the critique of high schools and provide insights into what works for today's students.

Most reform efforts stop short of making significant and lasting improvements in classrooms. Most secondary classrooms look and feel much as they did 25 or even 75 years ago. Researchers who have conducted studies of classrooms and teacher practices have made suggestions for invigorating classrooms and increasing student learning. Good classrooms, they say, are challenging, authentic, collaborative, and responsive to the diverse backgrounds of students; and they engage students in significant "minds-on" class work. Those schools organized and operated with a community, rather than bureaucratic, orientation are more responsive to student needs, more collaborative in practice, and achieve better results with students.

Proposals to improve high schools call for more personalization, greater focus, and high quality intellectual work. Some proposals call for a college-preparatory curriculum for all students. Others call for high schools to be more humane institutions where students are valued, treated with respect, and provided engaging instruction that builds on their strengths and diverse backgrounds. These and other characteristics of effective schools should ideally be present in any school.

HOW HIGH SCHOOLS HAVE EVOLVED

American public high schools are grounded in a rich history of tradition and culture. The original *Latin grammar schools*, which began as early as 1635, were highly competitive institutions that prepared the sons of the elite to be leaders and clergy. In the mid-1700s, Benjamin Franklin proposed *academies*, which would include children of tradesmen. Franklin's proposal was based on his belief in a broad access to education, as well as teaching a wide array of subjects. After the Civil War, academic high schools offering a hybrid of classical and modern subjects were developed.

Features of early high schools continue to influence debates about high schools today. In 1892, The Committee of Ten on Secondary School Studies asserted that the college curriculum was appropriate for everyone, and it set the stage for standardizing curriculum, high school accreditation, and Carnegie units for standardizing credits. Twenty six years later, the Cardinal Principles of Secondary Education introduced a breadth of goals and content that included health, vocation, citizenship, ethical character, and attention to leisure, along with the academic fundamentals. The comprehensive school that emerged in the 1920s and 1930s reflected these principles. Comprehensive schools were developed to serve a broad segment of the population and, as a result, instituted a number of programs and practices that still endure, such as grade 9-12 configurations, vocational education, and tracking plans.

In 1959, James Bryant Conant laid out a reform vision for a school that would continue to meet the three goals noted earlier and "provide a good general education for all pupils as future citizens of a democracy, provide elective programs for the majority to develop useful skills, and educate adequately those with a talent for handling advanced academic subjects...." His vision was for all social groups to be together in one setting so that students would learn together in a democratic environment.

But critics point out this has not occurred; students are sorted and taught a differentiated curriculum that tends to increase the divisions in American society. Critics assert the very nature of comprehensiveness is flawed because it tries to provide something for everyone, so nothing is done very well. Innovative models have been proposed to rectify some of these failings, and many independent studies were published in the 1980s and 1990s that influence current thinking about what makes a good high school.

WAYS TO IMPROVE HIGH SCHOOLS

No simple formula exists for conducting high school reform and no method guarantees successful improvement. There are two basic approaches to improving any school: implement general principles and strategies school-wide – the "organizational" approach – and focus on what happens in the classroom. Generally, research suggests that both approaches are needed.

ORGANIZATIONAL APPROACHES

To improve high schools, educators can use and modify different principles and structural strategies based on local conditions. Several studies suggest that *principles* should guide the improvement processes, such as improving the school environment, modifying structures to reflect communal characteristics, and personalizing schools. Research examining high school effectiveness favors communally organized schools with more shared responsibility, shared commitment, lateral communication, and shared decision making. Students in schools with mixed-ability classes, cooperative learning, flexible schedules, teaching teams, increased student and teacher responsibilities, and personalized relationships tend to be more engaged in school and learn more than students in schools that do not have these characteristics. More effective schools also have higher expectations, provide support to students, and build mutual respect and caring.

Structural strategies are often used to improve high schools. However, the research is inconclusive in part because the quality of implementation can vary substantially and because the implementation is often accompanied by other reform efforts. Many strategies are currently in use.

- Establishing small schools or schools within schools can potentially enhance student-staff relationships, improve attendance, reduce behavior problems, and promote personalized learning strategies. However, small size alone is insufficient to improve student learning.
- Providing advisory time, where school staff meets with small groups of students to provide personal and academic support, can increase personalization of schools. Effective advisors monitor student performance, offer support, and provide a liaison with other teachers and with those adults in the student's home.
- Teacher teams and looping offer sustained opportunities for teachers to know students well and to structure learning to more appropriately meet the needs of individual students.
- Inclusion and detracking reduce the numbers of ability levels in schools and increase expectations and rigor. These approaches tend to open gate-keeping courses, such as algebra, to traditionally underserved students and to increase equity in schools.
- Flexible time schedules can reduce fragmentation in the school day, allow learning time to be adapted to particular content areas, and potentially reduce the numbers of students a teacher meets on a given day.
- Mentoring increases one-on-one support and attention to students who may struggle.
- Community-based learning makes explicit connections between coursework and the real world. Service learning and internships are examples of these opportunities.
- Co-curricular programs and athletics engage many students and may enhance the likelihood that they remain in school and graduate. These programs can also provide opportunities for students to develop

knowledge and skills that are valued in the adult world, such as teamwork, time management, relationship building, problem solving, and organizational ability.

- School connections with families and communities increase the likelihood that students will be successful in their school. Communities and business partnerships also provide resources, increase positive communication, and improve understanding and support for the school.

CHANGING CLASSROOMS AND IMPROVING INSTRUCTION

Teachers' knowledge of subject matter and their beliefs and attitudes about their students strongly influence teaching decisions and practices. High school departments, not the whole school, often serve as the professional community, and they influence what teachers think and do.

Strong professional communities, however, can either perpetuate traditional practices of sorting students and using conventional pedagogy, or they can promote changes that lead to collaborative processes, risk taking, and more responsive non-traditional pedagogy. Teachers who keep to their traditions when students are not succeeding or who respond to struggling students by diluting content tend to attribute the problem to the students and their characteristics (e.g., their family background) rather than find ways to help students learn. On the other hand, teachers who reflect and make changes in their classrooms, in their teaching approaches, and in student-teacher roles tend to strengthen students' learning. In the process, they deepen their own knowledge of the content. Strong, positive professional learning communities promote teachers' personal responses to students. The teachers assume collective responsibility for student learning and, consequently, they strive to engage students and motivate them to learn.

High quality professional development can help create strong, successful professional communities. Effective professional development is grounded in subject-matter content and teaching methods and relates to students' problems with learning the content. It is based on school and student data and is integrated with school and district improvement goals and plans. It incorporates collaborative problem solving and opportunities for faculty to work and learn together. It is embedded in classroom practice and is ongoing with follow-up and support to promote deeper learning and implementation of the teaching and learning strategies.

Several studies describe effective instructional practices that improve student learning and increase student engagement. "Authentic pedagogy" describes classroom practice marked by the construction of knowledge, disciplined inquiry, substantive conversation, and value beyond school. Students in classes emphasizing these practices achieved more, and the learning was distributed more equitably across socioeconomic and racial groups. "Culturally responsive teaching," "adaptive pedagogy" and "differentiated instruction" include practices that benefit students of color and work well with all students. Researchers emphasize offering students genuine challenges, providing

opportunities for collaborative and cooperative work with their peers, calling on students to be expressive and creative, engaging them in open-ended thoughtful discussion, and providing them active hands-on learning. These are strategies often found in advanced courses or gifted and talented programs. Culturally responsive teaching recognizes and builds on the students' backgrounds and views these as assets rather than deficits. "Adaptive pedagogy" provides support to help students develop the knowledge and skills they lack while instructing them in grade-appropriate content. This approach explicitly teaches academic skills to help students catch up by accelerating their learning rather than through remediation. It also encourages students to rethink and revise their work until high standards are met.

In effective high schools, teachers increase student motivation and performance by establishing their classrooms as learning communities. If students see value in the assigned tasks and believe they have the ability to do them, they are more inclined to engage in the assignment and do the work. Teachers can also promote a learning orientation rather than task orientation. When teachers help students see the class work as acquiring knowledge and skills to increase their own understanding, not just completing tasks or getting certain grades, the students are more inclined to take responsibility for their learning, to persist in doing the work, and to reflect on and assess their understanding. TARGET (Tasks, Authority, Recognition, Grouping, Evaluation, Time) is an approach for goal-centered learning that builds motivational considerations into classroom instruction. Researchers suggest that classrooms need to be comfortable and risk-free environments that encourage students and teachers to form positive relationships.

HIGH SCHOOL REFORM PROCESSES AND CURRENT EFFORTS

No single school improvement process fits every community and school. This report provides suggestions for facilitating school improvement efforts, including the role of change coaches and developing district and community support for school improvement. Some researchers assert that the school improvement process is more evolutionary than linear: it should be flexible, not rigid. Improvement efforts are often uneven and problematic, plagued by uncertainty, unforeseen complications, and sometimes controversy. Successful change processes provide mechanisms for handling problems that emerge. Improving high schools requires high levels of support, high energy, and a tolerance for hard work and some messiness along the way. Several processes can help guide high school reform efforts, such as the Washington state School Improvement Process, Breaking Ranks II, and others.

Several high school reform models have been evaluated. The models generally offer principles and guidelines and some outside assistance to help develop

the capacity of local schools. Because of their prominence over the past several years, Coalition of Essential Schools, High Schools That Work, Talent Development High Schools, and Career Academies are described in greater detail. Some models report evidence of their effectiveness. For example, the Coalition of Essential Schools reports that more of their students, including students in poverty and of color, graduate and go to college than national averages. High Schools That Work reports that the schools within the network help students stay in school and become better prepared for careers or college. Talent Development Schools have had the most impact at the ninth grade level by helping students make the transition into high school and succeed in gate-keeping courses such as algebra.

Various proposals and exhortations for changing high schools have been made by state and national educational agencies, foundations, and other organizations. Among those releasing recent reports on high schools are the National Governors Association, Achieve, Education Trust, American College Testing, Jobs for the Future, the American Diploma Project, and several states. In brief, they call for more rigor, relevance, and relationships (the 3 Rs) – or alternately, push, purpose, and personalization (the 3 Ps). These concepts promote a rigorous curriculum that will prepare students for both college and careers. Relevance is often equated with career interests and experiences. However, some high school reforms suggest that relevance should be related to students in "the here and now" by tapping into their current interests and backgrounds. Relationships can be strengthened through structures and classroom approaches described above.

The high school improvement efforts share some common reform strategies, although they may vary in their execution. The strategies focus on:

- Raising academic expectations and standards;
- Creating small learning environments;
- Structuring learning around student interests or careers;
- Using professional development to increase educators' knowledge and skills;
- Linking school learning with out-of-school learning opportunities;
- Using flexible schedules;
- Assessing student learning through a variety of means, such as performance and examples of work;
- Providing support to help struggling students; and
- Engaging families, communities, and businesses in improving schools.

IMPLICATIONS

Improving high schools requires the participation of all stakeholders: students, teachers, administrators, policymakers, families, community members, and business leaders. Building consensus around the need and direction for change requires effective leadership, a shared understanding of the problem and the potential solutions. Areas for system-wide action include:

- Reviewing, developing, or revising policies to support improvement;
- Implementing strategies for personalizing schools and strengthening relationships;
- Ensuring high quality intellectual work for all students;
- Increasing cultural responsiveness and eliminating the achievement gap;
- Increasing the knowledge and skills of current high school teachers and improving the preparation of future teachers to use appropriate pedagogy to successfully engage all students;
- Enlisting broad support for changes; and
- Finding and reallocating resources to implement necessary changes.

Local and state organizations have responsibility to take steps to advance high school reform. Many schools are currently making gains academically. However, much remains to be done. District policymakers, educators, and families and communities need to join together to focus district and school efforts on raising expectations for all students and building consensus and momentum to change high schools. School improvement planning and action requires that the school leadership, faculty and staff, with district office support, develop a coherent organization including curriculum, assessments, instructional materials and effective pedagogy, as well as appropriate management routines, to support the focus on student learning. Professional development must also be provided to ensure all staff members have the knowledge and skills they need to fully engage all their students in learning to high standards. Sustaining improvement efforts requires strategies that provide on-going feedback, opportunities for reflection and self-assessment, and effective analysis and use of data. The task of improving high schools cannot be accomplished by individuals working alone using conventional approaches to instruction. Although the work and pressure to help all students meet high standards may seem overwhelming, high school educators will succeed to the degree they put the learning of all students first and join together to collaboratively plan and implement continuous improvement in classroom practices.

Improving high schools is a complex and challenging task that requires political will, sufficient resources, and sustained hard work. And high schools alone cannot ameliorate the social inequities that impact students. Improvement work must proceed at all levels: state, district, school, and classroom and be supported by the broader communities. Exemplary high schools provide evidence that the goal for improving learning for all students can be reached. The importance of a high quality education for both students and society is greater than ever. Improving high schools is a moral imperative that all stakeholders need to embrace. Our students deserve the best that we can offer.

CHAPTER 1

Introduction

As state and federal governments apply pressure for better student performance and the standards movement matures, high schools are the target for increased attention and reform. Although contemporary high schools are often seen as "immutable monoliths," they have been subject to waves of reform since their beginning. There may be much to celebrate about current schools in comparison with high schools in the past. However, in the face of economic, social, and political pressures, criticism of high schools has escalated as have proposed remedies for their problems. Educators, business leaders, and policymakers have launched initiatives to improve high schools in part because of a growing sense that a high school diploma has become meaningless when it should be a ticket to opportunity beyond high school graduation.

There is a growing sense that a high school diploma is meaningless when it should be a ticket to opportunity.

A FOCUS ON HIGH SCHOOL REFORM

Many reports acknowledge the gains that have been made over the years to improve schooling for adolescents. Public schools provide educational opportunities today that were unavailable to millions of people in previous generations. "As a nation we have worked hard to fulfill the vision that all students will graduate from high school and be prepared to succeed in life, to contribute to our economy, and to help build a more democratic society" (AIR, 2005, p. 1). Some indicators reveal improvements. High school students are taking more demanding courses, more students are going to college, and schools are safer than during the past decade.

Almost from the beginning, high schools have been pressed to meet multiple and often conflicting goals, frequently simultaneously. For decades the American public has expected high schools to offer programs that: "(1) yield graduates who are ready to undertake the responsibilities of effective democratic citizenship; (2) produce young adults who are capable of filling necessary roles in the economy, and who are sufficiently skilled to promote economic growth; and (3) provide individual students with the educational

opportunity and resulting credentials to allow them to get ahead, or to maintain their position, in the world they enter after high school graduation" (George, McEwin, & Jenkins, 2000, p. 2). These goals often appear in some form in state laws. For example, in Washington the intent of the Basic Education Act is to "provide students with the opportunity to become responsible citizens, to contribute to their own economic well-being and to that of their families and communities, and to enjoy productive and satisfying lives"[1] In addition, high schools have been given the responsibility for solving many of the nation's problems—from combating drug use to improving driving safety, and lately to fighting obesity. When high schools do not meet the diverse goals and expectations, they are subject to harsh criticisms and sometimes cynicism.

Although educational researchers and visionaries have recommended changes to the high school for much of the latter part of the 20th century, the voices now seem to be louder and represent broader interest groups. Also, social and economic pressures heighten the consensus about weaknesses in high school experiences for many students, especially those of color and from low-income families. Several authors emphasize the gap between the traditional high school and the current expectations that all students will learn to high standards. In the current standards-based climate, learning and performance standards have been raised to include high academic learning standards for all students. Graduation requirements often include passing state tests, and accountability now includes sanctions for districts and schools that do not make enough progress on state tests. Many believe that traditional high schools fail to prepare a majority of students to meet these higher standards.

EVIDENCE OF PROBLEMS WITH HIGH SCHOOLS

Educators, researchers, business leaders, and policymakers point to evidence that high schools are not serving students well enough for America in the 21st century. They cite test results and low graduation rates and high dropout rates to illustrate the failures of schools to prepare all students to meet high standards. In addition, surveys of students illustrate their levels of participation in school, satisfaction with their experiences, and insights into their opinions regarding needed improvements. Writers note that changes in America today require the reforming of the traditional high school to meet personal, social, and economic needs. Factors addressed in many reports include:

- demands for high skilled workers,
- loss of unskilled jobs,
- global competition,
- diversity of the population with the fastest growing groups of students representing students of color, and
- a growing disparity between the haves and have-nots across the nation and particularly in urban settings.

1 Washington State Legislature Education Reform Act of 1993. RCW 28A.630.85.

Low Achievement and High Standards

Today's high schools are expected to prepare **all** students to compete in a global economy, to reach their individual potential, to be ready for career or college after high school, and to participate as citizens in a democracy. Various assessments provide information on the academic achievement of high school students in recent years. Unfortunately, a large number of high school students are not meeting proficiency levels on states' assessments and the nationwide National Assessment of Educational Progress (NAEP). For example, NAEP results in the past 10 years indicate that high school students are not making the improvements found at elementary and middle grades. "At age 17, there was no statistically significant difference between the average score in 2004 and the average score in 1971 or 1999" for reading and mathematics (Perie and Moran, 2005, p. iv). The reading levels of African-American and Hispanic high school students are equivalent to white eighth graders. In Washington state, students are making slow but steady gains on the Washington Assessment of Student Learning (WASL), but many still fall short of the standards that have been set. In 2005, the percentage of students meeting the grade 10 standard on the WASL was 72 in reading, 65 in writing, and 47 in mathematics. Only about 42 percent met the standards in all three subjects. Beginning in 2008, meeting the standard in all three subjects is a graduation requirement.

Critics assert that students who graduate are ill-prepared for college or for the workplace. Colleges and employers complain about the students they received from high school (McNeil, 2003). Businesses often lament that entry workers lack needed skills and knowledge. A 2004 survey of employers conducted in Washington state identified the following problem areas. Employers indicated they had the most difficulty in finding qualified applicants in areas such as occupational specific skills (91 percent), problem-solving or critical thinking skills (87 percent), positive work habits, and attitudes and communications skills (83 percent each). Writing skills and math skills were identified as problem areas by 64 percent and 62 percent, respectively; reading skills were a problem for 38 percent of the employers (Washington State Workforce Training and Education Coordinating Board, 2004). In a national 2002 study, "more that 60 percent of employers reported that recent graduates had poor math skills, while nearly 75 percent pointed to a deficiency in grammar and writing skills. Unqualified and untrainable, these high school graduates are likely to become trapped in unskilled, low-paying jobs that do not support a family well above the poverty level, provide benefits or offer a clear pathway for advancement" (McNeil, p. 5).

College professors disparage the level of knowledge and skills their freshmen bring with them. In surveys conducted by *The Chronicle of Higher Education*, college professors were more negative about the skills of entering students than were public high school teachers. The survey polled a nationwide sample of public high school teachers in core academic subjects and faculty members

in a variety of subject areas from private and public colleges and universities. According to the survey, "forty-four percent of faculty members say students are not well prepared for college-level writing, a view held by only 10 percent of teachers." In mathematics, "32 percent of faculty members say students are not well prepared in math, a judgment shared by 9 percent of teachers." When asked about overall preparation, "84 percent of faculty members—compared with 65 percent of teachers—say that high school graduates are either unprepared or are only somewhat well prepared to pursue a college degree" (Sanoff, 2006, p. 9).

Graduates need the same rigorous curriculum whether they plan to go to work directly after high school or to college.

Of those students who graduate from high school and go to college many need remedial or pre-college coursework before they can enroll in credit-bearing college classes. A study sponsored by the American Diploma Project (ADP), a partnership involving four national organizations and a few states,[2] found that the knowledge and skills required for college and the workplace have converged. According to the report, "Successful preparation for both postsecondary education and employment requires learning the same rigorous English and mathematics content and skills" (ADP, 2004, Executive Summary, p. 4). In other words, high school graduates need the same rigorous curriculum whether they plan to go to work directly after graduating or to college.

The disparity in achievement among white and Asian students and other students of color and between middle-class and students in poverty frequently is exacerbated in high schools. "One study estimates that, nationwide, only 32 percent of students who enter 9th grade and graduate four years later have mastered basic literacy skills and have completed the coursework necessary to succeed in a four-year college. For African Americans, this figure is 20 percent, and for Latinos it is just 16 percent" (Achieve, 2004, p. 5). Critics of the high school emphasis on college preparatory programs assert that not all students will attend college, and they advocate for a breadth of opportunities for student choices. Other high school critics, however, assert that a college preparatory program should be the "default" program for all high school students because large numbers of students actually enroll in post-secondary programs.

In a national study by Berkner and Chavez (1997), nearly three-quarters of high school graduates will begin some form of post-secondary schooling within two years of leaving high school. Students who complete a college-preparatory sequence of courses do better in college once they are admitted.

2 The American Diploma Project is a partnership of Achieve, Inc., Education Trust, The Fordham Foundation and The National Alliance of Business; states include Indiana, Kentucky, Massachusetts, Nevada, and Texas. The partnership is dedicated to building constituencies and developing policies for a coherent K-16 system.

Nearly 45 percent of students who say they plan to attend college after high school have not taken the preparatory courses that will allow them to take credit-bearing courses once they enroll. Nearly 30 percent of all entering freshmen "end up taking remedial courses in either mathematics, reading, or writing," according to the National Center for Education Statistics (1999, in ACT and Education Trust, 2004). Surveys by Public Agenda also confirm that many students aspire to college without having a clear understanding of the knowledge and skills they will need to succeed in college (Johnson, Duffett, with Ott, 2005). Students may avoid the tough classes in high school without recognizing the impact of their decisions. High schools bear some responsibility to provide sufficient counseling and guidance, particularly for students who are traditionally underserved by schools. Also, students and parents may not avail themselves of advice from the school.

Costs of low graduation rates and high dropout rates accrue to society as well as to the individual students.

The Washington Community and Technical Colleges State Board reports that 57 percent of students entering state community and technical colleges in 2002-2003 directly from high school were required to take pre-college courses, i.e., remedial classes (Sappanen, 2003). These courses were most often in mathematics but also included writing and reading. Taking remedial courses in college indicates less readiness to graduate—some studies report that students who take remedial courses are less likely to earn degrees than those who do not need them (Addelman, in ACT and Education Trust, 2004).

Graduation and Dropout Rates

Nationally, high schools graduate only about 70 percent of the students they enroll. In Washington, the on-time graduation rate for the Class of 2004 was 70 percent. Far too many students dropout of school; 25–30 percent is often the estimate (Barton, 2005; Aos & Pennucci, 2005), and many do not graduate in the traditional four-year period. In Washington, nearly 6 percent of the students in grades 9–12 dropped out in the 2003-2004 school year. The effect of this annual rate over a four-year period and the fact that nearly 9 percent of the seniors did not graduate at the end of the year resulted in an estimated state on-time graduation rate (students graduating by the end of the 4-year period) of about 70 percent (Bylsma & Ireland, 2005).[3]

The costs of low graduation rates and high dropout rates accrue to society as well as to the individual students. The relationship of a high school diploma to earning power, unemployment, civic involvement, and physical well-being is demonstrated by research.

Economic Issues. The Denver Commission on High School Improvement (2005) presents economic arguments for the importance of the high school diploma. "Our expectations for high schools have increased for good reason. In the past, moderately well-paying jobs were available to those who dropped

3 Graduation and dropout rates must be considered estimates. The rates may differ because of variations in definitions and methods for calculating rates. Inaccurate rates may occur due to variations in data quality and difficulties in accounting for students who leave school without giving a reason.

out of high school without strong reading and math skills. Such jobs allowed people to support a family, buy a house, and send their children to college. But those jobs are increasingly hard to find: Between 1979 and 2000, 2.4 million manufacturing jobs vanished, and another 2.7 million such jobs have disappeared since 2000. Today's jobs require higher levels of reading and math skills that demand higher levels of educational attainment" (p. 2).

Baum and Payea (2004) provide an analysis of the financial benefits associated with increased levels of education. They write that "there is a correlation between high levels of education and higher earnings for all racial/ethnic groups and for both men and women." They also point out that the "income gap between high school graduates and college graduates has increased significantly over time" (p. 7). According to the College Board report, "in 2003, the average full-time year-round worker in the United States with a four-year college degree earned $49,900, 62 percent more than the $30,800 earned by the average full-time year-round worker with only a high school diploma" (p. 14). Earnings of individuals with less than a high school diploma are about three-quarters percent of the amount earned by someone with a diploma. Using U.S. Census Bureau 2004 data, the report compares median earnings by gender and education level. Males with less than a high school diploma earn $24,100; earnings are $35,400 with a diploma, and $56,000 with a college degree. Females earn less on average in each category.

Unemployment rates are higher for individuals without a high school diploma than graduates or holders of a college degree. The Bureau of Labor Statistics notes that 8.8 percent of unemployed workers 25 and older did not have a high school diploma; 5.5 percent were high school graduates, and 3.3 percent held Bachelor's degrees (ACT & Education Trust, 2004, p. 20).

Personal and Social Issues. Other personal and social costs are attached to students dropping out of school. Today's high schools graduate only about two-thirds of the students they enroll (Barton, 2005; Aos & Pennucci, 2005). The one-third of the students who leave school early are more likely to have low wages, become incarcerated, rely on public assistance of some sort, and have limited life choices. The Washington State Institute for Public Policy (WSIPP) estimates that "high school graduation reduces the chance of future adult criminal activity by about 10 percent" (Aos & Pennucci, p. 2). There is also growing evidence that education is linked to greater civic participation and improved health (Aos & Pennucci, 2005; Baum & Payea, 2004).

The negative consequences for dropping out and low achievement are greater for students in poverty and students of color. The achievement gap persists in graduation and dropout rates, in test scores, and in college attendance and completion (Bylsma & Ireland, 2005; Shannon & Bylsma, 2002).

Changing Expectations of High School

Although much of the rhetoric accuses the high schools of failure, some writers point out that high schools are meeting their historical purposes of sorting students, providing basic skills for most of them, and preparing some for college. The expectations for high schools have changed, however. Standards are higher and now apply to all students. Toch (2003) states, "The problem is that comprehensive high schools were created to do something quite different from what we want, and need, high schools to do today" (p. 1). He explains further, "In today's knowledge-based economy, where decent-paying jobs require brains rather than brawn, only students who are taught to use their minds will have a shot at a middle-class lifestyle or more. No longer is it enough for high schools to educate only the best and brightest to high levels.... The new economy requires a new and different priority: that nearly every student be educated well enough to enter college, a notion that the founders of the comprehensive high school simply didn't contemplate" (p. 5).

> Only students who are taught to use their minds will have a shot at a middle class lifestyle or more. (Toch)

Cohen (2001) concurs and writes, "At a time when high schools must be pathways to college for all students, they are pathways to nowhere for many. Most high schools—in the face of dramatic changes in their external environments, their student bodies, and in societal expectations for the results they must produce—continue to use instructional approaches and organizational arrangements better suited for their own mission of sorting students for college or work, thinking or doing" (2001, p. 1).

Predictions about the future also indicate a need for a more highly skilled workforce in America, and some reports assert that high schools are not preparing students adequately. In a knowledge or information-based economy, the "American workforce requires people with increasingly higher levels of cognitive and symbolic manipulation skills, especially as globalization farms out unskilled work to developing countries. The Bureau of Labor Statistics projects that there will be a 22 percent increase in the jobs by the year 2010 where some college-level education is a prerequisite. Moreover, the premium attached to knowledge economy jobs is growing: those who possess a college degree earn more than double that of those with only a high school degree, and the gap is growing" (Reich, 2003, p. 6).

In 2004, a survey of recent high school graduates, their college instructors, and employers was conducted for Achieve, Inc. According to the report, "[A]s many as two in five recent high school graduates say that there are gaps between the education they received in high school and the overall skills, abilities, and work habits that are expected of them today in college and in the work force," in at least one crucial area. College instructors and employers are also critical of the preparation students receive as "they estimate that similar numbers of graduates are inadequately prepared to meet their expectations" (Hart, 2005, p. 2).

An emerging consensus ... identifies the greatest task ... as the remaking of the American high school for a new era. (Reich)

The American Diploma Project developed benchmarks for high schools to meet the expectations of both college and employment. "The benchmarks are ambitious, reflecting an unprecedented convergence in what these employers and postsecondary faculty need from new employees and entering freshmen. In math, they reflect a rigorous four-year course sequence that includes content typically taught in Algebra I, Geometry and Algebra II, as well as some data analysis and statistics. The English benchmarks demand strong oral and written communication skills because they are staples in college classrooms and most 21st century jobs. They also contain analytic and reasoning skills that formerly were associated with advanced or honors courses in high school. Today, however, colleges and employers agree that all high school graduates need these essential skills. Students who meet these standards should be prepared for success, whatever path they choose to pursue after high school" (2004, p. 8).

EMERGING CONSENSUS FOR REFORM

Fifteen years or so into the standards-based reform movement, attention has moved from focusing predominately on elementary schools to focusing on secondary schools. Reich (2003) asserts that schooling is "the social justice issue of the 21st Century" and writes, "[A]n emerging consensus among educational policymakers identifies the greatest task at the century's beginning as the remaking of the American high school for a new era" (p. 3).

Initiatives for redesigning high schools took center stage at the national and state levels in 2003 and 2004. For example, the "U.S. Conference of Mayors adopted a resolution that recognized the 'urgent need for changes in America's middle and high schools,' and observed that 'the time has come for the Federal, state, and local governments to form a national partnership that transforms middle schools and high schools into centers of learning and engagement that prepare students for rewarding and meaningful lives'" (cited in AIR, 2005, p. 1). In 2004 the National Governors Association launched a project aimed at redesigning the American high school. At the 2005 Governors' conference, Bill Gates called public high schools "obsolete." The U.S. Department of Education has sponsored numerous meetings focused on high school improvement, and the White House announced an initiative aimed at improving high schools, higher education, and job training as part of Preparing America's Future. Writers for the Education Trust characterized the high school within a standards-based context as "an object at rest in a world that is rapidly rushing by" (in McNeil, 2003, p. 4). Also, educational researchers have described high schools as an "anachronism" that "seem more out of synch with society than at any other time in our national history" (Daniels, Bizar, & Zemelman, 2001, p. 8).

States and organizations have published documents that lay out their vision for improving high schools. Examples include California's *Improving High School A Strategic Approach* (2005), Connecticut's *Re-conceptualizing*

Connecticut's High Schools: A Blueprint for Continuous Change (2002), and Iowa's *Foundation for Change: Focusing on Iowa High Schools* (2002), and Ohio's *High-Quality High Schools. Preparing All Students for Success in Postsecondary Education, Careers and Citizenship* (2004). Foundations, institutes, and advocacy groups have added their perspectives to high school reform. These include Achieve, the Bill and Melinda Gates Foundation, the Prichard Committee for Academic Excellence in Kentucky, Colorado Children's Campaign, Jobs for the Future, Aspen Institute, the National High School Alliance, Carnegie Corporation, National Governors Association, and the Council of Chief State School Officers. (More information about several of these initiatives appears in Chapter 7.)

The business community has taken a strong position in regard to its needs for improved high schools. Many business-related groups that are promoting high school reform share concerns about the ability of the U.S. to compete in a global economy, the social and personal costs of students dropping out of school, the changing demographics in schools and communities, and the disengagement or apathy of many students, even among those who stay in high school and graduate. College-readiness standards and industry-based skills standards, promoted by some business leaders, have the potential to influence high school reform.

In face of criticisms regarding the slow change of the institution, Daniels et al. (2001) explain the dilemma faced by high schools. "[R]esistance to change is neither accidental nor perverse. In a sense, schools are designed to be conservative institutions. One of the main functions of education is to transmit the core traditions of a culture to its children. With this as one of their missions, we shouldn't really expect public schools to be hotbeds of social experimentation or cutting-edge innovation. On the other hand, high schools are also supposed to equip students to function as adults in the 'real world' outside their doors" (p. 20).

Students, who are at the center of the high school experience, are often on the periphery of discussions regarding changing their schools. The criticisms of high schools noted above come from an adult perspective: government, community, business, parents, and educators. However, several surveys capture the perspectives of high school students and reveal that students agree with many of the critics. These views are presented in greater detail in the next chapter.

In summary, complaints and criticisms of American high schools have plagued them since their inception. Debates about purposes, curriculum, and instructional approaches that began in the early days persist with amazing familiarity. The comprehensive high school was seen as a solution to debates about purposes, fears of divisiveness in the citizenry, and philosophies regarding children and the best ways of nurturing and educating them. Many criticisms of high schools are well founded. Other criticisms, depending upon

perspective, reflect the pendulum swing between student-centered and teacher-centered pedagogy, autocratic versus authoritarian approaches, and values of "well-rounded" citizens versus more specialized wage earners. Many of these dichotomies are false. Parents and policymakers for the most part still "want it all." A growing consensus supports the need for high school reform. The expectation is that all schools can do a better job of preparing students to meet the higher standards of college and the workplace. The requirements of federal legislation add to the pressure for ensuring that no student falls by the wayside or is "left behind." Findings from research, as well as the knowledge and insight of educational experts, provide vision and practical suggestions for improving high schools to promote student belonging, engagement, and high quality intellectual work.

OBJECTIVES AND METHODOLOGY

In response to the need for reform, the Research and Evaluation unit of the Washington Office of Superintendent of Public Instruction (OSPI) prepared this report to help develop a common understanding of the issues, challenges, programs, and practices associated with improving high schools. Specifically, the report addresses three general questions:

1. What are characteristics of the high schools we have and need?
2. What historical forces have influenced high schools to become what they are now?
3. How can we improve high schools to better prepare students for their future?

This report synthesizes the research literature on high school reform to provide an understanding of their past and present and the various issues and reform movements related to high school improvement. It places high schools in a historical context and describes their development. It also provides findings from research and highlights various proposals for improving high schools. The report discusses concepts and suggestions for changing the conditions in high schools, improving school environment and personalizing schools, and involving families, community, and businesses in the change effort. However, without improvements to teaching and learning, students will continue to be short-changed and achievement levels will not increase enough. Therefore, research on classroom instruction, teacher professional learning communities, and student engagement and motivation are emphasized. Last, the report describes planning processes, models of high school improvement, and current initiatives undertaken at the state and national levels to promote reform.

This report is based on a comprehensive review and synthesis of the research and professional literature regarding high schools. To begin, a relatively extensive search of the literature was conducted that included on-line documents, research articles, and book length accounts of studies of high schools, particularly drawing on works from the past 25–30 years. More than 250 sources were consulted for the report. These materials were read

and analyzed for consistent themes and implications for improving high schools for the 21st century. These themes were then synthesized and organized into a framework that is reflected in the chapter titles.

Based on evidence from research, as well as from personal observations and experiences, the authors' intent was to provide substantive information and insight into improving learning and teaching in high schools. According to the studies, it appears that high school reform too often stops with "first order" change as organizational structures are debated and implemented. To help students meet high expectations as well as to respond to the moral responsibilities of education, high school reform needs to move deeper into "second order" change to alter attitudes and enhance teaching practices that affect student learning. Therefore, the report contains a number of studies related to improving instruction and provides considerable detail relative to the strategies suggested. Also, in an effort to be comprehensive, the report treats a number of topics in some depth. Thus, the report may serve some readers best as a resource to be used in a variety of contexts for different purposes. Suggestions for potential uses are included at the end of this chapter.

CONTENTS OF THE REPORT

This chapter has provided the context for the current focus on improving high schools and demonstrated some urgency for changing them. Chapter 2 describes the features of traditional comprehensive high schools and their current inadequacies for meeting higher expectations for preparing students for a changing future. The chapter also provides a vision for high schools that have the potential to more effectively serve the young people of America. Chapter 3 discusses the historical development of the high school in America and the various reforms that have shaped the modern high school. Chapter 4 provides a number of organizational components that can help improve high schools. These components include positive school environment, school-wide and classroom strategies that help increase student engagement and belonging, and structures and programs that promote personalization in high schools. Chapter 5 examines the essential core of high school education: classroom teaching and learning. Teacher learning communities, professional development, effective instruction, student engagement and motivation are emphasized. Chapter 6 provides a general discussion and examples of change processes and describes some potential impediments to change. Chapter 7 provides examples of specific high school improvement models and includes an overview of some initiatives offered in national and state reports as solutions to the purportedly failing high schools. Chapter 8 includes a summary and implications for state and local policy and suggests next

steps for making changes in high schools. Appendix A includes information about Washington state graduation requirements. Appendix B provides brief summaries of programs and practices that some high schools are using as they have embarked on their journey of school improvement and are beginning to experience success along the way.

SUGGESTIONS FOR USING THE REPORT

This report is a comprehensive overview of the American high school, covering its history, purposes, organization, accomplishments and flaws, and suggestions for reform. The report makes a strong argument for changing traditional high schools to better serve today's students in preparing them for their futures. Because of the scope of the topic and the density of the material, the report can be considered a resource to be used in its entirety or in part. For example, particular chapters may serve a particular purpose, such as planning school improvement efforts or improving instruction for diverse learners. A few suggestions for potential uses are offered below.

Building Consensus and Developing School Improvement Plans. School leaders can use this document when working on school improvement, building consensus around the urgency for change, adopting or adapting planning approaches, and identifying potential solutions. The entire document can be used to build a common knowledge base to create understanding among stakeholders and to help focus the efforts of school leadership teams. It also may be used to inform community groups on the issues and complexities around high school improvement. In addition, portions of the report may be used in considering specific questions. For example, the information on personalizing schools may be helpful in crafting action plans for improving school climate or increasing students' sense of belonging.

Improving Student Learning and Performance. Instructional practice and classroom environment are essential terrains for improving student learning. Classroom instruction is difficult to impact; many reform efforts stop short of addressing classroom practice. This report provides concrete and practical suggestions for making changes in teaching and learning that will help increase students' engagement in their schoolwork. Teachers, either individually or collectively in teams or school-wide efforts, may use the suggestions to begin making changes in their daily instructional routines.

Enhancing the Knowledge and Skills of Educators. Many suggestions are threaded throughout the report that will enhance the understanding, knowledge, and skills of educators. Traditional high school teachers who use conventional teaching methods may need the opportunity to retool in order to be more responsive to the changing demographics of today's high school students. The research reported in this document provides ideas for more effective instructional approaches. Teacher professional learning communities and collegial teams may use the ideas in chapters 4 and 5 for ideas for professional development and peer coaching as teachers implement strategies and provide feedback to one another.

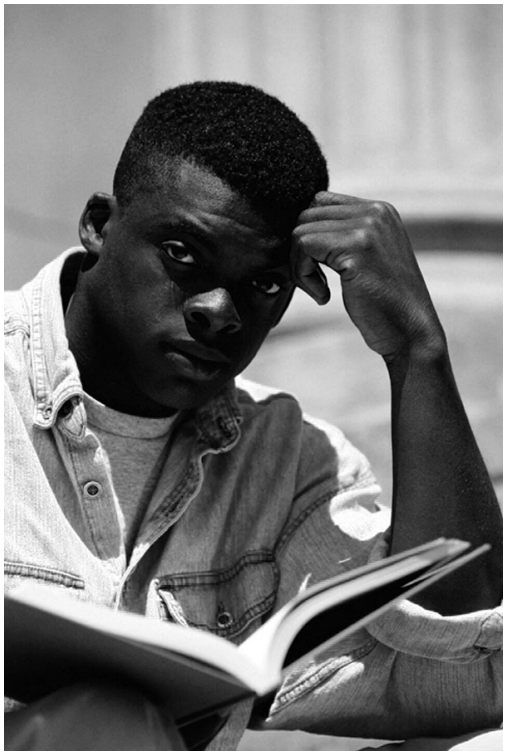
Changing and Revising Policies. School districts and schools need to review, revise, or develop appropriate policies to accommodate today's students more effectively and to better prepare them for their future. The report suggests some areas that may need revision or development of new policies. These may be useful to district leaders and school board members as they have responsibility for policy development.

In short, this research report can be used in faculty study groups, as a resource for committees and school boards on high school issues, as a guide for planning school improvement, and as background information for discussions and policy making related to improving high schools.

This chapter has introduced some of the problems with current high schools and why they need to be improved. High schools serve many purposes and are expected to meet competing goals. They have not met the expectations of providing equity and excellence for all students, and both students and society are negatively impacted when students do not graduate. The requirements for future careers and college entrance are more similar than ever before, and increasing numbers of students are beginning college after high school. As a result, there is a growing consensus on the need for reform. To meet the growing expectations of society, high schools need to provide challenging coursework and sufficient support to help students learn to high standards. The next chapter addresses the characteristics of the high schools we have now and what they need in the future.

CHAPTER 2

Characteristics of High Schools We Have and Need



The contemporary public high school is grounded in a rich history of tradition and culture. These forces have perpetuated the high school, pretty much as we know it today, through generations of reform efforts. Education serves two apparently opposing purposes: to sustain the social culture and to change individuals as they gain knowledge and skills. Therefore, while reformers, including education experts, policymakers, and the business community, urge change (some use the term "transform"), there are strong forces that resist. This chapter depicts the traditional, contemporary high schools of the 20th century based on research studies and the characteristics of more effective high schools. It builds on the information presented in the previous chapters by providing more details about the high schools we have and need.

THE HIGH SCHOOLS WE HAVE

In general, contemporary public high schools share a number of characteristics that have evolved over time. Although there are notable exceptions, most high schools continue to fit this profile in spite of major reports and reform movements over the decades.

- They are tuition free and district-based, and generally comprised of grades 9–12.
- Time is divided into six or seven periods a day.
- Courses are organized by subject departments; courses vary according to level of difficulty; students are sorted administratively, or through voluntary course selection, according to expected achievement levels.
- Students take college-preparatory or vocational classes, required or elective.
- Students accumulate credits toward graduation by completing Carnegie credits, which are determined by hours of instruction.

- Students are preoccupied with social and personal concerns.
- Co-curricular programs and athletics are an integral part of the school experience.

In addition, the traditional high school seems based on a set of assumptions that tend to perpetuate the paradigm. Although efforts have been made to alter the paradigm through cycles of reform, many contemporary schools adhere quite closely to these traditional assumptions.

1. "Achievement in school follows a normal distribution curve. It is therefore logical to label students as possessing high ability, average ability or low ability.
2. Intelligence is a unitary concept usually associated with language and mathematics. It can be measured by a standard test.
3. Achievement is related to time. All students should be judged on their ability to attain similar results in a fixed amount of time
4. Failure is a profound teacher. Students learn from their failures and thereby improve performance. Combined with assumption No. 1, a certain amount of failure is to be expected.
5. The school is a service delivery institution. It provides students with a cafeteria of opportunities, and it is the students' responsibility to avail themselves of those opportunities.
6. All students learn in similar ways. Similar learning environments, therefore, provide equal and fair opportunities for all students.
7. Learning is best achieved when it is undertaken individually in a competitive environment.
8. Rewards, incentives, and punishments are the best way to motivate students to learn. Threatening students will get them to work harder and behave more responsibly. By this reasoning, getting tough, raising expectations and assigning mandatory homework will make students learn more.
9. Memorization of information constitutes learning.
10. Chronological age is the best indicator of where a student should be placed in order to maximize learning." (George, McEwin, & Jenkins, 2000, p. xxii)

Researchers have examined contemporary high schools thoroughly from both inside and outside perspectives. Among the frequently cited research are studies by Cusick, Goodlad, and Powell, Farrar, and Cohen. The studies, summarized briefly below, examine traditional high schools and describe both strengths and shortcomings. Their findings help explain high schools as bureaucratic organizations and provide insights into the persistent nature of the high schools we currently have.

Inside High Schools. Cusick (1973) captures the essence of the high school experience during the 1960s in his study from the perspective of high school students. For the most part students are compliant, relatively docile, and attempt to follow teachers' direction. The students are not openly defiant, but

he finds widespread disengagement. To get "inside high schools," Cusick conducted a qualitative study in a school where he joined a group of senior boys for a period of time. From his research, Cusick describes the typical American high school in the late 20th century as an organization based on two primary subsystems: production and maintenance. He groups all of the teaching, curriculum, testing aspects of schooling under the production subsystem and the administrative aspects, such as facilities, attendance, rules and regulations, under the maintenance subsystem. Although the two actually overlap, it is instructive to use this division to analyze school activities. He finds that the maintenance aspect required the most time and energy of administrators and teachers. He lists several social and cultural attributes of high schools that are mutually reinforcing and that create and define the environment in which students develop their activities and attitudes. These are:

Teaching is equated with talking; listening is learning.

- "Subject matter specialization
- Vertical organization
- Doctrine of adolescent inferiority
- Downward communication flow
- Batch processing of students
- Routinization of activity
- Dependence on rules and regulations
- Future-reward orientation
- Supporting physical structure" (p. 208-209).

Based on experiences in classes and activities, Cusick describes a school in which teachers do at least 75 percent of the talking in class. Teaching is equated with talking; listening is learning. He concludes that much of the student activity that occurs among students both in and out of class is to counteract the passivity and routinization of classes, particularly during times when the adults were occupied with maintenance activities. Cusick attributes the structure and activities of classrooms to the condition that teachers are only minimally in charge and their hold on students can be tenuous. Therefore, teachers are reluctant to relax routines or open up their classes to group work or discussion because they may be "co-opted" by students or lose classroom control, threatening their "centrality and authority" (p. 200-201).

Cusick concludes that school characteristics have both intended and unintended effects on the experiences of students. For example, students are "denied freedom of activity," they are "massed," and generally "undifferentiated." Unintended effects of these characteristics include the following:

- "There is little student-teacher interaction.
- There is little student involvement in formal activities.
- Educational experiences are fragmented.
- Students are more concerned with maintenance procedures than learning.
- Students learn to give minimal compliance" (p. 217).

High school classrooms are passive places... Listening is the top activity.

Cusick suggests that the high school structure provides students with few opportunities to gain rewards of activity, involvement, and participation. Student groups provide their members with social rewards that classrooms generally do not; they provide many students "a strong, active, and involving extra-school group structure" (p. 217). He also asserts that "schools really are set up to maintain society." The organizational structure of high schools impacts and constrains adults and students. To make changes, the entire system must be altered; changing one characteristic will not make much difference if others are not changed since they reinforce one another.

A Place Called School. Goodlad (1984) and a team of researchers studied 1000 classrooms in 38 schools across grade levels—elementary, middle, and high school. The data collectors spent a month in each community studying the schools and collecting data from surveys of parents, questionnaires of teachers, student samples, and classroom observations. The schools differ in location, size, characteristics of student population, family incomes, and other factors. Nevertheless, a number of themes emerge from the study, leading Goodlad to draw conclusions about the nature of schooling and to make recommendations for improvement.

Although Goodlad describes schools as passive places and classrooms as emotionally flat, he notes students were not overly negative about them. They expressed liking for their subjects and viewed teachers as concerned about them. He writes that schools and classrooms are not relatively simplistic input-output factories as they are frequently depicted. "[T]hey are better understood as little villages in which individuals interact on a part-time basis within a relatively constrained and confining environment" (p. 113). According to Goodlad, the data show that teaching methods, student support, and feedback decline as students move through the grades. In the secondary schools in the study, students experience "a rather narrow repertoire of instructional procedures and limited attention to student support in the learning process, on the average." However, he points out that there are "marked contrasts between high and low track classes. Consistently, the differences in curricular content, pedagogy, and class climate favored the former" (p. 159).

The report provides snapshot data of school activities. It ranks the activities by the probability that students were observed participating in each at any particular moment. The top activity in senior high schools is "listening to explanations/lectures" at 25 percent. Second is "practice performance-physical" at 17.5 percent followed by written work 15 percent and preparation for assignments 13 percent. Low on the list are discussion (5.1%), watching demonstrations (1.6%), and simulation/role play (0.1%). Goodland, like Cusick, raises the question whether some classroom techniques may be in part "policing devices." The "predominant class pattern of individuals working largely independently in group settings" may serve an "implicit function—that of blocking or at least holding at bay small group alliances which could become disruptive" —although he acknowledges this may the case more in middle school that high schools (p. 110).

Goodlad identifies a "formidable" agenda for school improvement. He includes the need for "clarification of goals and functions, development of curricula to reflect a broad educational commitment, teaching designed to involve students more meaningfully and actively in the learning process, increased opportunities for all students to gain access to knowledge, and much more" (p. 271). He stresses the importance of systemic approaches to the task of improving schools. Among his recommendations for school improvement, he stresses the importance of building school capacity for improvement, setting policy to allow school-based autonomy, and requiring a core of curriculum based on a common set of principles, skills, and ways of knowing. Goodlad clarifies that his picture of decentralization does not cut schools loose; instead, schools are "linked both to a hub—the district office—and to each other in a network" (p. 277). To assure long-term "association of a group of students and their teachers," Goodlad promotes vertically organized houses or schools-within-schools that include all secondary grade levels in order to break up large high schools. The smaller units provide the opportunity for teachers to know students well, to better accommodate student individuality for learning, and to provide time and support for slower students to master the content, based on the principles of "continuous progress and nongrading" (p. 311). He concludes with a proposal for secondary schools in the future that departs markedly from the traditional high school and approaches to teacher preparation.

In the shopping mall high school, "learning is not discounted or unvalued, but it is profoundly voluntary." (Powell, Farrar, Cohen)

Shopping Mall High School. Powell, Farrar, and Cohen (1985) develop the metaphor of the modern high school as a shopping mall, distinguished by choice, voluntary selection of courses, a large variety of offerings, without pressure to partake of anything in particular. According to these researchers, contemporary high schools offer "accommodations to maximize holding power, graduation percentages, and customer satisfaction" (p. 1). These schools "assume responsibility for providing opportunities, but most often they place the responsibility for choice and the responsibility for involvement on the students." Schools will "press themselves to offer great variety but will not press students to choose wisely or engage deeply." The authors write that this is a "deliberate approach to accommodating diversity so that students will stay on, graduate, and be happy" (p. 3). The shopping mall high school is marked by "treaties," which are implicit or explicit agreements between teachers and students regarding the degree of commitment and level of work expected in the classroom. "Some teachers and students wish to engage a subject to learn and to teach; others wish to avoid subjects as much as possible without the appearance of irresponsibility.... Often the only common understanding is that passing, and hence graduation, is contingent on orderly attendance rather than mastery of anything.... Learning is not discounted or unvalued, but it is profoundly voluntary" (p. 4).

The shopping mall high school offers four types of curriculum: horizontal (the breadth of classes that are offered), vertical (the hierarchy or degrees of difficulty of the classes, e.g. basic, regular, advanced), extra-curricular

(activities, sports, clubs), and the services curriculum (such as psychological and social services, which may be a means to other educational ends or ends in themselves).

Powell et al. stress that the "high schools' greatest strength has been their embracing capacity ... to cope with many contrary visions of education by promising to pursue all of them. That has produced institutions that are remarkably flexible, ambitious, and tolerant, capable of making room for many different sorts of students and teachers and many different wishes for education. They are institutions nicely suited to cope with Americans' fickle political and educational sensibilities. All are important strengths, but they have had crippling effects" (p. 308). The researchers recommend the "renegotiating" of the treaties of high schools in three major areas – "purpose, push, and personalization" (p. 316).

The three research studies summarized above provide a vivid picture of high schools that exist late in the 20th and early in the 21st centuries. Schools have evolved over time as they have attempted to meet the ranging goals and interests of students and communities.

THE HIGH SCHOOLS WE NEED

Research on effective high schools, national academic standards, experiences of exemplary schools, and theories of educational experts are coalescing into a vision of good high schools. Good high schools are personalized, productive, and prepare students to succeed in the 21st century.

George, McEwin, and Jenkins (2000) present a new paradigm that contrasts with the assumptions about the traditional high school noted earlier.

1. "All students, with the possible exception of the profoundly handicapped, are capable of learning. It is the educators' responsibility to organize the school to facilitate learning.
2. Intelligence is a multi-faceted concept. Educators should assume that all students are gifted in some way, and then organize the school to bring out each student's talents.
3. Time is a variable and not a constant when applied to learning. It does not measure achievement.
4. Success is a profound teacher. Students learn from their successes and improve performance.
5. The school should engage learners by making learning exciting and attractive.
6. Students learn in different ways. The learning environment directly impacts student learning. Students respond differently to different methods of teaching.

7. Learning should be cooperative as well as competitive. Instructors should help students to appreciate the value of community in learning.
8. Motivation that is intrinsic to the learning task is most effective. Instructors should organize learning around student strengths, not the remediation of weaknesses.
9. Memorization is only part of the learning process. True learning occurs when students are able to place new information in long-term memory and retrieve it as necessary to solve real-life problems.
10. Chronological age is only one way to group students for learning. Placement of students should be based on multiple criteria. The graded school is an anachronism that no longer supports student progress as it is now understood" (p. xxiii).

In their book length account of the creation of a new high school in Chicago, Daniels, Bizar, and Zemelman (2001) suggest "eleven issues, assertions, or principles" that must be addressed for improving secondary education. They base their ideas on the national curriculum standards developed by subject-area organizations and national research centers, reviews of educational research, exemplary high schools around the country, and their own experiences in planning and opening a redesigned school. These issues include:

- "*Size.* The high school is small – or feels small.
- *Climate.* Every student is known, appreciated, and included in a diverse, collaborative community.
- *Voice and leadership*. Both students and teachers exercise choice and make decisions in all elements of school life.
- *Teaching*. Teachers collaborate with students to explore and employ a growing repertoire of instructional strategies.
- *Curriculum.* With their teachers, young people engage in challenging inquiry into topics that matter.
- *Community experiences*. Young people are engaged in the life of the community and the world of work.
- *Scheduling*. The school day and calendar provide flexible and variable blocks of learning time.
- *Technology and materials.* Contemporary technology and rich materials support students as thinkers, researchers, and authors.
- *Assessment.* Teachers help students to monitor, evaluate, and guide their own thinking.
- *Professional development.* Teachers are students of instruction, with many opportunities to learn and grow.
- *Relationships.* The school works closely with parents, community, organizations, and educational institutions" (p. 10-11).

Other sources list characteristics of improving high schools and set out principles and strategies for changing high schools. Although the lists vary in details, common threads across the reports include *personalization* and

The "most urgent problem with American high schools is ... how they are treating millions of real, live kids today." (Daniels et al.)

high expectations (National High School Alliance, no date; Daggett, no date; Wallach & Gallucci with Copland, Lambert, & Lowry, 2004; American Youth Policy Forum, 2000).

These reports emphasize that the key to successful change in high schools is not implementing a single strategy but using a mix of the elements from the strategies. The American Youth Policy Forum (2000) also states, "Personalized attention goes beyond academic support to include an overall concern with the youth as a person. Assistance comes in many forms, such as support with homework, referral to health care and social services, career exploration, filling out college applications and financial assistance forms, helping the youth's family and ensuring a stable, supportive adult presence in the youth's lives" (p. 12-13).

Personalizing high schools and setting high expectations are elements of school environment or school climate. To change schools to reflect these qualities may require fundamental restructuring of traditional bureaucratic schools. Researchers have examined the organizational structures of effective schools and found that communally organized or community-oriented schools succeeded in providing a personalized, positive school environment that was generally accompanied by high expectations. These topics are explored in more detail in Chapter 4.

STUDENT VIEWS OF HIGH SCHOOLS THEY HAVE AND NEED

The shortcomings of high schools and insights into student perspectives of what works also emerge from student voices. Although they are at the center of the high school experience, students are often on the periphery of discussions regarding changing their schools. The criticisms of high schools expressed earlier come from the adult perspective: government, community, business, parents, and educators. Some researchers have made a concerted effort to include student voices. Daniels, Bizar, and Zemelman (2001) write, "we feel that the most urgent problem with American high schools is not their long-term statistics or their ranking in international tests, but how they are treating millions of real, live kids today" (p. 21).

Results from Student Surveys. Several surveys capture the perspectives of high school students and reveal that students agree with many of the critics. The surveys indicate that students generally value education, admit they are not challenged by high school work, and that they do not have positive relationships with many adults in school. Surveys such as the Public Agenda survey, the Rate Your Future Survey conducted for the National Governors Association, and the High School Survey of Student Engagement (HSSSE by Indiana University), as well as a recent study by Peter Hart Research Associates on dropouts, provide insights into students' views. A few findings follow:

- The Public Agenda report Life after High School, based on telephone interviews with a national random sample of 1000 young adults,

concludes that most young people aspire to better their lives through education. "[T]he vast majority of today's young adults—be they African American, Hispanic, Asian American or white—believe strongly in the value of going to college after high school. Most see higher education as a way to both earn society's respect and insure career advancement and financial security" (Johnson & Duffett, 2005, p. 4). Based on the actual experiences of high school students, however, many will not be prepared for college. Public Agenda states, "It seems we have been successful in inspiring a goal, but whether we also provide the assistance they need to work toward it is another matter" (p. 5).

- *Rate Your Future*, a survey conducted in early 2005 for the National Governors Association (NGA), reveals that many students feel poorly served by their high school. By the end of June 2005, more than 10,000 high school students, ages 16-18, nationwide completed the on-line survey. A summary of survey highlights, presented at NGA's July annual meeting, include the following:
  - » Of students who plan to graduate, more students did not find high school challenging. Less than 1 in 10 said high school has been "very hard" and more than one-third said high school has been "easy." Also, two in three students agreed or strongly agreed "they would work harder if high school offered more demanding and interesting courses;" more than three in five thought "taking courses related to the kinds of jobs they want is the best way to make their senior year more meaningful."
  - » When asked to rate their high school on a set of criteria, more than half rated their schools as Fair/Poor on providing them personal attention and preparing them for a skill or trade, and 62 percent rated them Fair/Poor for holding [their] attention.
  - » Teens who were not in school, or were thinking of dropping out, were also surveyed. Over half of these students said they wanted to eventually return to school. More than three in five said the following factors would help them stay in school: "Personal attention to help me with my studies," "If I knew I'd earn more money after graduating," and "If I knew I'd get a better job after graduating" (National Governors Association, Rate Your Future, 2005, p. 10).
- The High School Survey of Student Engagement (HSSSE) in 2005 included 80,904 students from 87 schools in 19 states. Students represented grades 9–12 and were almost evenly split between male and female. Although most of the schools were in the Midwest, the total respondents reflected demographic distributions for high school students similar to the nation. The survey asked students questions about their programs of study, how they spend their time, how much time they spend preparing for class, working for pay, interactions with teachers, and working on class activities and type of activities, and school environment. Its findings are mixed. Students report they care about their school; many, however, do not spend a great deal of time on their school work

High schools can do much more to reach all students.

or in school activities. Many do not feel safe at school and do not have much interaction with their teachers or make presentations or contribute frequently in class discussions.

The Silent Epidemic reports the results of a recent study of 467 dropouts ages 16–24. The results reinforce the criticisms of high schools contained in other studies and surveys of student perspectives. The report also reveals some rather surprising insights into the reasons the participants dropped out and their ideas about school supports that may have helped them to remain in school. The study, conducted by Bridgeland, Dilulio, and Morison (2006), used focus groups and face-to-face interviews with participants who were racially, economically, and geographically diverse. Of those surveyed, about three-fourths say they regret having dropped out of school and would do differently if they could do it over. Most dropouts were not failing: 88 percent had passing grades, 62 percent reported C's or above. Also, 58 percent dropped out within two years of completing high school.

In spite of the views held in common, reasons for dropping out and individual circumstances vary. The top five reasons for dropping out were: classes were not interesting (47%); high absenteeism and inability to catch up (43%); spending time with people who were not interested in school (42%); too much freedom and not enough rules in their lives (38%); and school failure (35%).

While many participants in this study acknowledged they share the responsibility for dropping out, they also felt schools could have done more to help them stay in school and learn. Sixty-nine percent did not feel motivated or inspired to work hard. They said school was boring and did not do enough to make them work hard. The work seemed irrelevant, and teachers had low expectations of them. However, most believed they could have graduated with more personal effort and more attention and support from their teachers and schools. The participants identified factors that they think would improve the chances for students to stay in school. The dropouts believe the following would make a difference:

- "Opportunities for real-world learning to make classrooms more relevant" (81 percent)
- "Better teachers who keep classes interesting" (81 percent)
- "Smaller classes with more individual instruction" (75 percent)
- "Better communication between parents and school, get parents more involved" (71 percent)
- "Parents make sure their kids go to school every day" (71 percent)
- "Increase supervision at school; ensure students attend classes" (70 percent) (Bridgeland et al., p. 13).

While the findings from these studies indicate some students have positive perceptions about their schools, the results illustrate that high schools fail to

engage large numbers of students. High schools can do much more to reach all students. Additional student views for improving schools are noted below (the ideas of some students on what constitutes good teaching are included in Chapter 5).

Students want teachers who know their material, make learning interesting, care about them, and give extra help and attention.

Views from a Big City Focus Group. A focus group of students in the Denver Public Schools was asked for their views of high school experiences (2005). This group of students gave their perspectives on what would improve their schools:

- "Teachers who know the material.
- Teachers and counselors who believe in students' ability to succeed and building their confidence.
- A belief that past academic failures do not dictate the future.
- Principals who listen to their concerns.
- A curriculum that is challenging and interesting.
- Access to challenging courses, such as honors, AP, and college courses.
- A supportive person in the student's life outside of school.
- Small class size.
- Small school size.
- A warm, caring and safe environment.
- Being treated with respect and not made to feel "stupid" if they ask a question or do not understand something.
- Caring adults.
- Positive role models within and outside of school.
- Personalized learning.
- Extra help and attention.
- Diagnosing learning disabilities.
- Learning to set goals, make decisions, develop social skills and understand the consequences of their actions.
- A program that meets their individual needs.
- Positive networks of peers who share their goals.
- Help finding financial aid and filling out college applications" (p. 16).

Many of their ideas reflect the views of other students throughout the country who have participated in a variety of surveys, focus groups and similar forums.

Daniels et al. (2001) and Cushman (2003) also provide students' views of classrooms that work for them. Students say effective classrooms and successful teaching strategies provide variety in school work and opportunities for having fun as they learn. Good classrooms promote positive relationships with teachers who help them develop their understanding and offer active, hands-on, interesting learning activities that are relevant to them now and for their futures.

SUMMARY

The most frequently cited problems with American's high schools include:

- Low achievement and test scores, particularly in comparison to other developed nations in the world
- Low graduation rates and high dropout rates
- Too large and impersonal
- Fragmented by departments and time
- Lacking focus
- Dull and boring classroom work
- Uninspired teaching
- Bureaucratic
- Autocratic
- Textbook dominated class work, concerned more with coverage rather than depth in curriculum
- Unresponsive to students' needs, particularly to students of color and poverty.

Of course, high schools today also have a number of positive characteristics. They may provide:

- A wealth of curricular options
- Opportunities for co-curricular programs and activities
- Solid college preparatory courses
- Help in applying for and receiving scholarships for college
- A social network that helps students feel they belong
- Engaging instruction
- Up-do-date technology and effective instruction in its use.

Unfortunately, these positive characteristics are often experienced only by some students, which may be the harshest criticism of high schools. While some public high schools provide an excellent education that launches students into the adult world well-equipped to meet its challenges, huge disparities may exist in student experiences and opportunities, and, consequently, student outcomes, within the same district and even the same school.

The expectation today is to provide high quality education to **all** high school students in **all** high schools across the country. Thus, the vision has changed, and it requires rethinking and redesigning high schools.

The next chapter describes the development of high schools in America and provides a historical overview of reform efforts that have shaped the contemporary high school. Reviewing the historical context increases understanding of the high school organization as it has evolved and of the difficulties associated with reforming the institution.

CHAPTER 3

Historical Development of High Schools

The early forms of American high schools continue to shape the debate over high schools today. Academic high schools have their roots in the mid-1800s. They were highly competitive institutions that served a small proportion of the population. They developed as part of an effort to raise the standards of higher schooling and to standardize the meaning of the high school diploma. Comprehensive high schools developed in the 1920s and 30s. They aimed at serving a wider proportion of the population. To accommodate this broader segment of the population, they instituted a number of programs and practices that still endure, such as the grade 9-12 organization, vocational education, and tracking plans. Many current issues originate in the tension between these two models of higher schooling. High schools still reflect vestiges of their historical roots and the competing goals of social efficiency and civic equality. This chapter provides a brief history of American high schools and the waves of reform that have buffeted the institution.

High schools still reflect vestiges of their historical roots and the competing goals of social efficiency and civic equality.

EARLY FOUNDATIONS OF THE MODERN HIGH SCHOOL

As early as 1635, *Latin grammar schools* were established primarily for the sons of the New England and other colonial elite. The schools were designed to provide a general and college preparatory education with a curriculum based mainly on the classics. These schools were often supported with public funds and essentially promoted the notion of education for purposes of political leadership. The study of the classics was perceived as essential both for the development of mental discipline and for the opportunity it provided to learn lessons of leadership from the past. Classical study also provided the language skills and knowledge of classical texts necessary to practice the professions of law, medicine, and the ministry at the time (Kimball, 1992).

In 1749, Benjamin Franklin proposed a new type of higher schooling that would serve the children of tradesmen as well as landowners and professionals. *Academies* were designed to provide instruction in a wide array of subjects that included not only the classics, but modern languages, the sciences, advanced English, modern history, and applied subjects such as

For most of the country, and for much of the nineteenth century, the dominant form of higher schooling was the academy. (Beadie and Tolley, 2002)

bookkeeping, navigation, and surveying. Academies operated on a pay-as-you go basis, with students paying just for the subjects they chose to study (Sizer, 1964). Like the grammar schools, the academies promoted education for purposes of leadership. Franklin believed, however, that lessons of leadership from the past could be taught from modern history and in translated texts as well as in their original language. He also had a broader idea of what constituted leadership in the modern world and who could become a leader. He believed the study of science, applied arts, and modern languages would be valuable in commerce and diplomacy and might lead to innovations that improved public life. Franklin's views conveyed the importance of broad access to schooling and the value of practical applications of education for Americans across social groups.

Years later, Thomas Jefferson developed a plan for free schools in Virginia. *A Bill for the More General Diffusion of Knowledge* "was a clear and strong statement of the goal of education as a process for establishing a strong democracy based on meritocratic equality," (i.e., recognizing the value of individuals based on their personal abilities and aptitudes rather than on their birth right or social class). Jefferson believed a universal and free basic education would serve the needs of the new republic. Under his plan, after three years of education the best students would be selected to attend "residential grammar schools." After further selection, a small group would attend college, regardless of wealth or poverty. These students would form an "intellectual elite" that would be the future leaders of the state (George et. al, p. 4). However, Jefferson never succeeded in getting his plan accepted in Virginia.

The first free public high school in America is generally thought to be the Boston English Classical School. It was approved by the citizens in Boston in 1821. In 1826, a similar school was opened for girls, but the city soon closed it because it proved too popular and thus cost more money than city leaders were willing to spend on girls. In 1827, Massachusetts passed a law that required towns of more than 4,000 to establish free public high schools, though this ordinance was not strongly enforced. For most of the country, and for much of the nineteenth century, the dominant form of higher schooling was the academy (Beadie and Tolley, 2002).

The development of public high schools nationally occurred slowly. In rural areas, high schools often took the form of a kind of tutoring for advanced students within the town's common school rather than in separate schools. After the Civil War, a new type of high school developed in a number of cities. These *academic high schools* were a hybrid of the old grammar school and the academy. They focused on academic studies but offered instruction in both classical and modern subjects. They were publicly funded but highly selective institutions. Students typically sat for three or four days of exams to gain admission. Only a small proportion of applicants succeeded in gaining admission, and attrition was high among enrollees. Although most research has focused on the competitive urban high schools that enrolled only male students, most high schools in the 1870s–1890s enrolled girls as well. In fact,

female high school students out-performed and out-numbered boys in many places, and some educators began worrying that high schools were becoming too "feminized." (Reese, 1995; Labaree, 1988; Rury, 1991).

The Committee of Ten and the Academic High School

The idea of the academic high school is most strongly represented by the famous Report of the Committee of Ten on Secondary School Studies. Appointed by the National Education Association in 1892, the Committee of Ten was asked to standardize the high school curriculum and the meaning of the high school diploma (Krug, 1964; 1972). The 10 men who comprised the Committee were mainly college presidents and professors. Charles Eliot, Harvard's president, chaired the Committee, which organized nine "conferences" that would "consider the proper limits of its subject, the best methods of instruction, the most desirable allotment of time for the subject, and the best methods of testing the pupils' attainments" (Committee of Ten, 1892, p. 3). Although the Committee asserted that the same curriculum should be offered to all students, regardless of their destinies in life, they were primarily interested in college preparation, and they presumed that high schools would continue to serve only a very small proportion of the population.

The schools' exclusivity presented challenges to urban school systems. Why should all taxpayers fund schools that only served a minority of the population? Also, during the period from 1890 to 1920, the size and diversity of urban populations increased greatly, both through domestic migration and through foreign immigration. Some educators and social reformers, like John Dewey and Jane Addams, became concerned about the growing gap between the working classes of the industrialized economy and the more moneyed and educated classes. They questioned mental discipline theory and the exclusive focus on book learning. They advocated broader curricula, hands-on experiences, and special programs aimed at building well-rounded and moral citizens who could communicate and cooperate with each other to solve both practical and public problems (Cremin, 1961).

At the same time, from a very different perspective, some industrial and business leaders advocated for greater specialization and efficiency in the education of future workers. They wanted to seize control of the apprenticeship system from craft unions and establish separate industrial schools. The unions opposed this move. Meanwhile, drawing on the ideas of influential thinkers like psychologist E.L. Thorndike and industrial engineer Frederick Taylor, certain educational leaders like Ellwood P. Cubberley and David Snedden began re-envisioning schools as places where students could be tested and sorted into the education programs that would most efficiently prepare them for their respective places in life (Kantor and Tyack, 1982).

When looking back on these developments, the idea of "social efficiency" seems to have largely prevailed over the idea of "civic equality" in the high school. Lagemann (1989) noted "only partly to be perverse" that "Thorndike

The comprehensive high school was to promote a democratic society by serving both a specializing and unifying function.

won and John Dewey lost" (p. 185). Cubberly's views of nearly 100 years ago are still echoed today: "[T]he great battles of the world in the future are to be commercial rather than military… it is our duty to get ready for them if we wish to continue to prosper as a nation…. Whether we like it or not, we are… pitted against the world in a gigantic battle of brains and skill, with the markets of the world, work for our people, and internal peace and contentment as the prizes at stake" (1909, p. 49–50).

The Cardinal Principles and the Comprehensive High School

The idea of the *comprehensive high school* was essentially a compromise born of these competing forces of the progressive era, from 1890 to 1920. It is an idea most clearly and strongly presented in the famous 1918 report *The Cardinal Principles of Secondary Education*, produced by the Commission on the Reorganization of Secondary Education. The authors of the report saw the comprehensive high school as a preferred alternative to separate academic, vocational, and commercial high schools that some leaders advocated and that had been established in some industrial cities. Instead of separate schools, the authors of the Cardinal Principles advocated separate vocational tracks within the same school. Students would then have the opportunity to mingle with each other socially and to gain some common education even as they also pursued their specialized vocational studies. "The school is the one agency that may be controlled definitely and consciously by our democracy for the purpose of unifying its people" (1918, p. 17). The comprehensive high school would serve both a specializing and unifying function.

The authors of the Cardinal Principles report called for universal secondary schooling and criticized previous models of the high school for focusing exclusively on a college-bound elite. Instead of framing their recommendations in terms of the traditional academic subjects, as had the Committee of Ten 25 years earlier, the Commission laid out seven principles that would support education to benefit both the individual and society:

- Health
- Command of fundamental processes
- Worthy home membership
- Vocation
- Citizenship
- Worthy use of leisure time
- Ethical character.

In the years following the Cardinal Principles report, high school enrollment grew greatly. By 1930 more than 5 million students were enrolled in high schools, and even more dramatic increases occurred the following decade during the depression. However, public high schools were still not accessible to everyone. There were very few high schools open to either African-Americans or Mexican-Americans before the 1930s. To pursue higher schooling, racial minority students often had to find independent or religious schools that would accept them on a tuition basis, or they had to establish their

own schools (thus, double-taxing themselves). Even when "public" high schools admitting them were established, it was typically on a segregated basis, and African-American and other minority communities often had to fight hard to make sure the schools offered an academic curriculum rather than just a vocational track designed to prepare their children for domestic service, agricultural labor, or menial trades. In practice, the comprehensive high school idea often meant education for social mobility for some, and systematic oppression for others (Anderson, 1988; Walker, 1996; Tamura, 1994; MacDonald, 2004).

A BRIEF HISTORY OF HIGH SCHOOL REFORM

From these early beginnings, various panels of experts have influenced the modern high school. In the early twentieth century, other reforms in addition to those represented by the Committee of Ten and the Cardinal Principles included the establishment of the College Entrance Examination Board in 1900 to standardize college entrance requirements; the organization of the Commission on Accredited Schools in 1901 to set and enforce standards for high schools; and the creation of the standardized "Carnegie Unit" recommended by the Committee of Ten and defined as a course studied for an hour a day, every day of the week, for a year (George et al., 2000). Since 1920 other social movements and reports have also impacted the contemporary high school. These include the civil rights movement, Sputnik, and the Nation at Risk report. Some reform efforts focused on curricular issues, while others focused on structural and organizational characteristics of high schools. These efforts to reform high schools are discussed below.

The Eight Year Study

The Progressive Education Association conducted an eight-year study of the American high school in the 1930s. This study was an effort to determine if high schools could deviate from the prescribed courses and course-taking patterns required for college admission without reducing students' chances for college acceptance. The Commission on the Relation of School and College was established to conduct an extensive study that would have scope, significance, and credibility for demonstrating that progressive educational approaches might improve the high schools that were under fire. Examples of those criticisms sound familiar:

- The high school seldom challenged students of first rate ability to work up to their potential.
- The high school neither knew their students well nor guided them wisely.
- The high school failed to create conditions necessary for effective learning.

- The conventional high school curriculum was far removed from the real concerns of youth.
- The curriculum contained little evidence of unity or continuity.
- Complacency was characteristic of high school educators.
- Teachers were not well equipped for their responsibilities.
- The high school diploma meant only that the student had done whatever was necessary to accumulate the required number of units of credit. (Aiken, 1942, cited in George et al., 2000, p. 15-16)

Thirty high schools—15 public and 15 private—participated in the Eight Year Study. About 300 accredited colleges and universities, including Ivy League schools, agreed to accept the graduates of these schools following graduation, beginning with those graduating from school in 1936. The schools planned and implemented their programs in different ways, but some common strategies were used. These included creating thematic approaches that integrated several subjects into a "core curriculum," using active investigations, promoting reflective thinking and cooperative learning, involving the family and community, sharing decision making, scheduling homerooms, and providing important roles for school counselors. A careful follow-up evaluation of the project revealed that students from the "experimental, progressive, or 'unshackled' schools did as well in college as the students from more traditional high schools; they actually earned a slightly higher grade point average, received slightly more academic honors, and were more likely to participate in artistic, theatrical, and musical extracurricular activities. Their grades in foreign languages and their participation in religious, social service, and organized sports activities were slightly lower. Moreover, when the 'most experimental schools' were compared to the others, the results were strikingly positive in favor of the innovative schools" (Kahne, 1995, cited in George et al., 2000 p. 17). The findings were published in the middle of World War II and seemed to disappear without much attention. Hence, traditional approaches to high schooling continued. Progressive education theories have been subject to criticism over the years, even though they have rarely permeated American high schools and classrooms.

National Defense Education Act

During the 1940s and 1950s there was growth in vocational and general education tracks, but traditional programs and approaches remained commonplace. However, a push for more academic mathematics and science came after the launch of Sputnik by the Soviet Union in 1957. Critics condemned American high schools as weak and "coddl[ing] the young" (Hampel, 1986, p. 58). Admiral Hyman Rickover, an important spokesperson for the critics, said the purpose of education should be "intellectual training" that would produce leaders "who would help the nation to victory in any kind of war, hot or cold." The emphasis of programs such as the National Defense Education Act was on "science, technology, mathematics, foreign languages, and especially on high standards and education for the most able." University scientists and professors worked to create a "teacher-proof" curriculum focused on the academic disciplines (George et al., 2000, p. 20).

Conant and the Modern Comprehensive High School

In 1959 James Bryant Conant, former president of Harvard University, published a seminal report, *The American High School Today,* that lay out a vision for high schools. They should "provide a good general education for all pupils as future citizens of a democracy, provide elective programs for the majority to develop useful skills, and educate adequately those with a talent for handling advanced academic subjects...." Conant's commitment for the comprehensive school hinged on the goal of providing a democratic environment in which all students, regardless of wealth, intellectual ability, or interests and aspirations, would learn together, "under one administration and under one roof" (George et al., 2000, p. 23). The comprehensive school has been described as a "peculiarly American phenomenon" and was offered as a means to reach objectives for schools that were very similar to those goals that educators have tried to meet for more than 150 years: democratic citizenship and equality, social efficiency, and social mobility. Conant even developed a checklist to help educators determine if schools were meeting the "test" for comprehensiveness. He pushed for the elimination of small high schools, suggesting each class (freshmen, sophomore, junior, senior) should have at least 100 students in order to offer a sufficient breadth of curriculum. The responsibility of the school was to provide "good and appropriate education, both academic and vocational, for all young people..." (George et al., p. 23).

The comprehensive nature of Conant's views echoed the ideas of the Cardinal Principles. "[T]he comprehensive school is the prototype of a democracy in which various groups must have a degree of self-consciousness as groups and yet be federated into a larger whole through the recognition of common interests and ideals. Life in such a school is a natural and valuable preparation for life in a democracy" (Cardinal Principles, 1918, p. 20, cited in Hammack, 2004, p. 9).

Some have written about the myth of the comprehensive high school as it fell short of its democratic vision. Angus and Mirel (1999) write, "Despite claims by educators that they were building 'democracy's high school,' the institutions they created were deeply undemocratic, providing only a small percentage of students with the opportunity to master the knowledge and skills that might lead to power and success in American society. Moreover, because educators increasingly sorted students by class, racial, and gender lines, the differentiated curriculum served to exacerbate rather than ameliorate the deepest divisions in American society" (p. 198).

The comprehensive high school fell short of its democratic vision, and students were sorted and offered different curricula that "exacerbate[d] ... the deepest divisions in American society." (Angus & Mirel)

Influence of Social and Political Reforms

Although the Civil Rights Movement and desegregation did not produce specific models for high school education, these social and political changes influenced how high schools evolved during the last half of the 20th century. High schools had remained relatively unchanged during the 1940s and 1950s. However, *Brown v. Topeka* in 1954 began to break down racial barriers, and unrest grew in some schools and communities as activists sought to desegregate schools. In some parts of the country, "white flight" and an

increase in private schools resulted. Grant (1988), Hampel (1986), Dougherty (2004) and others capture the changes that occurred in schools during the late sixties and early seventies. Some high schools experienced violence, unrest, and increasing student demands. The courts also dictated changes regarding students' rights as individuals. Educators responded by making changes in programs and procedures. The variety of course offerings increased to reflect student demands for relevance to minority perspectives, student interests, and other social and personal issues. Special programs and social services in the school increased. Access, more than excellence, was the goal in many cases. Academics were "not the focal point of high schools' unprecedented attentiveness to rights and feelings," according to Hampel (p. 105). Some new schools and alternative programs were developed in order to provide more flexibility and personalized learning opportunities for students.

In the 1960s and 1970s high schools reflected the changes that were occurring in the social and political arenas in the country. Federal programs to improve the lives of individuals were enacted, including the "war on poverty," and compensatory and targeted educational programs were funded to level the playing field for poor, disadvantaged, and disabled students. Political activism, the Civil Rights movement, antiwar sentiments, distrust of established state and national institutions, and many aspects of the youth culture created upheaval in society and in the schools. The influence of race and poverty on education was examined by researchers such as James Coleman and Christopher Jencks, although the studies target education generally, not just high schools. During this time there was criticism of high schools, particularly of the inner city high school. Many "Americans felt sure that high schools were deteriorating" (Hampel, p. 143) and that adult authority was losing out to "student power."

Other criticisms of high schools centered on declining test scores, a lack of coherence and rigor in the curriculum, and disengaged students. There were also major changes in the student population as demographics changed to include greater numbers of minority and poor children and students with special needs. Many authors noted declining test scores and faulted schools for lack of standards. A panel that was formed to study the decline in Scholastic Aptitude Tests scores described the "effects of the changing school populations, the curricular drift of the past decades, the effect of substantial increases in television watching and corresponding decreases in time spent in reading and homework, and the devastatingly unsettling effects of two decades of social turbulence" (George et al., p. 28). However, the decline in test scores caught the most attention of the media and the public.

A Nation at Risk

The report of the National Commission on Excellence in Education was published in 1983. *A Nation at Risk* with its imagery of a "rising tide of mediocrity" was devastating in its criticism of education and called for a commitment to excellence. Recommendations in the report were essentially to do more of the same sort of things that had been laid out by the Committee

of Ten, such as more requirements in core academic subjects; promoting, graduating and grouping students based on academic progress and student needs; higher standards for teacher preparation; and higher admission requirements for college. In the aftermath of the report, a myriad of other reports and studies appeared. Legislation was passed in most states to increase graduation requirements and to set high standards of all sorts. The business world also joined in the debate, and some critics suggested that business and corporate models should be applied to public schools.

Innovative Model Schools

According to George et al., one of the most visionary educators in the mid-20th century was J. Lloyd Trump, who directed a Model Schools Project while Director of Research for the National Association of Secondary School Principals in the 1960s. Many of the principles and components incorporated in the Model Schools Project closely resemble ideas that are promoted today:

- Continuous progress education
- Teacher-led advisement for students
- Differentiated staffing
- Flexible scheduling
- Large and small group instruction
- Independent study
- New approaches to reporting student progress
- Team teaching
- Principal as instructional leader
- Community-based learning
- Shared decision making. (George et al., 2000, p. 24)

Of the 36 schools in the project, six actually implemented all aspects of the proposed model, one within Washington state. Some components of the model are found still in successful contemporary schools described in the literature.

Contemporary Studies of High School

The topic of high school reform is not new. A number of independent studies of the high school published in the 1980s and 1990s, including those noted below, influenced thinking about high schools in recent years.

- *Paideia Proposal* – Mortimer Adler (1982)
- *High School: A Report on Secondary Education in America* – Ernest Boyer (1983)
- *The Good High School: Portraits of Character and Culture* – Sara Lightfoot (1984)
- *A Place Called School* – John Goodlad (1984)
- *The Shopping Mall High School: Winners and Losers in the Educational Marketplace* – Powell, Farrar, and Cohen (1985)
- *Horace's Compromise: The Dilemma of the American High School* – Theodore Sizer (1984)

High schools provide an outstanding education to about 10-15 percent of the student enrollment. (Boyer)

- *The Last Little Citadel: American High Schools Since 1940* – Robert L. Hampel (1986)
- *The World We Created at Hamilton High* – Gerald Grant (1988)
- *Improving the Urban High School: What Works and Why* – Karen S. Louis & Matthew B. Miles (1990)
- *Horace's School: Redesigning the American High School* – Theodore Sizer (1992)
- *Horace's Hope: What Works for the American High School* – Theodore Sizer (1996)
- *Breaking Ranks: Changing an American Institution* – G.I. Maeroff, National Association of Secondary School Principals (1996).

The number and scope of the research studies, reports on high schools, and suggestions for improvements reflect the concern about the nature of schools, the changing society, and the needs of students. Space does not permit a discussion of each of the studies listed above. The report by Ernest Boyer is discussed briefly below to illustrate some of the thinking about school reform in this time period.

High School. Boyer (1983) summarizes research based on 15 high schools in *High School: A Report on Secondary Education in America*. Boyer writes that the success of high schools, as with public schools in general, is linked to issues of equity and excellence. He predicts that "[m]ore and more, the students who are going to populate our schools will be precisely those students who have historically been least well served" (p. xii). Boyer concludes that the "academic report card on the nation's schools is mixed" (p. 39). High schools provide an outstanding education to about 10 to 15 percent of the student enrollment. These students receive good teaching in a "solid curriculum" in that they are expected "to explore, to think creatively, and to challenge," not just to remember and recite. Another 20 to 30 percent "mark time" or dropout. These students may find the school "socially supportive, but academically it's a failure. The majority of students are in the vast middle ground. They attend schools ... where pockets of excellence can be found but where there is little intellectual challenge" (p. 39). He also asserts that schools are called upon to provide "services and transmit the values that were once expected from the community and the home and the church. And if they fail anywhere along the line, they are condemned" (p. 57).

Because Americans want high schools to accomplish a breadth of goals, Boyer finds that "high schools lack a clear and vital mission" (p. 63). Boyer proposes four essential goals for high schools:

- "First, the high school should help all students develop the capacity to think critically and communicate effectively through a mastery of language.
- Second, the high school should help all students learn about themselves, the human heritage, and the interdependent world in which they live

through a core curriculum based upon consequential human experiences common to all people.

- Third, the high school should prepare all students for work and further education through a program of electives that develop individual aptitudes and interests.
- Fourth, the high school should help all students fulfill their social and civic obligations through school and community services" (p. 66-67).

The report identifies "twelve key strategies for achieving high quality in education; clear goals, the mastery of language, a core of common learning, preparation for work and further education, school and community service, better teachers, improved instruction, effective use of technology, flexible school patterns, strong leadership, connections with colleges and with corporations, and a renewed public commitment to the nation's schools" (p. 297). Boyer develops each of these strategies with suggestions for implementation. He asserts, "there should never be a child—let alone a generation of children—who passes through our schools unawakened and unprepared for what will come. Educating a new generation of Americans to their full potential is still our most compelling obligation" (p. 297).

THE STANDARDS MOVEMENT IN HIGH SCHOOL

In the 1990s the standards movement emerged as a means for improving public schools. An essay by Smith and O'Day (1991) developed a theory for systemic improvement that was based on agreed-upon standards at the state level and an accountability system that would monitor the achievement of the standards. States and districts were expected to establish clear and high standards of what students should know and be able to do and to implement assessment and accountability systems to measure the success of schools in reaching the standards. Processes, programs, and practices for teaching and learning were not prescribed and, therefore, were left to local schools and districts to develop. The standards movement, with high stakes testing and accountability with potentially severe consequences, now characterizes educational reform in the U.S. across elementary, middle, and high schools. The passage of the federal No Child Left Behind legislation in 2001 increased the consequences for failure to meet adequate yearly progress as measured on annual state tests.

Today the effective schools and the standards movement broaden the focus from primarily elementary schools to include secondary schools. As discussed in the first chapter, the standards movement established higher standards for all students, and tests are used to determine if students and schools are meeting the standards. "From its earlier role of providing a diverse education for all of a community's youth, the high school is increasingly being asked to bring all students to college preparatory standards. High school diplomas in many states are now contingent on students passing state exit tests whatever their grades and work show. Increasingly, these tests are aligned with college interest standards" (Van de Water & Krueger, 2002, cited in Hammack, p. 19).

In 1993 Washington state adopted educational reform legislation through ESHB 1209. This legislation identified four major learning goals and set the stage for standards-based reform in the state.[4] Among the provisions of the legislation was the requirement for a Certificate of Mastery based on meeting standard on the state assessment at the 10th grade in order to graduate (modified by the legislature in 2005 to a Certificate of Academic Achievement and Certificate of Individual Achievement, the latter available to certain students with disabilities).

In 2001 the Washington State Institute for Public Policy published a three-volume report that reviewed the progress of high schools in the state toward reform (Harding, Burley, McLain, & Thompson, 2001; McLain & Thompson, 2001, Volumes II and III). The report includes a description of high school education, student learning outcomes, and performance. It includes an overview of high school reform in the nation, the results from a state survey of schools to determine the changes that were occurring, and eight case studies of high schools from different geographical areas. The report notes that many schools are responding to the state reform by increasing standards, aligning curriculum to the EALRs, and offering various options such as Running Start, Tech Prep, or Advanced Placement. However, the implementation of these activities was found to be uneven. The report also recognizes the gaps in data that hindered evaluation of progress and the lack of conclusive research regarding the benefits of various reform strategies. The questions raised by the report have not been fully answered.

- Are high schools increasing the rigor of what students learn?
- Are high schools making learning more relevant for students?
- Are high schools providing learning options for 11th and 12th grades?

High Stakes Testing

In the past few years, the use of tests as a tool for accountability has escalated. High stakes exit tests required for high school graduation, or end of course testing, are in place in states around the country. According to the Center on Education Policy, "19 states gave exit exams and withheld diplomas from students who did not pass" in 2005 and "by 2012, 26 states—enrolling 72% of the nation's public school students—will have mandatory exit exams" (p. 1). Washington's education reform law requires students to meet the standard on the Washington Assessment of Student Learning (WASL) in reading, writing, and mathematics in order to graduate, beginning with the Class of 2008. In

4 The four state learning goals in Washington are:
1. Read with comprehension, write with skill, and communicate effectively and responsibly in a variety of ways and settings.
2. Know and apply the core concepts and principles of mathematics; social, physical, and life sciences; civics and history; geography; the arts; and health and fitness.
3. Think analytically, logically, and creatively, and to integrate experience and knowledge to form reasoned judgments and solve problems.
4. Understand the importance of work and how performance, effort, and decisions directly affect career and educational opportunities.

2005, approximately 42 percent of grade 10 students taking the assessment met this requirement. This percentage is expected to increase over time because the results now "count." Nevertheless, the challenge of helping all high school students meet this rigorous requirement is pushing school improvement efforts, even as it causes some consternation and talk about reducing or delaying the requirement. Concerns include the specific impact of testing on English language learners and special education students and the potential for increasing the numbers of students that dropout of high school, particularly among students of color who already have relatively low graduation rates. (Bylsma and Ireland, 2005). Washington is developing alternatives to this requirement for students who do not meet standard on the tests after two testing attempts. Provisions have been implemented for special education and English language learners as well.

The research about the impact of high stakes tests and accountability provisions on high schools and students is inconclusive.

Darling-Hammond et al. (2005) summarize concerns about the consequences of high stakes testing. They write, "Concerns raised about the use of exit exams include reduced graduation rates, especially for African American and Latino students, English language learners, and students with disabilities; reduced incentives for struggling students to stay in school rather than drop out or pursue a GED; narrowing of the curriculum and neglect of higher order performance skills where limited measures are used; and invalid judgments about student learning from reliance on a single set of test measures, a practice discouraged by professional testing experts" (p. 2).

The research about the impact of high stakes tests and accountability provisions on high schools and students is inconclusive. Some researchers question the value of high-stakes testing policies in increasing student achievement. Amrein and Berliner (2002) write that the data suggests "that after the implementation of high-stakes tests, nothing much happens." (p. 57). Some researchers suggest that high-stakes tests increase the numbers of students that dropout; others refute the claim. Although the causal relationship between high-stakes tests and dropping out has not been proven, there is evidence of increases in student retention in grade 9 in some districts and states (Carnoy, Loeb, and Smith, 2001).

Other concerns focus on the impact of high school examinations on students and classroom instruction. Studies by the *Chronicle of Higher Education* and the Center on Education Policy shed some light on the impact of high stakes testing on classroom practices. A 2006 survey of randomly selected public high school teachers asked how much testing related to No Child Left Behind or other high stakes testing affected their teaching. Many responded that the tests influence their work. For example, 41 percent said they often have "to cut out some of the more creative elements of [their] teaching" (Sanoff, 2006, p. 12).

A study by the Center on Education Policy examined perspectives from two anonymous districts in Virginia and Maryland. Virginia began requiring the exams for the class of 2004, and Maryland's test will be required with the class of 2009. According to interviews with students, teachers, administrators,

and district staff, the Virginia district experienced an intense atmosphere, repetition of test prep work, and increased class time devoted to preparing for the exams. Some students indicated they studied more as a result of the tests; some indicated they had friends who had dropped out. Teachers have changed classroom practice to increase multiple-choice items and spend less time in labs and hands-on instruction. Teachers struggled to keep up with the pacing guides, whether students were ready to move on or not. Many teachers reported spending two or three weeks on remediation or cramming before test administration during which no new material is covered (Gayler, 2005).

In Maryland, respondents noted concern that some students may have difficulty passing the tests, and some said the tests had a positive impact because they helped define what was important to teach and learn. The assessments have pushed for better writing across the curriculum and most see this as a benefit. There were concerns about funding and planning for remediation and the potential shift of resources from students in upper level classes to those struggling to pass the test.

These two case studies do not provide a complete picture of the implementation of high-stakes tests in the states that now require them for graduation. However, the studies do reveal the hard work and deep concerns that accompany the use of tests for accountability and the changes that may be made, as "exit exams impact more than half the students in high schools across the country" (Gayler, 2005, p. 27).

For the past few years, the Center on Education Policy has conducted a comprehensive study of exit exams based on information collected from 25 states. The study reviews the status, characteristics, and effects of exit exams. In the most recent study, the Center reports these five major findings:

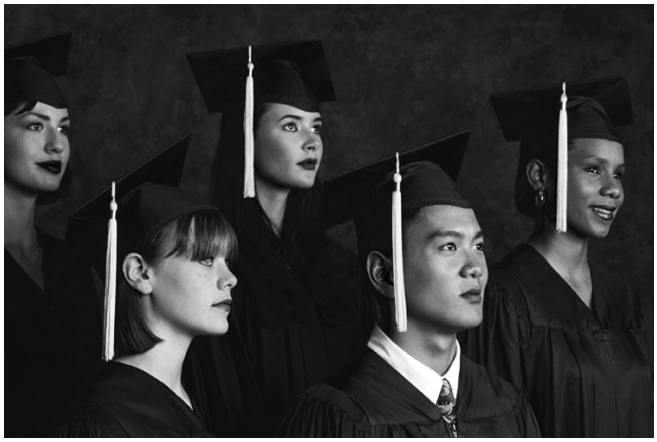
- "Innovative programs and policies are beginning to spring up in states with exit exams.
- Over the past year, states have developed more supports for students and committed more funds to help students pass exit exams.
- Initial pass rates and achievement gaps have proved to be stubborn to move, especially in states where exit exams have been in place for several years.
- States are improving their ability to track and report on student-level data, which should help in the future to clear up some nagging questions about the impacts of exit exams on dropouts and achievement.
- Resolving fundamental questions about the fairness of exit exams and appropriateness of supports for English language learners is crucial if this reform is to succeed in helping all students" (2005, p. 1-2).

This brief overview of the history of modern American high schools and reform efforts helps us understand the forces that have influenced high schools to become what they are today. High schools are both a product and reflection of American society, including its assets and deficiencies. High schools have been expected to meet the competing purposes of educating leaders, training workers, and preparing citizens. In the past, high schools sorted students according to their perceived future roles in society. They also emphasized both academic content and student needs. High schools today are expected to support all students in learning challenging content. The standards-based approach raises expectations for the performance of all students and increasingly imposes accountability on the institution, and on students, through high-stakes testing. High schools, therefore, are expected to increase academic challenges, the relevance of coursework, and to enhance personal relationships among students and teachers.

The next chapter presents research related to changing organizational aspects of high schools to be more responsive to today's students and to help students meet the high standards expected of them.

CHAPTER 4

Changing the Organization to Improve High Schools



During the past twenty years, the research and professional literature have examined conditions that seem to improve high school outcomes and experiences for students. This chapter summarizes reports that examine the internal school environment—also called climate, student belonging or membership, and engagement in school—and the organizational structures that tend to promote these characteristics in high schools. The environment and structures are interrelated and reinforce one another.

As noted in earlier chapters, high schools today continue to reflect the organizational structures and culture that have evolved over the past 150 years. Traditional high schools are bureaucratic in nature. The organization of many restructured high schools, however, has been described as more communally or community oriented. Improving the learning of **all** students requires examining and changing high schools into more personal, intellectually challenging, and culturally responsive institutions. Students who struggle, and those who drop out of high school, report that no one cares about them, their class work is boring or irrelevant, and they don't see a purpose for attending school. School environment or climate is an important ingredient for counteracting student alienation, indifference, or disengagement. Climate is impacted by how students feel about the school, how they are treated by adults and other students in the school, and what opportunities are available to them.

Some high schools have made changes that improve their environment and personal relationships; these most often have been small start-up schools designed around a specific focus or theme, that enroll students who choose the school, and staffed by educators who choose to teach in them. The challenge for school districts in Washington is to create these same positive conditions in all high schools for the benefit of the entire population of students. The task requires a tremendous commitment at every level of the system: school, school district, community, and state. The questions, however, are where to begin and how to proceed. Studies reported in this chapter provide some suggestions to answer these questions.

Personalizing high schools can increase students' sense of belonging and engagement in their learning.

Several sources provide underlying principles for guiding the thinking about conditions necessary for improving high schools. These ideas in combination create a detailed vision for a restructured or redesigned high school. This chapter discusses approaches and strategies to restructure high schools to increase personalization. These include improving the school environment or climate by raising expectations and standards and implementing specific school-wide and classroom strategies that support student interests and engagement. Organizational efforts to improve high schools include developing small autonomous schools or small learning communities such as schools-within-schools as well as implementing structures and programs to support personalization. The latter include advisory, teams and looping, inclusion and detracking, flexible time schedules, mentoring, community-based learning, co-curricular programs and activities, and enhanced connections with families and communities.

APPROACHES FOR PERSONALIZING SCHOOL

Personalization is frequently suggested as a critical attribute of improved high schools. The term personalization is somewhat ambiguous. Personalization can mean that students are well known by staff, that student programs of study are unique to their personal needs and interests, or that schools are organized first around students, rather than focused predominately on subjects or teachers.

High schools can increase students' sense of belonging and membership in the school community through personalizing their experiences. Students who identify with the values and goals of schooling are more likely to feel connected (Rutter et al., 1979; National Research Council Institute of Medicine, 2004). The importance of connectedness is demonstrated in several studies reported by the National Research Council Institute of Medicine. In one study students were asked about factors that influence their connections with school and learning. In answering, the students focused on caring adults—half referred to the importance of meaningful relationships with adults and teachers who took an interest in them individually. In another study, students who responded to a survey claimed they would learn a lot more if their teachers "personally cared about [them] as people. In a study of students who dropped out of high school, many reported that part of the reason they dropped out was "nobody cared." In a large study of high school students conducted by Ferguson, African-American students were reported to be "particularly responsive to teachers who showed they cared about their learning" and encouraged them to work hard (in National Research Council Institute of Medicine, 2004, p. 43).

There are organizational structures, as well as practices, that can be implemented to enhance schools as systems that promote caring and support to improve relationships between and among students and staff. The National Research Council Institute of Medicine report emphasizes that the "way high schools are organized can affect engagement in learning by the messages the organization conveys and by the opportunities it creates for students...."

(2004, p. 107). The following section describes communal organizations, school structures and student groupings, and practices that promote positive relationships.

Students tend to form more positive relationships in schools that are more communally organized.

Communally-Oriented vs. Bureaucratic Organizations

High schools traditionally have been organized as bureaucracies, with specialized and differentiated roles and responsibilities, top-down hierarchical authority structures, and standardized time schedules and routines, and impersonal rules. Other characteristics of high schools follow suit, such as a curriculum divided into discrete and fixed subjects and students sorted according to their abilities, interests, or future plans. Some reforms for improving high schools have pressed for increases within the bureaucratic structure, e.g., more mathematics and science classes, higher requirements for grade promotion and graduation, more testing, as well as "teacher-proof curriculum" (Lee & Smith, 2001, p. 9). However, other reforms for high school improvement advocate for changes in the very structure of schools moving from traditional bureaucratic institutions to more communal organizations. Some researchers suggest that students' personal and academic needs are met better in more communally organized schools. Lee and Smith (2001) and Bryk and Driscoll (1988) are researchers who have examined schools according to the concepts of bureaucracies and communities.

Contemporary high schools, particularly large comprehensive high schools, are still predominately bureaucratic. Reforms focusing on this issue are sometimes called restructuring, redesign, reengineering, or simply improvement, and are efforts "to shift away from the bureaucratic and toward the communal organizational model. The modern comprehensive high school is a conservative organization where fundamental change is difficult. Much of the criticism of high schools, however, has targeted their bureaucratic form" (Lee & Smith, 2001, p. 10). Bureaucratic forms of organizations assume the major work of the organization is "routine, clear, and stable" with certainty and predictability of tasks and conditions. On the other hand, in communal forms, the major work is assumed to be non-routine, "tasks [are seen as] less certain and conditions more changeable and unpredictable" (p. 9). When these concepts are applied to schools, the differences become apparent. According to Smith and Lee, communally organized schools are likely to emphasize "shared responsibility, shared commitment to a common set of goals, lateral communication and power in decision making, and greater personalization and individual discretion in framing expectations and behavior" (Lee & Smith p. 9–10). Processes and activities in communal schools might include interdisciplinary courses, learning based on projects or concrete problems, and more latitude in teaching and learning practices such as flexible scheduling, cooperative learning, and mixed-ability classes.

Bryk and Driscoll also studied schools that were organized communally rather than bureaucratically. According to their evidence, school community is an important quality in public and Catholic schools. They find that adolescents have greater attachment to and engagement in schools that are communally

organized, and achievement often improves as well. Components of communally organized schools include "(1) a shared value system that pervades the school and derives from a shared history; (2) a common agenda for school members involving coursework, activities, rituals, and traditions that function as a unifying factor; and (3) an ethic of caring that permeates relationships among students and staff and between staff and students." Students in these schools "had better attendance, higher morale, and better mathematics achievement" (in National Research Council Institute of Medicine, 2004, p. 100).

Lee and Smith (2001) undertook a long-term study of equity and excellence in high schools using data from the National Educational Longitudinal Study of 1988 (NELS:88). Based on this data sample, the researchers studied "how restructuring practices influence student development, broadly defined as achievement, engagement with school, and behaviors that put students at risk of school failure" (p. 33). They found that students achieved more and were more engaged in schools that were less bureaucratically structured. In addition, and equally important, the benefits were distributed more equitably in such schools.

These researchers conclude that certain practices tend to move schools from bureaucratic to communal forms. These include practices that reorganized instruction (i.e. mixed-ability classes, cooperative learning, flexible schedules), altered authority and expertise (i.e. teaching teams, giving students responsibilities, involving staff in decision making), and personalized relationships (i.e. students keeping the same teachers, parent volunteers, common planning for teachers, schools-within-schools). These practices, however, are found to be the least common type of reforms implemented in high schools.

Lee and Smith also found that students who attend schools characterized by restructuring practices, such as those listed above, "learned more in mathematics, reading, history, and science, whereas students attending schools without reform practices learned less." They also found "similar advantages for students in smaller schools (above and beyond whether they are restructured)." In considering the "distribution of learning among students from different social backgrounds" in certain types of schools, they found consistent effects. Schools with restructuring practices and small schools were "more equalizing environments in terms of social distribution of cognitive gains" and "schools without any of these reforms were more stratifying environments" (p. 74–75).

In addition to performance, Lee and Smith conclude that students tend to form more positive relationships in schools that are more communally organized.

The results accrue to students across socioeconomic and racial groups, thus resulting in schools that are achieving both greater equity and excellence. However, they caution, "We think that it is more appropriate to draw broad, rather than narrow and prescriptive, recommendations from our results. We feel confident in concluding that something important is happening inside the schools with multiple restructuring practices that encourage their students to demonstrate more learning, which is also more equitably distributed.... For us, the results provide empirical support for moving schools in that [communal] direction and away from the bureaucratic form that has characterized the U.S. comprehensive high school for a century. The results also suggest that schools should target their reform efforts around a modest number of single practices of this type.... Our results also provide support for smaller learning environments" (p. 76). They emphasize the importance of schools working hard to develop and sustain a consistent vision of reform over time. "This means that jumping on a lot of reform 'bandwagons' simultaneously is not a good idea" (p. 75–76).

Research on school environment supports the importance of positive school and classroom conditions and high expectations. The seminal report by Rutter, Maughan, Mortimore, Ouston, with Smith (1979), which identifies components reiterated frequently in subsequent school improvement literature, focused on the importance of school environment, school conditions, and teacher attitudes as they impact students.

Improving School Environment

Different terms have been used to capture the relatively illusive concept of school environment or climate. Ethos, environment, and atmosphere are terms used by Rutter et al. (1979) in their influential report on secondary schools. "Humane school climate" was used in *School Climate Improvement: A Challenge to the School Administrator*, the Phi Delta Kappa (PDK) monograph published in the early 1970s. General climate factors, according to PDK, are "respect, trust, high morale, opportunities for input, continuous academic and social growth, cohesiveness, school renewal, and caring" (p. 19*)*. *Engaging High Schools*, a report by the National Research Council Institute of Medicine of the National Academies (2004), defines school climate as the "values, norms, beliefs, and sentiments associated with routine practices and social interaction in schools." It also lists various terms used to describe school climate, including "atmosphere, culture, environment, morale, school community, and school ethos" (National Research Council Institute of Medicine, 2004, p. 97–98).

School environment is a neutral term that encompasses both positive and negative conditions within a school organization that may impact students and adults. According to various accounts, many students "experience schools as impersonal and uncaring" (National Research Council Institute of Medicine, p. 3). High school students, however, thrive in schools that are characterized by positive, respectful relationships, in which they are noticed and valued, their interests and concerns are heard, they have significant roles to fill, and

School environment is created by consistent expectations, standards, general conditions of school facility and arrangements, and staff attitude.

rules and routines make sense and are flexible enough to accommodate the diverse needs of individual students. Listing the attributes of a positive school environment such as those above, however, is easier than making the changes to improve the climate or environment. Essentially, school environment is the sum of social, academic, and physical characteristics of a school, i.e., the "broader patterns of life in schools and ... the kinds of environment for learning which they present to their pupils" (Rutter et al., 1979, p. 22). Many aspects of schooling impact climate, and changes must occur across all of those areas. School environment is created by the development and consistent implementation of expectations and standards, general conditions of school facility and arrangements, and staff attitudes.

Expectations and Standards

In their study of secondary schools in England conducted over eight years, Rutter et al. describe teacher and student actions that can contribute toward an environment "which would enable all those in the school to function well" (p. 56). They find that students tend to perform better, both academically and behaviorally, in schools that developed norms and values promoting both academics and high expectations for behavior. Three "mechanisms" help establish the norms and values that contribute to the school's environment: (1) teacher expectations for student work and behavior, (2) teachers' own conduct as models for their students as well as the behavior of other students, and (3) the feedback students receive on "acceptable performance at the school" (p. 187). These researchers draw several conclusions that have influenced the thinking about characteristics of effective schools. These include the positive impact of high expectations, teacher support, whole school adoption of goals, and the importance of a safe and caring environment.

These researchers suggest that the findings of laboratory experiments and studies of adult working groups apply to high school organization as well. This research finds that adult performance is affected by prevailing norms of their group. In addition, groups perform at higher levels under certain conditions: when goals are specific and difficult but attainable, and when supervisors are viewed as supportive (Korman et al., 1977, in Rutter et al.). Students, as well as people in general, tend to "live up (or down) to what is expected of them" (p. 187). Children are strongly influenced by the behavior of other people, particularly those whom they respect and like and who are in positions of authority. They come to identify and adopt values and attitudes of these people who serve as models, who can be positive or negative influences on them. It is understandable that students would be influenced by what they see their teachers do or think.

Rutter et al. (1979) also emphasize the importance of whole school adoption of student expectations. They find that "some kind of consensus on how school life should be organized" appears to promote student performance (p. 191–192). A school-wide focus and agreements on routines and rules for conducting school send the message to students that the approaches represent the whole organization, not just the whims of individual teachers. However, they still

believe teachers have room for individuality. They write, "the greater the group agreement on crucial issues the greater the tolerance which is possible for individuality and idiosyncrasy on other matters" (p. 194). Part of expectations rests on students' believing they can succeed in the learning tasks they are given. Also, "[t]he message of confidence that the pupils can be trusted to act with maturity and responsibility is likely to encourage pupils to fulfill those expectations" (p. 188). Rutter et al. refer to other research that acknowledges the impact of the "effects of scholastic failure on feelings of personal worth." Students who fail in school "lose confidence in themselves and fail to maintain normal self-esteem; some become bored and apathetic while others develop a fierce antagonism to the educational system which so condemns their lack of academic success" (p. 201). They argue that students need to be respected in the eyes of other students. Students who fail may resort to misconduct, disengagement, or indifference if they see no possibility of achieving success.

Positive school environment requires mutual respect and caring among students and teachers.

This research indicates that teacher concern and willingness to help students and provide pleasant classroom conditions influence student results, particularly in regard to academic achievement and behavior. In addition, their findings suggest that pupils achieve more and are better behaved "when teachers treated them in ways which emphasized their successes and good potential rather than those which focused on their failings and shortcomings" (p. 196). Another important consideration is the degree to which students accept the norms and values of the school. Students are more likely to accept the school's purposes when there are shared activities between staff and students, when students have positions of responsibility within the school, when general conditions and staff attitudes are positive, and when students experience success.

Positive school environment requires mutual respect and caring among students and teachers. Using more recent research on successful restructured schools, Darling-Hammond (1997) provides key features of school environment that support effective teaching and learning. These include:

- "Active in-depth learning
- Emphasis on authentic performance
- Attention to development
- Appreciation for diversity
- Opportunities for collaborative learning
- Collective perspective across the school
- Structures for caring
- Support for democratic learning
- Connections to family and community" (p. 107).

Darling-Hammond emphasizes the importance of mutual respect in schools to support learning. She writes, "Environments that attend to students as individuals also help heighten the probabilities that school relationships will be characterized by respect and caring rather than by demeaning interactions, threats, and sanctions…. Such values become more plausible when teachers

and other school staff know students well enough to base expectations on firsthand knowledge, when trust can be buttressed by shared experience, and when decency can be reinforced through power of communal norms" (p. 137). According to Sizer, the tone of a school should be marked by "the values of unanxious expectations ('I won't threaten you, but I expect much of you'), of trust (unless it is abused), and of decency (the values of fairness, generosity, and tolerance)" (Sizer, 1992, p. 208, in Darling-Hammond, p. 137).

Studies also have shown that school environment impacts students' well being and the choices they make, as well as their academic performance. Newmann (1992) links school culture to student engagement and membership in the school. He emphasizes the "principle of inclusion" as the basis for school membership. He gives examples of inclusion as "listening to students, trying to comprehend their own meanings, and responding in ways that incorporate their perspectives, concerns, and interests." In addition, Newmann asserts that "building a culture of inclusion" requires that schools take action to impact students' non-academic experiences. These can include programs to work with parents, "policies to increase participation of marginal student groups ('outcast,' 'druggies,' 'loners') in extra curricular activities;" and "counseling and support groups to help students resist peer pressure destructive to academic engagement … " (p. 183).

The report by the National Research Council Institute of Medicine (2004) cites a study from the National Longitudinal Study of Adolescent Health that provides evidence that "students in schools that foster feelings of social connectedness and being cared for by teachers, peers, and families are less likely to experience emotional distress, use alcohol and drugs, engage in violent or deviant behavior, or become pregnant" (p. 159). Also, the report asserts "the evidence is clear that self-confidence, feelings of control, and high levels of engagement are fostered in academic contexts that provide challenging but manageable instruction and tasks and hold students to high but achievable standards" (p. 159).

Jurich and Estes (2000) emphasize the importance of broad support to increase student success in schools. "Personalized attention goes beyond academic support to include an overall concern with the youth as a person. Assistance comes in many forms, such as support with homework, referral to health care and social services, career exploration, filling out college applications and financial assistance forms, helping the youth's family and ensuring a stable, supportive adult presence in the youth's lives" (p. 12–13). The National Research Council Institute of Medicine (2004) report also addresses the need for comprehensive support that helps students become resilient and able to resist alcohol, drugs, or other negative behaviors. Such services have been called "wrap around" as they address all aspects of a student's life—social, health, economic, physical, and psychological.

Positive school environment [is] a condition for successful student learning.

The research on resiliency applies to improving school environment at all grade levels. Educational resiliency is defined as "the heightened likelihood of success in school and other life accomplishments despite environment adversities brought about by early traits, conditions, and experiences" (Wang, Haertel, & Walberg, 1994, cited in Waxman, Gray, & Patron, 2003, p. 2). According to Benard (1993), a resilient child has social competence, problem-solving skills, autonomy, and a sense of purpose and future. Families, schools, and communities have a role in fostering resilience by providing care and support to students, holding positive expectations, and providing students with ongoing opportunities for involvement in local activities. Asset building is a means used in some schools to support students and reduce dropping out and other high-risk behavior. Assets are categorized as both external and internal factors. External assets, for example, include support, expectations, and positive role models and peer influences. Internal assets include interpersonal skills, positive values, commitment to learning. This research is explained more fully in OSPI reports on dropout prevention.[5]

The body of research summarized above emphasizes the importance of a healthy, positive school environment as a condition for successful student learning. The research and professional literature suggest several strategies that can be implemented to improve school environments to increase personalization and high expectations. School-wide and classroom strategies are provided below, along with students' views of these efforts.

Strategies to Improve School Environments

Several studies provide suggestions for developing healthier school environments. According to Daniels, Bizar, and Zemelman (2001), "[N]o single activity or project can change the tone throughout a school. Rather, schools must take a wide range of steps to build respect, civility, acceptance, and, ultimately, a true community atmosphere" (p. 53). They stress the importance of teachers' perceptions. "If teachers don't feel it, the kids won't. Only if teachers feel supported, excited, empowered, will kids begin to catch the wave" (p. 53).

School-wide Strategies. Daniels et al. suggest activities and strategies for creating a supportive school environment that include the following:

- "In social relationships: organizing peer mediation to settle disputes; promptly and thoughtfully addressing incidents of discrimination, whether against individuals or groups; scheduling activities that allow students of different backgrounds and social styles to get to know and understand one another.

5 Shannon, G.S. & Bylsma, P. (2003) *Helping Students Finish School: Why Students Drop Out and How to Help Them Graduate*. OSPI; Shannon, G.S. & Bylsma, P. (2005). *Promising Programs and Practices for Dropout Prevention: Report to the Legislature*. OSPI.

"Students need to feel heard and respected." (Daniels et al.)

- In the schedule: a daily advisory period during which students deal with governance issues and social relationships, and teachers keep in touch with individuals' personally as well as academic problems and successes.
- In the placement of students: a nontracked program, with the inclusion of special education students in regular classrooms; teachers use strategies for decentralizing classrooms so that everyone is challenged, rather than lectures inevitably aimed at only one achievement level.
- In classroom curriculum and instruction: inquiry on topics that young people care about and that address the very issues of community; collaborative activities in which students learn to work together and get to know each other; activities in which students take leadership roles to help learning happen.
- In school governance: giving both students and teachers a significant voice in key decision making, like teacher hiring and curriculum choices.
- In other relationships: with parents, community members, external partners, visitors, enacting the same habits of respect, warmth, and inclusion that are modeled within the school" (Daniels et al., 2001, p. 54–55).

Classroom Examples. In addition to school-wide initiatives, climate can be enhanced in the classroom through teacher attitudes and actions, particularly in how the curriculum is selected and implemented. Students need to "feel heard and respected," and the classroom activities should "promote strong relationships among them ..." (Daniels et al. p. 70). Examples of ways that good teachers use curriculum to enhance climate in their classrooms include the following:

- "Introducing topics that connect with students' lives—defining classroom rules when studying the U.S. Constitution; writing about students' own cultures for composition; reading literature that connects with their concerns ..., by authors from a variety of cultural backgrounds; applying science topics to social, political, and health issues; using math to analyze surveys on behavior and beliefs of people in the school and the neighborhood.
- Providing choices among topics for deeper investigation and helping students to choose meaningfully to maximize the likelihood for engagement and success; even in more abstract sciences, like physics, helping students take ownership of the material and feel as if it "belongs" to them, not just to the teachers
- Spending at least some time on topics that integrate curriculum, helping students appreciate how all their learning is linked, rather than reflecting only the parochial interests of separate school departments" (p. 71).

Some strategies for good instruction that support a positive climate include:

- "Conducting discussions so that ideas from all students get heard and respected
- Organizing students both to work together on some topics and to make choices and express themselves individually on others

- Frequently rotating student groups and partners so that students get to know and work with all their classmates
- Diagnosing students' needs and structuring classroom time so the teacher helps with these needs, through individual and small-group conferencing
- Giving all students opportunities to become expert on aspects of a topic and to serve as instructors for the rest of the class" (p. 71).

Although these are not new ideas or revolutionary strategies, they tend not to be used as extensively in classrooms as these authors believe they should be.

Engaging students psychologically is an essential component of personalizing school for them. Researchers note, "Students at all achievement levels told us that they prefer classrooms where they can take an active part in their own learning, classrooms where they can work interactively with their teachers to construct knowledge and understanding. We found these active student roles to be particularly important to the engagement and academic success of non-traditional students, who generally failed to thrive in teacher-dominated classrooms" (McLaughlin, 1994, p. 11, in National Research Council Institute of Medicine, p. 132). Teachers and schools can enhance students' motivation to learn through a variety of classroom structures and activities. These topics are discussed more thoroughly in Chapter 5 on classroom instruction.

For students to be fully engaged in their schools, they need to be taken seriously and given meaningful roles related to school organization and to their own learning.

Student Perspectives. For students to be fully engaged in their schools, they need to be taken seriously and given meaningful roles related to school organization and to their own learning. Cushman (2003) and Daniels et al. (2001) provide some examples for enhancing school climate that increase student involvement in the school.

Cushman interviewed high school students who gave advice to teachers on a myriad of topics reflected in these chapter titles: knowing students well; respect, liking, trust, and fairness; classroom behavior; creating a culture of success; teaching to the individual; working with the group; motivation and boredom; teaching difficult academic material; teaching teenagers who are still learning English; when things go wrong; and going beyond the classroom. Forty students in New York City, Providence, and the San Francisco Bay area were included through interviews and their writing. They represented many different backgrounds. Some students did well academically, many struggled; some were recent immigrants and English-language learners; some had dropped out and returned to school. In the book, the students "trade wisdom on how to navigate high school" (p. xi). Cushman summarizes that students care about what other people think of them; they want to be well known but have boundaries and privacy protected. "They crave respect from adults, feeling retaliatory rage when humiliated or ignored." She notes that the "students showed enormous appreciation for the teachers who helped them learn. Though they offer plenty of criticism and advice, they testify time after time to a teacher's power to change their minds and their lives" (p. xi–xii). Students focused more on the relationships that made learning possible than specific curriculum and assessment. The author stresses the importance of teachers' "paying close attention to what students say, whether they speak in words or

actions" (p. xiii) and developing reciprocal relationships in which teachers share about themselves as well as learn about their students.

Daniels et al. use Alfie Kohn's work as a rationale for student involvement. They write, "First, people who experience self-determination are healthier physically and emotionally. Second, students learn responsibility and self-control by being taught to make thoughtful decisions. Third, academic achievement increases when children make choices of what and how to study. And finally, teachers find their work more exhilarating when students are deeply involved in work they're committed to" (p. 88).

Some examples of involving students or "bringing student voice" into classrooms include:

- "Students choose activities or strategies for getting assignments done.
- Students assess their own work.
- Students choose topics or materials to study (negotiate curriculum).
- Students guide their own work, in cooperative groups and/or individually.
- Students teach other students, one on one, in small groups, or through individual or group presentations to the class.
- Students choose among seminars or activities to attend among several classrooms.
- Students help plan study units or courses for groups of classrooms.
- Students teach units or courses of their own design across multiple classrooms" (Daniels et al., p. 90).

Involving students or using their input in broad school matters is also important to their engagement. The following suggestions are examples of ways students might have input on school-wide issues.

- "Students discuss issues in advisories.
- Ad hoc committees focus on special needs or problems—for example, to address the need for conflict resolution, to promote interracial understanding, or to redesign the freshman program.
- Student representatives sit on committees and councils previously comprised solely of adults.
- Standing student committees participate in governance functions—for example, student committee that interviews new teacher candidates.
- Student town meetings deliberate on school policies, problems.
- Students sit on the school board or community council" (Daniels et al., p. 90–91).

Of course, students must learn how to take active roles in the school governance or school programs; "... teenagers who aren't in the habit of taking initiative don't all become active citizens without help and training. They must be taught leadership skills—how to communicate ideas effectively, gather support, facilitate meetings, and negotiate conflicts. Of course, these are all excellent skills schools should teach anyway, for success in the adult world" (p. 91).

Daniels et al. assert, "It's clear: teachers cannot leave students sitting silently in rows listening to lectures and expect that some special program, in some other room at some other time, taught by some other teachers, will create a climate that makes kids eager to come to school every day. However, good teachers recognize that the same energizing strategies that help students work together, appreciate and understand one another, and invest in their learning and the school are also strategies that promote critical thinking, strengthen communication abilities, and provide skills needed for life in the adult world" (p. 72).

ORGANIZATIONAL EFFORTS TO IMPROVE HIGH SCHOOLS

In addition to personalizing schools and strengthening the relationships between students and teachers and among students themselves, the organizational structures of high schools can improve the school environment and increase student attachment to school. Changes in school organization and internal structures, including various efforts to reduce the "physical and emotional size" of high schools, the flexible use of time, and approaches such as advisory, use of teams, inclusion, and mentoring, are addressed in this section.

Small High Schools Movement

Various visionaries have promoted the creation of small schools or the re-configuration of large existing schools into small schools within their shared facility. Small schools are seen as a way to personalize schools, which will strengthen relationships and improve student learning. Thus, small high schools have emerged as a popular reform strategy, particularly in large urban settings such as Chicago and New York. There are multiple university centers and foundations that provide assistance to create small schools or convert large ones into small schools. These include the Small Schools Project at the University of Washington, the Small Schools Workshop in Chicago, and School Redesign at Stanford. Among recent studies are those conducted by Fine, Ancess, Meier, Raywid, Lee and Smith, Toch and, more recently, Copland, Gallucci, Wallach, Lambert and Lowrey for the Small Schools Project. The effects of school size have been examined by many researchers over the past several decades, often with conflicting or inconclusive results.

The Small Schools Workshop provides the following criteria for genuinely effective small schools:

- "A maximum population of 250–350 students (400–450 in a high school) in a heterogeneous mix that represents the local school community
- A nonexclusive admissions policy
- A consistent educational experience for students over an extended period of time (more than one year)
- A coherent focus and philosophy of education, and a curriculum that is integrated around that focus

Schools, as communities of commitment, find "ways to be small—to be humane, caring and to promote a sense that everyone matters..." (Ancess)

- A cohesive group of teachers that collaborate and discuss the needs of their students
- A sense of shared leadership and investment among those in the small school
- Involvement of families in the school community" (Daniels et al., p. 41–42).

Ancess (2003) studied three urban schools in New York ranging in size from 120 to 900. She found that each of these schools found ways to be "small," or to be humane and caring and to promote a sense that "everyone matters" so no one is anonymous. These schools reflected a set of common organizational characteristics for establishing "communities of commitment:"

- "Human scale school size,
- Close working proximity of teachers who collaborate,
- Formal and informal, scheduled and unscheduled opportunities for collegial collaboration,
- Regular opportunities for critical reflection and dialogue,
- Regular formal and informal, structured and unstructured, teacher-generated and school generated opportunities for individual and organizational growth and professional development,
- Norms of self-governance and shared governance embedded in all organizational and pedagogical functions,
- Strong, nurturing, and shared leadership" (p. 28–29).

These organizational characteristics may be more easily developed in small environments. However, larger schools, with careful planning and effort, can be structured to promote them as well.

Darling-Hammond, Ancess, and Ort (2002) list several benefits of small high schools based on studies of individual urban schools:

- Better attendance rates
- Stronger academic achievement, particularly in reading and writing
- Higher graduation rates
- Higher college-going rates
- Fewer behavioral incidents.

Other benefits include fewer failed classes, greater participation in activities, and less vandalism and violence. Strong academic results for students of color and low income students are another important benefit attributed to small schools.

There is considerable debate about the efficacy of different sizes of enrollment. Some supporters advocate for schools of 400 or fewer students; some consider any school under 1000 as small. Lee and Smith's (2001) research found schools of 600–900 to be most effective. Regardless of the optimal size, there appears to be growing evidence of the benefits of small high schools, or high schools organized to increase a "sense of smallness," particularly for students that struggle in school. Lee and Smith concluded that "students learned less in

larger than in smaller schools. Students were also less engaged in larger than in smaller schools… [L]arger schools were also more inequitable in terms of the distribution of engagement and learning by student SES [socio-economic status]. These size effects on equity are larger for learning in reading, history, and science than in mathematics. Students who attended smaller high schools were favored in terms of both effectiveness and equity. That is, students who attended small schools learned more, and their learning was less differentiated by social class" (p. 70).

Several researchers caution that although small size appears to facilitate increased learning across groups of students, smallness is insufficient in and of itself to produce fundamental changes in achievement or to promote greater engagement. Lee and Smith found that "enrollment size acts as a facilitating or debilitating factor for other desirable practices. For example, we know that collegiality among teachers, personalized relationships, and less differentiation of instruction by ability (to name a few restructuring practices) are more common and easier to implement in small schools. Reducing school size, while a potential structural reform in its own right, is unlikely to increase student learning per se" (p. 76). Some researchers contend that "[t]he small schools that are most effective with respect to academic engagement, persistence, and graduation rates have also developed and implemented thoughtful and rigorous alignment of curriculum, pedagogy, and assessment systems in which youth and faculty are held publicly accountable to high standards" (Fine 1994; Wasley et al., 2000, in National Research Council Institute of Medicine, 2004, p. 117). The small schools that are least effective are those that are simply small in size, but have developed neither curricula nor assessment systems that demand rigorous engagement and performance by all" (Wasley et al., 2000, in National Research Council Institute of Medicine, p. 117).

Small is insufficient in and of itself to produce fundamental changes in achievement or to promote greater student engagement... "Enrollment size acts as a facilitating or debilitating factor for other desirable practices." (Lee and Smith)

It is also necessary to couch these findings in the context of limitations of the studies and potential selection bias. Many small schools are schools of choice—students and families may have to apply or request participation in a lottery in order to be selected. Theme-based schools may attract students with particular interests, actually resulting in a form of tracking. In addition, teachers and administrators may be selected because they choose to be there or because there is a good fit with the school. Therefore, selection bias most likely contributes to the positive findings discussed although may "not explain all of the differences that have been found" (National Research Council Institute of Medicine, p. 117).

The National Research Council Institute of Medicine report stops short of wholehearted endorsement of small schools. It states, "... the committee does not recommend creating small schools without consideration of the qualities of schools that have been shown to promote student engagement and learning—challenging and clear standards, personalization, meaningful and rigorous pedagogy and curriculum, and professional learning communities" (National Research Council Institute of Medicine, p. 118). There are also other voices of restraint in view of the current top-down rush to increase the

numbers of small high schools, many of which are supported by foundation grants. Some writers are critical of rigid imposition of the small school model. Others are researchers who have studied the original wave of the small high school movement. For example, Fine (2005) asserts that the push to increase the number of small schools may minimize the importance of social justice and democratic principles. Many of the early urban small schools were created to provide under-served students of color and in poverty an opportunity for an outstanding education. Fine fears this purpose may be undermined by other priorities in the process of extending the model.

In spite of promising results related to small schools, the process of reducing school size is fraught with potential complexity, conflict, and cost. With thousands of high schools across the country, it is unlikely that the small schools movement within itself can be implemented sufficiently to improve conditions for all students in America. Other strategies may be more practical, such as developing small learning communities and utilizing internal structures such as advisory, teams and looping, inclusion, and mentoring.

Small Learning Communities

In addition to developing separate small schools, there are a variety of structures that have been used to create school environments that feel small. To achieve "smallification," according to Daniels et al., schools may be organized as schools-within-schools, multiplexes, scatterplexes, charter schools, and magnet schools. Small learning communities within an existing large school may be organized around student interests or vocational themes. Schools-within-schools are one or more small schools that are developed within a "host" school. Sometimes the entire student body is divided into subgroups of small schools, which share a facility. This form is called a multiplex. A scatterplex is two or more small schools that are housed at different sites but share administration.

One approach for creating smallness is establishing alternative schools of various types as a school within a school. In these structures, an identified group of students with assigned faculty occupy space in a larger school but may be relatively autonomous in the programs, practices, and policies that shape teaching and learning. The stories of these schools include positive effects regarding teacher and student relationships. However, there are also negative dimensions in some situations particularly when one small school exists within the large high school that enrolls most of the students. The small schools may struggle within the context of the larger traditional school and

experience competition, animosity, and lack of acceptance and understanding. The research supporting the benefits of many of these configurations is not as strong as research comparing whole schools that vary in size (Cotton, 1996).

Ready (2003), with a team of researchers from the University of Michigan, investigated five high schools that were organized into schools-within-schools (SWS). Ready points out that SWS actually have a long history as implemented in British boarding schools as "houses." Most SWS, when sub-units within the large school, are organized according to "curricular, pedagogical, or (most often) career themes" (p. 6). Most SWS sub-units permit students to select their "school" in an attempt to build commitment among students and to increase their engagement with school. These SWS generally try to distinguish themselves from the large school so students have reasons to choose them. A potential problem with such identification and choice of sub-units, however, is that tracking may occur by design or inadvertently. In these cases, the school-within-a-school may actually produce the same difficulties found in comprehensive schools, with stratified student bodies and sorting of students according to different interests and abilities. Thus, SWS may take on reputations as low achieving or high academic programs and actually "institutionalize student sub-cultures" as stereotypes are perpetuated (p. 22). Some hard working students may be attracted to sub-units with a reputation for academic success. "[L]ess motivated students often chose sub-units they thought had low academic and behavioral expectations" (p. 19).

Other difficulties found with schools-within-schools emerged from the study. Schools-within-schools that are conversions of pre-existing comprehensive schools have more difficulties in making the changes necessary than are experienced by new start-up schools. Schools-within-schools have to "overcome the social and academic customs of their comprehensive pasts" (p. 14). Schools often experience turnover in personnel and changes in procedures for allocating students to sub-units.

The researchers note the difficulty teachers and administrators have in SWS with implementing and sustaining the structure within a comprehensive high school. "The consensus among staff was that maintaining the comprehensive curriculum invariably led to the decay of the SWS structure because students' curricular choices trumped attempts to keep sub-units 'pure'" (p. 15). Small SWS find it difficult to keep students in their sub-units full time when students request electives offered only in the larger school.

SWS also experience the tensions between the needs of low- and high-performing students. Ready states, "Schools concerned primarily with educating advanced students (and catering to their parents) risk creating highly segregated and stratified internal structures.... However, schools focusing too much on equity risk losing middle- and upper-class families to other schools, in part because parents of academically successful students sometimes resist reform; schools *already* 'work' for their children" (p. 16).

"Close, caring and intense relationships ... teach students that they matter and that their learning matters." (Ancess)

SWS are faced with contradictory ideals found in public schools in general. The democratic ideal demands equal educational opportunities. The second ideal of individual choice can lead to variation and disparity in education. Despite disadvantages and problems, the schools did report some positive outcomes. Students and staff in the five SWS high schools reported improved attendance and behavior, more positive relationships among students and teachers, increased teacher satisfaction and feelings of self-efficacy, and greater student commitment to school.

Ready stresses that the "warnings" he presents are not intended as a rejection of the SWS structure. He writes that the findings are essentially "cautions" to consider in designing and implementing SWS. He also sees the process and dialogue that are part of planning and implementing SWS as worthwhile undertakings for a school staff.

Programs and Structures to Support Personalization

As noted earlier in this chapter, sustained relationships are fundamental to personalizing high schools. Such relationships enable opportunities for more successful teaching and learning. According to Ancess (2003), "Close, caring, and intense relationships between teachers and students, and among faculty who share students are the central, most powerful driving force of the schools [in her study]. These relationships teach students that they matter and that their learning matters. Relationships create the trusting bonds that catalyze the changes in students' performance" (p. 127).

Research studies have examined programs and internal organizational structures that have potential to increase personalization of high schools. These range from within-school approaches to community-linked programs. Some examples are advisory period, looping (scheduling a group of students to stay with the same teachers over time), inter-disciplinary teams, inclusion (assigning diverse groups of students together in the same classes including students with disabilities), flexible scheduling, and programs that match mentors with mentees, provide internships, and encourage community service. Most of these ideas are not new. They have been developed and implemented with varying degrees of success since the 1970s; unfortunately, innovations such as these come and go often without wide-scale and deep implementation or without rigorous evaluation.

Some of these approaches can be implemented with negative results. As Newmann points out, "Changes in organizational structure are unlikely to enhance student engagement and achievement unless structural changes are deliberately linked to efforts to improve the substance of educational missions, cultural norms, curriculum, and teaching. Students working with faculty tutors or in small groups, for example, can be exposed to either boring or exciting material. Even dramatic reductions in class size (e.g., from about 25 to 10) will have little effect unless they are accompanied by changes in teaching (Bennett, 1987, in Newmann, 1992, p. 188–189). The following sections provide

definitions and guidance based on research and professional advice on some of these approaches.

Advisory. Advisories are a mechanism for providing student support and enabling strong relationships to develop so that "no student falls through the cracks" (Darling-Hammond, 2002, p. 11). Rather than relying only on guidance counselors to advise students, teachers are given time to work intensely with students in small groups over a period of time. Daniels et al. (2001) borrow the middle school definition for advisory. "One adult and a small group of students have an opportunity to interact on a scheduled basis in order to provide a caring environment for academic guidance and support, everyday administrative details, recognition, and activities to promote citizenship" (National Middle School Association, in Daniels et al. p. 62). Characteristics of effective advisories include these features:

- Sufficient time: "Advisory should meet frequently, three to five days per week, for at least half an hour."
- Manageable size: "Groups should be small—no more than fifteen to twenty—so students and teacher can get to know one another well."
- Sustained continuity: "In many high school programs, students have the same advisor for four years. Some schools, however, have advisors who teach the same grade level as their advisees, which provide the trade-off that the advisor is better acquainted with the students' academic program."
- Clear key duties: "The advisor is the student's and family's first contact at the school, to solve problems or meet special needs. And the advisor's purpose is to support the whole individual, rather than to teach subject matter."
- Understood focus: "A plan or program ensures that advisory is not limited to students merely hanging out or completing bureaucratic business."
- Supportive of teacher autonomy: "There's room for each advisory to reflect the personality and interests of the teacher and the students" (p. 62).

Some examples of variations include teaming two teachers with a group of student advisees and planning topical differences by grade level (e.g., diversity training in freshman groups, service projects or internships at other grades). For advisory to be successful, teachers must be an integral part of the planning and decision-making process. (See Appendix B for examples describing implementation of advisory periods in Washington high schools.)

For advisory to be successful teachers must be an integral part of the planning and decision-making process.

Teams and looping. Teams and looping are organizational structures that promote personalized instruction and positive relationships. These structures provide opportunities for teachers and students to know one another well and to develop understanding and trust to enhance learning. Teams are frequently associated with the middle school concept in which interdisciplinary teams

share the same group of 100 or so students within a block of time—two or four hours depending upon the curriculum content. Looping is generally associated with elementary schools where teachers move up with a group of students from one grade to the next; thus, a first grade teacher keeps a group of students as they enter second grade and perhaps third. Both of these grouping strategies are seen to increase the potential for teachers and students to become well-acquainted in order to increase personalization of school and increase learning. Although generally implemented at earlier grade levels, the strategies have merit at the high school level as well, and several innovative schools have incorporated the strategies. Darling-Hammond (2002) describes examples of looping that have been implemented using interdisciplinary teaching teams that stay with students over two years.

Teams and looping provide benefits to both students and teachers. "Research suggests that teams create the type of supportive, reflective environment that improves practice and ultimately increases achievement...." In teams, teachers are more able to avoid the problems of isolation faced by most high school teachers. "Effective secondary schools use teams to improve community, provide support, and create a strong climate that influences expectations and student performance. One format used to create teams is subject integration or interdisciplinary team arrangements. Some high schools use their departments as sites for teams to organize and plan courses, allowing different teachers to take the leadership role from team to team. Teaming does require extra time on the part of the participants for planning and development, which is a problem in some schools. However, successful high schools rearrange the schedule to provide time for teams to meet during the school day" (in Murphy, Beck, Crawford, Hodges, & McGaughy, 2001, p. 182).

Teams and looping may be implemented in schools-within-schools or in interdisciplinary teams. Schools-within-schools may maintain relationships with the same students and teachers over two or more years using freshman-sophomore academies and upper-level career-oriented academies. Also, schools-within-schools that organize vertically across grades 9-12 allow looping quite naturally. These formats may be organized with small groups of students and teams of teachers who are scheduled to meet in blocks of time.

Inclusion and detracking. Improving high schools for all requires elimination or at least reduction of the multiple tracks found in traditional settings. Researchers conclude that inclusion, rather than tracking, supports personalization in high schools. Traditionally, tracking in high school is an "accepted norm." Vander Ark identifies six tracks found in most high schools that include advanced placement, college prep, the general track, the vocational track, the alternative track, and special education (2003). Overt tracking in high schools has given way in many instances to student choice, which may have the same result as students self-track due to their perceptions of their ability, lack of information, or other influences.

Some authors assert that statistics on tracking have clearly demonstrated the inequities among students in low- and high-ability tracks. There is considerable evidence that students in low-ability tracks receive lower-quality instruction, cover less content, and do work that calls for more rote drill than do students in higher track classes. In addition, teachers are more preoccupied with classroom management in lower track classes (Oakes, 1985; Darling-Hammond, 1997). According to Daniels et al., "Tracking consigns the lower ranks to a lesser level of learning from which most never escape. The worst news is the racial inequity that tracking brings." These authors claim, "The full inclusion of special education students is one system that enhances community" (p. 67). Also, as was noted earlier, Newmann (1992) expands the notion of inclusion to include "marginalized" students. He encourages developing policies and practices to include the participation of students who may be outside the mainstream.

"Tracking consigns the lower rank to a lesser level of learning from which most never escape. The worst news is the racial inequity that tracking brings." (Daniels, et al.)

Wheelock concurs. "Tracking does not result in the equal and equitable distribution of effective schooling among all students. Instead, on the one hand, it allocates the most valuable school experiences—including challenging and meaningful curricula, top-quality instruction, and high teacher expectations—to students who already have the greatest academic, economic, and social advantages. On the other hand, those who face the greatest struggles in school—and in life in general—receive a more impoverished curriculum based on lower assessments of their learning capacity.... Furthermore, the sorting of students into groups of "haves" and "have-nots" contradicts the American educational credo that schools are democratic communities of learners whose purpose is to offer equal educational opportunity to all'" (cited in Daniels et al. p. 68–69).

Organizationally, six elements must be addressed to move toward inclusion and "away from ability grouping," according to Wheelock. These include:

- "developing a culture of detracking—helping students and teachers to believe that having everyone work together in a school is valuable and can support learning
- involving parents—helping particularly the parents of already successful students to understand that detracking will advance all students in the school and not lower teaching and learning levels for their kids—otherwise, parent opposition can destroy the effort
- providing professional development for teachers—introducing strategies and curriculum for working with diverse students in the classroom, and facilitating the planning needed to reorganize the school
- phasing in change gradually, so that changes are supported and problems are addressed
- rethinking other aspects of the program, such as ways to deliver extra help for those students who need it without using pull-out activities that implicitly label the 'pullees'
- obtaining district and state support" (cited in Daniels et al. p. 69).

"High standards cannot work without high supports." (Darling-Hammond)

Darling-Hammond (2002) cautions, "Access to challenging curriculum and assignments does not automatically translate into student capacity to succeed. High standards cannot work without high supports" (p. 27). To successfully de-track students, educators need to be able to diagnose student instructional levels and to make decisions about "who needs enrichment, who needs acceleration, when to use cooperative learning, when to use peer-to-peer tutoring"... or other strategies (Wheelock and Lynne, in Daniels et al. 2001, p. 69). Providing high support requires attention to how students learn as well as what they need to learn. To ensure that students succeed when they are held to high standards, teachers' approaches to instruction must be responsive to the individual students. "Adaptive Pedagogy" and differentiated instruction are strategies that support student learning. These are described in Chapter 5 on improving classroom instruction.

Flexible time schedule. Traditional bureaucratic high schools have been locked into rigid time schedules for years, generally marked by "jangling, incessant bells." The result is disjointed, fragmented days in which students "change gears" six or seven times a day in forty to fifty minute intervals to study different subjects. Not only is instruction broken into arbitrary bits and pieces, but teachers generally meet 150 students in a day. George, McEwin, and Jenkins (2000) write that "no other workers face such a blistering array of requirements from so many different but equally powerful supervisors" as do high school students. Darling-Hammond (2002) captures the fragmentation of life in a "typical factory-model high school." She suggests adults envision their workday organized like a typical American high school. Each class period would equate with a different job, each job lasts 45 minutes, with 7 or 8 changes a day, each supervised by a different boss, with different rules and expectations.

Daniels et al. capture some of the difficulties the traditional schedule poses for students:

- "Fifty minutes is simply too little time for significant intellectual engagement in many important school subjects.
- Short periods encourage teachers to lecture, rather than use more experiential, interactive teaching methods.
- Different school subjects need different amounts of instructional time.
- Bell-driven schedules create difficulties with beginning and endings of classes.
- A seven-period day contains too many time-wasting transitions.
- The uniformity and tedium of 180 identical days taxes students' motivation.
- The symbolism of marching students around at the sound of a bell is demeaning.
- The bell schedule reflects (and reinforces) a distorted view of knowledge and learning."

According to Daniels et al., "The final concern is the gravest one. Dividing a student's studies and her days into many separate subjects and periods sends a deeply wrong message about the nature of knowledge and learning in the real world. Life doesn't present problems to us in neat subject-matter disciplines, but rather in complex, intertwined, multidisciplinary realities" (p. 180–181).

Various time schedules have been developed to increase personalization, to promote positive relationships among teachers and students, and to increase student learning. In the 1970s, the Trump model used a flexible modular schedule that allowed for different size instructional groups and various blocks of time, e.g., seminars of 10–12 students that might meet for 30–40 minutes three times a week, middle-sized groups of 30–45 that might meet for 40–60 minutes on a day or two, large groups of over 100 that might meet for a general session once a week. More recently, block scheduling has become a popular and manageable approach that allows for several variations. For example, a block schedule of double class periods may meet on alternating days. A 4x4 model schedules year-long courses into semester-lengths so students take four at a time in 90-minute periods. Variations include a trimester model that provides three 60-day segments or five courses in two 75-day sessions with a 30-day spring trimester. Teachers of some courses may have reservations about these schedules, particularly for those subjects that seem to need daily practice. Other concerns have to do with absent students making up work and scheduling transfer students. Nevertheless, block scheduling has become a widely-used strategy that reduces school-day transitions, limits the number of subjects or classes scheduled at a given time, and increases instructional time, all intended to improve school climate and increase student engagement in school.

Several positive outcomes are purported to occur with block scheduling, although the relationship between block scheduling and student achievement is unclear. Some studies show no significant differences, while others note improvements in student achievement. Causal relations, though. are difficult to ascertain (Cobb, Abate, & Baker, 1999). Some studies indicate that students in block-scheduled classes earned better grades and had fewer course failures. Other benefits for block scheduling include: students can take more courses and perhaps have more choices, attendance improves, disciplinary referrals are reduced, students receive more individual attention from teachers, and there is more variety in classroom activities. Proponents of block scheduling acknowledge that instructional strategies must vary within longer time periods and that lecturing is still overused. Instructional approaches that work well in 90-minute periods, for example, include cooperative learning, case method, Socratic seminar, concept attainment (an approach to developing concepts and their essential attributes), inquiry method, and simulations. The success of block scheduling depends to a great extent on the teachers and administrators who implement it because it requires thoughtful planning, organization, evaluation, and sufficient professional development for this format to work well for students (Queen, 2000).

Research is not conclusive on the merits of alternative schedules, although some studies and the stories of professional experiences point to promising results. Much depends on the quality of instruction, motivation of teachers, support by the community, and professional development to insure that instruction takes advantage of the longer time periods and teachers capitalize on the potential to know students better. Other changes in length of school year and year-round school calendars have been explored and tried. However, implementation at the high school level is complicated by student employment schedules, curriculum offerings, and co-curricular activities and athletics. Hence, the approach has been limited mostly to communities with severe overcrowding of school facilities.

Mentoring strategies. Mentoring strategies are among the adaptable approaches used to personalize high schools. Mentoring has been especially effective in relation to students at risk of failing or dropping out. The dropout literature provides definitions and recommendations for successful mentoring efforts to help students who might benefit from positive role models and support systems to thrive in high school. "Mentors have the power and influence to change the negative cycles of their mentees and their families" (Smink & Schargel, 2004, p. 144). Although programs provide data to demonstrate their success, such as the number of mentors and contact hours recorded, evaluation processes are generally weak. A few ideas gleaned from the programs, however, may help personalize high school for students.

Smink and Schargel offer these benefits of mentoring programs in general:

- "Improved academic achievement scores,
- Increase in extra curricular activities,
- Increase in graduation rates,
- Increase in school attendance,
- Decrease in grade retention rates,
- Decrease in discipline referrals,
- Decrease in early pregnancy rates,
- Increased self-esteem,
- Increase in securing entry-level jobs, and
- Increase in community service activities" (Smink & Schargel, 2004, p. 143)

The success of mentoring programs depends on implementation issues such as effectively matching characteristics of mentors with their mentees, mentor training, ensuring consistency in the operational aspects of mentoring such as scheduling, time, tasks, dependability, and sustaining the relationships over a period of time (Nguyen, 2005).

Community-based learning. A number of community-based programs appear to increase the educational success of adolescents and may help to personalize their experiences. Some authors claim that programs located in or linked to the community increase the relevance of instruction to students' lives both inside and outside of school. One type of community and school partnerships is developed between high schools and business communities. Traditional partnerships support students in community-based learning opportunities, such as the "co-op" arrangements (now often called work-based learning) that place career and technical education students in the workplace for experience and additional learning. Other types of partnerships include career exploration through shadowing which may be short term, adopt-a-school volunteer projects that provide adults to mentor or tutor students, paid or unpaid internships, or financial assistance to fund special programs (George et al., 2000).

Service learning is an example of a program that is connected to the community. The National Research Council Institute of Medicine (2004) describes service learning as a "strategy for creating ties between schools and their communities and making the instructional program relevant to students' lives outside of school." There are four kinds of student engagement linked to service learning, according to advocates for this approach: "civic engagement, social engagement with the communities they serve, personal engagement with individuals they serve, and academic engagement." Service learning provides opportunities for students to engage in interesting and meaningful activities in various community-serving organizations. In these situations, students can obtain a variety of "experiences and information that may make schooling more meaningful and help them to formulate future options" (p. 131). One assumption supporting service learning is that helping others may be motivating to students and encourage them to engage more in school.

Research on the effects of service learning on student learning is somewhat limited. However, Honig, Kahne, and McLaughlin summarize some findings that are included in the National Research Council Institute of Medicine report. These studies suggest that service learning occurs in settings that are personally valuable so students can apply their learning in meaningful contexts. Moreover, the use of their academic skills builds their confidence as learners, and service learning helps them develop personal and social responsibility that carry over into school situations. Honig et al. point to three characteristics of effective service learning experiences: "First, they are most effective when students have regular structured time to discuss the content and the process of their practical experiences. Second, successful programs give students opportunities for personal agency—to develop their own ideas and pursue their own interests. Third, effective service learning programs are closely linked to the academic curriculum" (Honig, 2001, in National Research

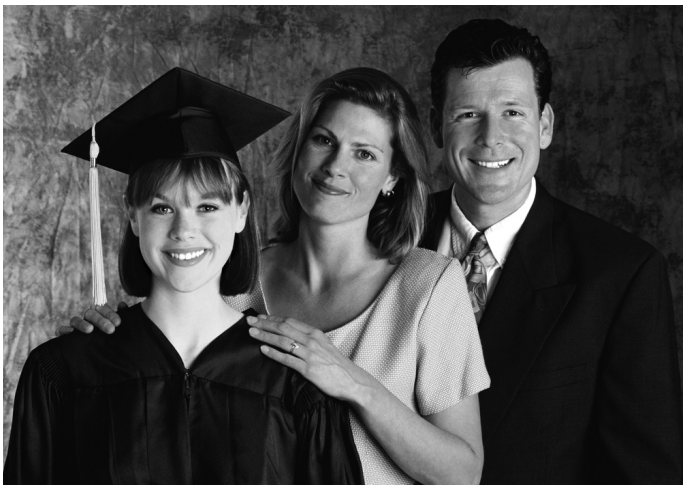
Council Institute of Medicine, p. 132). Attributes of successful school-community opportunities that engage youth and promote positive development emerge from some studies. Honig et al. offer a number of criteria for effective programs; they are:

- "Focused on each youth in a holistic sense;
- Focused on all youth;
- Strengths-based, prosocial, and developmental;
- Responsive to specific youth and neighborhoods;
- Youth-centered; and
- Filled with expanded opportunities to learn from adults in and out of school" (p. 133).

Co-curricular Programs and Athletics. Co-curricular programs and sports are perceived as an integral part of the modern high school experience in the United States and provide valued learning opportunities for the participants, according to many reports and personal testimonies. The term "co-curricular," preferred by the National Federation of State High School Associations in lieu of the term "extra-curricular," emphasizes the role of athletics and clubs in contemporary high schools as an extension of a good educational program. Some research has pointed to the relevance of co-curricular programs for keeping students engaged in school. For some students, these programs are critical in motivating them to attend school regularly and to improve their academic performance (McNeal 1995; Holloway, 1999-2000; Silliker & Quirk, 1997, in Black, 2002).

Athletic participation does not appear to detract from academics. A study of male and female soccer players found that their grades were higher during the season than in off-season (Sillliker & Quirk, in Black, 2002). Although athletics, clubs, and fine arts activities require a commitment of time, students who participate appear to develop the ability to juggle activities with their homework, and sometimes part-time jobs, and prize the sense of belonging and status that accompanies their involvement. According to some studies, participation in sports has a positive influence on enrollment in academic coursework, homework, and attendance.

Studies in the early 1990s found participating in athletics had positive effects on both grades and test scores (Loveless, 2002, p. 21). Participation also has a positive impact on social and psychological factors such as self-concept and reducing discipline problems and delinquency. High school athletes also appear to have an edge in higher earnings as well as an increased likelihood to attend college. Explanations for the positive outcomes may be due to increased social capital as young people develop relationships, work together, make connections with adults, and enjoy status in the eyes of peers. However, this Brown University report notes that schools in disadvantaged communities do not experience the same boost in test scores that schools in wealthier areas get when their teams become "powerhouse teams."



Although many studies indicate the potential benefits for students in participating in co-curricular activities, Solomon (1989) cautions that academic expectations should not be sacrificed to sports. His research, using studies from the United States, Canada, and England, found that the sports subculture has created a phenomenon that he calls "in-school" dropouts. He refers to several research studies that conclude some students, particularly black youth, remain in school but disengage from academic endeavors. He writes, "[D]ropping out of the academic culture of the school and adopting the alternative sports culture may lead to serious in-school dysfunctional consequences," particularly for black youth (p. 85). He writes that teachers may "channel" black males "out of mainstream curriculum and into sports" rather than using more effective interventions such as raising expectations for them and making academic courses more accessible and attractive to them (p. 90).

Family involvement increases personal and academic benefits for students.

Studies of small schools indicate higher percentages of participation in co-curricular activities. Although larger schools often offer more activities than small schools, students in small schools are more likely to be actively involved and expend more energy on their activities. In large schools, some students who show up may be relegated to the sidelines. If school activities and athletics are seen as a potential means to encourage student engagement and belonging, then the challenge becomes one of extending opportunities for co-curricular participation to the entire population of students while maintaining pressure and support for their academic success. Expanding activities may include increasing the scope of programs in response to student suggestions. Also, providing incentives or overcoming obstacles (such as availability of transportation) for some students may be necessary steps to increase participation.

Enhancing Connections with Families and Communities. Involving families and community members in high schools is another strategy for improving school environment and personalizing schools. Family involvement traditionally has been a strategy found most at the elementary levels that decreased as students advance through school. Too often, decreasing involvement is accepted as inevitable (George et al., 2000; National Research Council Institute of Medicine, 2004). Also "low-income and poorly educated, single and minority parents have relatively low rates of involvement in their children's schools" (National Research Council Institute of medicine, p. 124). Effective high schools, however, find making strong connections with families and communities is critical to their improvement efforts.

Family involvement and links with the community increase personal and academic benefits for individual students. Research studies suggest that school practices and policies affect the level of parent involvement considerably. "Teachers' practices to involve families are as, or more, important than family background variables such as race or ethnicity, social class, marital status, or mother's work status for determining whether and how parents become involved in their children's education" (Epstein, 2001a, p. 45, in George et al.) "School practices may therefore explain, in part, the relatively low participation rates of parents with children who are most at risk of school failure" (George et al., p. 125). "Jordan and Plank (2000) found that parents of low socioeconomic status (SES) were a little more than half as likely as high-SES parents to have been contacted by their adolescent's high school about course selection decisions, postsecondary education, or career plans. This finding suggests that less effort was made to involve low-SES parents than more advantaged parents. But low-SES parents in their study were also less likely to attend a school-sponsored program on postsecondary educational opportunities and financial aid, suggesting that they did not take as much advantage of opportunities the school did provide" (in National Research Council Institute of Medicine, p. 125).

However, research has presented clear evidence that family involvement has a positive impact on student achievement. Thus, high schools must look for ways to provide for meaningful family involvement. Findings by Joyce Epstein and others apply to high schools as well as earlier grade levels. These researchers broadened the definition of family, school, community partnerships to include six categories of participation that became the basis of the National Standards for Parent/Family Involvement Programs written by the National Parent Teachers Association. These standards are:

- "Communicating—Communication between home and school is regular, two-way, and meaningful.
- Parenting—Parenting skills are promoted and supported.
- Student learning—Parents play an integral role in assisting student learning.
- Volunteering—Parents are welcome in the school, and their support and assistance are sought.
- School decision making and advocacy—Parents are full partners in the decisions that affect children and families.
- Collaborating with community—Community resources are used to strengthen schools, families, and student learning" (NPTA, 1997).

George et al. (2000) write, "The most important goal of [family and community] partnerships is to help adolescents gain the knowledge, skills, and dispositions needed to be successful in high school and in later life. However, family members also benefit from involvement as they develop a greater appreciation of their role in their children's education, and improved

sense of self-worth, stronger social networks, and the desire to continue their own education…. Some additional reasons for establishing and maintaining strong partnerships between high schools, families, and community members include: (1) improving school programs and school climate; (2) providing family services and support; (3) increasing parents' skills and leadership; (4) connecting families with others in the school and in the community; and (5) helping teachers with their work" (Epstein, 1995, in George et al., p. 266).

The value of family involvement is also suggested by studies on dropout issues. For example, "Rumberger and Palardy (2002) found lower dropout rates in schools where parent involvement was high. Parent involvement predicted dropout rates after controlling for the academic and social-class background of students as well as school resources (e.g., student-teacher ratio, proportion of teachers with advanced degrees) and structural characteristics (e.g., size and urbanicity)" (in National Research Council Institute of Medicine, 2004, p. 123).

Schools have the primary responsibility for reaching out aggressively to parents and reducing barriers to their involvement.

Family involvement at the high school level requires effective communication processes. Schools have the primary responsibility for reaching out aggressively to parents and reducing barriers to their involvement. Schools that take these steps increase student engagement and learning. Another benefit of effective communication and outreach is that stereotypes are more likely to be reduced as families and teachers become acquainted and work together for the benefit of students. However, family involvement in high schools may require different approaches than elementary school. It is customary in many high schools for parents to join sports booster organizations and serve on community advisory committees. But researchers suggest they also need to be involved more directly with students. Example strategies for connecting high schools with families and communities include:

- Involving partners in various decision making roles
- Developing family/parent resource centers
- Using home-school coordinators
- Supporting home learning activities
- Making home visits
- Implementing family and community education programs
- Building relationships and coordinating health and social services (George et al., 2000).

According to Daniels et al., there are many possibilities for involving families in school programs. For example:

- "Parents sharing formally or informally about their careers
- Workshops in which parents share their own particular skills and abilities—in music, the arts, fitness, sports, etc.
- Student-led parent conferences, where kids guide their parents through portfolios and displays of their work, explaining concepts they've learned in each subject

Authoritative parenting or teaching combines high levels of warmth with high expectations... Students raised in authoritative settings outperform their peers from authoritarian or permissive families.

- Committees that bring together parents, students, teachers, and administrators to plan new or improved programs at the school
- Parent involvement in special projects..... [Parents may help] conduct a semester-long entrepreneurship program for students ..." (2001, p. 74).

High school organization and practices can support and promote, or hinder, parent participation in their children's education. Romo and Falbo (1996) point out that teachers and other school personnel need to "learn how to give parents useful advice about how to keep their children in school and on the pathway toward graduation" (p. 233). The researchers make several recommendations for improving high schools to increase graduation rates of Hispanic students and others such as:

- "Putting the learning of students first
- Clarifying scholastic standards
- Preventing student failure
- Making participation in schoolwork rewarding
- Emphasizing hard work
- Making schools accessible
- Creating clear pathways to good outcomes" (p. 219).

Some researchers have given attention to parenting as a component of family and school partnerships. The National Research Council Institute of Medicine report cites research that links school expectations with parent and family expectations. The researchers suggest that young people benefit from "consistent messages" from family and schools as well as peer support. For example, when there is agreement in the perception of the importance of academics, students do better in school. In a study of nine high schools in Wisconsin and Northern California, "students who received academic encouragement from both parents and peers performed better in school than those who received encouragement from only one source" (p. 122).

Parenting Perspectives. Another dimension of the school-family relationship involves parenting philosophies and orientation. "One of the first places a child acquires an interest in learning and the belief that education is important is in the home. As might be expected, parents can nurture student engagement by emphasizing the value of learning and becoming involved in the student's school activities. But, consistent with other studies, [researchers] also found that a certain general style of parenting, "authoritative" parenting, is beneficial." (National Research Council Institute of Medicine, p. 157). Authoritative parenting or teaching styles combines high levels of warmth with high expectations and permits some autonomy for a child by allowing participation in decision making. Such practices are associated with aspects of social and academic competence. Studies have indicated that youth raised in authoritative settings outperform their peers from authoritarian (low warmth, high demands) or permissive families (high warmth, low demands) on several

measures of competence. Various problem behaviors are also lower among youth raised under authoritative styles. Studies conclude that "students from authoritative families were more engaged in school, had higher educational expectations, received higher grades, spent more time on homework, and were less likely to become involved in school misconduct than students from nonauthoritative homes" (National Research Council Institute of Medicine, p. 158). Although authoritative styles are usually described as characteristic of white middle-class, "the positive impact of authoritative parenting crosses ethnic and social class boundaries" according to several researchers. "Across a broad array of social environments, adolescents reared in an authoritative manner excel socially and academically" (p. 159–160).

School, Home, and Community Partnerships. To create successful school-home-community partnerships, schools need to take the initiative rather than wait for volunteers. The schools need to establish long-term comprehensive efforts that build "trust, support, and loyalty" (George et al. 2000, p. 292). Studies suggest various ways to create effective partnerships.

Parents and community members possess vast experience and knowledge that can be shared with students to enhance their course work. The school's environment and culture influence the nature and extent of partnerships with family and communities. If the school environment is open and school staff is accustomed to working together, the likelihood is greater that school-community partnerships will succeed. "The synergy unleashed by this openness enables high schools to achieve more of their goals. Educators should not have to labor in isolation" (Maeroff, 1996, in George et al. p. 284). Also teachers who work together and "engage in continuing professional dialogue have greater capacity to enhance student learning and provide models that help students understand the value of cooperation" (Maeroff, 1996, in George et al., p. 286). Schools that develop authentic partnerships with communities will probably be able to enlist the support of the community in education reform. *Breaking Ranks* suggests that parents, neighborhood residents, and others in the community should have important roles and responsibilities in improving schools.

Drawing from her research on effective schools, Langer (2004) supports the importance of collaboration among community, family, and schools. She writes, "A collaborative community is a critical element that's present in effective schools, and if it's not there, someone needs to get it started. If no one else is doing it, parents can try to form a committee of interested community members, administrators, and teachers to get the conversation going.... Voices need to be heard, but the goal will be turning what might have been negative complaint sessions into productive explorations of possibilities.... It will take time and someone who's willing to keep the process going. Keep focused. Keep everyone informed. Develop a communication network.... Another step parents can take is to find ways to involve local businesses and community

members in students' learning experiences...." (p.85). Langer further suggests that people with "special hobbies, interests and talents, and life experiences" or "specialized businesses or corporations ... can substantively enrich students' learning experiences, while at the same time fostering ties to the community" (p. 85).

Dropout prevention research also identifies school and community collaborations that increase students' success in school. One example is Communities in Schools, a national network of community-based organizations that focus on preventing dropout. The organization provides out-of-school enhancement as well as some in-school programs. The programs differ by locale but adhere to a set of five basic principles. Communities in Schools believe that every child needs and deserves:

- "A personal relationship with a caring adult
- A safe place to learn and grow
- A healthy start for a healthy future
- A marketable skill to use upon graduation
- A chance to give back" (Communities in Schools, no date).

In its annual report for 2005, Communities in Schools reports that 79 percent of their youth improved their attendance, 81 percent had fewer incidents of discipline, 88 percent improved their academic performance, 85 percent were promoted, 86 percent of eligible seniors graduated, and 98 percent of students remained in school (Communities in Schools, 2005).

Other examples of collaborations are described by the Education Commission of the States. It has developed a community involvement model that acknowledges that learning takes place in many places and at many times in addition to the conventional school day or building. It sets forth examples of efforts it characterizes as school-community collaborations and "new power" collaborations; the latter are generally initiated by non-profit intermediaries such as education funds or universities. The Commission advocates for the potential of these new models, suggests components for accountability for community involvement, but does not cite research on their impacts (Education Commission of the States, no date).

Examples cited in the high school reform research also illustrate ways schools and businesses can develop reciprocal relationships. For example, high schools can help provide learning opportunities for the adults in the community, and business can provide opportunity for apprenticeships, internships, work-study, and summer work. Educators can participate in programs that provide opportunities in businesses or industries so they learn about private enterprise first hand; business and industry representatives can serve as visiting lecturers or presenters in classes. Some businesses may provide funding for special programs or projects. To illustrate the scope of potential involvement, a Texas high school receives resources from business partners that include "financial assistance, mentoring, scholarships, use of facilities for staff development,

grants to teachers for continued education, speakers for Career Day, and resource materials for teachers" (George et al. 2000, p. 283). Effective partnerships must be thoughtfully planned, implemented, and sustained over a period of time to build trust and mutual respect.

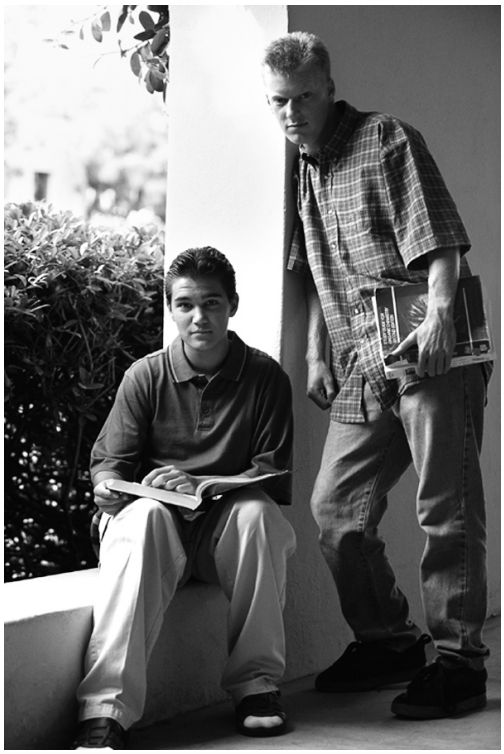
Achieving the vision of higher standards for every student is the most ambitious challenge public education in this nation has ever faced. "For the first time in our history, the nation has adopted policies that promise all students, rich or poor, no matter where they live or the language of their families or how long it takes them to learn, a quality education" (Lewis & Henderson, 1997, p. 1, in George et al., p. 264). "For this vision to become reality, schools must no longer be allowed to focus almost exclusively on students who are viewed as potentially successful while the remaining students are largely disregarded. If high schools are going to make the curricular and instructional changes needed for this vision to become a reality, relationships between schools, communities, and families must also undergo a major metamorphosis" (George et al., p. 264).

The vision of higher standards for every student is the most ambitious challenge public education ... has ever faced.

Researchers have offered many suggestions for improving school and classroom climate, for changing structures to increase personalization, and for reaching out to families and communities. This chapter has started to provide answers about how we can improve high schools to prepare students for their future lives. The next chapter discusses research on improving classrooms and instruction, including professional learning communities, effective professional development, authentic and adaptive pedagogy, ideas for increasing student motivation to learn, and an intervention strategy to ensure student learning.

CHAPTER 5

Changing Classrooms, Improving Instruction



Although American public education has been in the throes of reform for decades, the teaching in most high schools looks very familiar. Many reforms have advocated decentralizing governance, reducing school size, increasing graduation requirements, and requiring high-stakes testing. However, most of these reforms stop short of making significant changes in the schools' core learning and teaching. "After fifteen years and tens of millions of dollars spent on reform, secondary classrooms still look and feel and operate much like the classrooms of the 1970s – or the 1920s" (Daniels, Bizar, & Zemelman, 2001, p. 240). To make lasting improvement that results in profoundly greater outcomes in student achievement, greater student engagement, and readiness for life after high school, classrooms and the roles, routines, and responsibilities within them must undergo transformation. Such transformation is seen in the stories of some successful schools and classrooms. However, these exceptions must become the "rule" if all students are going to achieve higher standards for meeting their future life challenges.

This chapter summarizes research that focuses on classrooms and instructional practice: teacher learning communities, effective classroom instruction, student engagement and motivation. Several research studies have investigated high school classrooms and teaching in multiple school sites, across various districts and states, and over a period of years. These studies provide insights into effective instructional practice, the relationships between teacher behavior and attitudes and student outcomes, and they address the critical aspects of classroom interactions: the teacher, students, and content being studied. Practical suggestions emerge from the evidence contained in the studies that can be applied to school-wide improvement efforts or, in the absence of such an initiative, can be implemented by individual teachers or groups of teachers to improve the learning of their students.

"Teaching is the neglected variable." (Daniels, et al.)

Daniels et al. (2001) call teaching "The Neglected Variable." The authors assert, "If high schools in America are to be reformed, renewed, restructured, revitalized, the payoff must come in the classroom—in the daily interactions

between kids and teachers, in the place where learning is meant to happen" (p. 102). Classroom teachers are pivotal to this reform. The writers cite research by Darling-Hammond that concludes "teacher expertise has been found to be the most significant determinate of student success.... Teacher quality proved to be a more powerful factor in students' learning even than socioeconomic status, showing that superior teaching can overcome serious social disadvantages that some students bring to school" (p. 240).

A VISION FOR GOOD CLASSROOMS AND GOOD TEACHING

Daniels et al. describe the qualities that make good classrooms. "They are challenging, authentic, and collaborative.... All [the] students are engaged in complex, serious, meaty issues; they are required to think deeply and share their thinking in a variety of modes of expression; they are experiencing *rigor* without *mortis*. Their lessons address real issues in life and in the community, issues that experts in the field still grapple with, understandings gained from careful study that make a difference, work that kids recognize is worth their time. And finally, these classes are truly sociable and collaborative; young people are working in pairs, partnerships, teams, task forces, and study groups; they are learning to lead, to contribute, to carry their weight, to be part of the larger effort; they are learning to operate as most adults do in their professional and social lives—as a member of a community where cooperation and communication are the essence of effectiveness" (p. 102).

These authors also assert that the national curriculum standards developed for various subjects, across disciplines and grade levels, implicitly call for classrooms marked by the following characteristics:

- *"Student-centered.* Schooling should start with young people's real interests; all across the curriculum, investigating students' own questions should take precedence over studying arbitrarily and distantly selected content.
- *Experiential.* Active, hands-on, concrete experience is the most powerful and natural form of learning. Students should be immersed in the most direct possible experience of the content of every subject.
- *Holistic.* Young people learn best when they encounter whole ideas, events, and materials in purposeful contexts, not by studying subparts isolated from actual use.
- *Authentic.* Real, rich, complex ideas and material are at the heart of the curriculum. Lessons or textbooks that water down, control, or oversimplify content ultimately disempower students.
- *Expressive.* To fully engage ideas, construct meaning, and remember information, students must regularly employ the whole range of communicative media—speech, writing, drawing, poetry, dance, drama, music, movement, and the visual arts.
- *Reflective.* Balancing the immersion in experience and expression must be opportunities for learners to look back, to reflect, to debrief, to abstract from their experiences what they have felt and thought and learned.

- *Social.* Learning is always socially constructed and often interactional; teachers need to create classroom interactions that "scaffold" learning.
- *Collaborative.* Cooperative group activities tap the social power of learning better than competitive and individualistic approaches.
- *Democratic.* The classroom is a model community; students learn what they live as citizens of the school.
- *Cognitive.* The most powerful learning comes when children develop true understanding of concepts through higher-order thinking associated with various fields of inquiry and through self-monitoring of their thinking.
- *Developmental.* Human beings grow through a series of definable but not rigid stages, and schooling should fit its activities to the developmental level of students.
- *Constructivist.* Learners do not just receive content; in a very real sense, they re-create and reinvent every cognitive system they encounter, including language, literacy, and mathematics.
- *Challenging.* Students learn best when faced with genuine challenges, choices, and responsibility in their own learning" (p. 13–14).

"A good teacher listens and cares." (Daniels et al.)

These authors augment their vision, which is based on research into classroom practice as well as their own experiences in starting a high school in Chicago, with the perspectives of students in the school. According to these students,

- "Good teaching is when the teacher is not predictable. The integrated units have been the best experiences because they are so interactive.
- Good teaching is when we learn something and have fun at the same time.
- Good teaching isn't rigid. Good teaching is exploring different fields together. Good teaching is getting involved.
- Good teaching is when the teacher pushes you to the limit. Physics stands out in that way.
- Good teaching is if you're teaching and everyone is "getting it," and you're working with your friends.
- Good teaching is when someone gets the stuff to make sense and lets you figure stuff out for yourself like in the chemistry lab. I love getting into the lab myself. I love to see how chemicals react" (p. 102).

Some of the students emphasize the importance of personal relationships with teachers.

- "Good teaching is when a teacher listens to you and tries to understand you.
- A good teacher listens and cares.
- Good teaching is when you have a teacher that you understand and the teacher understands you. Also when the teacher is always willing to help you when you may not understand or when you're having problems. Physics is somewhat hard, and you always have to pay attention, and my teacher is willing to help before and after school.

Teachers' knowledge of subject as well as the students in their classes strongly influence their beliefs, teaching decisions, and practices.

- A good teacher cares about the students in school and outside of school" (p. 103).

Creating high school classrooms that reflect the expectations described above is the task of educators and reformers who are responsible for meeting the increased challenges for schools now and into the future. These tasks may seem insurmountable to individual teachers. Studies suggest that the tasks are more successfully completed when they are undertaken collaboratively among teacher colleagues who share responsibility for students and for the curriculum and instruction they prepare. These studies suggest that strong, effective professional teacher communities can be powerful structures to encourage innovation to support all students' learning to high standards.

TEACHER LEARNING COMMUNITIES

In high schools, teachers' responses to students are, in part, a function of the tradition infused in subjects and departments. Teachers' knowledge of subjects strongly influences their teaching decisions and practices. In addition, the students in their classes have a major influence on teachers' beliefs, attitudes, and practices. For teachers, their relationships with their students often define their work. Thus, "[the student who] comes to school ultimately frames their classroom tasks and experiences of success" (McLaughlin & Talbert, 2001, p. 6). Moreover, the high school culture experienced by teachers appears to influence their attitudes and behavior in the classroom. The high school culture reflects a departmental organization, norms for conducting school, and perceptions of subject matter and students for whom teachers are responsible. The examination of the culture of subject departments and the role of professional communities provides insights into teacher views of their work and their capacity to make changes to serve their students better.

Studies conducted by Newmann and Wehlage; Louis, Kruse, and Marks; Lee and Smith; Langer; and McLaughlin and Talbert are among those that report the importance of teacher professional communities in the work of school improvement. Hargreaves and Fink (2006) write, "At their best, professional learning communities embody the most positive features of distributed leadership, bringing the energy and ability of the whole community forward to serve the best interests of all students" (p. 128). The studies suggest a positive relationship between professional learning communities and student learning and offer some ideas for developing strong learning communities. These are discussed below as the supporting context for engaging students and improving classroom instruction.

Newmann and Wehlage (1995) point out that a professional community enhances student learning. Their research found that "the level of professional community in a school had significant effects on student achievement whether achievement was measured as authentic performance or tested in more conventional ways." The evidence from the School Restructuring Study resulted in two findings:

- "Schoolwide teacher professional community affected the level of classroom authentic pedagogy, which in turn affected student performance.
- Schoolwide teacher professional community affected the level of social support for student learning, which in turn affected student performance" (p. 32).

These authors identify three general features that characterize professional community:

- "Teachers pursue a clear shared purpose for all students' learning.
- Teachers engage in collaborative activity to achieve the purpose.
- Teachers take collective responsibility for student learning" (p. 30).

Student learning ultimately depends on student intention and effort. However, students generally need teacher encouragement and support to undertake challenging tasks. "Strong teacher professional community provides a consistently demanding and supportive environment that pushes students to do their best" (p. 31). In schools with strong professional communities, students learn that

- "They are expected to work hard to master challenging academic material.
- Staff and peers have confidence that, in the long run, students will be successful if they work hard on academic tasks.
- Staff will give them help and support, both through individual teaching/tutoring and by establishing classroom norms where learning is taken seriously, where peers are expected to help one another, and where students have the opportunity to make mistakes and to try again without being judged 'stupid'" (p. 31–32).

The authors found three "facilitating conditions" that strengthen professional community: [1] "an interdependent work structure such as teaming, [2] small size, and [3] school-based authority for the operation of the school." In addition, the authors stress the importance of time and opportunity for teams or other groups to work together. Because smaller schools were found more likely to "facilitate professional community," they concluded that that "higher professional community occurred in schools ranging in enrollment from 385 to 1,000 and rarely occurred in schools beyond 1,200" (p. 38).

Professional community goes beyond cooperation among staff to include mutual support and encouragement to improve instruction. According to Louis, Kruse, and Marks (1996), who also analyzed the School Restructuring Study (SRS) data, "[c]ommunity among adults, when focused on professional responsibility and the central tasks of education, can reinforce and augment the talent, knowledge, and insight that individual teachers bring to their work" (p. 179). These researchers identify five elements of effective professional community:

A strong professional community tends to reinforce authentic pedagogy, which produces high-quality student performance.

- "shared norms and values,
- focus on student learning,
- reflective dialogue,
- deprivatization of practice, and
- collaboration" (p. 181).

In their research, Louis et al. found that "in schools where professional community is strong, pedagogy tends to be more authentic; where professional community is weak, pedagogy also tends to be weak. Because authentic pedagogy produces high-quality student performance, we can infer that school-wide professional community contributes indirectly to student academic achievement." Although the direction of causality is difficult to establish, the researchers note "... strong professional communities in the SRS schools enhanced teachers' attention to the intellectual quality of student learning and their commitment to the restructuring effort. The specific form of professional community varied among schools, but the strongest examples reflect the five elements" listed above (p. 184).

Louis et al. suggest ways to develop effective professional communities. The "schools with the most vital professional communities" held two features in common: "teachers' dedication to inquiry and innovation, and supportive leadership, typically from a principal or a formally designated teacher leader" (p. 191). They note that leaders "maintained a strong presence" in these schools but "defined themselves as at the center of the school's staff rather than at the top" (p. 194). They delegated authority, developed collaborative decision-making processes, involved the professional community in important decisions, and encouraged risk taking. Schools had considerable autonomy related to instruction, teacher selection, and planning professional development around their needs. Teachers also had time to discuss their practice, to meet in teaching teams, to plan collaboratively and to connect personally, and to work together.

Lee and Smith (2001) explored high schools as communities rather than bureaucracies and determined the impact of schoolwide professional community on student outcomes. In their study (also discussed in Chapter 4), the researchers describe teacher interactions within a school such as collaboration, control over school policy, and collective responsibility for learning.

They found that in good schools there is a heightened sense of "collective responsibility for learning." Students in schools where most teachers share these attitudes learn more, and the learning is spread more equitably across the school, including among "disadvantaged" students. "When teachers work to make sure all their students are learning, when they change how they teach in order to make this happen, when they believe that all students deserve whatever efforts are needed to learn, students respond by learning more. Although the mechanism seems obvious, more troubling is the reality: Such attitudes are not common. Moreover, schools where collective responsibility

among teachers is low enroll students who are academically and socially less advantaged—exactly the schools where such 'can do' attitudes are most important (because so many students are not learning)" (p. 153).

Lee and Smith state, "Students learn what they are taught in the courses they take. A more demanding curriculum, one that is followed by most students, and a press for all students to work hard and do well characterize good schools by our definition. We have evidence that this form of academic organization 'works,' in terms of both effectiveness and equity" (p. 154). They conclude, "Our findings suggest that in good schools, not only is instruction more authentic but also widespread; the majority of teachers engage in this type of instruction" (p. 155). However, the authors acknowledge, "Even with clear evidence that when instruction was organized this way students learned more, influencing *how* teachers actually teach is perhaps even more difficult than changing *what* they teach. Most high school teachers work in isolation; they seldom work together. Moreover, they develop how they teach early in their careers, often drawing heavily on their own experiences as students.... Without strong support and leadership favoring a more authentic instructional approach, without professional development to strengthen such skills, and without an organizational press toward using this type of instruction, teachers without training in how to teach this way at the university invariably cling to 'the old ways'" (p. 155–156).

"Students learn what they are taught in the courses they take." (Lee and Smith)

Langer (2004) also attributes higher student performance to schools in which there is greater commonality of goals, efforts, and professional community. In a large scale study, Langer and a research team examined classrooms in four states, including Florida, New York, Texas, and California. They studied 25 schools, 44 teachers, and 88 classes over a five-year period. Fourteen of the schools, that included some high-poverty and high-minority schools, were "working well." These schools performed "better on state-administered high-stakes reading, writing, and English tests than schools rated as demographically comparable by statewide criteria" (p. 108). The researcher's goal was "to learn about the kinds of professional lives teachers lead, the kinds of instruction students receive, and the overall school environment and community relations that exist in more as opposed to less effective schools" (ix). Teachers in the study were placed in three categories based on data: (1) exemplary teachers in high-achieving schools; (2) exemplary teachers in schools that were typical for their districts; and (3) typical teachers in typically performing schools. The results of the study demonstrate differences between "typical" and more "effective" classroom practices and suggest steps schools may take to become more successful with high school students.

Langer's research explains the differences she found between two groups of schools: one group in which schools were less effective in comparison to other schools and the other that were more effective. She writes that although educators, policymakers, and parents want to find and "latch onto" best practices, "it is less the particular curriculum or particular teaching methodologies that made the difference than the ways in which school life gets

Effective schools tend to be more proactive and collaborative. They look at testing as a means to improve curriculum and instruction, not narrow it.

orchestrated, teachers keep up to date, class is experienced, and students learn. While teacher creativity and school management count, they are not enough.... More effective schools look and feel different; they are marked by an overriding sense of knowledge, coherence, organization, and caring. Teachers and administrators learn what's needed, work toward common goals, get ongoing feedback, and grow professionally. They are marked by professional and local communities that see to it that students have connected, built-upon, and thought-provoking experiences across classes and over time" (p. 6).

Langer provides suggestions to help schools increase their effectiveness. She emphasizes that more effective schools have many of the same problems as other schools, such as budgetary issues, pressure of high stakes testing, and accountability regulations. However, there is a difference in how these schools address their problems. They tend to be more proactive and collaborative. They look at testing as a means to improve curriculum and instruction, not narrow it, and they take time for students to go deeper into the content to increase their understanding and ability to apply their learning. There is no easy formula for implementing these ideas, but there are some central instructional theories and practices that influence decisions around teaching and learning. Some of these instructional practices are discussed later in this chapter.

In another extensive study, professional community emerges as a key component of effective high schools. McLaughlin and Talbert (2001) studied teachers' professional communities in 16 high schools in California and Michigan over a period of years beginning in 1988. They were interested in how various contexts affected "teachers' work lives and professional practice" (p. 3). They investigated how teachers and schools have responded to changing student demographics and teaching of "non-traditional" students. They determined that there were different patterns of practice that captured teacher approaches. In most high schools teachers were left to teach as they chose and worked pretty much on their own. In other schools, however, they found two distinct professional cultures in which teachers "worked together in communities of practice united around shared beliefs and responsibility for teaching." In one teacher culture, teachers were oriented more traditionally. In the other, "teachers collaborated to engage all of their students in deeper conceptual understandings of subject matter" (p. 2). The researchers characterized the latter teacher cultures as "teacher learning communities." They examined these more fully to understand what influenced these teachers' success with "nontraditional students" (p. 3).

School and department professional communities impact the norms for teaching and effect differences in teacher perception and practice, according to McLaughlin and Talbert. The researchers assert, "High school teachers ... take their subject context as primary to their work and professional identity.... [and] discipline cultures carry different assumptions about the nature of subject matter, student learning, and good teaching. High school teachers in our sample spoke of their subject area and particular courses within it as having

classroom goals, standards for how to teach, and more or less prescribed content" (p. 9). The "[a]cademic disciplines are core organizing contexts also for policy systems and thus are channels through which teaching resources and professional development opportunities flow to teachers and classrooms. Moreover, the various professional environments of teaching—in higher education, national teacher associations, local teacher networks and workshops—affect high school teachers and teaching mainly through subject channels" (p. 9). The researchers generally found that many teachers work in weak communities in which their work is private, their practices are highly variable, and student success is seen as a matter of individual teacher quality or student background. They were interested most, however, in exploring the roles and impacts of strong professional communities.

McLaughlin and Talbert explain that strong professional communities can enforce either "traditional" or "innovative" methods of instruction. "Some strong department communities we observed developed elaborate policies for testing their students and sorting them into course sequences and achievement levels. These professional communities enforced 'traditional' methods of teaching, and teachers worked to transmit predetermined course material and to administer department tests that placed students in subsequent courses." However, in some other strong department and school communities, teachers "centered their work on students and shared responsibility for students' mastery of content and progress in the curriculum. They developed 'innovative' methods of instruction that achieved a better 'fit' of course work to students without compromising expectations for students' conceptual learning. Subject matter in these school or department contexts was not seen as 'given' but rather as material to be reviewed and revised based on the needs and academic accomplishments of their particular students" (p. 11).

The researchers found "that teachers' responses to questions of what and how to teach contemporary high school students varied in ways that had significant consequences for what happened in the classroom and what students learned. Some teachers expressed frustration and cynicism about their high school students; others spoke enthusiastically about what they and their students had accomplished. Some students slouched in their chairs and tuned out; other described their work in excited terms and pointed with pride to what they had done. Across classrooms, we saw teachers' interactions and relationships with their students range from distant and removed to personal and mutually engaged. For some teachers, the dynamics of the classroom expressed how they understood contemporary students—as merely different from those of just a few years ago, or as somehow lacking when measured against nostalgic conceptions of the 'ideal.' Similarly, teachers conveyed different kinds of

relationships with the subject matter they taught. Some seemed merely to act as the transmitters of knowledge organized by curriculum developers and texts; others took an active role as learners in a dynamic field and crafters of curricula for particular students" (p. 18–19).

McLaughlin and Talbert identified "three broad patterns of teacher practice" related to the students they taught. These patterns reflect the attitudes and beliefs that teachers had about their students. Depending on their view, teachers responded according to one of these patterns: "enacting traditions of practice, lowering expectations, and innovating to engage learners."

Traditional Practice. McLaughlin and Talbert indicate that the most common response to nontraditional students is to maintain "conventional routines." Teachers "continue to teach as they have always taught, changing little in how they relate to their students or to organize their subject instruction. Classroom practices remain largely teacher-centered, with lectures predominating. Subject content is taken as more or less given...." The teacher is seen as the "expert" and student is viewed as the "recipient of knowledge" (p. 19). A teacher in the study said, "Many teachers feel responsibility for transmitting information. They see this block of information and feel that for kids to be successful in life, they had to have everything planted in their brains." The researchers explain, "Teachers who operate from this logic tend to see students primarily in terms of deficiencies in their performance on standardized tests and define relationships with them accordingly." These teachers concentrate mostly on what students cannot do. "This mode of practice frames teacher-student relationships in relatively narrow and impersonal terms, and the teacher's role is seen primarily as filling in gaps in knowledge and skills" (p. 20). Teachers who use these traditional methods tend to express a "high degree of certainty about their instructional decisions, a professional conviction rooted in time-honored disciplinary routines and conventional instructional roles" (p. 21). "Traditional teaching practice follows established orthodoxy about what to cover and how to cover it.... For example, most teachers in the schools we studied reported in a survey that their subject matter must be learned in a particular sequence (64 percent) and that covering all curriculum topics is very important (75 percent). Most teachers conduct their classroom instruction according to daily routines: 77 percent reported that their work tasks are the same from day to day; 76 percent rely on established procedures and practices" (p. 20).

Teachers fitting this category tend to believe the student is the problem. Conventional practice is unlikely to be examined. These teachers often "justify their choices in terms of professional standards and the integrity of their subject domain: 'I've got my standards.' Some variation of this disheartened refrain emerged in almost every instance where we found teachers struggling to square poor student performance with past, often successful, teaching practices" (p. 21–22). The researchers explain, "For many teachers, maintaining traditions of teaching practice is a way to manage the tensions and uncertainties they face each day.... Though often frustrated and disappointed by what happens in their classrooms, they refuse to abandon the core principles

of the profession, which hold teachers responsible for sustaining the integrity of the discipline as formalized curriculum and certifying students' mastery of course content and subject area skills." However, McLaughlin and Talbert found that in the schools they studied that "nontraditional students generally fare poorly in traditional classrooms, reinforcing teachers' negative attitudes about 'today's students'" (p. 33).

By rethinking assumptions, teachers make "innovative changes to engage students in high-level content." (McLaughlin & Talbert)

Lowering Expectations. A second pattern, according to McLaughlin and Talbert, is characterized by teachers making changes in their standards in response to "their nontraditional students' attitudes, behaviors, and backgrounds" that often result in lowering expectations and reducing the level of difficulty of class work. For example, some teachers "adapt content to nontraditional students by covering less of the curriculum than typically is included in a conventional class and focus instead on remedying skill deficiencies; others cover standard topics but dilute the curricular content.... In some instances these curricular adaptations represent teachers' efforts to construct a supportive classroom environment for their students. In other cases, adaptation signals 'dumbing down' and professional disinvestment" (p. 22–23). The researchers write, "Teachers who water down content for nontraditional students also locate the problem of disappointing classroom performance squarely on the students." The study quotes a teacher who admitted he does not put much effort into his teaching because "the kids really don't care about getting an education anyway" and he believes that "students today just aren't as good as the ones we used to have." In classes like these, traditional approaches "are not replaced; they are modified, simplified, scaled-down, reduced. Subject performance norms change, but classroom roles generally do not" (p. 22–23). This pattern of "lowering standards" is most "prevalent in low-track classes in the comprehensive schools we studied." However, it is also "common in regular classes taught by teachers who perceive a decline in their students' academic preparation for the course." In these instances, the "result is students are less engaged in what they are learning and demonstrate less mastery of subject content" (p. 24).

Innovative Engaging Practices. Changing teaching practice or "reconstituting" the classroom, including content and roles, is the third pattern McLaughlin and Talbert observed. "Some teachers respond to strains between traditional norms of classroom practice and students who depart from them by re-thinking assumptions about subject matter, students, and how to connect them." The result is teachers' making innovative changes to engage students in high-level content. In this pattern, teachers strengthen connections between student and content. These "teachers work to establish an active role for students in developing new, deeper subject knowledge that builds upon their interests, skills, and prior knowledge. These teachers, knowingly or not, move toward 'teaching for understanding' — emphasizing depth in students' content knowledge over coverage of many topics and skills, and problem-solving skills over mastery of the kinds of routines emphasized in conventional instruction" (p. 25). These new patterns of practice also changed the classroom focus from teacher dominance to one more student-centered. Teachers were inclined to

In some communities of practice, teachers reconstituted their classrooms to facilitate student learning through shared work and responsibility.

"facilitate student work and learning." The researchers explain, "Teachers describe their efforts to 'really listen' to their students and understand the classroom from their perspective" (p. 29). The teachers whose practice fits the third pattern "believe that the poor fit between contemporary students and traditional instruction is the source of problems in many high school classrooms—not student 'deficiencies' as assessed against nostalgic ideals. Innovating teachers also interpret changes in their students as permanent ones, as signs of changed American society, not as an irritating exception to conventional standards of a 'good student' or 'real school'" (p. 31).

Departments, rather than whole schools, appear to have the most influence in establishing the patterns of practice. For example, within a school one department might prescribe to the innovative pattern and another to the traditional. Also, the patterns are not adopted according to specific content; a mathematics department in one school might follow the more innovative pattern of practice and a mathematics department in a neighboring school might follow the low expectations or more traditional patterns. Thus, the "school does not comprise a community of practice for teachers. Rather, subject departments are the hands-on professional 'home' for teachers, and departments can differ significantly both in collegiality and in beliefs about students, subject matter, and 'good' practices" (p. 46). In fact, these substantive differences across departments were seen to "shape how teachers construct practice for the same or similar students" (p. 46). Therefore, "for better or worse in terms of students' experiences and learning opportunities, professional communities are consequential contexts of high school teaching" (p. 41). The point is brought home in the authors' description of two contrasting departmental views of the same students in their school. "Most important from a student's perspective, the very same students whom English teachers see as bright, interesting, and energetic, social studies teachers see as apathetic, ill-prepared, and unwilling to work hard" (p. 54). These students receive very different messages from one class period to another.

McLaughlin and Talbert conclude, "In some communities of practice …, teachers' joint enterprise is defined by teaching orthodoxies and deficit views of nontraditional students; in others, a belief that all students can meet high academic standards defines the enterprise" (p. 41). In the face of challenges that accompany student diversity in today's classrooms, new and higher standards, and other policy and operating issues, high school teachers, for the most part, have "responded by clinging tenaciously to the canons and taken-for-granteds of teaching" (p. 61). The researchers note that "approximately three-quarters of the teachers in our sample of typical secondary schools rated themselves high on 'traditional' teaching roles and expectations for practice." In some schools, teachers develop "strong norms and structures to enforce pedagogical traditions in their disciplines … " (p. 61). In other settings, teachers are "questioning traditions of practice and designing course content and teaching strategies to engage all their students in serious academic work. These communities of practice appear to do better for most students than those heavily invested in maintaining traditional teaching standards and those

with weak technical cultures" (p. 61–62). In all schools and departments, the researchers found "individual teachers who were learning and working to improve their practice." In learning communities, however, teachers collaborate and take a "collective stance on learning in the context of shared work and responsibilities." Together the teachers "address the challenges of their student body and explore ways of improving practice to advance learning" (p. 63).

EFFECTIVE PROFESSIONAL DEVELOPMENT

As noted above, teacher knowledge, beliefs, and practice create the classroom culture for students. The previous discussion suggests that strong professional learning communities can either reinforce the status quo, which may not result in increased learning or a smaller achievement gap among students, or they can promote "collective responsibility" for student learning, which is more likely to improve outcomes for students. Teachers who take responsibility for student learning are more likely to use practices that motivate and engage students in high quality intellectual work.

Teachers need the opportunity to learn or to develop these practices. In current school reform initiatives, teacher professional development has not received the emphasis or resources some educational experts believe necessary. Daniels (no date) called professional development the "missing link in school reform" in testimony he gave before an U.S. Senate Committee on Education, Arts and Humanities. He asserted, "If we want real change to happen for individual kids in real classrooms, we have to go where they are and make it happen. That's where professional development comes in. All the structural, political, and governance change have created a climate in which teachers may teach better and kids may learn more. But now teachers must be helped—not just commanded—to teach in new, different, better ways."

High-quality professional development can help create and support strong, successful professional communities. Effective professional development is the means for helping teachers develop the level of knowledge and skills necessary for improving instruction and creating a positive culture for learning in their classrooms. Darling-Hammond (1997) writes that the knowledge and skills required of teachers to help students reach higher standards, "will require most teachers to move far beyond what they themselves experienced as students and thus to learn in ways that are more powerful than simply reading and talking about new pedagogical ideas.... Learning to practice in substantially different ways than one has ever before experienced can occur neither through theoretical imaginings alone nor through unguided experience alone. Instead it requires a tight coupling of the two" (p. 319). She emphasizes that "[t]eachers learn just as their students do: by studying, doing, and reflecting; by collaborating with other teachers; by looking closely at students and their work; and by sharing what they see" (p. 319).

In their report, McLaughlin and Talbert (2001) note that the new standards for student learning require a "significant change in the traditional conventions of

For teachers to help students reach higher standards they have to learn to teach in new ways and "unlearn" practices and habits of mind. (McLaughlin & Talbert)

teaching." These rigorous standards call upon teachers to assess their students' prior knowledge and understanding and to establish classroom environments in which students can learn together as a community. Standards that incorporate the new science of learning "challenge teacher dominated, transmission-oriented traditions in American secondary education that emphasize sequential and superficial coverage of many topics" (p. 134). For teachers to learn how to teach in these new ways, they must "unlearn" practices and habits of mind. Therefore, these researchers believe that teacher learning communities "constitute the best context for professional growth and change." Professional development that is school-based encourages teachers' to consider their work "in light of evidence and research" as well as in terms of "specific students and specific subject matter" (p. 135). Rather than traditional training, these researchers suggest that teachers should participate in intensive, sustained professional development activities and on-site coaching, as well as participate in broader networks and associations that support ongoing exchanges across schools and subject matter colleagues.

Research from the past two decades contributes to a growing consensus on the characteristics of effective professional development. The research is applicable to high schools as well as elementary and middle schools. Hawley and Valli (1999, 2000) assert that professional development opportunities must "account for educators' [existing] knowledge and beliefs, develop reflective capacities, attend to motivational and developmental issues, and build on social relations in the school context" (1999, p. 137). These authors write that professional development is "more likely to result in substantive and lasting changes in the knowledge, skills, and behaviors of educators that strengthen student learning" when it reflects the characteristics that have emerged from a consensus about high-quality professional development (p. 137). These characteristics become design principles for planning effective "learner-centered" professional development opportunities that tie teacher learning with student learning. The content of effective professional development is based on student learning; what they are to learn; and how to address the problems students may have in learning that content (Hawley & Valli, 2000).

According to these researchers, the following characteristics constitute design principles for effective professional development:

- "Driven, fundamentally, by analyses of the differences between (1) goals and standards for student learning and (2) student performance."
- "Involves learners (such as teachers) in the identification of their learning needs and, when possible, in the development of the learning opportunity and/or the process to be used."
- "Is primarily school based and integral to school operations" [in other words, job-embedded].
- "Provides learning opportunities that relate to individual needs but, for the most part, are organized around collaborative problem solving."
- "Is continuous and ongoing, involving follow-up and support for further learning, including support from sources external to the school."

- "Incorporates evaluation of multiple sources of information on outcomes for students and processes involved in implementing the lessons learned through professional development."
- "Provides opportunities to develop a theoretical understanding of the knowledge and skills to be learned."
- "Is integrated with a comprehensive change process that deals with the full range of impediments to and facilitators of student learning" (Hawley & Valli, 1999, p. 138).

Effective high schools provide many opportunities for teachers to grow both personally and professionally. According to Murphy et al. (2001), these schools provide time and space for teachers to work together on instructional techniques, curriculum, classroom management, and opportunities to participate in teacher-to-teacher observations and feedback. All of these factors contribute to teacher efficacy and classroom performance. The authors also suggest that effective staff development needs to meet several conditions to have a "positive impact on student achievement." These conditions are "learning opportunities should be ongoing, involve school leaders, include peer observation and feedback, provide follow-up evaluations, and be aligned with needs of individual teachers and overall school goals" (p. 183).

Professional development that incorporates the design principles noted above is necessary to help teachers develop the knowledge and skills to successfully implement effective instructional strategies described in this report. The following section offers a number of ideas from research on improving instruction to engage students and increase their motivation to learn.

According to a growing consensus, effective professional development needs to be learner-centered, continuous, school-based and job-embedded, with evaluations based on student outcomes.

EFFECTIVE INSTRUCTION AND STUDENT ENGAGEMENT

At the heart of the issue of poorly performing students and schools is the issue of disengagement, most often linked to student attitudes and behavior in school, but sometimes linked to teacher attitudes and behavior as well. According to Newmann (1992), "The most immediate and persisting issue for students and teachers is not low achievement, but student disengagement. The most obviously disengaged students disrupt classes, skip them, or fail to complete assignments. More typically, disengaged students behave well in school. They attend class and complete the work, but with little indication of excitement, commitment, or pride in mastery of the curriculum. In contrast, engaged students made a psychological investment in learning. They try hard to learn what school offers. They take pride not simply in earning the formal indicators of success (grades), but in understanding the material and incorporating or internalizing it in their lives" (p. 2–3).

Newmann and his research associates found that challenges exist for both teachers and students. Teachers have the challenge of getting students "to do academic work and to take it seriously enough to learn;" and for students the challenge is coping with teacher demands "so as to avoid boredom, to maintain self-respect, and, at the same time, to succeed in school" (p. 3). Obviously, students won't achieve to high standards unless "they concentrate, work, and

To engage students, "schools need to provide challenging intellectual work, authentic, real-life experiences, and plenty of opportunities for collaboration." (Daniels et al.).

invest themselves in the mastery of school tasks. This is the sense in which student engagement is critical to educational success." Thus, teachers "must first learn how to engage students" (p. 3).

The researchers define "student engagement in academic work as the student's psychological investment in and effort directed toward learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote...." (p. 12). Teacher success is dependent on students' efforts over an extended time. The difficulty of engaging students is increased because teachers work with large groups. Students may resist making concerted efforts to learn. They may do just enough to "get by;" they may "tune out" or cheat, and so on, which may provide a superficial level of learning. However, "[m]eaningful cognitive demands of formal education cannot be mastered through passive listening and reading, nor through being entertained; they require an engaged student" (p. 14).

While recognizing the many factors outside of schools (i.e. social, family, work) that influence student engagement, the researchers focused on the areas where schools have more impact and can enhance engagement. They drew from studies in psychology, sociology, and education to develop a framework using three broad factors: students' underlying need for *competence*, the extent to which students experience *membership* in the school, and the *authenticity* of the work they are asked to complete. "If students are to invest themselves in the forms of mastery required by schools, they must perceive the general enterprise of schooling as legitimate, deserving of their committed effort, and honoring them as respected members" (p. 19).

Authentic work encourages students to make this investment, according to these authors. Authentic work should include tasks that are considered "meaningful, valuable, significant, and worthy of one's effort, in contrast to those considered nonsensical, useless, contrived, trivial, and therefore unworthy of effort." The authors explain that the "work that entails extrinsic rewards, meets intrinsic interests, offers students a sense of ownership, is connected to the 'real world' (i.e., the world beyond school), and involves some fun is more authentic and more likely to engage students" (p. 23). Connection to the "real world" includes four qualities of adult work: value beyond instruction; clear, prompt feedback; collaboration; and flexible use of time.

In traditional high schools, young people are asked to think of learning as something they do for the future. Daniels et al. (2001) use the metaphor of "a bank where one makes timely and regular deposits, saving up knowledge toward some distant, future expenditure" (p. 133). They suggest that "[i]nstead, high schools need to find ways to engage kids in work that is important and meaningful to them now, at the time of learning." They write, "In order to achieve these ends, we believe schools need to provide challenging intellectual work, authentic, real-life experiences, and plenty of opportunities for collaboration. And that, by the way, is exactly what the national standards of teaching and learning call for, across the curriculum" (p. 133).

The work of various researchers expands the notions of student engagement and teaching practices that appear to increase student learning. Although described variously as student concentration, being "minds on," collaborating with peers and teachers, or producing quality intellectual work, these terms imply students are engaged in meaningful schoolwork. In the following sections, various sources provide suggestions to increase student engagement. Specific researchers and authors include Bransford, Brown, and Cocking; Murphy and Alexander; Newmann and associates; Langer; Daniels, Bizar and Zemelman; and Marzano, Pickering, and Pollock.

New Science of Learning

The research on learning has exploded in recent years. Through studies in cognitive psychology, social psychology, neuroscience and other disciplines, the research literature on cognition, learning, development, culture, and the brain provide a great deal of information to increase understanding of how people learn. Bransford, Brown, and Cocking (2000) edited a report for the National Research Council that demonstrated the importance of learning with understanding. This "new science of learning" provides a framework for improving classroom instruction to increase student learning. The key findings in the overview of this research have implications for teaching.

- "Students come to the classroom with preconceptions about how the world works. If their initial understanding is not engaged, they may fail to grasp the new concepts and information that are taught, or they may learn them for purposes of a test but revert to their preconceptions outside the classroom."
- "To develop competence in an area of inquiry, students must: (a) have a deep foundation of factual knowledge, (b) understand facts and ideas in the context of a conceptual framework, and (c) organize knowledge in ways that facilitate retrieval and application."
- "A 'metacognitive' approach to instruction can help students learn to take control of their own learning by defining learning goals and monitoring their progress in achieving them" (p. 14–18).

Though these three learning principles may seem simple, they have "profound implications for the enterprise of teaching and teacher preparation" (p. 19). The authors list several implications:

- "Teachers must draw out and work with the preexisting understandings that their students bring with them." Students are not "empty vessels" to be filled with knowledge (p. 19).
- "Teachers must teach some subject matter in depth, providing many examples in which the same concept is at work and providing a firm foundation of factual knowledge."
  - » Superficial coverage must be replaced "with in-depth coverage of fewer concepts that allows key concepts in that discipline to be understood" (p. 20).

  - » Teachers must be "familiar with the progress of inquiry and the terms of discourse in the discipline" and understand how students think about the concepts.
  - » Assessments "must test deep understanding rather than surface knowledge."
- "The teaching of metacognitive skills should be integrated into the curriculum in a variety of subject areas" (p. 21).

The research evidence indicates that student achievement improves when teaching incorporates these principles.

The report goes on to offer four attributes of effective classroom learning environments:

1. "Schools and classrooms must be learner centered." Students' background knowledge and cultural differences need to be taken into account.
2. "To provide a knowledge-centered classroom environment, attention must be given to what is taught (information, subject matter), why it is taught (understanding), and what competence or mastery looks like."
3. "Formative assessments—ongoing assessments designed to make students' thinking visible to both teachers and students—are essential. They permit the teacher to grasp the students' preconceptions, understand where the students are in the 'developmental corridor' from informal to formal thinking, and design instruction accordingly. In the assessment-centered classroom environment, formative assessments help both teachers and students monitor progress."
4. "Learning is influenced in fundamental ways by the context in which it takes place. A community-centered approach requires the development of norms for the classroom and school, as well as connections to the outside world, that support core learning values" (p. 23–25).

The research on learning looked at how experts use knowledge and applied these principles to the teaching and learning of "novices." Experts reflect successful learning, which is important to high schools as they seek to improve student learning. The principles are:

- "Experts notice features and meaningful patterns of information that are not noticed by novices.
- Experts have acquired a great deal of content knowledge that is organized in ways that reflect a deep understanding of their subject matter.
- Experts' knowledge cannot be reduced to sets of isolated facts or propositions but, instead, reflects contexts of applicability: that is, the knowledge is 'conditionalized' on a set of circumstances.
- Experts are able to flexibly retrieve important aspects of their knowledge with little attentional effort.
- Though experts know their disciplines thoroughly, this does not guarantee that they are able to teach others.

- Experts have varying levels of flexibility in their approach to new situations" (p. 31).

Understanding How Students Learn

Murphy and Alexander (2006) provide an overview of the psychological research on teaching and learning. Their book aims to make "classic and current psychological understandings interpretable and relevant for instructional leaders and practicing teachers" (p. xiii). Key dimensions for optimal individual learning include the following:

- *Learner development:* "Learning, ultimately a unique adventure for all, progresses through various common stages of development influenced by both inherited and experiential/environmental factors."
- *Knowledge and understanding:* "One's existing knowledge serves as the foundation of all future learning by guiding organization and representations, by serving as a basis of association with new information, and by coloring and filtering all new experience."
- *Learner motivation and affect:* "Motivation or affective factors, such as intrinsic motivation, personal goals, attributions for learning, and self-efficacy, along with the motivational characteristics of learning tasks, play a significant role in the learning process."
- *Strategies and regulating learning:* "The ability to reflect upon and regulate one's thoughts and behaviors is essential to learning and development."
- *Shared learning:* "Learning is as much a socially shared undertaking as it is an individually constructed enterprise" (p. 10–13).

According to Murphy and Alexander, "perhaps the single most substantive finding this century is that the knowledge that students bring to the learning task is the strongest predictor of what they will learn from that experience" (p. 36). Therefore, prior knowledge can be a "formidable ally or foe" for teachers. Prior knowledge includes declarative, procedural and conditional types of knowing. Declarative knowledge is "factual information; sometimes described as 'knowing what.'" Procedural knowledge is the "knowledge ... of certain processes or routines," in other words, knowing how. Conditional knowledge is "knowledge of when and where knowledge (declarative or procedural) could, or should be applied" (p. 36–37).

The authors provide a discussion of learning in general, study strategies, and applications for each of the domains listed above. Suggested tools for use with study strategies are:

- "capturing and retaining information," e.g., note taking and questioning;
- "improving memory," e.g. rehearsal, mnemonics, and method of Loci (locating things mentally in a space such as a room in a house);

Authentic pedagogy leads to greater student achievement and learning is distributed more equitably across socioeconomic and racial groups.

- "comprehending and recalling text," e.g., predicting, summarizing, and elaborating;
- "organizing information," e.g., outlining and conceptual maps;
- "motivating performance," e.g., goal setting and positive self-talk; and
- "monitoring and regulating learning," e.g., task analysis, self-analysis and self-evaluation (p. 84–85).

Authentic Pedagogy

Insights into effective school practices that increase the intellectual quality of student work emerged from a large-scale, five-year study of more than 1500 schools conducted by The Center on Organization and Restructuring of Schools at the University of Wisconsin-Madison. The researchers found that when schools restructure around this vision of authentic student achievement, "it works—students learn more" (Newmann & Wehlage, 1995, p. 3). They also found that student learning is distributed more equitably across socioeconomic and racial groups. The sources of evidence used in the study include the following:

- A study of "24 significantly restructured public schools, elementary, middle, and high schools, located in 16 states and 22 districts mostly in urban settings." The schools included diverse school populations and low-income students, based on numbers eligible for free or reduced price lunch.
- The National Educational Longitudinal Study of 1988 (NELS: 88) that followed a "nationally representative sample of over 10,000 students ... from grade 8 (1988) through grade 12 (1992) in about 800 high schools nationwide." Student test data were drawn from the National Assessment of Educational Progress. Survey data from students and teachers and a school principal's report also were used.
- Study of Chicago School Reform, which included "survey data from 8,000 teachers and principals in 400 elementary and 40 high schools from 1990–1994." Three-year case studies were conducted in a sample of elementary schools.
- Longitudinal Study of School Restructuring, which included "four-year case studies of eight schools that were engaged in different restructuring activities in four communities." The schools in the study were urban and rural, and they included all levels: elementary, middle, and high schools (p.5).

The research identified four components for improving schools. Depicted as "circles of support," the components focus on student learning at the core, surrounded by authentic pedagogy, school organizational capacity, and external support (p. 2). In summary, Newmann and Wehlage "found that restructuring offered no panacea, but that it advanced student learning

when it concentrated on the intellectual quality of student work, when it built schoolwide organizational capacity to deliver authentic pedagogy, and when it received support from the external environment that was consistent with these challenges" (p. 4).

The vision for high quality intellectual student work includes standards for authentic pedagogy and student achievement that focus on three criteria: "construction of knowledge, disciplined inquiry, and value beyond school." These criteria parallel the type of skills needed by adults to produce significant work products. These criteria were developed as a means for characterizing classroom instruction in the research. These classrooms could be organized as either teacher directed or student-centered; however, effective instruction promoted these qualities:

- *Construction of Knowledge:* Students build on their prior knowledge, which is based on what others have produced. They "hone their skills through guided practice in producing original conversation, writing, through building physical objects, or through artistic and musical performances." Students then "construct knowledge, [as] they organize, synthesize, interpret, explain, or evaluate information." More conventional teaching emphasizes reproducing knowledge, memorizing, naming, matching and so on. Reproducing prior knowledge does not "constitute authentic academic achievement, because it does not involve the thoughtful use or application of knowledge found in authentic adult accomplishment" (p. 8–9).
- *Disciplined Inquiry:* Reliance on disciplined inquiry is the second criterion. This type of inquiry "is complex cognitive work, because it integrates at least three important intellectual activities." Disciplined inquiry builds on the "established knowledge base" of a content area: the facts, concepts, and theories. Next, it "strives for in-depth understanding of problems," and lastly, it requires communications of ideas and findings such as those produced by adults in various professions. In-depth understanding and elaborated communication go beyond conventional schoolwork that too often dwells on "transmitting prior knowledge" and brief responses in classroom recitation or tests (p. 9).
- *Value Beyond School:* This criterion calls for "aesthetic, utilitarian, or personal value apart from documenting the competence of the learners." Adults do things for a real world purpose, not just to please a teacher or demonstrate competence (p. 9).

Newmann's seminal work on authentic pedagogy is widely cited, so details of the framework for high intellectual student work are summarized here. The researchers developed a set of standards for each of the criteria noted above that explains the concepts and how they might be implemented in classrooms. These standards address both instruction and assessment.

Standards for Authentic Pedagogy: Instruction

Construction of Knowledge

Standard 1. Higher Order Thinking: Instruction involves students in manipulating information and ideas by synthesizing, generalizing, explaining, hypothesizing, or arriving at conclusions that produce new meaning and understandings for them.

Disciplined Inquiry

Standard 2. Deep Knowledge: Instruction addresses central ideas of a topic or discipline with enough thoroughness to explore connection and relationships and to produce relatively complex understandings.

Standard 3. Substantive Conversation: Students engage in extended conversational exchanges with the teacher and/or peers about subject matter in a way that builds an improved and shared understanding of ideas or topics.

Value Beyond School

Standard 4. Connections to the World Beyond the Classroom: Students make connections between substantive knowledge and either public problems or personal experiences (p. 17).

Standards for Authentic Pedagogy: Assessment Tasks

Construction of Knowledge

Standard 1. Organization of Information: The task asks students to organize, synthesize, interpret, explain, or evaluate complex information in addressing a concept, problem or issue.

Standard 2. Consideration of Alternatives: The task asks students to consider alternative solutions, strategies, perspectives, or points of view in addressing a concept, problem or issue.

Disciplined Inquiry

Standard 3. Disciplinary Content: The task asks students to show understanding and/or to use ideas, theories, or perspectives considered central to an academic or professional discipline.

Standard 4. Disciplinary Process: The task asks students to use methods of inquiry, research, or communication characteristic of an academic or professional discipline.

Standard 5. Elaborated Written Communication: The task asks students to elaborate on their understanding, explanations, or conclusions through extended writing.

Value Beyond School

Standard 6. Problem Connected to the World Beyond the Classroom: The task asks students to address a concept, problem, or issue that is similar to one that they have encountered or are likely to encounter in life beyond the classroom.

Standard 7. Audience Beyond the School: The task asks students to communicate their knowledge, present a product or performance, or take some action for an audience beyond the teacher, classroom, and school building (p. 14).

(Newman & Wehlage, 1995, p. 14)

Newmann and Wehlage acknowledge that these elements may not be present in all classroom assignments, but authentic achievement should be seen as the "ideal, valued end." The elements apply across grade levels—they will work for younger students when designed to be developmentally appropriate. They are certainly appropriate for students in high school. In the studies, students who were in classrooms that reflected these criteria made greater gains according to two sets of data: the School Restructuring Study (SRS) and the NELS:88 study. The NELS findings suggest that students who attend restructuring high schools learn more based on conventional tests of achievement than those in more traditional schools. Also "restructuring high schools tend to have higher levels of authentic instruction, and that authentic instruction has a big effect on the differences in achievement gains between schools" (p. 25).

The evidence also suggests there are more equitable gains among students in the restructured schools. The researchers report, "SRS and NELS also yielded encouraging findings on equity: Both studies showed that restructuring can help equalize students' opportunities to learn. The SRS showed that authentic pedagogy brings equal achievement benefits to students of different gender, socioeconomic status, race, and ethnicity. NELS showed that restructuring can even reduce inequalities in achievement between students of high and low socioeconomic status" (p. 25). Although there were considerable differences in classroom use of authentic pedagogy, the researchers found "it is possible to deliver authentic instruction so that students from all social backgrounds have equal opportunity to learn" (p. 27).

Researchers have continued to study the effects of the concepts of authentic pedagogy. In a study conducted in Chicago schools of the quality of intellectual work, Newmann (1998) confirmed the elements of authentic pedagogy. The study found "that the students who were offered what he labeled an 'authentic' curriculum, similar to the one mandated by the national curriculum standards, achieved at levels two to three times higher than students in traditional, skill-oriented classrooms with low 'authenticity' (in Daniels et al., p. 15). In both writing and mathematics, students learned far more when teachers invited them to go deeply into subject matter, engage in deep conversation about the topics at hand, and make explicit connections between classroom subject matter and their lives outside of school." Performance on regular standardized tests reflected improved results as well. "Two years later, working with Tony Bryk and Junko Nagaoka, Newmann (2000) investigated just that correlation [between authentic pedagogy and standardized tests]. Students doing authentic and challenging work in their classrooms scored significantly higher on both the ITBS and the Illinois Goals Assessment program, across grade levels and regardless of socioeconomic status" (in Daniels et al., p. 15).

McTighe, Seif, and Wiggins (2004) use the research by Newmann et al. as well as others to counter misconceptions about standardized testing and teaching for meaning. They assert that a "summary of the last 30 years of research

Teaching and "learning for meaning leads to greater retention and use of information and ideas" than does teaching to the test. (Mctighe, Seif, & Wiggins)

supports that learning for meaning leads to greater retention and use of information and ideas" (p. 28). Rather than teaching to the test, these authors say "teachers can best raise test scores over the long haul by teaching the key ideas and processes contained in content standards in rich and engaging ways; by collecting evidence of student understanding of that content through robust local assessments rather than one-shot standardized testing; and by using engaging and effective instructional strategies that help students explore core concepts through inquiry and problem solving" (p. 28). McTighe et al. also suggest ways to answer the contention that teachers have too much content to cover. They write that they "know of no research that supports the idea that a coverage mode of instruction increases achievement on external tests" (p. 29). Therefore, they advocate for teaching "fewer topics at each level, coupled with more coherent and focused content," rather than concentrating on coverage and addressing standards one at a time (p. 29). They emphasize "that 'uncoverage'— focusing on fewer topics and core understandings—is more likely to increase student achievement" (p. 29). They also suggest "clustering discrete standards under an umbrella of big ideas" that guide the learning domains (p. 30).

The Research Institute on Secondary Education Reform (RISER) for Youth with Disabilities suggests that the authentic achievement framework is appropriate for students with disabilities. They apply the three essential features—construction of knowledge, disciplined inquiry, and value beyond school—to instructional programs for students with disabilities. They call their expanded model Schools of Authentic and Inclusive Learning (SAIL). The RISER vision for reform and inclusion focuses on "outcomes that reflect high intellectual quality" (Hanley-Maxwell, Phelps, Braden, and Warren, no date, p. 7). The authors of the RISER Brief call for research focusing on the elements of authentic achievement among students with disabilities.

Effective School and Classroom Practices

Additional studies have investigated classroom practice and offered suggestions for improving teaching and learning. Many research findings are consistent with the principles included in the Bransford et al. report on learning and confirm the concepts found in authentic pedagogy.

Similar to many of the concepts in the Newmann framework on authentic pedagogy, Langer's (2004) descriptions also depict students who are engaged and producing quality work. She emphasizes that in these more effective schools, students are "minds on" or mentally engaged most of the time. They are not just sitting quietly and complying with the rules. They are engaged with real ideas. "Students see school as a place to learn and actively participate." The curricular programs are coherent, connected and "rich with content" which provides students a sense of the "big picture" of what they are learning. "Teachers and administrators ensure that goals and guidelines are set and followed but also see to it that the curriculum and instructional practices echo, build on, and complement one another across the school year and across the grades. This kind of comprehensiveness is rarely present in

typical schools.... This requires not only a unity of purpose but also a common overall educational philosophy—a common view of what counts as learning, good performance, and good teaching" (p. 35). These coherent programs exist in teacher and school actions, not just on paper. Staff members are involved in their development, review, and revision so that they have internalized the ingredients of these programs. Langer contrasts this coherence to the fragmented, isolated, separated practices in the more typical schools.

Effective teachers "treat 'getting it' as the groundwork from which to help students reach deeper and more connected understandings." (Langer)

According to Langer, in classes with an orientation to help students develop understanding, teachers create opportunities for students "to inspect new ideas and skills, try them out, question, explore, and use them in ways that substantively add to their available knowledge base." Teachers who use this approach provide students with "thought-provoking experiences" and encourage them to develop "deeper, more elaborated understandings." More typical classroom instruction "stops earlier in the learning process when the ideas are less well developed, inhibiting the potential for richer understandings." Langer also writes, "[s]tudents are shortchanged when the goal of instruction is simply for them to get the right answer" (p. 43). In the effective classrooms, teachers "don't stop teaching just because the material is covered and students have reached particular achievement goals. Instead they treat 'getting it' as the groundwork from which to help students reach deeper and more connected understandings" (p. 44). Students of all achievement and ability levels are encouraged to move deeper into understanding. At-risk students in the classrooms that were observed developed understanding and were engaged in discussions that helped them "build networks of ideas that will be useful to them in life as well as in class" (p. 44). Teachers in more typical classrooms were more intent on covering the material, through "telling" rather than allowing discussion that teachers said would take too much time.

In addition to helping students grasp the content, teachers in more effective schools spent time teaching students strategies for learning. Langer writes that "content matters, but what to do first, next, and last and what to focus on when are also critical. Schools that work well teach students strategies for thinking about and using the content they study" (p. 46). As in an apprenticeship setting, teachers guide their students and teach them the "steps necessary to do well." To help students learn these strategies, teachers "discuss, model, and practice" them. Teachers also offer "guides and prompts, and they give reminders." Students come to "internalize ways to understand what certain tasks call for, how to see them through, how to evaluate what they've done, and what they can do to make their performance better" (p.46). In typical schools the emphasis is on content and the right answers, rather than on *how* to get the answer or *thinking about how* to proceed.

Langer writes that teachers in the more effective schools do not spend a great deal of time debating the merits of skill-based versus experience-based approaches to teaching. These teachers use a "mix of skills-based and experience-based instruction when appropriate, and students work in groups,

as a whole class, and alone when appropriate" (p. 48). These teachers use their students as their guide for instructional decisions. Langer categorizes instructional activities into three types of activities: *separated*, *simulated*, and *integrated*. She explains that if students need to learn a particular skill or concept, for example, teachers may *separate* it out for emphasis, explanation and description. *Simulated* activities are those designed for student practice in using the skill or concept that they will need. The last approach is *integrated* activities that bring knowledge and skills together in accomplishing major activities. Teaching of this type promotes "generative learning." This approach to instruction "offers multiple kinds of support and experiences to ensure students will learn the skills and knowledge that provide the foundation for their growing expertise." Langer asserts that the approach is "flexible, responsive to the particular students and their particular needs in their particular situation." In addition, the "basics are getting covered, in a range of lessons and activities, with a range of useful practice" (p. 51). Generative learning is necessary for students so they gain real expertise and learn how to learn.

Finally, Langer lists some characteristics of successful instruction. More effective schools:

- "Treat learning as a process of questioning, trying out, and grappling with new ideas and skills.
- Aim to teach students a network of understandings, to connect and use in new ways.
- Treat 'getting it' as groundwork to teach deeper understandings.
- Help students relate new learning to larger issues in the discipline and the world.
- Use writing, discussion, drama, and art as opportunities to engage students in thinking through the new ideas.
- Teach strategies for ways to think about and use the content in assignments and activities.
- Aim to deliver substantive and engaged learning experiences.
- Use separated, simulated, and integrated instructional approaches flexibly, in response to students' needs" (p. 52).

The National Research Council Institute of Medicine (2004) authors explain that it is "difficult to identify in studies the specific practices that enhance engagement. More likely, sets of practices work synergistically either to promote or undermine student engagement and learning" (p. 80). The writers assert that although there is a fair amount of evidence about effective instruction, there is "still much to learn, particularly about implementing programs at scale in urban high schools. But the existing evidence provides no support for the traditional textbook and worksheet instruction seen in most schools serving low-income students and students of color" (p. 88).

"Best Practice" Methods. Daniels and Bizar began a study in 1995 of "master teachers" in a variety of schools. They looked for the "fundamental,

recurrent patterns" in these "engaging, standards-driven classrooms." From this research, they identified six basic methods or structures of "best practice" instruction that were used by effective teachers (Daniels et al., 2001, p. 105). These structures implicitly, and sometimes explicitly, reflected the national curriculum standards. Rather than "standing and telling," an approach that will "no longer get the job done," these teachers use student-centered, active strategies. Frequently teachers use a combination of the strategies. The six structures, which are developed in detail with principles and examples of practice in their report, can be used appropriately across grade levels and content areas. These are:

- "Integrative units
- Small-group activities
- Representing-to-learn
- Classroom workshop
- Authentic experiences
- Reflective assessment" (in Daniels et al., p. 106).

"Research-based" Instructional Strategies. Another educational researcher also identified research-based strategies that significantly impact student learning that are appropriate for any grade level: elementary, middle, and high school. Marzano, Pickering, and Pollock (2001) point out the importance of using strategies that "work," which they identified through an examination of decades of research studies focused on classrooms. Individual teachers in any school may make a difference in their classrooms by adopting these strategies. Of course, when teachers throughout a school join together in using effective practices, student achievement may be more significantly impacted. The strategies include:

- Identifying similarities and differences.
- Summarizing and note taking.
- Reinforcing effort and providing recognition.
- Homework and practice.
- Nonlinguistic representations.
- Cooperative learning.
- Setting objectives and providing feedback.
- Generating and testing hypotheses.
- Cues, questions, and advance organizers.

These strategies are explained in detail, along with suggestions for implementation, in a resource from the Association for Supervision and Curriculum Development.

Assessment *for* Learning. Assessment and testing are intertwined throughout the discussion of effective authentic instruction in this chapter. However, a brief discussion of the topic is pertinent. Stiggins, Chappuis, and others have argued that "assessment *for* learning" is integral to effective instruction and

student learning. Assessment for learning involves students in assessing their own learning at every step of the way. Stiggins and Chappuis (2006) explain that assessment for learning requires translating state standards into classroom learning targets framed in language students understand so students know what they are responsible for learning. The learning targets become the basis for daily classroom instruction. Descriptive feedback assists students with their learning and permits them to monitor their own growth. Students and their teachers are "partners in the classroom assessment process, relying on student-involved assessment, record keeping, and communication to help students understand what success looks like, see where they are now, and learn to close the gap between the two" (p. 11).

Student-led Conferences. These involve students, their teachers, and parents or family members for three-way communication and are effective tools for increasing students' responsibility for their learning and for communicating their learning with parents and teachers. Often implemented in elementary and middle schools, student-led conferences can be implemented successfully in high schools as well. Student-led conferences provide a framework through which students can assume greater control of their academic progress. Features of well-conducted conferences include putting the student in charge, providing sufficient planning and support to ensure success, and communicating the conference details to parents or other adults who may attend. The discussion should focus on student work and performance, not just grades or test scores. The conference can also lead to the development of a plan of action for improving performance and enlisting parent and family support (Hackmann, 1997).

Teachers report a number of benefits for three-way student-led conferences: Students develop a strong sense of responsibility for their learning; students develop a sense of pride when they have a "success story to share;" relationships between students and teachers become more productive partnerships; student-parent relationships may be improved; the classroom environment becomes more active and involving as it builds a sense of community; cheating may be reduced; students develop leadership skills as they handle coordination details; and parents are more likely to show up for the conferences when students lead them (Stiggins, 1997, p. 498–499).

Teaching Diverse Learners

Although the suggestions for effective instruction described in the above sections apply to all high school students, some researchers and educators have identified instructional strategies that appropriately support diverse learners. The strategies identified in the report *Addressing the Achievement Gap: A Challenge for Washington Educators* (Shannon & Bylsma, 2002) apply to improving classroom instruction in high schools. The five strategies, synthesized from the research and professional literature, are (1) changed beliefs and attitudes, (2) culturally responsive teaching, (3) more effective teaching, (4) greater opportunities to learn, and (5) increased family and

community involvement. Within each broad strategy are specific practices that improve student learning, student belonging and involvement in school, and levels of support. All students benefit from teachers who believe they can succeed, care about them, hold high expectations, and persist in teaching them.

Instruction that is culturally responsive and supports heterogeneous or mixed ability classes will help reduce or eliminate the achievement gap, increase student sense of belonging in high schools, and promote learning. The work of Gay (2000) and other researchers offer insights into teaching students of color. Also, Darling-Hammond (2002), Daniels and Bizar (1995), and Tomlinson (2001), as well as others, provide a variety of suggestions for effective instruction in settings that include diverse learners. This body of research is highlighted below.

Culturally Responsive Teaching. Gay provides dimensions of culturally responsive teaching that are consistent with the principles and strategies provided previously in this report. She defines culturally responsive teaching as "using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them. It teaches to and through the strengths of these students" (p. 29). It acknowledges the students' cultural heritage, builds bridges between home and school experiences, uses a wide variety of strategies that connect to different learning styles, teaches students to know and take pride in their own and each other's culture, and includes multicultural information, resources, and materials in all subjects.

Gay suggests learning opportunities that work well with students of color and are consistent with culturally responsive teaching. Her suggestions include:

- "Getting students personally involved in their own learning
- Using varied formats, multiple perspectives, and novelty in teaching
- Responding to multiple learning styles
- Modeling in teaching and learning
- Using cooperation and collaboration among students to achieve common learning outcomes
- Learning by doing
- Incorporating different types of skill development (e.g., intellectual, social, emotional, moral) in teaching and learning experiences
- Transferring knowledge from one form or context to another
- Combining knowledge, concepts, and theory with practice . . .
- Students reflecting critically on their knowledge, beliefs, thoughts, and actions" (p. 196).

Authors of reports on *Hispanic* students emphasize the importance of positive beliefs and attitudes, culturally responsive teaching, and effective instruction. In their study on the Hispanic dropout problem, Lockwood and Secada (1999) state, "Hispanic students deserve to be treated as if they matter" (p. 3). The report's overarching findings and recommendations include the following:

"Schools and school staff must connect themselves—both institutionally and personally—to Hispanic students and their families, provide Hispanic students with a high-quality education based on rigorous standards, and provide backup options to push both students and staff past obstacles that come up on the way to achieving those rigorous standards.

"Students and their families deserve respect. In many cases, this means that school staff and other educational stakeholders must change long-held conceptions of Hispanic students and their families. These stakeholders need to see Hispanic students as central to the future well-being of the United States rather than as foreign and unwelcome. They also need to recognize that Hispanic families have social capital on which to build. Hispanic students deserve genuine opportunities to learn and to succeed in later life—rather than being dismissed as deficient because of their language and culture" (p. 3).

A study of high-performing schools serving Mexican American students reflects many characteristics found in other reports on effective schools. But differences are evident in how schools implement the elements. For example, these schools focus on cultural values, establish personal contact with families, develop student-centered classrooms, and implement an "advocacy-oriented approach to assessment that held educators accountable for their instructional strategies and for the impact they had on Mexican American learners" (Scribner & Scribner, 2001, p. 1; also, Scribner, Young, & Pedroza, 1999). The researchers also point to a difference in parent involvement. The Mexican American parents tend to value involvement when they see their activities enhancing the school environment for their students; teachers generally see parent involvement as a means for improving student achievement.

Another report summarizes factors associated with academic achievement of Hispanic students. In addition to the development of language skills, other improvements in instructional quality and school environment are equally important. Five teaching practices that researchers suggest work well with Hispanic students include culturally-responsive teaching, cooperative learning, instructional conversations, cognitively-guided instruction, and technology-enriched instruction. Educational experiences for Hispanic students also improve in classrooms characterized by a sense of belonging and student and community empowerment (Padron, Waxman, & Rivera, 2002).

Recommendations for improving schools for *Native American* students include many similar characteristics. Researchers assert that these students benefit from active learning, caring teachers, culturally relevant curriculum and instruction, and small learning environments (Reyhner, 1992; St. Germaine, 1995). Demmert (2001) cites research that suggests the importance of Native language and cultural programs on student academic performance. He writes, "A series of studies conducted in the past 30 years collectively provides strong evidence that Native language and cultural programs—and student identification with such programs—are associated with improved academic performance, decreased dropout rates, improved school attendance rates, decreased clinical

symptoms, and improved personal behavior" (p. 9). According to some studies, learning for these students was enhanced by "informal classroom organization, flexible arrangement of furniture and emphasis on group work; shared locus of control by teachers and pupils; cooperative learning; use of dialogue; and culturally relevant materials" (p. 19). Other studies also found students respond positively in "cooperative-style classrooms with peer-directed, collaborative group work." An emphasis on "open-ended questioning, inductive/analytical reasoning, and student discussions in large and small group settings" also were successful in engaging students. "In classrooms where dialogue is shared between students and teachers and where students' ideas are encouraged within the context of their Native language and culture, Native students are found to respond eagerly to questioning, even in English ..." (p. 19).

McKinley (2005) identified instructional and management strategies that successful teachers use with *African American* students that appear to close achievement gaps on standardized assessments. The strategies used in her research were drawn from literature reviews, and empirical, quasi-experimental, and survey studies in K-12 settings. Her framework is based on five areas that constitute an equity pedagogy: "(1) effective instruction that is culturally responsive, (2) positive interpersonal relationships that draw on the social constructivist aspects of teaching, (3) cultural congruence with students' backgrounds, (4) positive attitudes and beliefs that nurture student motivation, and (5) social activism that addresses racism, disparate expectations, conditions, and opportunities to learn" (p. 3).

McKinley's framework organizes the strategies under these categories of variables: instructional program, contextual features and classroom environment, and classroom assessment. The framework includes 42 specific interrelated descriptors. For example, under *Instructional Variables,* she describes multicultural approaches to instruction, cultural competence, information in the curriculum on cultural differences, and maintaining active participation. For the *Classroom Climate/Environment Variable,* she lists teacher-student interactions, including social variables such as fairness, respect, low favoritism, caring, and low friction. Under *Classroom Management*, she gives indicators for improving student discipline. These include explicit coaching on appropriate behavior and guarding against student loss of peer respect. Effective teachers in the study adapted their knowledge, philosophies, instruction, and contextual features to students' cultures, needs, learning preferences, and prior experiences.

Adaptive Pedagogy. Adaptive pedagogy, a term used by psychologist Robert Glaser, refers to modes of teaching that are adjusted to individuals, including their backgrounds, talents, interests, and their past performance. Darling-Hammond (2002) emphasizes that "high standards cannot work without high supports" (p. 27). Fullan (1999) writes that poor performing students need greater attachment to school and motivation to learn, not just pressure. Pressure by itself serves to "demotivate" (p. 19).

In adaptive pedagogy students have the opportunity "to tackle difficult tasks without fear of failure" through practice, revision, and support. (Darling-Hammond)

Multiple instructional strategies are used to support the active learning of students and to provide them with a variety of "entry points to learning" (Darling-Hammond, 2002, p. 27). Drawn from a study of innovative small schools, representing elementary as well as high schools, Darling-Hammond provides the following examples of adaptive pedagogy:

- Group work – highly structured through activity guides with "substantial scaffolding" and "active teacher coaching and assistance" (p. 27). Groups work on "authentic, open-ended tasks" that call for the expertise of group members.
- Explicit Teaching of Academic Skills – High schools generally assume students have mastered advanced skills in reading, writing, and inquiry. However, high schools need to provide the instruction to fill in the gaps for students who "do not know how to conduct research, synthesize information, or plan and structure a paper, experiment, or project" (p. 28).
- Scaffolding – Rather than reduce the demands of curriculum, students are explicitly taught "how to approach academic tasks, how to read and write at a college level, and how to evaluate their own and others' work" (p. 28).
- Culture of Revision and Redemption – In adaptive pedagogy there is a learning environment that gives "students the opportunity to tackle difficult tasks without fear of failure" through practice, revision, and support. Students develop "the courage and confidence to work continuously to improve in their successive efforts" until their work meets standard (p. 29).
- Extra Support – Schools provide extra classes, tutoring sessions, resource rooms, and volunteer tutors outside of class. Students who need extra help get that support in the class, and they receive added support outside of class. In successful schools "the emphasis … is on adding learning opportunities … not pulling kids out of class" (p. 29).
- Strong Relationships – Schools have to be environments that promote strong teacher-student relationships. To help build strong relationships, schools may reduce teacher pupil loads, reduce class sizes, and schedule longer teaching blocks and/or fewer courses for students to take at a time (p. 29).
- Culturally Responsive Teaching – Schools "explicitly embrace cultures" of students, "celebrate their students as individuals and as members of specific cultures, engage students in sharing their culture and knowledge, and using instructional materials that reflect different cultures and viewpoints" (p. 33).

Differentiating Instruction. Daniels et al. (2001) offer several instructional practices that are effective in increasingly diverse, heterogeneous, or untracked classrooms. These include using small groups, workshop, authentic experiences, and a variety of means to represent learning. The authors stress that "active, student-centered classrooms need to be highly structured so that students know what is required of them and develop the sense of responsibility

to themselves and their peers to actually become engaged" (p. 123). Small groups are effective in various content areas. Students are provided the opportunity to collaborate in pairs, teams, or groups as they work together in reading, writing, discussion groups, or serve as resources for one another. The workshop or "studio" format provides students the opportunity to practice their learning while teachers demonstrate, mentor and give them feedback. A potential workshop format may include time for teacher demonstration, student work time or conferences as students engage in their own work and the teacher facilitates. The whole class then reconvenes as students share their work, give and receive feedback, and review the workshop procedures. For students to understand ideas, they must actively engage and act upon them. Student activities such as keeping journals or learning logs, drawing, sketching, mapping, videotaping, and so on are ways students can "represent, explore, and express their thinking" (p. 111).

Tomlinson (2001) describes differentiated instruction as a blend of whole-class, group, and individual instruction. She stresses that it is not a synonym for individualized instruction. Differentiated instruction is based on effective assessments that include conversations with students, discussions, student work, classroom observations, and formal assessments. These provide the basis for planning instruction that accommodates "*what* students learn, *how* they learn it, and how they *demonstrate what they've learned"* (p. 4). She writes, "A differentiated classroom is marked by a repeated rhythm of whole-class preparation, review, and sharing, followed by opportunity for individual or small-group exploration, sense-making, extension, and production" (p. 6). She suggests several guidelines that make differentiation possible in high schools as well as earlier grades:

- "Be clear on the key concepts and generalizations or principles that give meaning and structure to the topic, chapter, unit, or lesson you are planning.
- Think of assessment as a road map for your thinking and planning.
- Lessons for all students should emphasize critical and creative thinking.
- Lessons for all students should be engaging.
- In a differentiated classroom, there should be a balance between student-selected and teacher-assigned tasks and working arrangements" (p. 19–20).

High schools can develop contingency plans, such as the "pyramid of intervention," as a collective response to catch students before they fall behind.
(Dufour et al.)

Interventions to Ensure Student Learning

High schools cannot assume that all students will make uniform, regular progress in learning. A major challenge is creating and using structures that prevent students from "falling through the cracks" or that successfully catch them when they do. Such structures require careful use of assessments and systematic interventions.

High schools can develop contingency plans to work with students who are not making satisfactory progress toward learning standards. Dufour, Dufour, Eaker, and Karhanek (2004) describe a system that was created by

staff at Adlai Stevenson High School in Lincolnshire, Illinois, and also has been implemented in other settings. School staff developed the system as a "collective response" for working with students to ensure their successful learning. They called it a "Pyramid of Intervention." In describing the collective response to help these students, Dufour et al. pose three questions that undergird intervention practices:

1. "What is it we want all students to learn—by grade level, by course, and by unit of instruction?
2. How will we know when each student has acquired the intended knowledge and skills?
3. How will we respond when students experience initial difficulty so that we can improve upon current levels of learning?" (p. 2–3).

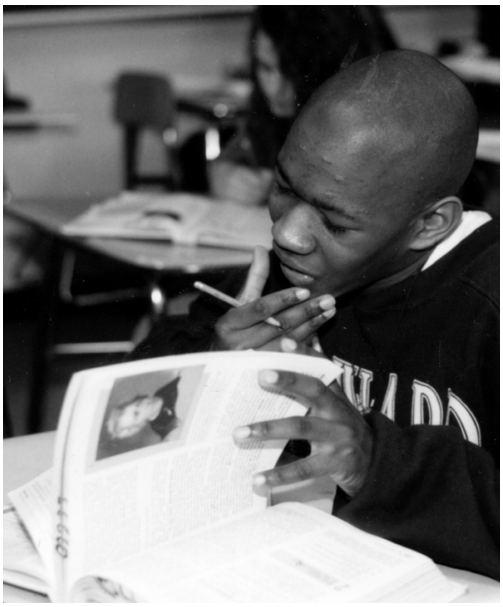
The authors describe the set of interventions that answer the third question; the pyramid moves from a broad-based approach to increasing the levels of support for the few specific students that warrant it.

- Student Support Team includes counselor, social worker and dean of students who share responsibility for the same group of students and meet weekly to monitor learning progress.
- Conferencing and optional tutoring.
- Mandatory tutoring program.
- Guided Study Program with no more than 10 students in a given period to provide supervision and assistance.
- The Mentor Program provides two periods of support each day in a small group of 10 students with one teacher; student earns a credit.

Key to both guided study and mentor programs is that teachers have opportunity to develop a "connection with students who have typically been alienated from school" (p. 64).

Teacher Characteristics, Student Motivation, and Classroom Practice

Teachers' attitudes, beliefs, and their sense of efficacy affect how they feel about their work and their students. Accepting responsibility for student learning is essential for school and student success. "Teachers who accept responsibility understand that 'the creation of a school culture is more dependent on the adults in the school than on the characteristics of students or economic climates of the community in which the school is located' (Louis & Miles, 1990, p. 88, in Murphy et al., p. 83). When teachers believe they are making a difference in their students' learning, they are inclined to be engaged (Murphy et al., 2001). Teachers who believe they can effectively teach their students are more likely to demonstrate a range of positive teaching behaviors such as persistence, resilience, openness to new ideas, commitment to teaching, planning and organizing instruction (Fullan, 1988 and Tschannen-Moran et al., 1998, in Murphy et al., p. 83). Ancess (2003) writes that "relationships are a pedagogical tool that enables teachers to care not only about their students but also about their students' learning" (p. 80).



Relationships serve as "levers for student development and achievement." Relationships help teachers "obtain access" to students and open communications with them enabling teachers to help them in personal and academic ways (p. 81).

Brophy (1998) links student motivation to learn to teacher attitudes, beliefs, and practices. He asserts that a teacher's "personality and everyday behavior in the classroom ... can become [their] most powerful motivational tool." He advises teachers that to be a motivational tool "[they] will need to cultivate and display the attributes of individuals who are effective as models and socializers. These begin with the characteristics that make people well liked: a cheerful disposition, friendliness, emotional maturity, sincerity, and other qualities that indicate good mental health and personal adjustment. [Teachers'] attempts to socialize students will have positive effects to the extent that the students admire [them], value [their] opinions, and believe that [they] are sincere in what [they] say and have their best interests in mind when saying it. Engagement in classroom activities tends to be high when students perceive their teachers as involved with them (liking them, responsive to their needs), but students tend to become disaffected when they do not perceive such involvement" (in Brophy, 1998, p. 22).

Caring and personal regard are related to student motivation.

Caring and personal regard are related to student motivation. Brophy points out that "[w]hen asked about their favorite teachers, students unsurprisingly mention such qualities as caring about them as individuals and seeking to help them succeed as students; teaching interesting things and explaining them clearly; being pleasant and friendly; being fair and not playing favorites, humiliating them, appearing to look down on them when they make mistakes or ask for help, yelling at them, or overreacting to their minor misbehavior. However, students also say that they want teachers to articulate and enforce clear standards of behavior. They view this not just as part of the teacher's job but as evidence that the teacher cares about them" according to researchers cited by Brophy (1998, p. 23).

Brophy also argues that teachers are more effective when they approach classroom management and discipline as "a process of establishing a productive learning environment" rather than threatening or punishing students. Teachers are encouraged to use authoritative strategies that "help students to become active, self-regulated learners" and to avoid (1) authoritarian strategies that produce passive obedience rather than thoughtful self-regulation and (2) laissez-faire strategies that offer students autonomy but fail to provide them with needed guidance. Authoritative strategies accept students as individuals and use warm and affectionate interactions, use guidelines rather than dictates for managing behavior, teach values, involve the students when setting and clarifying rules and limits, present expectations in respectful ways, explain rationales for demands and expectations, model

as well as teach "well-articulated value systems," and project positive expectations and attitudes that treat students as if they are "responsible people" (Brophy, p. 24).

According to Brophy, "*Motivation* is a theoretical construct used to explain the initiation, direction, intensity, and persistence of behavior, especially goal-directed behavior. In the classroom context, the concept of *student motivation* is used to explain the degree to which students invest attention and effort in various pursuits, which may or may not be the ones desired by their teachers. Motivation refers to students' subjective experiences, especially their willingness to engage in lessons and learning activities and their reasons for doing so." Brophy argues that teachers should focus their "primary motivational goals and strategies ... on encouraging [their] students to engage in classroom activities with *motivation to learn*, that is, with the intention of acquiring the knowledge or skills that the activities are intended to develop" (p. 3).

In creating the conditions for motivation to learn, teachers may find research by Mihaly Csikszentmihalyi (1990) to be useful. He describes "peak experiences of intrinsic motivation" in his theory of "flow." This researcher found that individuals will experience "flow" when they are actively involved in challenging tasks that stretch them mentally or physically, rather than during relaxing leisure or entertainment. Csikszentmihalyi listed *eight dimensions of the flow experience*:

1. "The activity has clear goals and provides immediate feedback about the effectiveness of our responses to it.
2. There are frequent opportunities for acting decisively, and they are matched by our perceived ability to act. In other words, our personal skills are well suited to the activity's challenges.
3. Action and awareness merge; we experience one-pointedness of mind.
4. Concentration on the task at hand; irrelevant stimuli disappear from consciousness; worries and concerns are temporarily suspended.
5. A sense of potential control.
6. Loss of self-consciousness, transcendence of ego boundaries, a sense of growth and of being part of some greater entity.
7. Altered sense of time, which usually seems to pass faster.
8. Experience becomes autotelic: the activity becomes worth doing for its own sake" (in Brophy, p. 8).

Students probably experience flow more often during school co-curricular programs or athletics than during class time. Brophy presents ideas from Csikszentmihalyi, Rathunde, and Whalen that suggest ways that teachers can encourage flow experiences for their students: "(1) by being knowledgeable about their subjects, enthusiastic in teaching them, and acting as models pursuing the intrinsic rewards of learning; (2) by maintaining an optimal match between what is demanded and what students are prepared to accomplish

(urging but also helping students to achieve challenging but reasonable goals); and (3) by providing a combination of instructional and emotional support that enables students to approach learning tasks confidently and without anxiety" (p. 9).

Brophy explains the relationship between the degree to which students value an activity and their expectations for success in responding to class work. Brophy cites research by Donald Hansen that describes four approaches students tend to adopt to cope with classroom tasks, depending on their expectations for success and the value they attach to given tasks. Students may *engage, dissemble, evade,* or *reject* schoolwork depending upon the degree to which they value the work and their level of confidence in their ability to accomplish it.

To succeed academically, students need to feel schoolwork is worth doing and to have confidence they can do it.

"*Engaging* is likely when students see value in the task and are reasonably confident of their ability to meet its demands. When engaged, they seek to make sense of the task by discovering meanings, grasping new insights, and generating integrative interpretations. The task's unfamiliar aspects are viewed as challenging but are valued because they provide a basis for extending one's understandings" (p. 15-16).

"*Dissembling* is likely when students recognize value in the task but do not feel capable of meeting its demands. They would like to complete the task successfully, but are uncertain of what to do, how to do it, or whether they can do it. These uncertainties threaten their identity and self-esteem, so they pretend to understand, make excuses, deny their difficulties, or engage in other behavior focused more on protecting their ego than on developing task-related knowledge and skill" (p. 16).

"*Evading* is likely when success expectancies are high but task value perceptions are low. The students feel confident of their ability to meet task demands but don't see a reason to do so. In response to the grading system and other pressures, they may go through the motions by focusing sufficiently on the task to avoid teacher interventions and perhaps even to accomplish the task goal. However, their attention is scattered, frequently drifting to competing interests such as daydreaming, interacting with classmates, or thinking about their personal lives" (p. 16–17).

"Finally, *rejecting* is likely when both success expectations and task value perceptions are low. Lacking both reasons to care about succeeding on the task and confidence that they could do so if they tried, students in this situation withdraw from the task. Some become passive and psychologically numbed. Others smolder with anger or alienation. Rejecting the task completely, they not only don't engage in it but don't even feel the need to dissemble by pretending to themselves or others that they are capable of meeting its demands" (p. 17).

This framework can help teachers understand the responses of their students in relation to the perceived and real challenge and value of the assigned tasks and the competence of students to accomplish them. In high school classrooms, teachers will be more successful with students if they plan activities and content that are valued by students and provide sufficient support so students have confidence that they can succeed.

Classroom as a Learning Community. Brophy characterizes classrooms that enhance motivation and engagement as learning communities that share some common traits with professional learning communities. He says students will not respond well to teachers if students "are fearful, resentful, or otherwise focused on negative emotions." Therefore, teachers should establish their classrooms as learning communities—"a place where students come primarily to learn, and succeed in doing so through collaboration" with the teacher and other students. Curriculum needs to be based on things that are worth learning and developed so that students come to "appreciate its significance and application potential" (p. 21). Various authors "advocate creating a school environment in which students feel comfortable, valued, and secure. This environment will encourage them to "form positive emotional bonds with teachers and a positive attitude toward school, which in turn facilitates their academic motivation and learning" (p. 22).

Brophy makes a distinction between motivating students to learn and motivating them to complete their class work or to get a grade. He explains that teachers are "likely to get the best results [when they] help students to frame their learning goals in terms of acquiring the knowledge or skills that [they] intend to teach ... not just in terms of completing tasks or obtaining particular grades.... This will encourage students to take more responsibility for managing their own learning by actively setting goals seeking to construct understandings, persisting in their efforts to overcome confusions, and assessing and reflecting on what they have learned" (p. 26).

Brophy suggests the framework TARGET as an approach for helping students adopt learning goals rather than performance or work-avoidant goals. TARGET is "not a fixed program" but "rather a framework that is adaptable to different teaching situations and useful for building motivational considerations into ... instructional plans." The framework emerged from Joyce Epsteins' work on "family structures that influence children's developing motivational systems at home" and was extended by Carole Ames to classroom practice in ways that encourage students to engage in activities with a focus on learning rather than on their public performance and how it reflects on their abilities" (Brophy p. 28). Brophy summarizes the six facets as follows:

1. "*Tasks* are selected so as to provide an optimal level of challenge and to emphasize activities that students find interesting and intrinsically engaging.
2. *Authority* is shared with students and exercised with consideration of their needs and feelings.

3. *Recognition* is provided to all students who make noteworthy progress, not just the highest achievers.
4. *Grouping* is managed in ways that promote cooperative learning and minimize interpersonal competition and social comparison.
5. *Evaluation* is accomplished using multiple criteria and methods, focusing on individualized assessment of progress rather than comparisons of individuals or groups….
6. *Time* is used in creative ways that ease the constraints of rigid scheduling and allow for more use of valuable learning activities that are hard to fit into 30-60 minutes class periods" (p. 28, emphasis added).

Authentic instruction is motivating and engaging for both students and teachers.

Brophy summarizes, "... [F]ocusing students' attention on individual and collaborative learning goals means much more than merely keeping them on task. It means creating a supportive, collaborative learning environment that enables students to feel comfortable in accepting the challenges implied in learning goals, persisting with self-regulated learning efforts when they encounter failure or frustration, and asking for help when they need it. It also means seeing that they get the help they need, building confidence that persistent efforts will eventually pay off, and treating mistakes as expected parts of an ongoing learning process rather than as evidence of limited ability. Finally, it means avoiding practices that tend to make students feel psychologically isolated or threatened in their efforts to meet [teacher] academic expectations" (p. 31–32).

Authentic instruction is motivating and engaging for both students and teachers. Researchers have pointed out that "defensive, controlling teaching does more than make content boring, it transforms the subject content from 'real world' knowledge into 'school knowledge,' an artificial set of facts and generalizations whose credibility lies no longer in its authenticity as a cultural selection but in its instrumental value in meeting the obligations teachers and students have within the institution of schooling" (McNeil, 1986, p. 191, in Murphy et al, p. 98).

The following set of principles are "common to most" programs developed to teach for understanding, so students learn content with sufficient understanding to be able to make it their own and apply it in problem-solving and decision-making contexts. The ten key features complement the principles of motivation, particularly for creating a learning orientation. The key features are:

- "The curriculum is designed to equip students with knowledge, skills, values, and dispositions that they will find useful both inside and outside of school.
- Instructional goals emphasize developing student expertise within an application context and with emphasis on conceptual understanding of knowledge and self-regulated application of skills.

- The curriculum balances breadth with depth by addressing limited content but developing this content sufficiently to foster conceptual understanding.
- The context is organized around a limited set of powerful ideas (basic understandings and principles).
- The teacher's role is not just to present information but also to scaffold and respond to students' learning efforts.
- The students' role is not just to absorb or copy input but also to actively make sense and construct meaning.
- Students' prior knowledge about the topic is elicited and used as a starting place for instruction, which builds on accurate prior knowledge and stimulates conceptual change if necessary.
- Activities and assignments feature tasks that call for critical thinking or problem solving, not just memory or reproduction.
- Higher order thinking skills are not taught as a separate skills curriculum. Instead, they are developed in the process of teaching subject-matter knowledge within application contexts that call for students to relate what they are learning to their lives outside of school by thinking critically or creatively about it or by using it to solve problems or make decisions.
- The teacher creates a social environment in the classroom that could be described as a learning community featuring discourse or dialogue designed to promote understanding" (Brophy, p. 44).

Changing classrooms and improving instruction encompass engaging intellectual class work, motivational strategies, challenging curriculum, and supportive teaching approaches. Traditional high school teachers have focused most often on content coverage, depended heavily on textbooks, and more mechanistic instructional strategies such as lecture, seat work, quizzes, and tests. To change instruction substantively requires understanding the subject matter deeply, taking risks in trying more complex instructional activities and assessments, and persisting in efforts to be sure students grasp the important concepts and can apply them competently. A large body of research examines the importance of professional communities to assist teachers in making those substantive changes in their classrooms.

Many educational reform efforts focus on first order changes (i.e. organizational structure, schedules) without addressing the need for changes in attitudes, beliefs, and classroom practices. Implementing innovative engaging practices and making substantive improvements in classroom instruction appear overwhelming to teachers, particularly those who are trying to make major changes alone. Collaborative professional learning communities hold promise that, together, teachers can successfully meet the challenge of such work. Other ideas for implementing change are discussed in the next chapter.

CHAPTER 6

Processes for Changing High Schools

Many research and professional reports have discussed how to create the conditions for changing high schools and implementing successful processes. School improvement is not a simple task, however. Although many processes lay out logical steps and offer advice, school reform processes must be adapted to local circumstances. There is no "one-size-fits-all" model. This chapter describes issues and approaches for planning and implementing high school reform. The research synthesis *Nine Characteristics of High Performing Schools* provides a framework for school improvement at all levels: elementary, middle, and high schools. Other planning processes include models developed by educational change researchers, national associations, and regional educational laboratories. Overcoming potential impediments to change and building support for change are also important aspects of high school reform. This chapter provides ideas from research that has examined high schools specifically.

CHARACTERISTICS OF HIGH PERFORMING SCHOOLS

High performing schools tend to have a number of common characteristics. Washington state has published a guide for school improvement that builds on the effective schools research and subsequent school improvement research. The *Nine Characteristics of High Performing Schools* emerged from a synthesis of research that examined all types of schools, including high schools. This research-based resource, therefore, provides a solid foundation for the planning of high school improvement and includes suggestions for implementing each of the nine characteristics. The following nine characteristics are usually found in high performing schools:

- A clear and shared focus
- High standards and expectations for all students
- Effective school leadership
- High levels of collaboration and communication

- Curriculum, instruction and assessments aligned with state standards
- Frequent monitoring of learning and teaching
- Focused professional development
- A supportive learning environment
- High levels of family and community involvement (Shannon & Bylsma, 2003).

Other research studies identify characteristics similar to the nine above, although they may be stated somewhat differently. For example, a study of twelve secondary schools in low-income settings in three Canadian provinces affirms the relevance of the characteristics at the high school level. The research report identifies elements that are commonly associated with success in the secondary schools in the study:

- "Positive attitudes and high expectations
- Strong and vigilant administration
- Focus on academic achievement and other indicators of success and student needs
- Recognition of the need to be accountable for performance, and to be innovative if the future of the school is to be assured
- Regular analysis of results, and linkage of results to school planning and activities
- Integrated planning and coordination of efforts to improve performance
- Importance placed on good teaching and professional development
- Sense of engagement and belonging among teachers and students and commitment to the basic mission and core values of the school
- Respectful, secure school climate and warm relationships
- Initiatives to motivate students and make learning relevant
- Structured classroom instruction and "traditional" standards of behavior
- Assistance and support for both students and teachers
- Variety and flexibility of structures, programs and services."

The researchers also conclude that "schools appear to falter when one of these elements is missing or threatened" (Henchey, Dunnigan, Gardner, Lessard, Muhtadi, Raham & Violato, 2001, p. 1–2).

The researchers observe that educators in these schools "seem to require special qualities" ... They "must assume some parenting responsibilities, extend special efforts to reach the[ir] students both emotionally and intellectually, and be highly imaginative in the selection of content and teaching approaches. High expectations coupled with support and warm relationships are especially effective in schools serving at-risk populations" (Henchey et al., p. 2).

PLANNING AND MANAGING PROCESSES FOR CHANGE

Adopting and implementing a plan of action for improvement is an important early step for high schools. School improvement planning models have emerged as schools attempt to realize the vision of high performing schools. Planning processes have been created by reform model developers, professional associations, researchers, state agencies, and other educational experts. Action research provides a useful tool for improving instruction that is applicable to classroom, department, or school-wide improvement. In the following section, research on high school change and a representative sample of planning processes are outlined. Educational change is complex and theoreticians continue to expand ideas for scaling-up reform and successfully sustaining change. While there is no formula for school improvement planning, there is considerable agreement for broad steps such as creating vision and goals, developing and implementing action plans, and evaluating and renewing improvement processes.

The work of Michael Fullan (1993) on educational change is clearly applicable to high school reform. The eight lessons of the "new paradigm of change" are basic to school improvement. These lessons are:

- "You Can't Mandate What Matters (The more complex the change the less you can force it)
- Change is a Journey not a Blueprint (Change is non-linear, loaded with uncertainty and excitement and sometimes perverse)
- Problems are Our Friends (Problems are inevitable and you can't learn without them)
- Vision and Strategic Planning Come Later (Premature visions and planning blind)
- Individualism and Collectivism Must Have Equal Power (There are no one-sided solutions to isolation and groupthink)
- Neither Centralization Nor Decentralization Works (Both top-down and bottom-up strategies are necessary)
- Connection with the Wider Environment is Critical for Success (The best organizations learn externally as well as internally)
- Every Person is a Change Agent (Change is too important to leave to the experts, personal mind set and mastery is the ultimate protection)" (p. 21–22).

Subsequent work by Fullan delves even more deeply into the complexities of educational change and the importance and difficulties of sustaining change efforts once they are initiated. Fullan (1999) makes the argument, as do other educational experts and visionaries, that school reform has a moral dimension—to improve the lives of young people. He advocates

for capacity building as the moral purpose of educational reform as a means to develop both individuals and society as a whole. Fullan (2005) emphasizes that "leadership (not 'leaders') is the key" in transforming organizations including schools and districts. He writes, "[L]eadership is to this decade what standards were to the 1990s if we want large-scale, sustainable reform" (p. xi). Fullan (1999) also stresses the positive nature of conflict, diversity, and resistance calling them "absolutely essential forces for success" in reform (p. ix). He explains that collaborative diversity is important to the change process. Conflict will occur but it will also provide insights that are not present if everyone is in agreement.

Sustaining educational change is a challenge that requires tremendous energy, commitment, and resilience. Hargreaves and Fink (2006) write that change is "easy to propose, hard to implement, and extraordinarily difficult to sustain" (p. 17). Fullan (2005) addresses the importance of "sustainability" for moving to "large-scale reform." He defines sustainability as "the capacity of a system to engage in the complexities of continuous improvement consistent with deep values of human purpose" (p. ix). He emphasizes the importance of both "pressure and support" or what he now calls "accountability and capacity building" to mobilize leadership for change. He writes, "capacity building involves developing the collective ability—dispositions, skills, knowledge, motivation, and resources—to act together to bring about positive change" (p. 4). Fullan lists and develops eight elements of sustainability:

1. "Public service with a moral purpose
2. Commitment to changing context at all levels
3. Lateral capacity building through networks
4. Intelligent accountability and vertical relationships (encompassing both capacity building and accountability)
5. Deep learning
6. Dual commitment to short-term and long-term results
7. Cyclical energizing
8. The long lever of leadership" (p. 14).

Hargreaves and Fink (2006) emphasize the moral dimension of sustainability in their definition and discussion of sustainable leadership. "Sustainable educational leadership and improvement preserves and develops deep learning for all that spreads and lasts, in ways that do no harm to and indeed create positive benefit for others around us, now and in the future" (p. 17).

As noted previously, there are numerous reports and studies concerned with changing high schools. However, there are fewer studies that examine the actual processes of designing and implementing major high school improvement. The Louis and Miles research study is one of the few that examined the process of change within contemporary high schools.

Louis and Miles (1990) investigated the *how* of implementation efforts. Their intention was to explore "the issues facing any school that is working on getting better" (p. 5). They conducted a survey of high schools to determine the extent to which improvement efforts had been implemented and conducted in-depth case studies of five high schools that had mixed success with their change efforts. The researchers conclude that linear, logical, formalized planning processes may not be the best approach to making changes in high schools. These researchers characterize school improvement in high schools as a "braid" in which "a collection of reform programs and plans becomes melded with the existing political and cultural setting. At best, changes are based on steady and patient efforts to work within the school as it exists, while maintaining a vision of what can be. It is a slow process that depends not on flashy leadership, but on dogged tenacity and skill at coping with the inevitable crises that occur in any evolving program of change" (p. 15).

Louis and Miles found that external and internal "contextual influences" are important to consider in determining appropriate approaches to school improvement. Both can have either positive or negative effects on school change. External conditions refer to the nature of the community and district setting, and internal conditions of the school deal with what occurs in a specific setting. They describe four design strategies, which all begin as "centrally initiated" approaches:

1. "A *top-down* implementation strategy (strong central control over both the process of change and accountability for well-defined outcomes).
2. A *goal-based* accountability strategy (weak control over the change process, strong accountability for outcomes).
3. An *evolutionary planning strategy* (strong control over the change process, with school-level definition of desired outcomes).
4. A *professional investment* strategy (weak central control over both process and outcomes)" (p. 183, emphasis in original).

Several factors should enter into the decision regarding appropriate improvement approaches in a given school. The authors state, "There is no single right way to plan, but there are a great many ways to go wrong" (p. 191). Schools should determine:

- "The amount of consensus within the school and among the school, the community, and the district about the nature of the school's problems and desirable strategies for solving them.
- The complexity and difficulty of problems facing the school.
- The level of energy for change.
- The turbulence of the school's context.
- The amount of autonomy and flexibility available to the school" (p. 191).

The researchers find that an evolutionary planning approach is most workable in high school improvement for several reasons. The approach acknowledges that school change is continuous and often difficult. It allows schools to build

The change process is evolutionary.... There is a "general destination, but many twists and turns as unexpected events occur along the way."
(Louis & Miles)

on improvement processes that have been implemented and perhaps fallen short due to any number of circumstances. The approach helps to "celebrate the energy and hope that still exist, and involve key people who can be counted on for new projects" and helps guard against "doubt and cynicism" (p. 213). These researchers find "that evolutionary planning departs from other descriptions of planning in three significant ways." They explain,

- "The first premise of evolutionary planning is *act – then plan*.
- The second premise is *pay less attention to missions and goals and more to inspirational themes* to guide the change process.
- The third premise is that evolutionary change requires *reflection on the relationship between action and improvement*, including the careful effort to renew staff commitment to both" (p. 215, emphasis in original).

Louis and Miles describe the approach as evolutionary in the sense that the strategy is a flexible tool, rather than linear and locked into a particular series of actions. Although the "organization's mission and image of the organization's ideal future may be based on a top-level analysis of the environment and its demands," the specific "strategies for achieving the mission are frequently reviewed and refined based on internal scanning for opportunities and successes." Thus, "there is a general destination, but many twists and turns as unexpected events occur along the way" (p. 193).

The researchers use multiple regression analysis to determine the influence of various factors on improvement efforts. They find, "Consensus and good planning contributed to the movement of schools toward improved teaching effectiveness ... that the process of planning and the way in which it affects commitment are more important than the exact planning steps followed or the 'goodness' of the first plan. In the case of [their] survey data, a factor strongly affecting the school's movement toward improved outcomes—for students, teachers, and the organization—was the *level of support* for implementation of the change effort...." They stress the importance of finding the right *themes* for improvement and "encouraging ownership of them" as the "heart of school reform" (p. 216).

Other aspects of the improvement process include building and spreading the themes and vision, getting and managing resources, and coping with the day to day problems of change. Sustaining change initiatives requires perseverance, personal attention to individual staff as well as attention to tasks, and wise use of coping strategies (or ways of handling the inherent problems associated with change efforts). The authors stress the importance of coordination of the process and advocate for a designated person or working group that can manage such tasks as

- "Monitoring implementation efforts
- Transmitting current information on program progress to all concerned parties

- Linking different sub-efforts
- Locating unsolved problems
- Taking clear coping action to resolve problems" (p. 265).

Problems inevitably occur in change processes. These "arise from three general sources:

1. The change program itself (its structure and process).
2. The people involved, as they interact in their traditional and change-impacted roles.
3. The organizational setting, particularly its structure and routine procedures, and its relation to the environment (district, state)" (p. 269).

The researchers identify three areas of coping strategies—technical, political, and cultural—for managing some of the problems inherent in change and describe their effectiveness in various school situations. Some coping actions include vision building and sharing, empowering people, redesigning school organization, and proactively solving problems. They write, "Using a wide range of coping efforts, matching them to the difficulty of the problem at hand, leads to success" (p. 283).

Problems in change processes are handled best when "certain pre-conditions have been worked out. These include having a coherent, shared vision; a stance toward coping that stresses learning from experience; strong support for implementation efforts; adequate time and energy set aside for coping through regular meetings; use of external assistance to expand the coping repertoire and extend skills; and deep coping itself—as a way of mobilizing further good coping through durable structures" (p. 286).

Louis and Miles suggest at least five issues related to helping people use the knowledge gained from research in support of improving high schools. These are:

1. "*Clarity*. The knowledge must be understood clearly—not be fuzzy, vague, or confusing.
2. *Relevance*. The knowledge is seen as meaningful, as connected to one's normal life and concerns—not irrelevant, inapplicable, or impractical.
3 *Action images*. The knowledge is exemplified in specific actions, clearly visualized. People have an image of 'what to do to get there.'
4. *Will*. There must be motivation, interest, action orientation, a will to do something with the knowledge.
5. *Skill*. There must be actual behavioral ability to do the action envisioned. Without skill, the action either will be aborted or won't really follow from the knowledge" (p. 289, emphasis in original).

Louis and Miles provide suggestions for planning and implementing change processes, particularly for an evolutionary approach. They also offer ideas for maintaining and sustaining change, such as coping strategies. Recently, change

coaches or designated providers of technical assistance are included in many improvement models in recognition that school staff may lack the capacity, in knowledge and/or skills, to reform their high schools successfully.

Role of Change Coaches

Designated technical assistance for supporting the change process is advocated in many change models to help build the capacity of educators within schools and districts. The assistance may be external, e.g., those provided by model developers or trainers, funders of national initiatives, or university partners. The assistance also may be internal, such as services provided by districts or schools. Change coaches may work with a school or district. Instructional coaches may support individual teachers in classrooms. The Washington state school and district improvement initiatives rely on school or district improvement facilitators. The facilitators are experienced, successful educators who are selected and trained to serve in schools and districts identified as "in need of improvement" under *No Child Left Behind* requirements. The basic premise appears to be that school personnel are doing the best job they know how to do. If they are not achieving student learning gains that are expected in this age of accountability, the system, whether state or district level, has a responsibility to help build staff's capacity, knowledge, understanding, and skills to improve their practice.

Two recent reports describe programs and practices of coaches for school improvement or reform and for improving instruction. Brown, Stroh, Fouts, and Baker (2005) reviewed the research literature on change coaches, described the use of coaches in system-wide improvement, and listed 30 sample coaching organizations, which include several of the national high school initiatives mentioned in this report. They also describe change coaching as it has been implemented throughout the Bellingham School District at district office and school levels. The other report, produced by Schools for a New Society, described coaching in high school classrooms, particularly as implemented in Houston and Boston.

Brown et al. note that coaching is typically a developmental process and "involves specific practices such as observation, conferencing, professional dialogue, and collaboration." Regardless of context, "education, business, or sports, the primary goal of coaching is to improve performance" (p. 5). The authors stress that whether coaching is to improve classroom instruction or to change the school organization, coaches need to be "knowledgeable about all matters in education including school policy, instructional strategies and curriculum; be able to establish honest and trusting relationships with their clients; and be able to communicate effectively both verbally and in written form" (p. 33).

Coaches may serve in a range of roles depending upon the needs of particular schools and districts. A list of roles from the Southern Maine Partnership suggests the scope of coaching activities and responsibilities, which include

- "Co-facilitator
- Co-planner
- Facilitator
- Data collector/analyst
- Observer
- Participant
- Personal Coach
- Planner
- Trainer" (p. 61).

The coaching relationship may be understood best as a continuum that ranges from directive to non-directive approaches. The perspective of a very directive coach is an expert who is "brought in to provide the expertise to the person or persons thought to be lacking in the area." On the other end are the coaches who "whether by design, philosophy, or temperament, ... play a much more reserved role, serving as facilitators attempting to create interactions among the adults ... to promote adult learning" (p. 24).

The Small Schools Coaches Collaborative provides sustained support to schools that have grants from the Bill and Melinda Gates Foundation as part of the Small Schools Project at the University of Washington. Coaches in the Collaborative assist schools by providing

- "An 'outside' perspective
- Management advice
- Assistance with data analysis
- Connections to other schools
- Insights on teaching and learning practices
- Insights on how to plan for change
- Occasional facilitation during meetings
- Assistance with addressing issues of bias and equity
- Ideas about how to engage the community" (p. 48).

Bellingham School District has implemented a coaching model to embed professional development throughout the district and school organizations. Administrators, including the superintendent, district office administrators, principals, as well as teachers, have coaches. Those who coach also have coaches. Although the implementation of a systemic approach has had some detractors along the way, the initiative is based on a belief that improving students' outcomes requires adult learning. All of the adults in the system, therefore, are expected to work together to improve their practice regardless of assignment. The role of coaches is to facilitate professional conversations among peers, "including the coach, that focus on collaborative dialogue, problem-solving exercises, and shared experiences" (p. 77). All of the components of the organization are seen to be interrelated, and the policies, programs, and practices must be aligned to produce significant change.

Brown et al. list some conclusions and recommendations regarding change coaches that may be considered in determining the feasibility of implementing this model of support for improving high schools. They conclude:

- "'Coaching' is a widely used term applied to a variety [of] professional development functions in schools and districts, and the practice appears to be growing rapidly.
- It is critical that school and district coaches have certain personal qualities and experiences to be successful coaches.
- The large majority of coaching programs in education appear to be atheoretical in nature.
- In spite of the lack of a clear theoretical model, the actual practices of the vast majority of the coaches from the organizations reflect some type of constructivist or collaborative process.
- Because of the atheoretical nature of many of the programs and the tendency to be facilitative rather than directive, some of the coaches experience what we call 'ambiguous role definition.'
- The most effective coaches programs appear to have clearly delineated roles and activities for the coaches, clear expectations about what they are expected to accomplish, and clear agreements with the schools and districts about how the coaches are to be utilized.
- Overall, the effectiveness of current coaching activities varies considerably" (p. 114–115).

The report makes these recommendations:

- "Coaching organizations should develop a clear theoretical model(s) guiding the coaching organization and practices.
- Coaching organizations need to provide extensive and on-going training for coaches in those models.
- Coaching organizations should give special attention to the qualifications for coaches.
- Coaching organizations should develop and employ clear written statements of purpose about the coaching function in the districts and schools and clear and written expectations about what the coach should and should not be expected to do.
- Coaching organizations should give special attention to the assignment of coaches to schools and districts" to ensure an appropriate match between coaches, their abilities, and the school or district characteristics and needs (p. 116).

Use of coaches in classrooms to improve instructional practice occurs frequently in elementary schools. Such classroom coaching is found in some high schools, particularly as a professional development strategy to improve literacy. The Annenberg Institute for School Reform prepared a report on coaching in high schools focused on Houston (in its first year of coaching, using an open-ended job description) and Boston (in its ninth year, using a well-defined role on a systemwide basis). These districts implemented models

of professional development using literacy coaches to work closely with teachers, sometimes in small groups or one-on-one over a period of time. The report provides "thumbnail portraits of six coaches" with the expectation that the portraits will be used as professional development for coaches and coach coordinators. Therefore, guiding questions are included throughout the descriptions (Schen, Rao, & Dobles, 2005).

In previous work, the Annenberg Institute has found that

- "Effective coaching encourages collaborative, reflective practice.
- Effective embedded professional learning promotes positive cultural change.
- A focus on content encourages the use of data analysis to inform practice.
- Coaching promotes the implementation of learning and reciprocal accountability.
- Coaching supports collective, interconnected leadership across a school system" (p. 2).

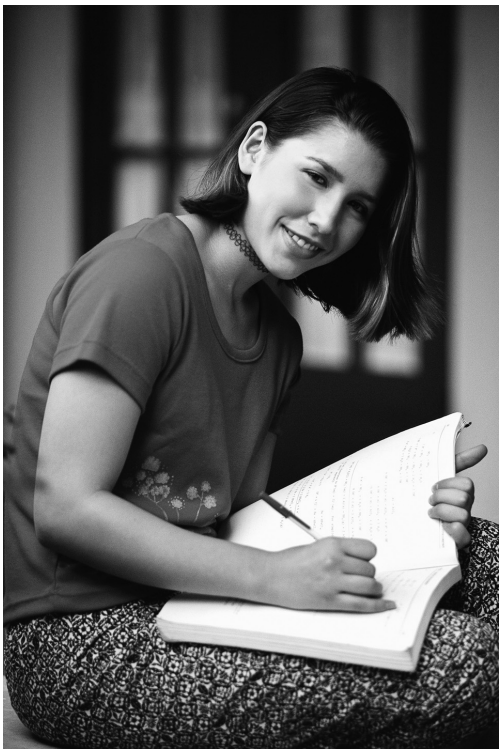
Some challenges must be overcome, however. Questions such as the following must be answered:

- "What is the content of coaching?
- How much should the coach follow the teacher's questions, and when does the coach have the responsibility to introduce new lines of questioning and suggest tools and strategies?
- How well do coaches reflect the demographics of the students in the district, and what is their preparation for working with English language learners and students with special needs?
- How is coaches' work integrated into the work of the district and school?" (p. 2).

Coaching appears to be a viable reform strategy that can be implemented in a variety of contexts to serve improvement purposes. To be successful, the roles and areas of authority, practices, relationships, and resources must be carefully conceived and communicated to all levels of the school and district. A field guide for change facilitators, developed by the Northwest Regional Educational Laboratory (Miller, Campbell, Leffler & Hansen, 2005), provides a comprehensive resource for school leaders and change agents. The guide provides a research base, a case study, and suggestions for establishing trusting relationships, managing conflict, building capacity, and leveraging and sustaining change.

SUPPORT FOR HIGH SCHOOL IMPROVEMENT

Improving America's high schools requires commitment, participation, and support of school districts, families, businesses, and the larger community. In most communities, especially rural and suburban, high schools are cultural icons that stakeholders may be reluctant to change, particularly if they perceive the changes as disrupting tradition. The status quo, although the



topic of considerable criticism and complaint, may be seen as "sacrosanct" especially by those who hold fond memories of their own high school experiences or fear that the privileges enjoyed by their own children may be jeopardized. Also, high schools may give small communities their identify, and high school sports often are a unifying social activity in communities—perhaps the "only game in town."

Making major changes in high schools, which may be prized institutions in communities, requires garnering support from school staff, students, district leaders, policymakers, and the community in general. If such support is missing, school improvement may be derailed by any of these constituencies. High schools, therefore, need to enlist the support of parents and communities in order to build consensus about the reasons for change and to take actions to improve their programs and practices to increase student learning. High schools also can increase the social capital for their students by joining with the community, businesses, and other social and youth organizations to develop a "stable network" of adult support for all students (National Research Council Institute of Medicine, 2004, p. 121).

District Policy and Support

High schools cannot embark on the journey for education reform without developing understanding, commitment, and support from the school district, including leaders and policymakers. High schools may be able to make minimal, internal shifts in practice or program, but major reform efforts are too visible and potentially threatening for high schools "to go it alone." The context of the school district often shapes the school improvement efforts. Districts are largely responsible for broad policy, assigning resources such as staff and budget, providing professional development, and in many cases managing the selection and purchase of instructional materials, and so on. Without district support, educational reform can be derailed more easily by disgruntled community members or even staff, and perhaps undermined by the district itself. Also, in districts with multiple high schools, coordination and collaboration across schools can strengthen resolve to improve high schools and help increase the political capital for change to occur. Recognizing the district role is essential; however, research is limited on the topic. Research on system improvement primarily includes elementary school improvement and only occasionally secondary schools. In fact, many studies point to the lack of progress among high schools (Shannon & Bylsma, 2004).

In her study of high schools, Ancess (2003) provides guidance for how districts can support school reform. She calls for "reculturing" and reorganization of school districts' central offices to support the development of more successful schools as communities of commitment. Reculturing "means transforming the

values and assumptions upon which central offices function and their ways of doing business as well as reconceptualizing the role and function of the central office....” (p. 138). She states that “monitoring must make way for capacity building and support ... [and] accountability must change from compliance to collective responsibility for student outcomes and implementation of pedagogy that produces desired outcomes.” She says “power relations must shift away from hierarchy, rigidity, and mandates to make room for dialogue, flexibility, and negotiation.” She also writes that central offices need to move from a belief that “uniformity produces equity ... to understanding that diverse contexts require diverse responses” (p. 138).

District policies must support teaching for understanding and holding all students to high standards.

Darling-Hammond (1997) suggests that in the current standards-based public policy environment there needs to be a “new pedagogy for policy” and a “new policy for pedagogy.” The first term, used by David Cohen and Carol Barnes, is a plea for “greater opportunities for teachers to learn how to enact reforms aimed at more complex and challenging learning goals.” The second term is a call for new policy that would “support the conditions under which teaching for understanding can occur” ... as a regular part of schooling for students (p. 95). As schools implement many of the strategies discussed in this report to increase professional community, to engage students in challenging curricular content, and to reform high schools, districts will need policies that support the “development of a collective perspective in schools that call upon each school to develop shared goals, standards, and assessments and enact them in collective practices” (p. 133).

If schools are to teach for understanding and hold all students to high standards, policies must support such teaching practice. Darling-Hammond writes, “Policies do not support teaching for understanding when they require passive learning of reams of facts and bits of skills, require standardized teaching for students who differ in how they learn and how much they have already learned, prescribe time blocks for teaching irrespective of subject matter or teaching method, prevent teachers from learning about students as individuals, assess students with multiple-choice norm-referenced tests and teachers by how well their students do on these tests, set school practices from the top down, allow glaring inequities in resources for education, and fail to invest in teacher learning” (p. 147).

In promoting innovation and sustaining change at the school level, school districts face the challenge of requiring consistency and coherency in the total educational system while simultaneously permitting variations among schools to respond to their communities of students. Districts such as New York City schools responded with “policy by exception, which relegated innovative schools to the periphery of the system,” according to Darling-Hammond, Ancess, and Ort (2002, p. 665). These researchers suggest that districts must decide if they will manage innovative schools “by exception from established policies or whether (and how) they might change district operations and policy so that successful innovations become the norm” (p. 667).

Warren and Hernandez (2005), in a recent Annenberg Institute for School Reform publication, suggest that districts should promote a "portfolio" of schools as they redesign high schools and abandon "one-size-fits-all" policies. This approach advocates for many autonomous small schools within a school district that allow student and parent choice. However, they caution that "hidden tracking and segregation" (p. 11) may result unless all schools in the portfolio have adequate resources to support all students. These authors suggest that the core values for the portfolio approach—excellence, equity, diversity, and choice—should be maintained.

SAMPLE PLANNING PROCESSES

Many of the planning models for education reform are generic in that they work well across grade levels and school configurations; others were specifically developed with secondary schools in mind. The following section includes a process developed by Washington state to be used across grade levels, as well as suggestions from other entities.

Washington's School Improvement Planning Guide

Washington state has developed a planning process that incorporates eight steps that becomes a continuous improvement cycle when fully implemented. The process incorporates the *Nine Characteristics of High Performing Schools*. The planning steps are:

- Assess Readiness to Benefit
- Collect, Sort and Select Data
- Build and Analyze the School Portfolio
- Set and Prioritize Goals
- Research and Select Effective Practices
- Craft Action Plan(s)
- Monitor Implementation of the Plan(s)
- Evaluate Impact on Student Achievement (MacGregor, 2005).

The step focusing on readiness to benefit encourages school leadership and staff to determine if the school is ready to move forward with each step in the process. This step is sometimes overlooked in the urgency or mandates that may accompany the work of improvement.

Other Planning Processes

A great many planning processes exist, and they share several components. Examples provided in this section illustrate the commonalities as well as variations in process models. The following processes were developed by the federal Comprehensive School Reform project, the International Center for Leadership in Education, the National Association of Secondary School Principals, and the Northwest Regional Educational Laboratory. Last, action research is described as a tool to assist educators in improving their

practices as well as an approach to help schools with comprehensive school improvement.

Comprehensive School Reform. The criteria used in selecting a Comprehensive School Reform (CSR) model, developed by the U.S. Department of Education's Office of Elementary and Secondary Education (2002), include important components for determining appropriateness of planning models for a particular school. Under these provisions, schools that applied for and received federal grants were required to implement a CSR model that satisfied 11 aligned components. The improvement model:

1. "Integrates a comprehensive design with aligned components."
2. "Is supported within the school by teachers, administrators, and staff."
3. "Includes measurable goals and benchmarks for student achievement."
4. "Has been found to significantly improve the academic achievement of students or demonstrates strong evidence that it will improve the academic achievement of students."
5. "Employs proven methods and strategies based on scientifically based research."
6. "Provides ongoing, high-quality professional development for teachers and staff."
7. "Provides support for teachers, administrators, and staff."
8. "Uses high-quality external technical support and assistance from an external partner with experience and expertise in schoolwide reform and improvement."
9. "Provides for meaningful parent and community involvement in planning, implementing, and evaluating school improvement activities."
10. "Identifies resources to support and sustain the school's comprehensive reform effort."
11. "Plans for the evaluation of strategies for the implementation of school reforms and for student results achieved, annually" (US DOE, 2002).

International Center for Leadership in Education. In its work with the model high schools project, The International Center for Leadership in Education has identified three stages through which schools progress in order to develop a culture of continuous improvement. The three stages involve:

1. "Convincing educators, parents, and community members as to **why** we need to change our schools.
2. Using good data to determine **what** needs to change once people understand why schools must change. Data drives decisions in the following areas:
   - » What is the vision for education in the school?
   - » What will be taught?
   - » What will the organization of instruction look like?

3. Determining how to change the schools once people understand and embrace the why and the what. This final stage involves:
   - » How to create a strategic, collaborative plan
   - » How to manage change" (Daggett, p. 3).

Breaking Ranks. *Breaking Ranks II* (2004), from the National Association of Secondary School Principals, provides a planning framework that can be entered at any point within the process. The key steps include three broad steps and then "seven cornerstone strategies," and 31 core recommendations that can be used to improve student performance. The three major steps are: "Realize the need.... Help others see the need to change.... (and) Promote improved student performance by providing opportunities for students to build relationships within the school and between themselves and what they learn" (p. xvi).

The Seven Cornerstone Strategies to Improve Student Performance include the following:

1. "Establish the essential learnings a student is required to master in order to graduate, and adjust the curriculum and teaching strategies to realize that goal.
2. Increase the quantity and improve the quality of interactions between students, teachers, and other school personnel by reducing the number of students for which any adult or group of adults is responsible.
3. Implement a comprehensive advisory program that ensures that each student has frequent and meaningful opportunities to plan and assess his or her academic and social progress with a faculty member.
4. Ensure that teachers use a variety of instructional strategies and assessments to accommodate individual learning styles.
5. Implement schedules flexible enough to accommodate teaching strategies consistent with the ways students learn most effectively and that allow for effective teacher teaming and lesson planning.
6. Institute structural leadership changes that allow for meaningful involvement in decision making by students, teachers, family members, and the community and that support effective communication with these groups.
7. Align the schoolwide comprehensive, ongoing professional development program and the individual Personal Learning Plans of staff members with the content knowledge and instructional strategies required to prepare students for graduation" (p. 6).

The 31 core recommendations are organized into three broad themes: Collaborative Leadership and Professional Learning Communities, Personalization and the School Environment, and Curriculum, Instruction, and Assessment (for more details, see p. 16-18 of *Breaking Ranks II*).

Onward to Excellence II. The Northwest Regional Educational Laboratory in Portland, Oregon, first developed *Onward to Excellence* more than 15 years

ago. *Onward to Excellence II*, an updated version, is one of the Comprehensive School Reform models. This approach has four main components: developing the plan, implementing the plan, monitoring the plan and maintaining momentum. The steps include the following content:

- Getting started, which includes steps such as creating awareness and establishing support internally in the school and with the district, developing a school profile using school data,
- Identifying and focusing on school improvement goals,
- Conducting a school assessment using qualitative data from focus groups and classroom visits,
- Aligning and mapping school curriculum,
- Deciding on best instructional practices and assessing the level of current school and classroom use of those practices,
- Developing an implementation plan,
- Supporting implementation and monitoring progress, and
- Preparing new leaders and renewing the plan.

A trainer assists the improvement process; the school leadership team and site facilitator manage the improvement planning activities involving the entire faculty. Also, an external study team helps develop the school profile and monitors the progress of the school improvement efforts (NWREL, no date).

Action Research. Action research is a generic improvement approach that provides a framework for whole school faculty, teacher teams or departments, or individuals to use to improve the quality of teaching and learning. The elements of action research are embedded in many of the formalized improvement models listed above and can be a vehicle for collaborative school improvement.

Sagor defines action research as "[r]esearch done by and for the person taking the action on his or her own actions, so to inform their future actions" (2003, p. 128). The fundamental steps of an action research cycle are:

- Identification or formulation of a problem to be investigated
- Collection and organization of data
- Analysis of data
- Reporting results
- Planning action (Sagor, 1992).

Other authors describe the action research spiral as "Plan, Act, Observe, Reflect, Revise Plan, Act, Observe, and Reflect" (Henry & Kemmis, 1985).

Glickman (1993), Calhoun (1994), and Sagor (1992, 2003) provide guidance in implementing collaborative action research. As educators struggle with determining their first or next steps in school improvement, action research provides direction with flexibility for local situations. Although assistance is available to help schools with implementation, these materials provide sufficient information for schools to "go it alone," if they have sufficient

High schools are a product of society and reflect its assets and ills.

commitment and willingness to take risks with professional collaboration. McTighe, Wiggins, and Seif (2005) suggest educators conduct ongoing action research as a means to "test, debate, and explore" the effectiveness of various approaches to instruction, curriculum and assessment, such as teaching for understanding rather than teaching for content coverage and "practicing for standardized accountability tests" (p. 30).

IMPEDIMENTS TO CHANGE

Changing high schools is difficult for a variety of reasons. Because high schools have been assigned multiple and often conflicting purposes, reform is difficult without consensus on the nature of the problem, some agreement on the solution, and a willingness to marshal the necessary resources. Although not discussed in this report, there are external issues that impact high schools (as well as elementary and middle schools), such as racism and classism, that impede improvements and reform. High schools are a product of society and reflect its assets and ills. High schools can be expected to improve structures, programs, and practices and should not shirk their responsibility. However, preparing all students for a bright future and closing the achievement gap require attention and action from all sectors of American life—social, economic, and education (Rothstein, 2004; Fullan, 1999).

There are also competing interests and goals among educators, theorists, businesses, and society at large that have sought to influence the organization, curricula, and practices in secondary schools. There is also a tendency for some policymakers and stakeholders to want quick and easy solutions and to have too little patience with the time and effort it takes to change the culture of high schools that are a product of more than 150 years of reform efforts and pendulum swings. Moreover, high schools are large, complex organizations that have been charged implicitly, if not explicitly, with maintaining society's values and culture; thus individual high schools often do not have the political and social clout to "buck" the status quo. As complex systems, changes must pervade all components of the organization—making changes in one area may have little impact on another, particularly in teaching and learning.

Swings in the pendulum of educational reform may impede subsequent efforts. There have been waves of "alternating efforts to tighten and then loosen the mission and curriculum of the high school" (McDonald, 2004, p. 26). The 1970s loosened the high schools, the 1980s tightened. The Nation at Risk report essentially exhorted schools to "shape up." In the 1990s, market-based school reform was a loosening of sorts. Choice became associated with "equity-minded policymaking" rather than the "freedom of choice" plans proposed in another era to preserve segregation. The standards movement of today are "tighteners" in advocating a "high-level common curriculum for all students" (McDonald, p. 34-35). Thus, before an approach has been implemented sufficiently to determine its efficacy, another often supercedes it. Consequently, many seemingly "good" ideas, in that they reappear in different cycles, have not been institutionalized to a sufficient degree to

determine if they are indeed "good" based on any research findings. On the other hand, some approaches that have had rigorous evaluations have not been implemented thoroughly because of social occurrences that overshadowed them, such as some of the ideas from the Eight Year Study or the model schools initiative of the 1970s.

Other impediments to reform are couched in perceptions and experiences of educators and communities. For example, some school staff have been buffeted by "winds of change" or "waves of reform" causing them to be cautious of educational reform. Some may have embraced earlier reforms, such as curriculum reform, individualized instruction, project learning, or flexible scheduling, only to have "back to basics" or similar trends derail their efforts. Some efforts may have been undermined by administration or policy changes that created mistrust and skepticism. The policy of frequent rotation or changing of principals, for example, may have negative results. Hargreaves and Fink (2006) cite research that suggests that changing principals in less than three years was found to "harden teachers against any and all future leaders and their improvement efforts, no matter how worthy they are" (p. 80). Therefore, educators may take a "wait and see" attitude in the face of subsequent changes. Although resistors often are seen as obstructionists, some writers contend that caution and some stability may actually occur when skeptics slow down the change process.

Just as there may be reluctance on the part of some high school staff, there may be resistance to change on the part of some community and family stakeholders. The traditional high school serves a segment of the student population very well. Most of the white, more affluent middle-class students succeed in high schools as they currently exist. They have access to academic courses, activities, and athletics that contribute to their education and social identities. "In many communities, especially in well-to-do suburban areas and many small towns, [the comprehensive high school] remains strong. The combination of academic and community service functions, cultural and athletic activities, and links to local businesses through co-op education and school-to-work programs makes the comprehensive high school a very central part of many communities" (Hammack, p. 137–138).

Some reformers have found parents of white well-to-do young people to be quite powerful in maintaining the status quo as they push to retain their children's advantages and a competitive edge for their getting into good colleges. McDonald describes this as the "core dilemma" of secondary education—to meet the need to serve both the civic public interests of the entire community and the private purposes of individuals; how, in other words, "to serve everyone and still give my child a competitive advantage" (Hammack, 2004, p. 3).

Oakes and Wells (2004) describe the difficulties some reformers encountered in attempting to "detrack" high schools. The changes were "redistributive" in that they fundamentally altered how the schools allocated their most precious

Some reformers have found certain parents powerful in maintaining the status quo when it benefits their children.

Implementing change requires early, meaningful involvement of all stakeholders, consensus building, and ongoing communication.

resources, including time, teachers, materials, and high achieving students. The reformers were troubled that their schools were not providing "effective and fair curricular differentiation or a common socialization for democracy." As a result, they sought a "reassertion of the goals of the common school.... [T]he reformers ... challenged traditional ways of thinking about opportunity, merit, and which students 'deserve' the best that schools have to offer. Doing so, these educators became enmeshed with racial and cultural politics in local communities and the larger society. By tackling detracking reform, each of the schools became entangled in larger cultural struggles (and ambivalence) over the meaning of equality and opportunities in racially mixed settings" (p. 109). Oakes and Wells write, [T]he educators in these schools "seized opportunities. . . to seek new ways to knit together disparate student bodies in public schools," which revealed "the resistance of educators, students, and parents to political, economic, and cultural forces to maintain a highly stratified system of educational opportunity between the classrooms." The study also demonstrated that the struggles were "worthwhile even if they do not achieve broader societal results..." (p. 109–110).

As national reforms take hold, Hammack cautions that "in our efforts to create more academically effective schools, we need to guard against undermining our ability to foster community solidarity and integration. As we experiment with new organizational forms for secondary education and new expectations for all students, we need to remain alert to the potential to inadvertently reinforce the inequalities we seek to overcome" (2004, p. 139).

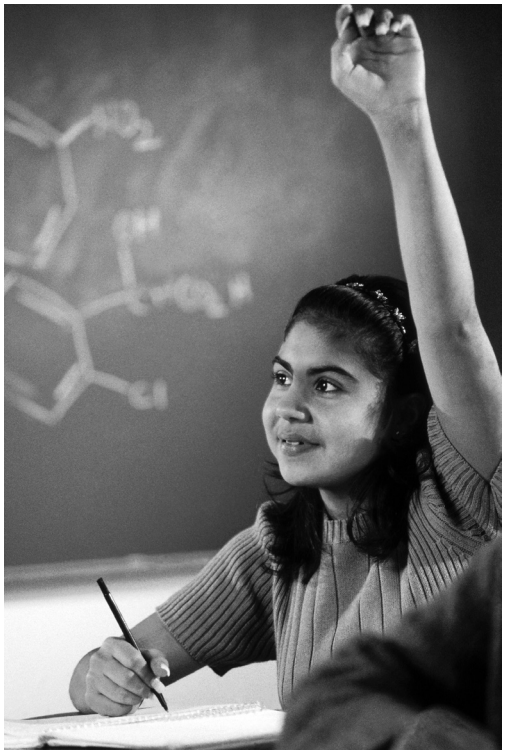
To surmount the obstacles to change requires consensus building, ongoing communication efforts, and meaningful involvement of all stakeholders. Members of constituency groups need to be a part of planning processes from the beginning stages to increase understanding, active participation, and ensure sufficient commitment to maintain the improvement processes over time.

The models and processes for changing high schools described in this chapter provide general guidance on how reform efforts may proceed. External support is needed to encourage and sustain change among high schools. Moreover, change agents need to understand the potential impediments that may hinder reform. The studies and reports noted in this chapter demonstrate there is no one way to change high schools or right way to plan, but there are many ways things can go wrong. Implementing change is a slow process that requires "dogged tenacity" and skill when addressing the inevitable crises that arise.

In the next chapter, various programs and initiatives to improve high schools are highlighted. These range from Coalition of Essential Schools, High Schools That Work, and Talent Development High Schools to national and state proposals for improving high schools. Together they lay out more of the challenges as well as the successes that accompany high school improvement efforts.

CHAPTER 7

Current High School Reform Initiatives



High school reform, as noted earlier, has been on the national agenda for the last two decades in one way or another. However, the focus recently has become more intense. Many high school improvement models have been developed and implemented with varying degrees of success. Some of these have received considerable attention by the research community as educators and policymakers strive to make sense of the myriad of reform efforts and learn "what works." Several of these research projects were reviewed for this document and provide insights into some lessons that have been learned.

Coalition of Essential Schools, High Schools That Work, Talent Development High Schools, New American High Schools, and the small schools movement are among school reform initiatives that focus on redesigning high schools. Because of their prominence and the evaluations that have been conducted to date, these will be discussed briefly in the first section of this chapter. Other programs that have been deemed successful are also examined; these include examples that cut across multiple schools and states. In the next section, several reports by states and other educational organizations that focus on graduation requirements and adequate preparation for college or careers are discussed. In the final section of the chapter, Washington's framework for improving high schools and student learning are described.

STRATEGIES AND MODELS FOR HIGH SCHOOL REFORM

Jurich and Estes (2000) reviewed twenty successful secondary programs for the American Youth Policy Forum. The strategies (some of which are included on the next page) identified in this broad sample share many elements found in high school reform around the country. The authors stress that, rather than any single strategy, it is probably a mix of the elements from the strategies that lead to success.

Many high school models have been in existence for a number of years and have been implemented in a variety of schools and districts across the country. These include the Coalition of Essential Schools, High Schools That Work,

Rather than any single high school reform strategy, it is probably a mix of elements from the strategies that lead to success.

Talent Development High Schools, New American High Schools, Career Academies, and programs such as Career and Technical Education, and Early College High School, which is a relatively recent initiative. Many of the models have been the subject of evaluation studies.

Reform Strategies

High Standards

- Advanced level courses
- College prep classes
- Eliminate tracking
- Technology focus
- Staff/volunteer training
- Ongoing student monitoring
- Program evaluation

Personalized Attention

- School within a school
- Small classes/groups
- Mentoring
- Tutoring
- Counseling
- Individualized job/college placement

Innovative Structure

- Flexible schedules
- Employer involvement
- Parents on advisory board
- Summer institutes
- After school programs
- Academic and vocational teacher teams
- Cultural activities

Experiential Learning

- Multicultural awareness
- Community service
- Internships
- Project-based learning
- Contextual learning
- Career focus/planning.

Jurich and Estes (2000, p. 11)

Coalition of Essential Schools

The Coalition of Essential Schools (CES) was started in 1984 by Ted Sizer, then at Brown University. CES is an approach to school improvement based on a set of principles rather than a prescribed model. Currently CES is a network of elementary, middle, and high schools and support centers across the nation. More than 400 high schools nationwide are now affiliated with the Coalition. CES developed a set of principles which schools accept if they want to join. The key ideas include "personalizing teaching and learning, emphasizing intellectual rigor, and promoting equity in achievement." Other than adherence to these principles, there is wide variation among schools in the Coalition. Schools, in joining the Coalition, agree to:

- "teach students to use their minds well
- emphasize depth over breadth
- apply goals to all students
- personalize teaching and learning
- embrace the metaphor 'student-as-worker' [and teacher as coach]
- require students to demonstrate mastery through exhibition
- stress a tone of decency and trust

- consider teachers as generalists committed to the entire school
- develop budgets that reflect CES priorities
- model democratic and equitable practices" (CES, 2001).

The CES has developed a set of benchmarks to help schools understand and implement the common principles. The benchmarks are organized into several interlocking categories: Student Achievement, Teaching and Learning, School Culture, School Practices, Community Connections, Leadership, and Continuous School Improvement. The benchmarks can assist schools and educators in reflection and self-assessment to guide the work of school improvement. The network also offers staff development to assist schools.

Central Park East Secondary School in New York, founded by Deborah Meier, is probably the best known of the Coalition high schools. In Washington, Nathan Hale High School in Seattle adopted the principles of the Coalition in 1993 and has made changes to implement them (see Appendix B). Based on a 2001 survey of a subset of CES network schools in 18 states that mirror national demographics, the Coalition reports that many schools have made progress in eliminating tracking, opening honors classes, providing individualized instruction, and seeking to change practices that reinforce inequities. More students of all ethnicities have access to challenging college preparatory courses. "Across all ethnic groups in our sample, the proportions of CES students who graduate from high school are nearly identical to the proportions who go on to attend college. Further, the college entrance rates for students in our sample disaggregated by ethnicity far exceed college entrance rates for ethnic populations nationwide" (p. 7).

Darling-Hammond and Ancess (2002) identified the outcomes for small schools in the Coalition Campus Schools Project in New York. Several of these schools were also affiliated with the national Coalition of Essential Schools. Their seven-year study looked at the 11 new schools that were created to replace two large comprehensive neighborhood high schools. Five of the new schools, as a group, had "better attendance, lower incident rates, better performance on reading and writing assessments, higher graduation rates, and higher college-going rates than the larger school they replaced, despite serving a more educationally disadvantaged population of students" (p. 639).

High Schools That Work

High Schools That Work (HSTW) is a high school reform model developed by the Southern Regional Education Board in 1987. The goal of HSTW is to ensure that all students in participating schools and school districts, including those who do not plan to complete a four-year college degree, are prepared to enter the competitive workforce. HSTW promotes changes in schools related to student expectations, curriculum content, and instructional methods. HSTW also emphasizes improving relationships among academic and vocational teachers and between teachers and students. "HSTW is especially designed to raise the achievement levels of career-bound high school students" (Jurich & Estes, 2000, p. 40).

According to the *Works in Progress: A Report on Middle and High School Improvement Programs* (AIR, 2005), HSTW "advocates [for] the combination of both college preparation and vocational education studies for all students in grades 9-12. It sets ambitious goals for all students, creating an atmosphere and infrastructure that allows teachers to work together, to provide assistance to students in need, and to involve parents in setting goals. HSTW schools are encouraged to offer an upgraded set of academic core classes, create curriculum planning time for teachers, and have high expectations of all students" (p. 87).

Schools in the HSTW program work toward the goals of preparing students for life and careers by implementing 10 key practices:

1. "*High expectations:* All students are held to high standards, and programs are created that will help students to meet those expectations.
2. *Work skills:* Students are expected to develop academic and problem-solving skills that will help them in the work force. Although vocational studies are a key part of the HSTW curriculum, students in this career path are still expected to enroll in high-level academic courses.
3. *Academic studies:* Students in the academic studies career path are expected to participate in and pass college preparatory courses in reading, mathematics, science, and language arts and to apply their knowledge to real-world situations.
4. *Program of study:* All students are expected to identify a specific major that will also require the completion of core academic classes.
5. *Work-based learning:* All students are expected to have opportunities to interact with educators and future employers that they will encounter after graduation.
6. *Teachers working together:* Teachers from various disciplines are expected to work together and plan challenging curricula for the students.
7. *Students actively engaged:* All students are expected to be actively engaged in the planning of their academic futures, including the career paths that they may chose to take.
8. *Guidance:* Parents, students, and advisors schedule regular meetings to ensure that the students complete their academic plans.
9. *Extra help:* Students are to be provided with assistance, remediation, tutoring, and any other forms of help needed to improve their educational performances.
10. *Keeping score:* Students, staff, and parents are expected to actively participate in an assessment program that gauges the team's progress toward meeting the current and future goals of students" (p. 87).

HSTW does not specify a curriculum. However, it does require all students to take challenging courses that prepare them for their lives after high school, whether college or work. Students choose a career area and take a number of classes, technical and academic, that are related to their interests. Evaluations of the program have been conducted largely by its developer with a few

external studies. The evaluations indicate vocational students are taking more mathematics courses than reading courses. There still appears to be a "disparity in the results between the academically bound students and the vocational students." There is a lack of continuous longitudinal data to draw precise conclusions (AIR, 2005, p. 88). However, another evaluation report indicated that increasing numbers of students are meeting the HSTW achievement goals in math, science, and reading based on NAEP-like assessments from 1996–1998. The researcher notes that the analysis cannot determine whether this increase is related to participation in HSTW or to other factors (Frome, 2001).

Bottoms of the Southern Regional Education Board provides a set of outcomes that state and local school districts may find useful and applicable in reviewing their own high school career and technical programs. The programs are designed to help students:

- "Acquire the technical literacy skills needed to read, understand, and communicate in the language of the career field;
- Understand mathematical reasoning and concepts to solve problems found in a career field;
- Understand underlying technical concepts, principles, and procedures and can use technology to complete projects in a broad career field;
- Complete a solid academic core with academic knowledge and skills grounded in real-world projects and tasks that are both challenging and highly engaging;
- Learn and model technical knowledge and skills that provide a firm foundation in a given career field, not just a narrow set of skills to satisfy the requirements of an entry job;
- Gain valuable workplace skills as these programs either provide direct exposure to the workplace or create simulated work environments where students are challenged intellectually;
- Can address tough problems and uncertainties that adults confront on a regular basis and these programs contribute to the social development of young adults; and
- See the connection between high school and their future by placing before them authentic adult tasks by offering more applied and contextual learning opportunities" (in Kazis, p. 37).

The OSPI Office of Secondary Education initiated a grant program to encourage Washington high schools to adopt the HSTW approach in 2006. The six participating schools are Aberdeen High School, Anacortes High School, Bonney Lake High School (Sumner School District), Castle Rock High School, Choice Alternative School (Shelton School District); and Oak Harbor High School.

Talent Development High School

The Talent Development High School (TDHS) model was created in 1995 at the Center for Research on the Education of Students Placed at Risk

at Johns Hopkins University. The TDHS model was designed to address several educational concerns: student anonymity, low-student expectations, poor prior student preparation, limited school capacity to implement comprehensive reform, and schools' isolation from families, communities, and local institutions. The main components of the TDHS model include school restructuring, "Success Academies," and core academic curricular materials supported by professional development, training, and technical assistance. The reform model is used in more than 80 schools in 20 districts in the nation (Kemple, Herlihy, & Smith, 2005).

The TDHS model promotes the creation of separate programs for different grades, beginning with the ninth grade to ease transition into high school. The model also calls for career academies in the upper grades. In the ninth grade Success Academies, students have a small team of teachers who teach a core curriculum that provides them opportunities to catch up if they are behind academically. The TDHS model also provides opportunities for students who may have been expelled or unable to attend school for other reasons to take regular courses in the evening in Twilight Schools.

The TDHS model was first implemented on a large scale in Philadelphia high schools. Manpower Demonstration Research Corporation (MDRC) conducted an independent evaluation of the program. Although the program design includes 9–12 academies, the ninth-grade program has been the most fully implemented. The MDRC evaluation followed 20 cohorts of ninth grade students in five high schools in Philadelphia. The key findings for first-time ninth graders are that Talent Development:

- "improved the attendance rate for first-time ninth grade students" (p. 47).
- "increased the total number of credits earned by first-time ninth-grade students" (p. 49).
- "produced substantial gains in academic course credits earned by first-time ninth-grade students. The impact was especially large for the percentage of students earning a credit in algebra" (p. 53). (Double-dose courses in English and math and first-semester catch-up courses are strategies used with 9th grade students.)
- "improved the overall promotion rate to the tenth grade for first-time ninth-grade students" (p. 54).
- "produced slight improvements in student performance on the state standards assessment in math and produced no systematic change in reading scores" (p. 60).

In addition, the improvements in credits earned and promotion rates for ninth-graders continued as the students moved from tenth to eleventh grade. There are also early indications that "Talent Development improved graduation rates for cohorts of students in the two earliest-implementing schools" (p. 79).

The most benefit of the Talent Development model appears to be for ninth-grade students. The researchers caution that even with the efforts and impacts

of Talent Development, large numbers of students in these high schools are not making adequate progress toward graduation. Also, because the study is based on a single school district, the program may not produce the same effects in another setting or among a larger number of schools. In addition, in considering replicability of the program, the researchers note that significant extra funds and demanding changes to organization, instruction, and teacher support were required to implement the program.

New American High Schools: Ten Reform Strategies

The New American High Schools projects, funded by the U.S. Department of Education, are implementing a variety of strategies that combine career and academic preparation to motivate all students to succeed. MPR Associates was contracted to prepare a literature review of reform strategies that are being used by schools in the New American High Schools projects. MPR identified ten strategies that are used in these schools:

1. "Raise academic standards and expectations.
2. Create small learning environments enabling students and teachers to work together.
3. Structure learning around careers and students' interests.
4. Promote student achievement by enhancing educators' professional development.
5. Link students' out-of-school learning experiences to classroom learning.
6. Provide counseling to encourage in-depth college and career awareness.
7. Reorganize the school day into flexible, relevant segments.
8. Assess students' progress by what they are capable of doing.
9. Forge partnerships with two- and four-year postsecondary institutions.
10. Forge active student support alliances involving educators, employers, parents, and communities" (Visher, Emanuel, & Teitelbaum, 1999, p. 1–2).

To examine these strategies, the authors selected studies that contained empirical data to help determine the outcomes for students. These studies are also relatively current—most were published since 1990. The report cautions that "although the overview treats each of the ten reform strategies separately, none of the strategies *by themselves* should be expected to make a significant difference in any one school. That is, the available evidence suggests that it is *the gathering of several strategies under one roof*, especially certain combinations of strategies, that matters." Also, the authors state that "schools should adapt strategies to fit their own unique circumstances. Unfortunately, there is no single, correct way to implement reforms such as smaller learning environments, in-depth counseling, or stronger alliances with community. Each school must set their own goals, and then carve their own path towards meeting their objectives, using lessons from other schools but always adapting them to fit their own realities" (p. 2).

Career Academies

Career academies, which can be found in more than 1,500 schools nationwide, have been a prominent reform strategy in large urban school systems for more than thirty years. The strategy takes many shapes depending upon local circumstances. They strive to reach the goals of improving students' engagement and performance in high school and preparing them to make successful transitions to college or career. Strategies include a variety of approaches such as personalized and supportive learning environments (school-within-a school, communities of support), academic and career-related courses to enhance rigor and relevance in the curriculum (based on career themes), partnerships with employers to provide work-based learning experiences, and exposure to various career options (Kemple & Snipes, 2000).

Manpower Demonstration Research Corporation (MDCR) has conducted ongoing evaluations of career academies since 1993. Early evaluation reports examined the high school environment in relation to the academy. In its 2000 report, MDRC provides evidence about the extent to which the programs make a difference for academy students in comparison with their non-academy peers. The evaluation used a large-scale, multi-site random assignment research design to determine the impact of career academies on student outcomes. The data include transcript records, student surveys, standardized math and reading test results, and qualitative data on Academies' characteristics, local contexts, staff, students, and employer partners (Kemple & Snipes, 2000). The study followed students through three or four years in high school.

Evidence from this evaluation showed modest results when averaged across the groups of students in the academies. However, evidence differed according to subgroups when the data were disaggregated by degree of students' risk of dropping out. Students in the high-risk subgroup were characterized by their experiences in early years of high school. Characteristics include disengagement from school, course failure, low attendance rates, and retention in grade. Among students who were high risk of school failure, the researchers conclude that "career academies significantly cut dropout rates and increased attendance rates, credits earned toward graduation, and preparation for post-secondary education" (Kemple & Snipes, Executive Summary, p. 11). Impact findings for the full sample of students include: "When averaged across the diverse groups of students and sites participating in the evaluation, it appears that the Career Academies produced only modest improvement in students' engagement and performance during high school" (p. 14); "The Career Academies did not improve standardized measures of reading and math achievement either on average or for any subgroup of students" (p. 15).

Career and Technical Education

Career and Technical Education (CTE) is the current label for courses in high school that might once have been called vocational education. As the workplace has changed, policymakers and educators have examined the role and content for technical education programs. Jobs for the Future (JTF) and the Aspen Institute Education and Society Program published a series of essays

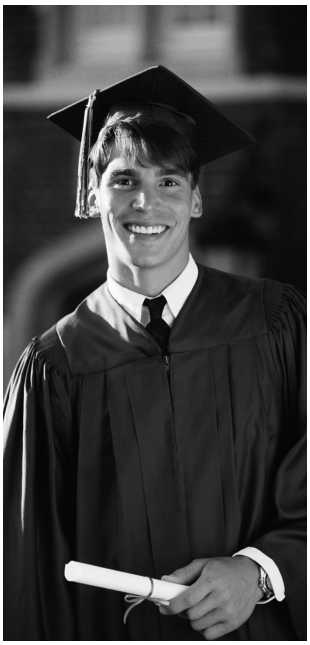
that address high school technical education in a knowledge-based economy. A consensus from the authors of the essays advocates for needed changes in career and technical education to "upgrade both academic rigor and technical relevance" (Kazis, 2005, p. 1).

A review of research on career-focused programs and schools provides these conclusions:

- "The career and technical education enterprise, while shrinking, remains a significant component of the U.S. high school experience.
- CTE appears to help less-motivated and more at-risk students stay in high school and graduate, yet graduation from a CTE program does not necessarily mean that a student is academically prepared for college-level work or for today's workplace.
- The overall rigor of vocational education at the high school level has improved noticeably; however, there is a long way to go and many obstacles to overcome to sufficiently improve the academic experience for most CTE students.
- Employers would prefer to hire students with college credentials over those with only a high school diploma—and students with a postsecondary credential are more likely to secure a well-paying job than those without one. At the same time, for those who do not continue to college, jobs found with the help of career-focused programs in high school have a significant short- to mid-run labor market payoff, particularly for low-income students and those who are the most at-risk" (p. 2).

Although there have been improvements in updating CTE programs and increasing their rigor,[6] "... the research clearly indicates, the overall record of CTE, small career-themed schools, work experience, and work-based learning in high school has been disappointing." Also, the report states that "existing studies shed little light on whether recent progress can be sustained, broadened, and accelerated so that CTE is a viable, high-quality pathway to 21st century college and career success for an ever-growing number of students." In addition, there is a "difficult policy question: do investments in CTE programs, which typically have a higher per pupil cost compared to traditional high school curricula, add enough value to justify them over other investments that might raise high school standards and performance?" Academic rigor is the "most important reform that CTE programs must commit to and pursue aggressively. If CTE ratchets up its academic requirements, it will be "an alternative pathway to postsecondary success, not a lesser track" (p. 6). Some writers point out that the "best CTE programs and school designs point the way for high school reform more generally: greater academic rigor, a clear focus on theme, pathways connecting secondary and postsecondary institutions, and increased time with adults" (p. 7).

6 Washington state has upgraded the Career and Technical Education standards to reflect industry-defined knowledge and skills as well as the Grade Level Expectations for the academic areas.



The research base on career-focused programs in high schools is thin. Studies provide mixed results relative to the positive outcomes of career and technical programs as they are currently implemented. Some studies indicated the programs help students at-risk of dropping out to stay in school. However, studies also conclude that academic performance is not necessarily greater as a result of CTE participation. Kazis summarized the nonacademic benefits of some CTE programs. "Studies of High Schools That Work sites, Tech Prep, Perkins Cooperative Demonstration sites, and career academies tend to show reduced dropout rates compared to control or comparison groups of students not in CTE programs. In several of these studies, vocational concentrators have lower dropout rates than either general or academic track controls." Another study using data from the National Educational Longitudinal Study concludes "that the risk of dropping out was four times higher when students took *no* CTE courses than when students completed three Carnegie units of CTE courses for every four units in academic subjects. In this study, when prior achievement, grades, and student characteristics were taken into account, the combination of four academic and three CTE courses appear to have the greatest positive impact on persistence to graduation" (p. 12). Nevertheless, Kazis continues, "The studies of CTE and dropping out shed no light on the power of CTE as currently organized to motivate or impart effective learning, both academic and technical" (p. 12).

A New Vision for Career and Technical Education, from the American Youth Policy Forum, "makes the case that there is a great need in today's classrooms for high-quality CTE—education that integrates rigorous academic coursework with a technical and occupational curriculum, emphasizes applied teaching and learning, uses the context of careers to help make learning relevant, connects with the labor market and employers, provides ongoing guidance and counseling and exposure to the world of work, and defines pathways from secondary to postsecondary education. However, CTE must embrace all these elements and not be a vestige of high school 'shop'" (Brand, in Kazis, p. 26).

Early College High School Initiative

The Early College High School Initiative is a relatively recent effort to increase the opportunities of students to obtain some college experiences before they complete high school. Early college high schools combine secondary and postsecondary education. Because it is so new, programs are largely in start up phases. In 2002 the Gates Foundation with the Carnegie Corporation of New York, the Ford Foundation, and the W.K. Kellogg Foundation began providing funds to establish 70 small early college schools. The goal is to establish more than 180 early college high schools by 2008. Dual-enrollment programs, middle colleges, and other programs that give students access to college, e.g. Running Start in Washington, are forerunners of the Early College initiative and provide lessons to shape the new programs. According to its proponents, early college high schools provide these benefits:

- "Make higher education more accessible, affordable, and attractive by bridging the divide between high school and college;

- Provide needed guidance and support from adults through the first two years of college;
- Facilitate the transition of motivated students to higher education; and
- Demonstrate new ways of integrating levels of schooling to better serve the intellectual and developmental needs of young people" (Jobs for the Future, Core Principles, p. 1).

Advantages offered by early college high schools include the following:

- "Students earn an Associate's degree or two years of college credit toward the baccalaureate while in high school;
- Mastery and competence are rewarded with enrollment in college-level courses;
- The years to a postsecondary degree are compressed; and
- The middle grades are included or there is outreach to middle-grade students to promote academic preparation and awareness of the early college high school option" (p. 3).

Hoffman and Vargas (2005) suggest that state policies will need to be developed or revised to support and sustain early college high schools. For example, they believe state education departments and institutions of higher education need to create governance mechanisms that cross secondary and postsecondary boundaries; admission and placement requirements need alignment with high school exit requirements; and data management systems need to span K-16 education to expedite assessment of performance of the whole educational system.

The Early College movement is too new for impact evaluations to have been conducted. However, the model is similar to the Middle College programs developed in the 1970s in New York as a partnership between City University and the Board of Education. Middle Colleges are alternative high schools housed on community college campuses designed to give disengaged high school students a fresh start. Students served are often bright students who do not fit into the traditional high school. There are Middle Colleges on Seattle Community College campuses. Dynarski (2000, 2004) includes the Seattle programs in his evaluation of dropout programs. The evaluation of this program reports "higher high school completion rates and lower GED completion rate for students whose characteristics suggested that they were least likely to drop out (termed 'low risk' students ... though most were at some risk of dropping out). The school also reduced dropping out for high-risk students" (p. 6).

Strategies from Other Change Efforts

The specific stories of high schools that are reinventing themselves have been captured in various reports and showcased at national conferences. These stories provide encouragement and guidance to others that may be attempting to make significant changes in their schools. For example, the Model High Schools (now part of the Successful Practices Network) conference each

year features different schools that are making progress (Daggett, 2005). A report from a joint venture of Jobs for the Future, the Coalition of Essential Schools, and the New American High Schools Initiative provides a look at six high schools from across the country that are enmeshed in "journeys of change" (Jobs for the Future, 2000). The case studies provide insights into the challenges and successes of change; they also reveal some patterns that include:

- A Focus on Preparing Students for College and Careers
- Building on Community Resources, Pressures, and Supports
- The (Sometimes) Uneasy Alliance of the District and an Entrepreneurial School

These schools made community connections and "used external support and pressure ... to create and maintain the momentum for change" (Steinberg, 2000, p. 9).

Noguera (2004) studied the reform efforts in 10 high schools in Boston. He developed the Pathways for Student Success research project, focused primarily on student perspectives of how reform was affecting them. The study included comprehensive schools, pilot and charter schools and one academic magnet school. In two schools, a pilot and a charter, all seniors passed the Massachusetts Comprehensive Assessment System exams. The schools were small, had a positive school culture, and had requirements for admission, which were intended to convey high standards and expectations for students. Also, much more emphasis was on teaching and learning in these more successful schools. In most of the schools, Noguera explains, new structures had been adopted but little or no change had occurred in the quality of instruction students received. For example, one school with a new block schedule, relied heavily on lecture and passive learning. At one point in the research study, all 150 students representing the schools in the study were brought together for a Saturday retreat. Noguera asked students several questions: "If you were to attend a school where you would be excited to learn and study, how would that school be organized? How would you be taught? What would you learn? For two hours, the students brainstormed responses to these questions. As they reported to the whole group, some consistent themes emerged: Students wanted a more interactive teaching style, a more relevant curriculum, school rules that were responsive to their living circumstances, and schools that gave them a role and a voice in their own education" (p. 31).

The California Academic Partnership Program (CAPP), formed in 1984 by the California legislature, was charged with developing "cooperative efforts to improve the academic quality of public secondary schools with the objective of improving the preparation of all students for college" (p. v). *Inside High School Reform: Making the Changes that Matter* (Horowitz, 2005) describes the efforts of a number of schools in the program and their suggestions for handling the struggles of high school improvement. A particularly important lesson is the essential role of teachers; however, they cannot function successfully in a vacuum. Teachers need better preparation, greater support, and collegial working environments in order to improve their practice and to

develop as teacher leaders. Key elements of effective high school reform to transform schools, based on the CAPP experience, include:

- "Instructional leadership by teachers with support from administrators,
- A culture of collaboration and trust among teachers,
- Teacher input to determine the sort of professional development that is most useful,
- Collective responsibility for all students' achievement,
- High-quality instruction that begins with high expectations,
- Goal-setting for student improvement based on the analysis of student data,
- A master schedule that supports all of the above, and
- Teacher hiring based on a commitment to these principles and practices" (p. 8).

A 2005 report by Education Trust reports strategies used by some high schools to accelerate learning for struggling students. The report identifies high-impact schools, defined as schools that have achieved higher than expected performance with numbers of students of poverty and color. These schools were studied in relation to schools with average impact. The four high-impact schools were in North Carolina and California. The common themes are generally found in both high- and average-impact schools. However, there are subtle and not-so-subtle differences in their implementation. In brief, the high-impact schools:

- Focus on preparing students for life beyond high school graduation;
- Hold consistent high expectations for all students, and staff take responsibility for helping students succeed;
- Use external standards and assessments to assist them in improving student learning;
- Provide extra help for students that need it without reducing their steady progress through the academic coursework;
- Institute early warning systems to assist students as they need the help;
- Vary teacher assignment and class sizes depending on student needs and use more criteria for assigning teachers than their preferences;
- Devote more instructional time to grade-level or college-prep academics than to remediation; and
- Make deliberate use of time to help "catch up" students who arrive behind (Moore, 2005).

NATIONAL AND STATE INITIATIVES TO IMPROVE HIGH SCHOOLS

A clarion call for change comes from national organizations, state, and district reports.

A plethora of national- and state-level initiatives published in the last two years draws attention to the condition of high schools and calls for improvements. National organizations, states, and districts have issued reports as a clarion call for change. Many strategies are common across reports. Rigor, relevance, and relationships have become the new "3 Rs" and are promoted by advocates for

personalizing schools, increasing college attendance, and promoting career and technical education. This section describes several of the reports.

National Level

National reports from various commissions and educational organizations call for high school reform to increase the rigor of course work and to raise expectations for college entrance and success in careers. Examples include:

- *Measuring Up 2004:* The State-by-State Report Card for Higher Education (The National Center for Public Policy and Higher Education)
- *Ready or Not:* Creating a High School Diploma that Counts (The American Diploma Project)
- *Crisis at the Core:* Preparing All Students for College and Work (ACT)
- *The Lost Opportunity of Senior Year:* Finding a Better Way (National Commission on the High School Senior Year)
- *Redesigning High Schools:* The Unfinished Agenda in State Education Reform (Jobs for the Future)
- *A New Core Curriculum for All:* Aiming High for Other People's Children (Education Trust)
- *Preparing America's Future High School Initiative,* US DOE (Armstrong, 2005, p. 5).

Proposals and recommendations from additional organizations are highlighted below.

Education Commission of the States summarized strategies some states are using to redesign high schools and promote high school to college transitions. The report highlights the need for high schools to do a better job of preparing students for college and work. It cites economic reasons both in skill levels required by jobs as well as the differences in earning power for workers with different levels of education (Armstrong, 2005). A set of key recommendations are offered with a challenge to state education leaders to take action. Based on ideas from several states, the Commission recommends that state leaders:

- Support high school innovation;
- Provide a venture capital fund for districts to develop new types of high schools and new high school courses. Districts could apply for start-up funds to design and organize new high school models;
- Create small high schools in grades 9-12;
- Use school choice or charter schools to create more effective high schools;
- Strengthen the high school curriculum;
- Increase accountability for student performance;
- Bridge the gap between high school and postsecondary education; and
- Build the capacity of high schools to teach all students to higher standards.

ACT and the Education Trust encourage increased rigor for high school students, based on the joint project *On Course for Success. A Close Look*

at Selected High School Courses that Prepare All Students for College (2004). The two organizations conducted a "17-month cooperative project that thoroughly examined courses in English, mathematics, and science" in 10 high achieving high schools with "substantial populations of students underrepresented in postsecondary education." The research included surveys of teachers, site visits, principal interviews, and a review of curriculum based on sample syllabi and course descriptions of key courses. The authors conclude that "Not only is taking the *right number* of courses important, but taking the *right kind* of courses is critical to student readiness for college-level work." Recommendations that emerge from their research include:

- "All students should be provided with a rigorous college-oriented curriculum.
- All students should have the benefit of teachers qualified to teach these rigorous college-oriented courses.
- All students should be provided with help outside the classroom when needed.
- The content of current core preparatory courses should be reevaluated to ensure that they are focused on the rigorous skills needed for college and work readiness" (p. vi).

The National Governors Association identified 10 steps that governors can take to "quickly put states on the path to redesign their high schools." In *Ready? Set? Go! Redesigning the American High School*, Virginia's Governor Mark Warner, chairman of the Association in 2004–2005, suggests that states:

1. "Create a permanent Education Roundtable or Commission to foster coordination between early childhood, K–12 and higher education."
2. "Define a rigorous college and work preparatory curriculum for high school graduation."
3. "Challenge business, education, parent, community and faith-based organizations to support initiatives that improve college awareness." (The statement notes that "fewer than half of economically disadvantaged students receive college aid information.")
4. "Give college and work-readiness assessments in high school."
5. "Create statewide common course agreements so that college-level work in high school counts towards a postsecondary credential."
6. "Provide financial incentives for disadvantaged students to take rigorous AP exams and college-preparatory and college-level courses."
7. "Expand college-level learning opportunities in high school to minorities, English language learners, low-income students and youth with disabilities."
8. "Help get low-performing students back on track by designing literacy and math recovery programs."
9. "Develop and fund supports to help students pass the high school exit exam."
10. "Develop statewide pathways to industry certification." (Warner, 2004, p. 1-2).

The National Association of Secondary School Principals has contributed substantially to the field of high school reform through the comprehensive documents *Breaking Ranks* and *Breaking Ranks II* (see Chapter 6 of this report). In the 2005 report *What Counts: Defining and Improving High School Graduation Rates*, the association proposes these policy recommendations:

- "Build high school capacity to address the academic needs of low-performing high school students by creating a new and separate funding stream. We estimate that an investment of $3.5 billion would be comparable to the amount of Title I funds provided to elementary schools.
- Improve high school students' academic achievement and graduation rates by funding and expanding adolescent literacy initiatives.
- Place priority on student mastery of subject rather than just completion of seat time by allowing states the flexibility to address grade level structures and high school completion options (including state exit exams and certificates)" (p. 20).

State and District Examples

Several states and districts have developed plans and recommendations for improving high schools. Ideas from Ohio, California, Kentucky, Connecticut, and Iowa are described below to provide a sampling of these plans and to illustrate both their diverse scope and their common themes, such as personalizing learning environments, increasing challenges, and bridging high school to college and/or career.

Ohio. The State Board in Ohio formed a Task Force to help rethink the rules, roles, and relationships that define high schools. The report was presented to the State Board in October 2004. Three core areas were addressed in the study:

1. Transforming the High School Experience
2. Aligning Ohio's P–16 System
3. Blending Education and Workforce Development.

The Task Force recommendations focus on critical academic content areas to help prepare students for college, careers, and citizenship. They recommend:

- "Creating more personalized learning environments, and improving the conditions of learning for every student.
- Providing all students with the opportunity to take a challenging curriculum that prepares them for success in postsecondary education, careers and citizenship—and expecting them to complete it.
- Significantly increasing the portion of Ohio students who graduate from high school by preventing students from dropping out and by reconnecting with students who have left without graduating.
- Bridging the gap between high school and postsecondary education by getting the state's systems of schools—K–12, colleges and universities, and adult workforce education centers—to work together to support the academic needs of students" (p. 9).

Ohio has made an extensive effort to transform high schools in major urban school districts into new autonomous small schools. The work is being done though the Ohio High School Transformation Initiative, a partnership among the KnowledgeWorks Foundation, the Gates Foundation, and the Ohio Department of Education.

California. *Improving High School: A Strategic Approach* was published in 2005 by the nonpartisan Legislative Analyst's Office, which advises the California legislature. The report looked at suggestions for improvements from the perspective of three groups of students: dropouts, "general" track who graduate but don't qualify for universities, and the "university" track who graduate and do qualify for public four-year universities. The report examined the issues, scope of problems, and provided many recommendations for the legislature, state board, and state department of education. Themes emerged that are applicable across the groups of students. A few recommendations, selected from the lengthy report, fall into three broad categories (Hill, 2005).

1. *Accountability:* Modify existing accountability programs to provide strong incentives for increasing student achievement, increase the importance of dropout and graduation data in accountability, and make high schools accountable for student transitions to college and work. Strengthen local accountability by creating a career planning process.
2. *Information:* Improve the quality and availability of good data on dropouts and evaluate state supplemental instruction and social promotion programs. Parents and students need better information "about their choices and the likelihood of success in those choices" (p. viii).
3. *Flexibility:* Give districts more flexibility over the use of categorical funds to encourage reorganization of resources to support the recommendations. Give schools more flexibility to provide students more choices and involvement in their education to reach their goals beyond high school.

Kentucky. The Prichard Committee for Academic Excellence (2005) set a number of recommendations to improve high schools in Kentucky. Themes included priority recommendations to:

- Increase requirements for rigorous courses for graduation;
- Increase opportunities for college-in-the-high school, Advanced Placement, International Baccalaureate, and dual credit programs;
- Establish end-of-course or competency exams based on high standards;
- Provide high-quality preparation for teachers in college and university programs; and
- Enhance professional development to help teachers work with diverse students, including those from different ethnic, economic and educational backgrounds, those with learning disabilities, and those who have different ways of learning.

Connecticut. Connecticut produced *A Blueprint for Continuous Change* with a mission statement that calls for high schools to be a "community of

learners that appreciates and supports each individual's background and needs and expects each of its members to master the skills, knowledge and attitudes needed to contribute to society as a caring and responsible citizen" (Connecticut State Department of Education, 2002). The draft document lays out components for the vision to include school culture/organizational climate, curriculum, instruction, professional development, assessment, and organizational leadership.

Iowa. The document *Foundation for Change: Focusing on Iowa High Schools* (2002) begins with a statement attributed to the students in the state: "Students have asked us to tell you to 'stop the cookie cutter approach,' 'engage students in the change,' and 'don't be afraid to take risks!'" (page i). The teams that developed the report for the Iowa State Board of Education drew four conclusions based on data, a literature review, and community discussions. These are:

1. "Focus on change of every high school in the state of Iowa.
2. A comprehensive approach, implementing the five characteristics [*see below*] in this report, is vital for all high schools in Iowa. A fragmented approach will not work.
3. Utilize the model represented in this report as the foundation for the high school component of all initiatives for improvement of education; and
4. The need for change is urgent, and it can only occur with a major commitment from all partners over a sustained period of time. The commitment is not just financial" (p. iii).

Five characteristics of effective high schools are:

1. "Students have deep and supportive relationships with adults over sustained periods of time.
2. Students have enriched opportunities to learn, perform, and be recognized.
3. All efforts are focused on a clear, powerful educational agenda.
4. Students, staff, parents and community share responsibility for student success.
5. School is engaged in dynamic, continuous improvement that is student focused" (p. 5).

These characteristics are understood to be student-focused and interrelated, and there are many ways to achieve them. The report lists several critical elements that explain and further develop each of the five characteristics. The report also suggests strategies for implementing the characteristics.

A District Example. The Denver Commission on Secondary School Reform produced *Not a Moment to Lose! A Call to Action for Transforming Denver's High Schools* (2005). In this report, attributes for a high quality high school are set out under the characteristics of rigor, relevance, and relationships. The report emphasizes that "high quality schools do not need to look alike or be limited to students in grades nine through 12." However, "they should contain

the 21 attributes of a high quality high school" (p. 23). The attributes are listed below because they help develop the meaning of the widely-used 3 Rs. A high quality high school:

"Rigor

1. Sets and communicates high expectations for each student.
2. Has a clear purpose, mission and goals that are shared by staff, students and other stakeholders.
3. Offers a rigorous curriculum that meets an essential set of high standards.
4. Uses a variety of assessments based on common criteria to measure student proficiency and demonstrate mastery, including projects, portfolios and presentations.
5. Views a second language as an asset and helps English Language Learners become proficient in English, increase their proficiency in their native language and improve their academic skills.
6. Organizes curriculum, instruction, assessments, schedules, professional development, the use of fiscal resources and learning opportunities to align with the school's purpose, mission and goals, and promotes student development and achievement.
7. Provides students with the opportunity to learn at their own pace and graduate when they have demonstrated proficiency whether that takes more or less than four years.
8. Provides experiences that help students make the transition from the lower grades to postsecondary education and careers.
9. Uses quantitative and qualitative data and student work for decision-making and assessing student achievement and progress toward achieving the school's mission and goals.

Relevance

10. Offers a curriculum and set of learning experiences that are relevant to students' culture, everyday lives, interests and future plans.
11. Uses instructional methods that meet the needs of individual students.
12. Provides opportunities for internships, community service, project-based learning and taking college courses.
13. Provides opportunities for students to develop personalized learning plans with their families and teachers or advisors.

Relationships

14. Has leadership that promotes trust, on-the-job learning, flexibility, risk-taking, innovation and adaptation to change.
15. Is a place where learning, respect, trust, dialogue and supportive relationships exist among adults, between adults and students and among students.
16. Provides an advisor or mentor to each student and ensures that they work with no more than 25 students each.

17. Provides opportunities for students and teachers to work together in small groups.
18. Provides sufficient time and resources for teachers to plan and work together.
19. Gives teachers and students a meaningful voice in decision-making.
20. Forms partnerships with schools that serve students in the lower grades and with postsecondary institutions.
21. Involves families and the community in a meaningful way" (p.25).

WASHINGTON'S HIGH SCHOOL REFORM EFFORTS

Washington has several high school initiatives underway. In 2005 the Washington state legislature passed two pieces of legislation related to high school reform. Substitute House Bill 1708 required a report on promising school-wide and targeted practices and programs to prevent students from dropping out of school. The report is a synthesis of research on dropouts and features several programs in Washington that have demonstrated their effectiveness in helping students stay in school and graduate (Shannon & Bylsma, 2005).

House Concurrent Resolution 4408 required the formation of a joint select committee on secondary education to examine the structure of middle and high schools and to recommend potential changes in organizational structures. The committee was also asked to identify successful models that reduce dropout rates and accelerate achievement. The committee heard testimony from educational experts and educators in several Washington high schools. A preliminary report identified common themes and suggested state policy levers to affect high school reform. The common themes include

- "High expectations and rigorous curriculum
- Supportive relationships
- Make learning focused, interesting and relevant to students
- Alignment of secondary and postsecondary standards and expectations
- Be intentional, not random
- No 'one-size fits all'
- Change takes commitment" (House Office of Program Research and Senate Committee Services, 2006, unpublished PowerPoint presentation).

Potential policy levers, based on work in multi-state organizations, think-tanks, school consortia and other testimony, include

- "Mandates and requirements
- Accountability (reports, monitoring, performance targets, consequences)
- Broad direction (goals, objectives, intent)
- Flexibility or waivers
- Pilot projects
- Technical assistance and training

- Incentives
- Resources" (House Office of Program Research and Senate Committee Services, 2006, unpublished PowerPoint presentation).

The Office of Superintendent of Public Instruction has instituted several initiatives to promote high school reform through public and private partnerships. The programs specifically include the High School Improvement Initiative, High Schools That Work, and the International Center for Leadership in Education's Successful Practices Network supported by the Council of Chief State School Officers with funding from the Bill & Melinda Gates Foundation.[7]

Grants to implement High Schools That Work have been given to six schools (listed earlier in this chapter). These schools will receive professional development, research, a peer audit, including perception survey data with recommendations, and technical assistance focused on implementing the ten key practices identified by the HSTW (see description earlier in this chapter).

The High School Improvement Initiative involves 12 schools through funding from the legislature and matched by the Gates Foundation. This program provides support over a three-year period to improve teaching and learning focused on ensuring students' graduate prepared for college, careers, and civic engagement. Schools were selected through a competitive process that considered several factors, such as failure to meet Adequate Yearly Progress, readiness to benefit, and the level of need and availability of other resources. The schools are supported by school improvement facilitators and provided professional development and other technical assistance.

The Successful Practices Network, associated with the International Center for Leadership in Education, involves six schools. This project is a five-year initiative to identify, analyze, enrich, and disseminate the nation's most successful school-wide practices and policies for achieving a rigorous and relevant curriculum for all students, with a particular focus on classroom instruction and effective learning.

The OSPI Secondary Education Office produced a framework to guide high school improvement called *Improving Washington High Schools: Project Graduation*. The goal of the project is "All students graduating from high school with the skills and knowledge to successfully engage in post-secondary opportunities (i.e., college, work, military)." The framework includes State Board of Education requirements for graduation, e.g., a culminating project and a high school and beyond plan. Components of the framework include:

- Personalized learning
- Effective leadership
- Data and school improvement

7 More information about these initiatives is available through the OSPI Secondary Education Office and on the Web site at http://www.k12.wa.us/SecondaryEducation/default.aspx

- Rigor and expectations
- Advocacy and advisement
- Ninth grade transitions and extra help
- Instruction and student work, and
- School structures (Poirier, 2005).

The framework assumes that "truly personalized learning requires reorganizing schools to start with the student, not the subject matter, courses, schedules, etc." (Poirier, slide 14). The suggestions in the following section provide some ideas for implementing the components of the Washington framework.

- Personalize education for all students
  - » Make student information accessible to teacher, student, and parent
  - » Institute advocate/advisory models – Create relationships so every student will be well-known, both personally and academically, by at least one adult staff member
  - » Implement meaningful student learning plans
  - » Replace large comprehensive structures with small learning environments
  - » Use standards-based portfolios for students
  - » Implement culminating projects and high school and beyond plans
  - » Offer courses according to student selection
  - » Provide meaningful, relevant curriculum
  - » Implement teacher learning groups to look at students' needs and work
  - » Develop meaningful personalized plans for teachers
  - » Provide regular opportunities for students to evaluate their own learning
  - » Ask students as the customers what they think
- Data informed decisions using a continuous improvement process
  - » Implement an authentic improvement process with access to longitudinal diagnostic information at district, school, teacher, student levels
  - » Make classroom-based assessment information available to teachers and connect to longitudinal information
  - » Link classroom-based assessment to the School Improvement Process
  - » Implement the Nine Characteristics of High Performing Schools through school improvement plans
  - » Use data to measure success
- Advocate or advisory model that develops meaningful relationships between adults and students
  - » Transform counseling and advisory services to increase student learning
  - » Implement a program of student-led conferences

  - » Design explicit strategies for re-engaging out-of-school youth
  - » Develop meaningful student learning plans
  - » Identify an advocate for every family
  - » Make student information available to staff, parents, and students
  - » Involve parents
  - » Become a culturally competent organization
- Ninth-grade transitions and extra help programs – Connect with middle schools and accelerate literacy, math and science curriculum
  - » Implement a gearing-up program for 7th and 8th grade students needing help
  - » Institute a four to six week summer program for identified incoming high school students
  - » Provide extra help, e.g. through double doses of math and reading/ literacy
  - » Monitor student learning through meaningful advisory programs using family advocates
  - » Increase annually the number of students taking Algebra I in 8th grade
  - » Lower teacher-student ratio in 9th grade – assign the best teachers in 9th grade
  - » Provide 9th grade teachers a common planning time
  - » Provide transition classes for English and mathematics using a block schedule structure
  - » Provide CTE courses in 9th grade using a block schedule structure
- Student-centered instruction with focused professional development on learning processes
  - » Develop professional learning communities focused on student learning and results (e.g. Critical Friends)
  - » Implement the professional teaching standards described from the student performance perspective
  - » Engage staff in reflective questions and deep dialogue about student work
  - » Provide professional learning time for staff (e.g. common planning time, late arrivals, early release, I-728 before and after school, etc.)
  - » Encourage teaching as a shared, public activity, rather than isolated practice
  - » Implement instructional coaching and modeling for all staff
  - » Provide appropriate professional growth for all staff
- Increase the rigor of education and expect quality results from students
  - » Engage students in their learning through use of portfolios, culminating projects, and high school and beyond plans
  - » Provide opportunities for college dual credit for the capable students, not just the exceptional

  - » Implement rigorous CTE programs and cross-crediting options, e.g. blended academic and vocational studies (Teachers have designed integrated projects combining physics and electronics; geometry and auto mechanics; English and marketing; algebra and drafting; physics and agricultural science; and medical terminology and Spanish)
  - » Increase rigor in middle school classes
  - » Ensure students take meaningful coursework in the senior year
  - » Provide curriculum that is relevant to students' lives
  - » Keep relentless attention on increasing adolescent literacy
  - » Increase student enrollment in "gatekeeper" courses, e.g. math and science
  - » Implement a rigorous "college prep" curriculum for all students
  - » Align curriculum, instruction, and assessment deeply with Grade Level Expectations
  - » Increase project and theme-based learning to develop critical thinking and problem solving skills
- Creative and artful use of school structures
  - » Replace large comprehensive high school structures with smaller learning environments
  - » Analyze and reconfigure the use of time and resources
  - » Examine and implement schedules to increase student opportunity and learning, e.g. 4x4x8 or 5 period trimester schedule as opposed to traditional 6-period day
  - » Implement data systems that allow teachers to review current and longitudinal information
  - » Implement a standards-based portfolio system (electronic)
  - » Institute a performance-based system for earning credit, rather seat time
  - » Schedule students with same teacher for more than one class or loop for multiple years (Poirier, 2005).

This chapter has summarized a wide range of high school reform models that are used across the country. National and state proposals and exhortations to improve high schools are also highlighted. As seen by the breadth of the reports, there is no lack of suggestions for improving the nation's high schools. Many of the proposals are supported by research studies to some degree.

The commonality across the reports suggests a growing consensus among policymakers and educators. High schools in the future need to be caring and personal environments that provide challenges and opportunities for all students to obtain the knowledge and skills needed for their adult lives. The final chapter presents summary, implications, and potential next steps for consideration by policymakers, school districts, and high school staff.

CHAPTER 8

Summary and Implications

High school reform has risen to the top of the education improvement agenda. After two decades of educational reform focused on raising standards and student achievement, stakeholders of all kinds are calling for major changes in America's high schools. Their statements include exhortations related to what must change at policy levels, suggestions based on experiences of high school educators, and recommendations from research studies.

In order to help improve high schools, this report began with a discussion of the American high school—its historical roots, its characteristics, strengths, and weaknesses according to critics and proponents. The report then provided information about approaches to changing high schools to more effectively serve diverse student populations.

Chapter 1 discussed the current concerns and urgency for improving high schools. Purposes for the changes are economic, social, and personal. Critics and advocates alike want schools to prepare students to be successful workers and citizens in the future, to help ensure the United States' place in the world economy, for students to be prepared to earn decent wages to secure their futures, and for America's democracy to thrive with an educated and concerned citizenry. Reports from educational agencies, organizations, foundations, and business leaders have called for more challenging requirements, more personalized learning opportunities and environments, and programs of study that prepare students for both college and careers. The recommendations include many similar attributes: small learning environments, challenging courses, and personalized learning. The reports call for higher graduation rates and lower dropout rates.

Chapter 2 described the characteristics of contemporary high schools drawn from research studies and student perspectives. High schools today look very similar to the high schools of yesterday. They offer comprehensive programs in an effort to provide something for everyone. Although high schools do a good job with some students, they fall short with others. This chapter laid out the shortcomings of the traditional modern high school—they are too bureaucratic,

impersonal, fragmented, and unresponsive to the needs of many students, thus failing large numbers who dropout and do not graduate or shortchanging the quality of education for those who do finish.

Chapter 3 chronicled the development of the high school and showed that high school reform is not a new phenomenon. The history of the American high school helps explain why changing the institution is so difficult. High schools are expected to perpetuate social values and culture while seeking to educate, and thus change, young people. High school teachers generally teach as they were taught. The organizational routines, roles, and relationships are deeply embedded in the institution and in people's minds. Waves of change have come and gone, and rarely have major reforms taken hold. The comprehensive high school is an exception. This reform has lasted, and it is this reform that is being criticized now, and attempts are underway to unseat it. Since early days of the American high school, there have been controversies over purposes and appropriate curricula. The pendulum has swung from programs for the elite future leaders to access to basic education for the general population. The approaches to educating youth have moved from being teacher-centered with primarily a content focus to a more student-centered focus, and back again. The chapter concluded with a discussion of high schools as they have been impacted by the standards-based movement and test-based accountability.

Chapter 4 discussed conditions that can be created to change the contemporary comprehensive high school. Topics include organizational changes for improving school environments, implementing approaches for personalizing high schools, and changing internal structures to better meet the needs of students. More communal, rather than bureaucratic, organizational structures need to be developed to make deep changes in the culture of high schools. The role of co-curricular programs and athletics and approaches to increase meaningful family and community involvement are also discussed.

Chapter 5 focused on changing classrooms and improving instruction. Many researchers have depicted the traditional high school pedagogy as one of "teacher talk" with students who sit passively and primarily listen. These classrooms are often marked by student disengagement and boredom. To more effectively teach students, teachers require deeper understanding of subject matter and broader repertoires of strategies. High-quality professional development can help build strong professional communities. In successful professional communities, teachers can acquire deep content knowledge, hone their teaching skills, and learn to create more successful classroom experiences for students. Researchers have also described effective instruction that engages and motivates students. Authentic pedagogy, effective instruction, adaptive pedagogy, and differentiated instruction are terms they use. The instructional methods share these attributes: high expectations, classroom activities that teach students to use their "minds well," projects that are currently interesting and meaningful to students and not just applicable for their futures, attitudes and activities that build relationships among students and their teachers, and sufficient and meaningful support to be sure students can meet the learning

standards. Researchers conclude that these practices lead to improved student learning and a smaller achievement gap as students learn more across socioeconomic levels and ethnic/racial groups.

Chapter 6 included a general discussion of change processes and offered several reform models and approaches. The chapter included information from Washington state documents—the Nine Characteristics of High Performing Schools and School Improvement Process Guide. Other school improvement planning processes that are appropriate for high schools are described briefly. Action research is a viable tool for continual improvement in high schools. The chapter concluded with a summary of potential impediments to change that emerged from research studies and a discussion of the need to build support for high school reform.

Chapter 7 provided a sampling of high school reform models and effective approaches. These include the Coalition of Essential Schools, High Schools That Work, Talent Development High Schools, Career Academies, and programs such as career/technical education and early college in the high school. Several national and state proposals for improving high schools are included. The chapter also described the Washington state framework for improving high schools with personalization as the centerpiece. Lastly, three current high school initiatives in the state are described.

IMPLICATIONS

The findings in this report have implications for policymakers, state education agencies, higher education and teacher preparation programs, schools and school districts, educators, citizens, and family members. The following are some topics and ideas for thinking about high school reform and concrete suggestions for making change.

Building Consensus

Improving high schools on a large scale requires broad recognition of the shortcomings of current organizational and instructional practices and developing a common commitment to the need and approaches that will improve the experiences of high school students. Some have noted the need for making changes in high schools for many years. Now, efforts from the National Governors Association, state education agencies, business leaders, and professional organizations are sending the urgent message for change and for building momentum toward this goal. Involving local families and community members is necessary as well. Many local constituents may be satisfied with their local high schools. Looking at student achievement data, satisfaction survey responses, and perceptions of representative groups of students and families may reveal gaps in academic levels, school completion rates, and the quality of instruction for some groups of students. This information can be used to examine current school policies, programs, and practices in order to build a case for making changes. Specific school improvement initiatives must then be developed with stakeholder involvement

in order to build a common commitment and increase the likelihood of successful change.

Developing and Revising Policy

School districts need to review, revise, or develop district and school policies as appropriate in order to make changes to increase student engagement and motivation, decrease dropout rates, and improve instruction. Policies may unintentionally undermine efforts to keep students in school, such as some discipline and attendance policies, or may limit innovative learning opportunities that engage and motivate students. Policies related to high school organizational structures, staffing, student and staff assignment, tracking, time schedules, school calendars, and professional development may need to be revisited to encourage or permit improvement of high schools. To personalize schools and strengthen relationships, new or revised school district policies may be needed that can change the organizational structures, and union contracts may need to be reviewed to make adjustments for teaching schedules or personnel changes. Policies regarding the balance between school district control and school-level autonomy need to be examined and collaboratively developed or modified to allow high school improvements.

Personalizing Schools and Strengthening Relationships

Personalizing schools encompasses several important areas: building relationships, customizing school programs, creating accepting environments, and setting high expectations with appropriate support. At the school level, educators need to develop a deep knowledge base in these areas. They probably need to study the research and make visits to other schools to determine appropriate strategies for increasing personalization in their schools. The results of the investigations then need to be put into action. Developing and implementing action plans are necessary to make real changes to personalize high schools for all students. Decision-making processes need to be inclusive of educators, community and family members, as well as district leaders for stakeholders to support changes. Strengthening relationships among teachers and students requires increased awareness of their impact on learning and teaching. Some relationship building may occur within existing organizational structures as teachers exert more effort to get acquainted with their students. Some structures may need to be changed to increase opportunities for forging relationships. Professional development may assist teachers in developing knowledge and skills to be more successful in this arena.

Personalizing schools may begin modestly by assigning mentors or advocates to all students and scheduling advisories for guiding students in planning their courses and monitoring their progress toward goals. More elaborate approaches include teaming some core classes, looping so teachers keep their students for a prolonged period of time, or reorganizing into academies or schools-within-schools. Revising teaching schedules could help reduce the number of students teachers see in a day or week through block schedules

or other creative attempts to reduce the numbers. Redesigning schools and converting large high schools into small autonomous schools are among the most complex approaches.

Ensuring High Quality Intellectual Work for all Students

Schools and school districts have a responsibility to raise expectations and provide professional development to assist teachers in planning and improving their instruction to require high quality intellectual work from students. Educators need to reflect, examine, and rethink the quality of student intellectual work they require and the learning activities they provide. For example, do low-level cognitive skills such as memorization and recall predominate in their classes? Are advanced skills in problem solving, critical thinking, and application and transference of knowledge and skills taught to all students in all courses, both academic and technical? Are basic skills and advanced skills taught simultaneously, to the extent possible, rather than in a linear format? Approaches to increase the intellectual quality of student work include teaching for understanding, authentic pedagogy, and strategies for effective instruction. Adopting programs such as Advanced Placement or International Baccalaureate are other options for providing students with advanced coursework and can be made available to most students.

Eliminating the Achievement Gap and Tracking

To eliminate the achievement gap and tracking that seems to perpetuate the gap, schools and districts need to embrace the attitudes and beliefs that all students can learn to high standards and that educators have responsibility for supporting them in doing so. Educators need to be culturally competent. High school teachers must hold themselves and one another accountable for teaching all students well and for providing the scaffolding necessary to accelerate learning for low-achieving students. An attitude of persistence, "never giving up on a student," developing relationships that encourage traditionally under-served students to strive for excellence, and then providing the support to help them succeed, must become the norm in high schools. The traditional high school practice of offering students academic opportunities, for them to voluntarily take or leave, should change. Abandoning vertically-layered courses tracked by degree of difficulty, or reducing the number of layers, may be a challenging task but is worth the effort. Ideas for increasing students' capacity to succeed in courses of greater difficulty have been suggested. Examples include pre-teaching skills needed for such classes in summer school or offering double class periods so students learn the prerequisite skills alongside the grade-level material.

Increasing Knowledge and Skills of Current Teachers

Many of today's high school educators teach very much as they were taught. Instruction may be mostly lecture or explanation and recitation, textbook dependent, marked by routines with little deviation, and tracked according to basic, regular, or advanced courses. For teachers to more actively engage and motivate students, classrooms will need to exemplify greater rigor, relevance,

positive relationships, and reflection. Teachers will need to require and support students to produce high quality intellectual work. Professional development is needed to assist teachers in obtaining the knowledge and skills to use these approaches. Professional development must be content-related, embedded in the regular work of schools, ongoing, and supported by mentors or coaches. This type of professional development helps create and sustain professional learning communities that support more authentic teaching and learning, based on deep content knowledge, inquiry, and application beyond the classroom. Because the task of changing high schools is daunting, the task becomes more manageable, engaging, and satisfying for teachers when the responsibility and work is shared by educators. Action research provides a framework for the shared work. As an approach that provides structure and flexibility, action research empowers high school educators to develop their knowledge and skills and tackle difficult instructional problems together while it enhances their identity as a professional community.

Preparing Teachers for High Schools of the Future

Institutions of higher education that prepare teachers and administrators have an important role to provide theory and practice that assist future educators to teach in reformed high schools. Preparation for high school teachers requires a solid foundation in subject matter, including the principles, theories, concepts, and ways of thinking specific to the discipline. In addition, prospective high school teachers need a repertoire of engaging and motivating instructional strategies that provide students intellectually challenging and relevant coursework. New teachers also need to develop the capacity to generate warm relationships with students. This "paradigm" is markedly different from the traditional teacher who maintains his or her distance from students and who views himself or herself as a subject matter specialist more than a teacher of young people.

Enlisting Broad Support for Changes

Legislatures, school boards, community members, school and district staff, as well as students, need to be willing for high schools to change and improve, and need to encourage them to do so. Once broad support for high school reform is reached, the hard work of school improvement has only begun. Stakeholders need to be involved and committed to making improvements and staying the course over time. There are no "quick fixes." Of course, adjustments and adaptations to the improvement process will be necessary, but a series of false starts or abandoning the effort too soon will create skepticism and reluctance to enter wholeheartedly into the work. In addition, there needs to be tolerance for a variety of approaches, particularly in large school districts. Research indicates that there is no "magic bullet" or a "one size fits all" approach to school improvement. There are principles that can guide the processes, but each school needs to have some flexibility and autonomy to find its own way. There must also be a tolerance for "risk taking" because there is uncertainty in making changes on such a scale. Doing nothing is not

acceptable if the goal is for ALL students to graduate with the knowledge and skills they need for their personal and career aspirations. High schools, as they are currently operating, are not reaching that goal.

Finding and Reallocating Resources

Added resources, and perhaps reallocation of existing resources, will undoubtedly be needed to implement major reform and improvements in high schools across the state. Obtaining or reallocating resources will require careful review of existing funding levels and will require political will, both locally and at the state level, to provide the necessary financial and other support. Because schools reflect the characteristics of society generally, including its inequities, public policy must also address economic and social issues that impact students.

SUGGESTIONS FOR IMPLEMENTING CHANGE

Many steps must be taken to advance high school reform. These steps are the responsibility of local and state organizations. A number of initiatives are underway in schools and districts across the state. Many schools are making gains academically, but much remains to be done. The following suggestions offer ideas for implementing changes in high schools.

Focus and Responsibility. Local school board and district leadership need to focus and take responsibility for raising expectations district-wide. This requires enlisting support from community and business leaders and energizing school staff to build consensus and momentum for high school improvement.

School Improvement Planning and Action. School leadership, faculty, and staff, with district support, need to clarify their focus, adopt or create a school improvement planning approach, outline action steps for aligning the curriculum and local assessments with the state learning standards, select appropriate instructional technology and materials, and provide professional development so every staff person has the knowledge and skills to teach the learning standards and to use instructional strategies that fully engage students in their learning.

Continuous Improvement. On-going improvement efforts require reflection, self-assessment, and regular feedback from all constituents, teachers, students, families, and community, in order to evaluate progress and develop renewal plans. Systems for collecting, analyzing, and using data in school improvement are needed and must be developed if they are not currently in place. School staff may require training and support in using data for instructional decision making. Action research may be implemented as a framework for continual improvement.

State Leadership and Support. The Washington state education agency has taken a leadership role in developing a high school improvement strategy and developing tools for schools and districts to use in their high school reform

work. Continued support and services are needed to assist in the complex task of educating and graduating all students, eliminating dropouts, and closing the achievement gap. The state agency also has the responsibility for policy development with the state legislature and school districts, which includes reviewing regulations and requirements that are imposed on high schools that enhance or impede reform, and making adjustments as needed.

High schools are now on the "hot seat." While some high school educators may have believed that education reform would not reach them or that "this too shall pass," it is evident from the flurry of reports and proposals that high schools are part of the current education reform movement. This report has provided research evidence for improving high schools and some practical suggestions for making changes. Now is a critical time for taking action so we have the high schools we need. It will not be easy, but students' well being and their futures, as well as that of the nation, depend on it.

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APPENDIX A

Washington State Graduation Requirements

Beginning with the class of 2008, students in Washington will need to meet four state graduation requirements:[8]

1. Earn 19 credits in core courses.
2. Complete a culminating project (often referred to as a senior project) to apply learning in a particular area of the student's interests.
3. Complete a "high school and beyond" plan that outlines steps needed to earn a diploma and prepare for the first year after high school.
4. Earn a Certificate of Academic Achievement by passing the reading, writing and math portions of the high school Washington Assessment of Student Learning (WASL); science also will be required beginning in 2010.[9]

State law allows some students with disabilities to graduate with a Certificate of Individual Achievement. Whether a student is eligible for this certificate and the route the student must take to earn it is determined by the student's IEP team.

The minimum 19 credits in the core courses are:

- 3 credits in English
- 2 credits in math
- 2 credits in science (including 1 credit in a lab science)
- 2.5 credits in social studies
- 2 credits in health and fitness
- 1 credit in the arts
- 1 credit in occupational education
- 5.5 credits in electives

School districts may add other requirements.

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8 Office of Superintendent of Public Instruction and State Board of Education. (January 2006). *Preparing Students for Life and Work: A Guide to the New Graduation Requirements*

9 Alternatives for achieving the Certificate through means other than passing all parts of the WASL were approved by the legislature in March 2006. Students are required to take the high school WASL twice and meet attendance and remediation requirements in their Student Learning Plans. Alternatives available include a Collection of Evidence, WASL/Grade Comparisons, and use of PSAT, ACT, and SAT Mathematics Scores as an alternative to the WASL in mathematics. The State Board must approve guidelines and the scoring process before the collection of evidence alternative may be used. More information is available at http://www.k12.wa.us/GraduationRequirements/AlternativeAssessment.aspx

APPENDIX B

Profiles of Selected School Improvement and Dropout Prevention Activities

Selected approaches and the 11 schools and districts implementing them are as follows:

1. School-wide comprehensive improvement using Coalition of Essential Schools – Nathan Hale High School, Seattle School District.
2. Personalization of English and mathematics – Kamiakin High School, Kennewick School District.
3. Implementing small schools within a school – Clover Park High School, Clover Park School District
4. Advisory and school improvement – Granger High School, Granger School District.
5. School-wide comprehensive guidance – Franklin Pierce School District (Tacoma).
6. Ninth-grade transition using peer mentoring and tutoring – Burlington-Edison High School, Burlington-Edison School District.
7. Credit recapture – Auburn Riverside High School, Auburn School District.
8. Career and technical education pathways programs – Puyallup School District.
9. Retrieval and intervention support – New Market Vocational Skills Center, Tumwater School District.
10. Alternative high school – AIM High School, Snohomish School District.
11. Dropout prevention practices – Edmonds School District.

Each profile begins with a general school description, including school size, location, student characteristics, and dropout and graduation rates. The school improvement strategy is then described. Evidence of the effectiveness of the strategy and contact information are also provided.

There is no guarantee that schools that undertake these activities will replicate the results. To maximize the chances for success, educators and policymakers need to assess their local context and decide which approach makes the most sense, then ensure a high quality of implementation. Making contact with staff

at these schools or districts may reveal lessons learned in the implementation process. Ultimately, success will depend on a strong and sustained adult commitment to improve high schools and to increase student learning, adequate allocation of resources, and a program's attention to relationship building and instructional strategies that reinforce student sense of belonging and engagement.

The following sources were used when preparing selected summaries in this appendix.

- Boeing Honors High School with Grant for Excellence. (2004). *The Seattle Times.*
- Nathan Hale High School 2004 Annual Report and Nathan Hale's Academies and Integrated Studies Programs: Inclusion, Collaboration, and Personalization (presentation materials) http://hale.seattleschools.org
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1. SCHOOL-WIDE COMPREHENSIVE IMPROVEMENT

Nathan Hale High School

SCHOOL DESCRIPTION. Nathan Hale High School is a comprehensive high school serving grades 9-12 in Seattle Public Schools. Its October 2004 enrollment was 1,076 students. In that school year, its students were 3 percent American Indian, 17 percent Asian/Pacific Islander, 10 percent African American, 9 percent Hispanic, and 61 percent white. About 17 percent were eligible for a free or reduced-price lunch, 12 percent were in special education, and 5 percent were English language learners. The on-time graduation rate for the Class of 2004 was 83 percent, and its annual dropout rate in 2003–04 was less than 2 percent. The vision of the school is "to ensure that ALL students will become honorable, thinking, skillful citizens." Nathan Hale set out to increase personalization of its learning environment to foster student achievement, committing to those students who have historically been unsuccessful in school. In the last 15 years, it has reconstituted itself from a "thug" school with a bad reputation into an effective sought-after school.

SCHOOL IMPROVEMENT STRATEGY. Nathan Hale High School has been a member of the *Coalition of Essential Schools* since 1997. Teachers reviewed their school's data, programs, and practices and determined the school needed changes that resulted in joining the Coalition of Essential Schools, which provides a reform framework and assistance. The teachers identified four descriptors for their five-year vision: collaborative, personal relationships, integrated curriculum, and inclusive and equitable. The school began making changes to achieve the vision. The school organizational structure now includes ninth grade academies, tenth grade integrated studies, and eleventh and twelfth grade American Studies program. All aspects of the school improvement effort are important to the school's successes with students.

In an effort to reach each student personally, the *Ninth Grade Academy* was formed in 1998. In 2004, 270 students and 15 staff were organized into three academies, with smaller class ratios of 25 to 1. Ninth graders take five classes instead of six. Each Academy is a cross section of the student population: the academies are inclusive, balanced for race, gender, special education students, English as Second Language learners, and achievement levels. The academies are made up of language arts, social studies, physical science and health teachers. Opportunities in the Academy include support classes for special education and English language learners, honors credit option within the classes, differentiated curriculum, and high expectations for all. The Academy is organized into 90-minute periods daily. All teachers instruct the same lesson and student progress is closely monitored. Teachers are organized into inter-disciplinary and intra-disciplinary teams. An IEP consulting teacher, a counselor, and an administrator are assigned to the ninth grade.

The tenth grade *Integrated Studies Program* began in 1999. Students from the ninth grade academies loop together. The tenth grade program includes

approximately 270 students and 13 staff with nine general education teachers, one IEP consulting teacher, one teacher for English language learners, two aides, and one counselor. The teams are organized with 90 students and three core teachers for language arts, biology, and social studies. The program has high expectations for all students, provides honors credit options within classes, and provides support classes for special education and ELL students. Inclusive features include differentiated curriculum, project-based curriculum, logbooks for all classes, and inter-disciplinary and intra-disciplinary teams.

The eleventh and twelfth grade *American Studies Program* includes the inclusive features implemented in the other academies. Staff decided to loop in a two-year program with students learning language arts and social studies. Students currently take courses that focus on social justice: one full year of United States history and literature, one year of American government and one year of language arts of their choice. Opportunities in these programs include completion of a culminating project and honors and Advanced Placement options within classes.

Nathan Hale has raised standards and provided support to help students meet them. These program changes include increased graduation requirements, twice weekly mentorship for all students, moving to a culminating project from a senior project, collaboration time for teachers, an after-school homework center and tutoring program, and an emphasis on differentiated curriculum. Other changes that have been instituted to improve student learning include starting school later in response to adolescent sleep patterns, providing a daily 30-minute, all-school sustained silent reading period, and requiring students to complete 60 hours of service learning by graduation. Another unique feature of the school is a nationally recognized radio station KNHC 89.5 that reaches the greater Puget Sound area. An important component of the improvement effort is professional development. About 90 percent of the staff members participate in Critical Friends Groups to improve instruction and their own professional growth.

EVIDENCE OF EFFECTIVENESS

- Annual dropout rate declined from 12 percent to less than 2 between 2002 and 2004.
- On-time graduation rate for the Classes of 2002–2004 ranged from 80-83%.
- Suspensions and expulsions have declined from 2002 to 2004.
- The school leads the district in reading scores on state assessments for students of color.
- High correlation between Hale GPA and University of Washington GPA.
- 70 percent of 2004 graduates enrolled in college.
- 56 percent of the 10th graders met the WASL standards in reading, math, and writing.
- Visitors to the school report seeing:

  - » High numbers of students are engaged
  - » Assignments and activities are rigorous, relevant, focused, and accessible to all students
  - » School has culture of respect rather than culture of punitive disciplinary measures
  - » Teachers are willing to examine their own practice.
- Received the John D. Warner Excellence in Education Award from The Boeing Co. and a $25,000 grant in 2004.

CONTACT: Lisa Hechtman, Principal: 206-252-3680
Lahechtman@seattleschools.org

2. PERSONALIZATION IN ENGLISH AND MATHEMATICS

Kamiakin High School

SCHOOL DESCRIPTION. Kamiakin High School is a comprehensive high school in Kennewick, Washington. Although Kamiakin High School serves a predominantly white population, the percentage of Hispanic students has almost doubled in the last six years. Its October 2004 enrollment was 1,558 students in grades 9-12. In that school year, its students were 85 percent white, 11 percent Hispanic, 2 percent Asian, 2 percent Black and under one percent (0.1) American Indian. The on-time graduation rate for the class of 2004 was 77 percent, and its annual dropout rate in 2003-2004 was 4 percent. About 14 percent were eligible for a free or reduced-price lunch, 9 percent were in special education, 1 percent were English language learners, and about 2 percent were migrant.

SCHOOL IMPROVEMENT STRATEGY. Kamiakin High School is committed to helping every student reach WASL standards by the spring of 10th grade. To do so, Kamiakin High School examines the testing data of every incoming 9th grader and identifies those who were consistently behind in reading and math throughout middle school. Kamiakin High School – and the entire Kennewick School District - uses the Measures of Academic Progress (MAP) test to assess students' progress.

Students who are identified as needing personalized help to get caught up to grade level are placed into additional math or reading classes based on five Kamiakin High School beliefs.

- Every student needs some level of personalization, but the students with academic deficiencies need to be the primary focus of personalization efforts.
- Students with academic deficiencies must remain in classes with students who are progressing normally, so that they have good models of what good students do and the kind of work that good students produce.
- Students with academic deficiencies need additional time and extra instruction so that they can achieve the same learning targets that other students are achieving.
- There must be coordination among the teachers of students with academic deficiencies.
- The best teachers must work with the students with academic deficiencies.

These beliefs are reflected in the English and mathematics programs. Four English teachers are assigned a 9th grade reading class as part of their schedule. Each of these English teachers also has at least two and sometimes three

sections of 9th grade English. The reading classes are limited to 15 students. A student who comes to Kamiakin High School with pre-9th grade reading skills is assigned a reading teacher and has English with the same teacher later in the day. Each English teacher is teamed with a 9th grade social studies teacher and a 9th grade science teacher. All students assigned to that English teacher also have the same teacher for science (although not all in the same class period) and for social studies (although not all in the same period). The reading teacher coordinates with these two other content area teachers. The reading teacher then assists the students with their reading challenges in English, social studies, and science.

The reading teacher also has a wide array of data to use in determining how to best help the student to improve their reading skills. The data comes from the MAP test, the Descartes (a diagnostic) tool within the MAP test, from in-building tests that the school administers, as well as data from software programs (such as the Academy of Reading program). The reading teacher uses all of the data to determine appropriate instruction for each student in the class which is provided through individualized or small group instruction.

English teachers assigned to reading classes are supported by as many as five colleagues who also teach one section of reading, a literacy coach, a para-educator, and technical support (e.g., help with the software or interpreting reports) from Auto-Skill, publishers of the Academy of Reading software.

In math, a slightly different approach is used. Four different math teachers teach two or three sections of 9th grade math. Each teacher is assigned 13-15 students who have been identified as having pre-9th grade math skills and who are scheduled across that teacher's sections of 9th grade math. In addition, the students are scheduled for a second period of math later in the day with the same teacher. During the second period of math, the teacher validates students' understanding of the earlier lesson, re-teaches the material individually or in small groups as necessary, and introduces the concepts to be covered in upcoming lessons. In addition, the students work on a software program (Academy of Math) that is designed to help them review and learn the basic skills in which they are weak.

Students are re-tested on the MAP test just before the end of the first semester. Students who have caught up to grade level are exited from the second reading or math class. Additional testing is done for the students who were identified by teachers as struggling during the first semester in their regular 9th grade English or math classes. Some of those students are added to the second-semester math class if the testing indicates that they need it.

Both of these models are repeated at the 10th grade level.

EVIDENCE OF EFFECTIVENESS

Kamiakin High School's WASL scores have improved significantly since 2002:

- Reading scores have improved from 60% of students meeting standards to 89% of students meeting standards in 2005.
- Writing scores have improved from 61% of students meeting standards to 89% of students meeting standards in 2005.
- Math scores have improved from 42% of students meeting standards to 73% of students meeting standards in 2005.

CONTACT: Dave Bond, Principal: 509-222-7000
Bondav@kds.org

3. IMPLEMENTING SMALL SCHOOLS WITHIN A SCHOOL

Clover Park High School

SCHOOL DESCRIPTION. Clover Park High School, in Clover Park School District, is a reconfigured comprehensive high school comprised of four small schools within a single school building. In October 2004, the total school enrollment was 1,434 in grades 9-12. In that school year, its students were 47 percent white, 14 percent Hispanic, 14 percent Asian, 24 percent Black, and 2 percent American Indian. The on-time graduation rate for the class of 2004 was 57 percent, and its annual dropout rate in 2003-2004 was 10 percent. About 51 percent are eligible for free or reduced-price meals, 13 percent were in special education, and 7 percent were English language learners. Two large military bases are located close to the school.

SCHOOL IMPROVEMENT STRATEGY. Clover Park High School is a member of the Coalition of Essential Schools and a recipient of two generous school reform grants, one from the Bill and Melinda Gates Foundation and another from the U.S. Department of Education. The school's vision is "Build strength from diversity, excellence through commitment." Five years ago, the faculty committed to creating four small learning communities in the belief that each student deserves to graduate college-ready and that the best way to achieve this was establishing smaller and more intimate learning environments. A cornerstone of the belief is a pledge to focus all resources, policy development, and instructional practice in the following three areas: building stronger *relationships* with students; teaching lessons with specific *relevance* to student lives; and expecting student academic performance to exhibit more *rigor*.

Each smaller learning community is a cross-section of the student population and is balanced for race, gender, special education students, and general achievement levels. Student assignment to each "house" is random, and the enrollment in each is kept below 400. Each house has its own administrator, a teacher leader, a counselor, and approximately 20 teachers. In addition to the typical array of core and elective courses found at most high schools, students may choose from an integrated humanities program in grades 9-12, intervention classes in math and reading, Advanced Placement classes, honors options within classes, and a full ROTC program.

The advisory program is the linch-pin in building stronger relationships with students. Each student in grades 9 and 10 participates in advisories, and many continue to work with their advisor through their senior year. Small Learning Communities are developing advisory programs that focus on 11th and 12th graders as well. In these grades, students build the skills they will need to better prepare themselves for college, the workplace, and life after high school. Advisors monitor student progress, recommend intervention and acceleration when appropriate, and assist students in college selection.

Clover Park is committed to maintaining high expectations for rigorous performance from students. To this end, performance-based assessments are an integral part of the school culture. This assessment theory combines abstract, theoretical concepts learned in the classroom with practical application. Thus, students develop the critical thinking needed for college and find personal, real-world relevancy within their studies. As exemplified by student work posted in the hallways and examined during Learning Walks, students are writing more authentic documents, participating in more formal debates, speaking more Spanish, and dissecting more specimens. Students present end-of-year grade-level exhibitions to outside audiences that demonstrate their competencies. These exhibitions are well attended by parents and community members and are a source of pride for both students and faculty.

The faculty believes that literacy skills underpin rigorous thought in students as well as their future success in college. All students in grades 9-12, therefore, enroll in humanities classes that integrate English and social studies into a daily 90-minute block. This expanded format gives teachers the time and flexibility to weave reading and writing skill development into a more thorough examination of literary and social studies concepts. This holistic approach to developing literacy skills is recognized by all educators to produce students who think more critically about a wider range of subjects than is the norm. In addition to the humanities program, a supplemental reading program is provided for students in grades nine and ten who are reading two or more years below grade level.

In order to create a culture of high expectations for all students, Clover Park and its smaller learning communities have focused on the need to change classroom practices. The faculty collaborates on curriculum development, instructional practices, and student expectations. To improve classroom learning and teaching, teachers, school administrators, and district administrators collaboratively created a framework called the "State of the Art Instruction." The successes and the challenges experienced by the smaller learning communities figured prominently in proposing, defining, and implementing the initiative. Over a period of three to five years, the components of the theoretical framework, such as developing disciplinary understanding in students or using on-going relevant assessment practices in the classroom, will be implemented by teachers into their own practice. To accomplish this difficult work, 14 professional development days have been scheduled in each academic calendar year. All staff is committed to using this framework to reflect on and receive feedback on classroom practice, so teachers will better develop the critical thinking skills that students need, especially for those students who traditionally struggle in a school setting.

EVIDENCE OF EFFECTIVENESS

- Between 2002 and 2004, WASL scores increased by 17.4 percent in reading, 8.3 percent in math, 16.9 percent in writing, and 6.9 percent in science.
- Over the past seven years, student achievement increased and the gaps narrowed between the racial, ethnic, gender, cultural, and economic class groups within the school.
- The annual dropout rate declined from 14.1 percent to 10.2 percent between 2001 and 2004.
- The school successfully made AYP in all areas last year and was not mandated to do a plan for improvement
- The college retention rate of students who received the Bill and Melinda Gates Scholarship as high school juniors averaged more than 75 percent in each year 2002-2004.
- Retention of highly qualified faculty has increased over the last five years.

CONTACT: John Seaton, Principal: 253-583-5500
jseaton@cloverpark.k12.wa.us

4. ADVISORIES AND SCHOOL IMPROVEMENT

Granger High School

SCHOOL DESCRIPTION. Granger High School is a comprehensive high school serving grades 9-12 in the Granger School District in Yakima Valley. Its October 2004 enrollment was 300 students. In that school year, its students were 81 percent Hispanic, 12 percent white, and about 6 percent American Indian. About 84 percent were eligible for a free or reduced-price lunch, 7 percent were in special education, 20 percent were English language learners, and 28 percent were migrant students. The on-time graduation rate for the Class of 2004 was 77 percent, and its annual dropout rate in 2003-2004 was 1 percent. Most of the families in Granger are permanent agricultural workers who have settled in the area; about one third are children of migrant agricultural workers. In the early years of the decade, the schools' performance indicators were low: Tests scores were low, annual dropout rates were relatively high, student behavior was often troublesome. Student achievement on the WASL has been increasing over the past few years. Student attendance and behavior have improved.

SCHOOL IMPROVEMENT STRATEGY. The high school is noted for its strong *advisory program*. Establishing advisories was an important organizational change. Advisory periods are the primary means for connecting students with the school, and advisors provide a communications link between school and families. Every professional staff member is assigned a group of 18-20 students. Advisories are organized by student reading levels so that each teacher has students across the spectrum from struggling readers to high performers. Advisories meet four days a week for 30 minutes at the end of the school day. Advisors monitor student work and serve as liaisons with the students' teachers, administration, and parents. Advisors meet with students, help with developing their schedule of classes and help them catch up when they are struggling. Each semester advisors meet individually with the student and parents or guardians in student-led conferences. The conferences include what they are learning, what they need to graduate, their reading levels, grades, what interventions are needed, and plans for after high school. The school reports that five times in a row the participation rate for conferences has been 100 percent.

In 2004-2005 Granger instituted a *no failing rule*. Students who fall below a C in their school work are required to improve the grade. Students receive additional help. The advisory teachers provide the communication link with parents. Students may retake tests and quizzes until they get a C or better. Granger cut the number of failing grades by half compared to the previous year.

The school has also implemented strategies that have improved the school environment and increased student achievement. Instructional and organizational changes include an intensive reading program called "Second Shot Reading," more opportunities for failing students to succeed, requiring math WASL-like problems twice a week, changes in disciplinary expectations such as prohibiting gang-related clothing or activities and student accountability for attendance, home visitations, and raised expectations for both teachers and students.

Another important aspect of the improvement effort is added social and personal support provided to students to help them stay on track to graduate. One component of the school improvement program is funded by a Safe Schools Healthy Students federal grant. This grant provides resources for a social worker, a case manager, and a therapist who work with families. The case manager provides liaison between the schools and the police department, coordinates nursing and medical services for pregnant girls and new mothers, and contacts and communicates with parents and families.

EVIDENCE OF EFFECTIVENESS

- Academic achievement on the 10th grade WASL has improved dramatically over the past 5 years; in 2005
  - » 61 percent of students met standard in reading, compared to 20 percent in 2001
  - » 31 percent met state math standards, compared to 4 percent in 2001
  - » 51 percent met state writing standards, compared to 11 percent in 2001.
- The on-time graduation rate for the Class of 2004 was 77 percent (the state's rate was 70 percent) and the previous class rate was 59 percent; many students stay in school and graduate late rather than drop out before finishing.
- According to a survey conducted by Center for Educational Effectiveness, teacher belief in students' ability to meet the state learning standards has increased from 50 percent in 2000 to 75 percent in 2005.

CONTACT: Richard Esparza, Principal: 509-854-1115
esparza@gsd.wednet.edu

5. SCHOOL-WIDE COMPREHENSIVE GUIDANCE

Franklin Pierce School District

SCHOOL DESCRIPTION. Franklin Pierce School District is located near Tacoma. It has two comprehensive traditional high schools and three alternative high schools/middle schools. District enrollment in October 2004 was 7,862 students. In that school year, its students were 60 percent white, 15 percent African American, 13 percent Asian/Pacific Islander, 9 percent Hispanic, and 3 percent American Indian. About 49 percent were eligible for a free or reduced-price lunch, 9 percent were in special education, and 3 percent were English language learners. The estimated cohort graduation rate for the Class of 2004 was 56 percent, and it annual dropout rate in 2003-2004 was 7 percent. The district first implemented a school-wide comprehensive guidance program at the high school level. The program was expanded to include grades 6-12 with pilots being initiated for grades 3-5.

SCHOOL IMPROVEMENT STRATEGY. The Franklin Pierce model of school-wide comprehensive guidance was developed to help students understand the school system and learn to plan and obtain the knowledge and skills they need to complete high school successfully and to be prepared for and complete post-secondary education or more training leading to family-wage jobs. The responsibility for providing a guidance curriculum on this scale became the responsibility of the entire school staff. All teachers were trained to teach the content of the guidance curriculum. Each teacher, who serves as a personal advisor, leads a class of about 20 students and remains with the same students over their four-year career. The teachers are called "*Navigation*" teachers.

The guidance classes meet twice a month to discuss course selection, plan for post-secondary goals, and make connections for internships, job shadowing, community service and other career-related experiences. Regular student-led parent-teacher conferences are held annually in the spring at the high schools and semi-annually at the middle schools. Students share their progress and plans. They show their work and discuss their accomplishments, what they learned, and what was difficult for them. Following the review of the past year, the conferences focus on planning for the coming year. At the end of the conference, all participants sign the plan for courses for the next year.

The content of the guidance curriculum includes

- "discussion and analysis of students' test results
- various assessments of personal interests and aptitudes
- goal-setting skill development
- development of the Student Learning Plan
- planning for each year's high school course selection and personal goals
- independent living skills lessons, such as how to budget and how to balance a checkbook
- information about how the post-secondary education and training system works and how to access it
- development of a student portfolio and planning for annual, student-led planning conferences with their parents or guardians and their Navigation teacher" (p. 10).

EVIDENCE OF EFFECTIVENESS

- Students choose more challenging academic courses; requests for enrollment in chemistry, physics and pre-calculus have steadily increased over the past few years.
- Parents, teachers, and counselors have new roles; the percentage of students represented by at least one adult at student-led conferences has increased in both high schools.
- Student/parent satisfaction surveys demonstrate strong support for the program.

CONTACT: Tim Stensager, Executive Director, Technical/Career Education
253-537-0211, ext. 6229
Tim_Stensager@fp.k12.wa.us

6. PEER MENTORING AND TUTORING

Burlington-Edison High School

SCHOOL DESCRIPTION. Burlington-Edison High School is a comprehensive high school serving grades 9-12. Its October 2004 enrollment was 1,100 students. In that school year, its students were 81 percent white, 15 percent Hispanic, 3 percent Asian/Pacific Islander, and American Indian and African American students were 1 percent each. About 21 percent were eligible for free or reduced-price meals, 10 percent were in special education, and 6 percent were English language learners. The migrant population was about 3 percent. The on-time graduation rate for the Class of 2004 was 79 percent, and its annual dropout rate in 2003-2004 was 5 percent.

On the 2005 WASL, 81 percent met the standard in reading, 64 percent in math, 68 percent in writing, and 50 percent in science; 55 percent met the standard in three areas: reading, math, and writing. About half of the graduating students go to college (25 percent to a 4-year college and 25 percent go to a community college or technical school).

SCHOOL IMPROVEMENT STRATEGY. An advisory program is now in the eighth year at Burlington-Edison. In the PAWS program (Portfolio of Academic and Work Skills), students ultimately produce a portfolio which is presented to a community panel as the culminating project. Students are grouped heterogeneously within their cohort group and remain with the same group and advisor for the entire four years of high school. The advisor assists with scheduling, counseling, assessment, pathway selection, developing a fifth year plan, and the developing of the portfolio throughout the four years. The advisor becomes an advocate for the student as well as their guidance counselor. Advisory period occurs every Wednesday (when the school is not on a special schedule for late arrival or assemblies). Lessons are created by the career counselor and assistant principal for each grade level. Teachers receive the lesson plan and materials a couple days prior to the advisory period. Activities include:

- Review, select, and evaluate 8 educational samples per year
- 4 samples indicating a students' citizenship and/or volunteerism per year
- 4 personal samples indicating a student's interests outside of school, e.g. hobbies, accomplishments, and other extra-curricular activities per year
- Junior Job Shadow
- Annual goal assessment
- PAWS & Reflecting: submitting samples and filling out paperwork
- Prepare the presentation of the Culminating Project, which is the presentation of the portfolio to a community panel

- Multiple aptitude and interest surveys including: Colors, Discovery Wheel, ASVAB (Armed Services Vocational Aptitude Battery), Pathways, Multiple Intelligences, Learning Style inventories, etc.
- Satisfying Harassment, Bullying, HIV/AIDS presentation requirements
- 5th year plan.

The *Mentorship Program*, now in its fourth year, matches older students with 9th grade students as mentors. All 9th graders have a student mentor. The 10th–12th grade mentors adopt 3 or 4 ninth graders and work with them from Freshman Orientation throughout the year. Bi-monthly meetings are established to provide an opportunity for "guided" discussions within the PAWS curriculum. Topics include goal-setting, coping strategies, school traditions, drug and alcohol awareness, relationships, study skills, and PAWS and Reflecting. Mentors are also encouraged to meet with their students informally on a weekly basis. Curriculum ideas are created by the mentors, presentations are created by students, and topics are taught by students. This program is "owned" by the students.

The *Tiger Success Academy* is a new prevention program, instituted in summer 2005. In this program, incoming 9th graders are invited to participate in a proactive summer school program which exposes them to the operations of the high school, math and English instruction, strategies for success, and a chance to get to know student leaders and staff. As this is the first year of the program, effectiveness cannot be measured at this time. Twenty-five students completed the program in 2005. Students are invited based on a recommendation by their 8th grade teachers and principals, their 7th grade WASL scores, and as part of a Student Learning Plan intervention.

EVIDENCE OF EFFECTIVENESS

- September enrollment in 10th and 11th grade has increased in each of the past three years.
- More students have increased their grade point average (GPA) since implementation of the advisory and mentorship programs: from 2001-2002 to 2004-2005, students achieving at least a 3.0 GPA increased from 37 percent to 51 percent of all students enrolled.
- Fewer students have performed poorly, according to GPA, in the years since implementation of the advisory and mentorship programs: from the first semester of 2001-2002 to the first semester of 2004-2005, students achieving a GPA of 1.0 or below decreased from 20 percent to 11 percent.

CONTACT: Mike Curl, Assistant Principal: 360-757-4074 x3509
mcurl@be.wednet.edu

7. CAREER AND TECHNICAL EDUCATION

Puyallup School District

DISTRICT DESCRIPTION. Puyallup School District, the tenth largest district in Washington, serves more than 20,000 students in 21 elementary schools, six junior high schools, three comprehensive high schools, and the Walker campus, which offers program options for students in grades six through 12. As of October 2004 enrollment, students were 81 percent white, 4 percent African American, 7 percent Asian/Pacific Islander, 6 percent Hispanic, and 2 percent American Indian. About 22 percent were eligible for a free or reduced-price lunch, 12 percent were in special education, and 1 percent were English language learners. The estimated cohort graduation rate for the Class of 2004 was 78 percent, and the annual dropout rate in 2003-2004 was 4 percent.

SCHOOL IMPROVEMENT STRATEGY. Puyallup School District has implemented career and technical education Pathway programs in each of its comprehensive high schools. Curriculum in the Department of Career and Technical Education is organized around common career pathways established throughout Pierce County. These Pathways include: Arts and Communications, Business and Marketing, Engineering and Technology, Health and Human Services, and Science and Natural Resources.

All students are expected to focus on developing academic skills in English, math, science, and technology, preparing them as productive family and community members in grades K-10 as they prepare to achieve a Certificate of Academic Achievement in grade 10. The Pathway curriculum provides opportunities for students to meet Goal 4 of SHB 1209, to "understand the importance of work and how performance, effort and decisions directly affect career and educational opportunities."

Career education in the Puyallup School District is a part of the district K-12 guidance and counseling curriculum. Career guidance is delivered as a combination of classroom-based lessons and activities and special building-determined events. The classroom units include self-awareness (K-7), goal setting (8-12), career exploration, job awareness and portfolio development (9-12). Career guidance events are site-based and are planned to fit parent, staff, and student desires and needs at each building. In 8th grade, the concept of career pathways is introduced. Career pathway guidance is designed to help students see the connections between what they are learning and their future goals. University-bound students are provided career counseling and guidance consistent with chosen university requirements. Advanced students are encouraged to articulate to post-secondary schools in Pierce and King counties through dual-credit agreements and/or participation in work-based learning activities.

After students achieve the Certificate of Academic Achievement at grade 10, they focus on their pathway requirements at the 11th and 12th grades, which helps them develop their High School Plus Plan and provides them with the context for developing their Culminating Project. Pathway specialties vary among the high schools.

- At Emerald Ridge High School, an aviation program provides the opportunity to integrate math, English, and Science. Physics of Flight, for example, uses aerodynamics and other aviation-related concepts to focus on units such as motion, energy, forces, electricity, and optics. Math skills and writing skills are also integrated into the course. Aviation CAD/CAM (computer assisted drafting and manufacturing) and Flight and Aircraft Systems classes are other Pathway courses.
- Governor John R. Rogers High School offers the ACE (architecture, construction, engineering) program, a partnership between education and industry. This program includes courses such as architectural design, drafting/AutoCAD, welding and manufacturing, and Digitools, a digital communications class required for ninth-grade students that integrates English and technology.

EVIDENCE OF EFFECTIVENESS

- During the 2004-2005 school year, the Puyallup School District had 7,420 (1514.42 FTE) duplicated students enrolled in courses offered through the Department of Career and Technical Education in 35 different program areas.
- The number of students receiving dual credit has steadily increased over the past several years. Last year 475 students received 3,037 dual credits. Studies show that students who receive dual credits are 40 percent more likely to continue their post-secondary education than those who have not received dual credit.
- The number of students completing pathway concentrations and receiving pathway honor cords at graduation has steadily increased over the past several years. In 2004-2005, there were 721 Pathway completers in the district.
- With pathway concentrations, students have a clear understanding of the knowledge and skills needed to meet their occupational goals and can select high school courses accordingly.

CONTACT: Shelly Calligan, Director, Career and Technical Education
253-841-8761
sacalligan@puyallup.k12.wa.us

8. CREDIT RECAPTURE PROGRAM

Auburn Riverside High School

SCHOOL DESCRIPTION. Auburn Riverside High School is a comprehensive high school serving grades 9-12 in Auburn School District. Its October 2004 enrollment was 1,888 students. In that school year, its students were 78 percent white, 8 percent Hispanic, 8 percent Asian/Pacific Islander, 4 percent African American, and 2 percent American Indian. About 20 percent were eligible for a free or reduced-price lunch, 7 percent were in special education, and 3 percent were English language learners. The on-time graduation rate for the Class of 2004 was 82 percent, and its annual dropout rate in 2003-2004 was 2 percent.

SCHOOL IMPROVEMENT STRATEGY. Auburn Riverside implemented a credit recapture program about six years ago. The program offers students an opportunity, as well as the instructional and personal support, to recapture course credit in language arts and social studies when they begin to falter and get off track. The English department chair has coordinated the program primarily as an after-school program. A social studies teacher also provides students the opportunity to recapture social studies credit. The qualities of the staff are important to the successful implementation of the program. Strong, consistent coordination and instruction are essential. The team of teachers has strong content backgrounds and works well with other teachers. They also are patient, caring, and persistent in developing positive relationships with students.

Students who fail at the semester are identified by counselors or teacher referral, or through lists of grades, and offered the opportunity to regain the credits through a contract that stipulates the work they must do. Students receive credit and exit the program when they fulfill the requirements of the contract. The contracts differ according to the degree by which students fail. For example, students who miss passing by a relatively small margin are required to do different work than students who fail by a greater margin. Students must complete work at "mastery level" but can progress at their own pace. The work aligns with the state Grade Level Expectations. The teachers also provide assistance with the students' current courses to help prevent future failures.

The program meets for two hours after school three days a week, Monday through Wednesday. A fourth day was cut due to budget reductions. Students who need a few credits are permitted to make up courses on contract with the coordinator after their class graduates. These students may be in school all day working on their contracted assignments. The teacher meets with them as time permits during regular scheduled classes.

The content for language arts includes book study, writing assignments, and related work.

Students also practice "WASL-ettes" with stem questions and articles for reading and writing.

Students may raise their grade from failing to a passing grade of C and receive credit for the course. The F remains on the transcript along with the new C grade. However, the F is not computed into the student's grade point average.

Other credit recapture opportunities are provided during the summer in mathematics and science. Additional strategies include a study skills class for students who are studying hard and need added support. A competency mathematics class is provided to give students who are struggling in algebra a second period of support. Students give up an elective to take the competency math class in order to get support and recapture credit if they fail a semester class.

EVIDENCE OF EFFECTIVENESS

- 157 semester credits were recaptured by Auburn Riverside students in 2004-05.

CONTACTS: Geri Rohlff, Language Arts Department Chair
and program coordinator: 253-804-5154
grohlff@auburn.wednet.edu
Dave Halford, Assistant Principal: 253-804-5154
dhalford@auburn.wednet.edu

9. DROPOUT RETRIEVAL AND INTERVENTION SUPPORT

New Market Vocational Skills Center

SCHOOL DESCRIPTION. New Market Vocational Skills Center (NMVSC), located in Tumwater School District, serves students in grades11-12 from 25 high schools in ten school districts in Thurston, Mason, and Lewis Counties. Its 2004 enrollment was approximately 800 students. Most of the students attend the skills center for one-half day and spend the other portion of the school day in their home high schools. Approximately 125 students attend the skills center full time. (Other demographic information is not collected because students are counted in their home schools.)

DROPOUT PREVENTION STRATEGY. NMVSC received a Workforce Development Council Grant as part of the WIA Statewide Dropout Prevention and Intervention Program. The program is a partnership between the Pacific Mountain Workforce Development Council, Educational Service District 113, and the skills center. The project was launched in March 2005 after the grant was awarded.

The goal of the project is "bringing kids back" and helping them complete programs and graduate. To date 50 students have enrolled at New Market as part of the program. Recruitment is largely by word of mouth and through some assertive "outreach," such as finding students at their workplace. The grant funds were used to hire an intervention specialist for the school. The school has a social worker funded as a regular staff member. The intervention specialist and social worker develop personal and persistent relationships with students and then connect students with community resources that may include housing, medical, or childcare. The additional enrollment generates enough basic education dollars to fund extra teaching staff. "The Barrier Reduction Funds" provided by the legislature to vocational skills centers for extended day programs are used to help provide "wrap around" services students may need. New Market uses the funds to help students with transportation, "co-pays" for childcare, food, and other allowable personal and school needs.

The core component of the program is providing personal contact, guidance, and assistance to each student in the program. The support team of the intervention specialist and social worker do a "lot of handholding" and make frequent one-to-one contacts with the students and often with their families. They are a liaison between teachers and students and they facilitate and communicate to help students negotiate the school day and class work. The students are generally full-day students at New Market and participate in the career technical education program for half the day and take an academic program the other half, either through regular classes or over the NovaNet online system.

Students report they find the school environment positive and welcoming. They like the hands-on curriculum and feel there is more interaction between teachers and students. Teachers respond on a personal level. The intervention specialist and social worker make almost daily contacts and follow up with students. If students get behind, someone will check with them. Students can make up credits. One student captured the essence of the program by saying, "Here everyone wants you to learn."

The school social worker noted that when students are having problems in school or dropout, they have "something they need to take care of before they can come back." A lack of housing, energy assistance, gas, meals, basic health or Medicaid, food services, appropriate clothes for internships, or bus passes are examples of potential barriers for students. The social worker helps students access the services they need. The intervention specialist and social worker are a team that provides immediate assistance when something needs attention.

Other features of the program include a low teaching ratio of 15-to-1 or 20-to-1. Students receive customized curriculum through use of Internet programs that allow teachers to help them fill the "holes" in their learning. Students do not have to wait until a new semester begins to enroll in school and begin classes. Students can enter weekly; orientations are every Friday. Through competency-based programs, students can increase the credits they earn in a year. In addition, students may make up lost credits through summer school. Students are allowed to earn a half credit for 90 hours of instruction through a three-week session. Two sessions in the summer, for a total of six weeks, allow students to potentially earn a full credit.

EVIDENCE OF EFFECTIVENESS

- As of October 2005, 50 students had been "found" and recruited back into school.

CONTACT: John Aultman, Executive Director: 360-570-4500
jaultman@nmvsc.com

10. ALTERNATIVE HIGH SCHOOL

AIM High School

SCHOOL DESCRIPTION. AIM (Alternative Instructional Methods) High School is an alternative school of choice serving grades 9-12 in the Snohomish School District. Its October 2004 enrollment was 71 students. In that school year, its students were 89 percent white, 4 percent American Indian, 3 percent Asian/Pacific Islander, 3 percent Hispanic, and 1 percent African American. About 22 percent were eligible for free or reduced-price lunch, and 13 percent were in special education. The on-time graduation rate for the Class of 2004 was 19 percent, and when counting students who finished after a four-year period, the graduation rate was 42 percent. Its annual dropout rate was 10 percent.

DROPOUT PREVENTION STRATEGY. AIM High School is similar to many alternative schools in the state. According to its mission statement, it "offers a quality, contract-based academic program within a respectful, supportive, intimate environment. Through partnerships between our students, staff, parents, and community, we seek to promote the intellectual growth, personal development, and social responsibility of all our students."

The school was created 20 years ago to serve students in grades 9-12 from ages 14 to 20. The school offers a regular high school diploma. The school is a choice alternative so students complete an application and interview, along with a parent or significant adult, as part of the enrollment process. Students generally have earned some credits before they enroll. If they have no experience in working independently at their own pace, students enroll in the credit retrieval program first. Students who enroll in AIM tend to remain until they graduate in two to four years. However, some may work toward an adult diploma (which requires 19 credits) or occasionally leave to get the General Education Development (GED) certificate.

Four certificated teachers, two who have certification in special education and two who have administrative credentials, work with the students. The staff also includes a part-time counselor, a part-time administrator, and three support staff. The coursework is self-paced and primarily taught in a one-to-one situation. Several classes also meet in seminars once a week. Work must be completed with an 80 percent accuracy rate; students may correct work until it is mastered. Students have the opportunity to make up failed work in modified courses if at least 50 percent of the work has been completed. Students can participate in Running Start, the regional skill center, and classes and/or athletics at the regular high school. Students are required to follow the rules and regulations of the school district. The school offers three program options: morning, afternoon, and evening sessions. A once-a-week afternoon session provides an opportunity for make up and extra help.

EVIDENCE OF EFFECTIVENESS

- Graduated 13 students in 2005
- A consistent waiting list of approximately 10 students
- Few behavioral referrals or suspensions
- Parent Group meets monthly. Parent Group is in the fourth year and is growing.
- Active Associated Student Body leadership group

CONTACT: June Shirey, Administrator: 360-563-7289
june_shirey@sno.wednet.edu

11. DROPOUT STRATEGIES AND CREDIT RETRIEVAL

Edmonds School District

SCHOOL DESCRIPTION. Edmonds School District had an October 2004 enrollment of 21,115 students. At that time, its students were 71 percent white, 14 percent Asian/ Pacific Islander, 8 percent Hispanic, 6 percent African American, and 2 percent American Indian. About 26 percent were eligible for free or reduced-price meals, 14 percent were in special education, and 8 percent were English language learners. The district's on-time graduation rate for the Class of 2004 was 63 percent, and its annual dropout rate in 2003-2004 was 6 percent.

DROPOUT PREVENTION STRATEGY. Edmonds School District has implemented several strategies for reducing and preventing school dropouts. Student Adventures in Learning (SAIL) has existed for more than 15 years in the district through various grants, but its funding is ending at the conclusion of the 2005-2006 school year. A district Dropout Prevention Committee has established a long term goal to "examine the unintended consequences of our policies and procedures and to review our program and personnel practices to ensure all students graduate on time." Other prevention strategies, related to the work of the committee, are in the early stages of implementation throughout the district.

Student Adventures in Learning (SAIL) The district has operated a locally designed dropout prevention program for more than 15 years in one form or another. The Student Adventures in Learning (SAIL) has been funded by different grants such as Job Training Partnership Act, Workforce Investment Act, and the federal Department of Education Dropout Prevention program. The program identifies high risk students upon entering 9th grade. The funds are used for "wrap around" services as the students participate in the regular high school program. These services are provided by specialists at each high school who serve as case managers for 35 to 40 students each. The case managers meet with the students regularly, provide or obtain tutoring, and communicate with parents and Department of Social and Health Services case managers. In addition, students are provided help in preparation for the WASL.

A unique feature of the program is a six-week summer program where students work half a day and attend school half a day. The grant provides minimum wages for the students who are working in a variety of private-sector and public-sector work settings. During the second half of the day, students attend class and "recoup" credits or develop their academic skills.

Breakfast/Dinner Club District high schools are expanding an opportunity for homework clubs with teacher tutoring in a breakfast/dinner club format. Students meet outside of school time from October to June in groups of six or seven. As they eat a meal or snack, they work on completing their assignments.

The teachers coordinate with the regular classroom teachers to determine in advance the missing work. Students are encouraged to work together. Parents are notified of student progress and club meeting dates.

Full and Partial Credit The district has developed a policy for granting partial credit when students complete less than a full semester (or trimester). For example, students who enter in the middle of the semester may earn .25 credit for demonstrating their learning during the remainder of the grading period. Students who enter with less than a quarter remaining may receive partial credit if they complete appropriate learning activities in programs designed to assist students demonstrate their learning.

Focus Groups The district recently formed a Dropout Prevention Committee that is conducting a broad study of issues on dropping out of school. As part of that work, student focus groups were conducted in October 2005 to elicit students' responses on topics such as attendance, transitions, and teacher relationships. The responses will be used as appropriate in the district and schools' efforts to create strategies.

EVIDENCE OF EFFECTIVENESS (SAIL)

According to a third party evaluation, SAIL provided several benefits to participants:

- Students reported a strong level of personal attachment to the SAIL specialist and "checked-in" several times during a school day.
- Participants had better academic outcomes than similar students who did not participate.
- Students that participated in the summer programs earned higher grades and more credits than those who did not.
- Students who stayed in the program longer did better than those who were in the program for shorter times.
- The program reduced impediments to school for student participants. It eased the transition from middle to high school and established a caring community.

CONTACTS: Debora Boeck, Grants Development: 425-670-7143
boeckd@edmonds.wednet.edu
Jan Beglau, Student Support and Outreach Programs:
425-670-7141
beglauj@edmonds.wednet.edu